Version 4.0



Enterprise Manager
Administrator Guide



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Welcome to FileDirector

FileDirector is the complete solution for your document management requirements. The capture, classification and distribution of documents is fast and efficient, and FileDirector, as it is based on a modular system, allows you to effectively tailor your own solution, and as your organisation grows FileDirector can fully adapt to meet the demands.

The solution delivers fast and reliable capture scanning options through the enhanced connectivity between FileDirector and Canon, Epson, Panasonic, Plustek and Samsung document scanner range as well as support for TWAIN and high-speed scanner drivers. It's capability to perform intelligent searches makes for precise and speedy retrieval.

Supports

- 32 and 64 bit Operating Systems
- Microsoft SQL or Oracle Database
- Microsoft Azure Blob Storage Location
- Microsoft Azure Active Directory Accounts
- Microsoft Active Directory Accounts
- Local Microsoft Windows Accounts
- Two-Factor Authentication (2FA)
- Built-in Users and Rights Management

Standard and optional Product Features

- Full Audit Trail
- Full Version Control
- Retention Control (GDPR)
- Microsoft Office Integration
- Advanced Scanning Tools
- TWAIN & High-speed Scanner Driver Support
- Built-in Canon, Epson, Panasonic, Plustek and Samsung Scanner Drivers
- WebClient (Blazor WebAssembly technology based)
- WebServer (incl. Dashboard)
- BusinessProcessManagement
- AutoCapture (Plus)

- ODBC Connectivity
- Zone and Full Text OCR, Barcode and Forms Recognition
- Form Designer
- Email archiving (Microsoft Office 365/IMAP)
- MailStore Microsoft Exchange Connector
- Virtual Network Printer (VNP)
- TIFF Image Printer
- Codeless Integration
- Site Replication
- Container
- SharePoint Connector
- SAP Integration
- COLD (Computer Data on Laser Disk)

FileDirector Products

FileDirector is available as a Small Business Edition and as an Enterprise Edition. Features with an asterisk next to their name are not available in the Small Business Edition.

FileDirector Cabinets

FileDirector stores documents in Cabinets. These virtual Cabinets are able to store any document format. There are no limitations set by FileDirector on the size or number of documents stored.

Normally a company would set up one Cabinet to store their documents. These documents are held in different Document Types. It is possible to search for documents in a Cabinet over all Document Types stored.

Document Types

In order to file and classify documents they are stored in different Document Types. In a typical office situation this could for example be Quotes, Orders and Invoices. A Document Type is mainly defined by the index fields used to classify the documents. These fields are selected from the pool of index fields which have been specified previously and should contain each index field used to classify all possible documents.

FileDirector manages a wide range of document formats, including MS Office, PDF, AutoCAD, and standard image formats such as TIFF, JPG and BMP. Using FileDirector Office Integration, MS Office documents and emails can be stored to FileDirector in their original format directly from the applications. Other documents can be created by scanning paper documents or importing existing electronic documents or spool data.

Scheduled Processes

The FileDirector Server has several schedulers which are extremely useful for recurring tasks such as document or index imports, which can be performed automatically on a fixed timescale, or selected folders can be monitored for new documents.

Documents can be managed through a specific process, which is defined as a fixed series of steps. Certain users must work on the document in each step.

Applications which cannot connect directly to FileDirector, and cannot create electronic documents to be imported can create image documents by printing to FileDirector ImagePrinter or Virtual Network Printer (VNP). These documents can be indexed and stored automatically.

The versatile OCR module can create a full text index for full text retrieval or read defined zones with a forms recognition module. Reading of Barcodes offers another possibility of automatic indexing.

Installation of the Application

General Information

FileDirector Enterprise Manager is a Windows application and should be installed on the server and on clients used for administrative purposes. This can be done from the installation page or by independent software rollout. From the FileDirector installation page the applications can be installed and this would allow a user to work within the client applications when not connected to the FileDirector Server.

Note:
During installation you need be logged-in with administrative rights.

.NET Framework

Microsoft .NET Framework 4.x must be installed before the FileDirector applications can be installed.

Visual C++ Redistributable Installation

Before the installation of FileDirector, all Visual C++ redistributables, provided in the folder ***Redist***, must be installed on all computers, FileDirector is being installed on.

First Steps

First a Cabinet is configured which is later used by the Windows Client for document storage.

- Create Cabinet
- Create and configure index fields
- Create document types and link index fields to them
- Setup Scan Profiles which enables the FileDirector WinClient to scan documents into FileDirector

After these basic configuration steps documents can be scanned and indexed using the Windows Client.

Following this, automatic procedures can be established such as schedulers, automatic indexing with OCR recognition, OCR full text recognition, process management (work flow) and the security system.

Starting Enterprise Manager

All tasks after installation is complete are performed using FileDirector Enterprise Manager, specifically configuration of cabinets, document types and the index fields used for the storage requirements of the company. Enterprise Manager can be installed either on a workstation or the server.

A user must be a member of the ***fd-admins*** group in order to have access to all of the functions of Enterprise Manager. System configuration is exclusive to users who are a member of ***fd-admins***, but the right to manage Cabinets can be assigned to members of the group ***fd-scan*** or ***fd-scan-named***.

After starting Enterprise Manager the main window is displayed.

Main Window

The Enterprise Manager window is divided into four areas: ***Toolbar***, ***Address Bar***, ***Actions*** and ***Configuration***. A ***Settings*** menu for Enterprise Manager is also available.

Settings Menu

This menu is displayed when clicking on the menu tool, highlighted in the screenshot below. The options described below will then be displayed.



Icon	Function	Description
	Options	The look and feel of Enterprise Manager can be configured from the settings available when Options is selected.
	Manage Favourites	The saved Favourites can be either renamed, reordered or removed from the list

Icon	Function	Description
	Export List	When selecting Export List, the selected information in the active tab can be exported. The data can be exported in PDF, Excel, RTF and CSV formats. Within the Export List format window, by selecting the Column Setup tool you can select the columns to be exported.
	About	Displays the FileDirector program versions, and licence information.
	Exit	Closes Enterprise Manager.

Options

There are three Enterprise Manager configuration options, which can change how Enterprise Manager will look, and how selected items are displayed.

Smart Tab Handling

The Configuration area of the Enterprise Manager window will display the Cabinets available, and the options within a selected Cabinet. When ***Smart Tab Handling*** is selected, when a Cabinet is opened for configuration, it will be displayed in a new tab. Using this feature, you can have several tabs open at the same time, each displaying a different Cabinet, or areas within a Cabinet.

When this option is not selected, one tab only is used.

Language

The display language used by Enterprise Manager can be selected. When ***Windows Defined*** is selected, the language to use is inherited from the Windows selection

Skin User Interface

This option gives you a choice of the colours used by Enterprise Manager.

Favourites

The Favourites that have been configured can be managed from the Settings menu. Favourites can be created for the majority of configuration areas within a Cabinet. As an example, if you are currently managing Scan Profiles within a Cabinet, you can create a Favourite for this which will open the Scan Profiles list without having to first select the Cabinet.

The list of defined Favourites will be displayed when ***Manage Favourites*** is selected. From this window, you can select a favourite, and choose to rename or delete it. You can also

set the order in which the Favourites are displayed by selecting a Favourite and using the Up or Down arrows to change its position in the list.

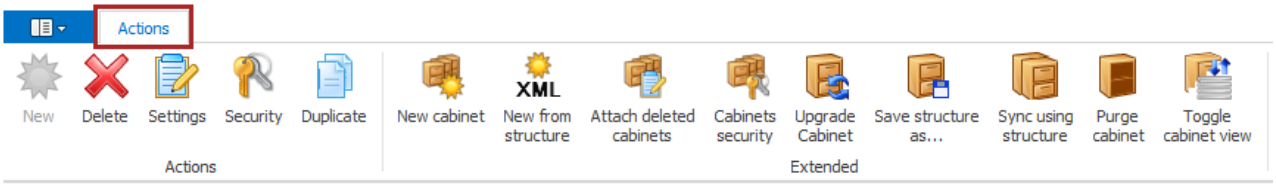
Favourites are set by using the tool on the ***Address Bar***.

Export List

When displaying a list of items within a Cabinet, such as Fields or Document Types, you can select all or some of the rows, and export the information. The information can be either printed, or saved in PDF.XLS, RTF or CSV format.

Command Ribbon

The command ribbon will display the ***Actions*** and ***Extended Actions*** available, depending upon the currently selected item. The example below show the commands available when a Cabinet is selected.



The ribbon replicates the commands shown in the ***Actions*** and ***Extended*** panes which are displayed on the right of the Enterprise Manager window. You can choose whether to display the ribbon or not. A double-click on ***Actions*** tab, highlighted in red below, will display or hide the ribbon.

A single click will display the ribbon.

Address bar

The Address Bar has several tools to navigate within a Cabinet, and works much like a browser address bar. The location you are in within a Cabinet will be displayed, such as ***servername/Cabinetname/fields***. Using the left and right tools, you can go back to the previous page, or forward to the last selection made. The ***Home*** button will take you back to the main Cabinet display. The ***Refresh*** tool will display update the current display.

The Favourites tool has two options. Pressing the tool itself will create a Favourite for the currently selected display, allowing you to name the Favourite. Selecting the down arrow next to the tool displays a list of the current Favourites, from which you can select one to display. You can also choose to manage the ***Favourites*** list.

Icon	Function	Description
	Previous	The display will go back to the previous page
	Next	The display will go to the page last shown.
	Home	The display will go to the main Cabinet page.
	Refresh	The current display will be refreshed.
	Favourites	Create, select and manage Favourites

Actions

Context sensitive generic functions within Enterprise Manager can be carried out using the tools available within the application toolbar. These functions are described below.

Icon	Function	Description
	New	This tool creates a new element in the active tab, such as a field or Document Type.
	Delete	Selected elements are deleted.
	Edit	The selected item can be edited
	Security	Security settings can be applied to Cabinets, Document Types and scan profiles.
	Duplicate	Some elements can be copied during configuration, for example Document Types, scan profiles, word lists and stamps.

Extended Actions

The functions displayed in the ***Extended*** list will be dependent upon the area of a Cabinet currently being configured.

Connections Tab

The Connection tab will display the FileDirector servers that Enterprise Manager has been configured to connect to. The Actions and Extended tools list will show the tools available.

Icon	Function	Description
	Delete	The currently selected connection will be deleted
	Edit	Edit the currently selected connection properties.
	New Connection	Create a new connection to a FileDirector Server.
	Disconnect	Disconnect from the currently selected connection.

To connect to a new FileDirector server, select ***New Connection*** from the ***Extended*** list. To edit an existing connection, select it from those displayed, and select Edit from the ***Actions*** list. Both tools will display the server connection configuration window, where the settings to a FileDirector Server can be configured:

Enter the address for the FileDirector Server in ***Server URL***. A valid entry consists of a protocol name (***http*** or ***https***), a colon with two slashes, the FileDirector server DNS name or IP address and the virtual directory name of the FileDirector installation stored in the IIS settings (default: ***FileDirector***).

If the installation was performed using the FileDirector installation web page, the correct address will have been stored. The connection settings are read from the file ***App.xml***. This file will hold the correct settings if ***Branding*** has been performed (see the ***FileDirector Installation Manual***).

Using the button ***Test Connection*** the connection to the FileDirector server can be tested with the account used. This account must be a known FileDirector user, the relevant account must be member of one of the FileDirector groups.

Notes
If a connection via https is used, an official Certification for the SSL server is required.

Automatic Login using Windows Account

The FileDirector Server can utilise Windows account rights and user structures. If the current Windows account is used, the user need not manually login to FileDirector as the Windows account information is used for authentication. Each user working within FileDirector will have a local cache directory created on the relevant workstation. Data from each user's cache cannot be accessed by other users.

If ***Standard authentication*** is used (entry not checked), the same local cache is used for all users connected to the workstation. A login window appears when starting the application and the local cache of the relevant user logged into Windows is used.

For security reasons Windows authentication should be used.

Connect to Server

To connect to a server, double-click on the required server icon. A new tab will open showing the server options and Cabinets.

Icon	Function	Description
	Disconnected	There is no current connection to the server.
	Connected	A connection to the server is current.

Server Connection



The main server configuration is carried out using the FileDirector Configuration utility. Using Enterprise Manager you can configure server certificates and DMZ settings, and define server replication settings.

To configure a server certificate select the ***Active*** icon and then choose the ***Settings*** action. Double-clicking on the ***Active*** icon will display server licence and version information.

Server Certificate

The server certificate is used for signed documents which are automatically checked in by a scheduler to a Document Type. To accept only signed documents it must be configured in the properties of the Document Type.

To load a server certificate, it must be available as ****.pfx*** file.

Certificate Creation

A server certificate should only be created using a trusted certificate issuing centre. Once installed, the certificate can be exported for use with FileDirector using Internet Explorer.

Export Certificate

To export a certificate, in Internet Explorer select ***Internet Options*** from the ***Tools*** menu. On the ***Content*** tab select ***Certificates***, choose the certificate to be exported, and then press the ***Export*** button. The certificate should be exported as a ***PKCS #12 (.PFX)*** file.

> *Notes*
> *Please refer to the Internet Explorer help and to the Microsoft Knowledge Base for further information.*

Import Certificate into FileDirector

In the Server Certificates window, select ***Load new Certificate*** and then choose the certificate to load. When prompted, enter the password you chose when exporting the certificate.

SQL Parameters

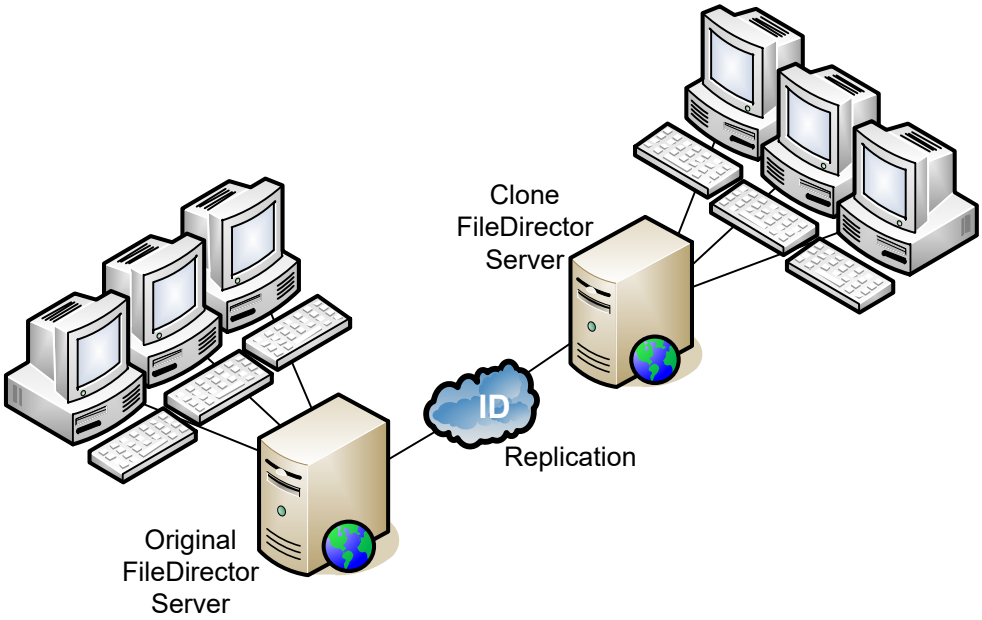
The currently configured SQL properties can be viewed by selecting ***Active*** in the main Enterprise Manager window, choosing the Settings action, and then opening the ***SQL Parameters*** tab. The settings shown are configured using the FileDirector ConfigUtility which is described in the Installation Guide

Replication



Data can be synchronised between different sites running at least one FileDirector Server. The sites have to be connected via a network during synchronization or data exchanges.

To replicate data you need to create a Cabinet on the master server. This Cabinet is then cloned on the replication server. See *Clone Cabinet structure*.



Original server definition

The original server is always the server that is responsible for the documents. When a document is created, the ID of the creating server is assigned to it, thus marking the server responsible. The responsibility for documents can be transferred to the target server, making it the original server for these documents.

> *Notes:*
> *You need to ensure that the storage pool is available on the target server after the clone has been created. If the storage pool is pointing to a different path, it needs to be adjusted otherwise documents cannot be created.*
> *Make sure that the time settings of both servers do not differ more than five minutes.*

Create replication connection

Initially, there is only the current server in the ***replication scope***. The server will be identified by the licence number.

When the branch ***Replication*** is selected a new server can be introduced to the replication by selecting ***New*** on the toolbar.

ID

A server is identified via its licence number. If the licence number changes, the ID of the first licence number is preserved.

> *Notes*
> *Never change this ID as it is used to synchronise and transfer replicated data.*

Description

A description can be entered for the different servers, in order to differentiate the original server from the target servers.

URL

The URL is used to connect with the target server. The URL format needs to be ***http://[targt-servername]/filedirector*** or ***http://[target-IP-address]/filedirector***.

> *Note:*
> *A secure connection can be established via https://.*

Enter user fd-server account with name/password

To be able to connect with the target server, the fd-server account of the target server has to be entered. If both servers are running in the same domain and use the same fd-server account, ***Use integrated Windows security (fd-server)*** can be ticked.

If the servers are running in different domains, an account of the target server having access to the FileDirector has to be entered in the format ***[target-domain]\fd-server***, i.e. an account assigned to the group fd-admins or fd-scan/fd-scan-named with the right to create data.

When installing the FileDirector server locally, the target domain is the server name.

Online

The setting has to be switched to ***Online*** to be able to establish a connection. The replication will be handled by a scheduler later on. The scheduler can only replicate data when the connection is online. When the connection is set to offline, replicated data from a different server cannot be checked out and changed. When being set to online, data from a different server can be checked out and changed.

Test connection

The ID of the target server is requested and listed when the connection test is successful.

Once a connection is successfully established, the Cabinets to be replicated can be configured. (*See Cabinet for replication*)

Events

FileDirector can be configured to log activities within the system, whether automatic server activity or user activities. All activities can be listed, and filtered by various parameters such as Cabinet and user.

Active User displays a list of all users currently using FileDirector.

Audit Trail Configuration



To configure audit management and the activities to be audited, select the ***Audit trail*** icon and choose the ***Settings*** action.

Settings Tab

The general settings for the audit trail determine how the audit records are managed, and the types of events that will be logged.

All audit records are held within the FileDirector general configuration database. Depending upon what is being audited, and the level of activity within FileDirector, the number of records within the database can grow to be substantial. FileDirector therefore allows the audit records to be managed.

Audit records can be removed from the database periodically, determined by one of two options. You can select to remove 50% of the audit records from the database once a predefined number of records have been created. Alternatively, all audit records older than a predefined number of days can be removed.

When ***Archive Log Files*** is configured, any audit records removed from the database can be exported to a defined location. You must ensure that the export location has sufficient storage space available. You must ensure that you activate this feature if you want the audit records exported.

Under ***Event Type to Log***, you can specify the types of events that will be recorded, such as ***Information***, ***Warnings*** and/or ***Error*** events.

The ***Purge Log Now*** button will remove ALL audit records from the database immediately. If you have selected to archive audit records, the records will be archived prior to being removed from the database.

Notes:
The audit trail should be periodically managed because all entries are saved in the database and the database size is increasing. If the export causes a timeout, please read the section **Optimization of SQL-Server performance** *in the installation guide. The settings should be made so that only the entries are logged which are really needed.*

GDPR compliant log data

FileDirector AuditTrail can be extended by ***GDPR-compliant entries***. These entries are only created when a ***Destroy*** event has taken place.

Note:
For further information also see chapter GDPR.

When ***Purge log now*** is selected, an additional prompt is displayed to confirm the purge action.

Within this window, an option can be ticked to delete also all GDPR-compliant entries.

These entries will only be deleted if the checkbox is ticked.

Note:
For security reasons, the corresponding checkbox is never checked in default and must be selected explicitly in each case.

Server Tab

From the Server tab you can specify the events to be logged for the FileDirector server, process management and the server schedulers. Tick the appropriate check boxes. The event types to be logged will have been specified on the ***Settings tab***. If ***Log any type of event*** is ticked, all events (information, warnings and errors) are recorded regardless of any other settings.

Sessions Tab

The logged events per session are selected from the ***Sessions*** tab. The event types to be logged will have been specified on the ***Settings*** tab. If ***Log any type of event*** is ticked, all type of events (information, warnings and errors) are recorded regardless what general settings have been made previously.

If a scheduled message is set in the Windows Client Options, each time after this delay a connection to the FileDirector server is re-established. If this time interval is shorter than the session time out, the connection is never closed and the license is never freed automatically.

Activities Tab

In ***Activities*** the events to be logged are specified individually for Search, document state change and general document activities. Tick the relevant boxes.

The event types to be logged have been specified in the ***Settings*** tab. If ***Log any type of event*** is ticked, all type of events (information, warnings and errors) are recorded in this area regardless what general settings have been made before.

Display audit trail

After the audit trail has been configured, the database log can be displayed. Double-click on the ***Audit*** icon and an audit display template is displayed.

In the upper part the audit records to be displayed can be filtered by specific Document Types and users. The date or date range can also be selected.

Select ***Create list*** to display the relevant entries

Display archived logs

FileDirector may only hold a limited amount of audit records. It can happen that an entry to be displayed is not available any more. If you selected to archive audit records, you can display them by selecting ***Archived*** from the ***Duration*** drop down

When selecting ***Create list***, a list of log files on the selected archive path is displayed so that the relevant log file can be selected for display. The stored log files are time stamped.

Format Audit Trail Display

Entries can be grouped by columns by dragging the column header into the ***Drag a column header here…*** section on top of the column headers. To switch grouping off drag the column header back into the line.

Entries can be sorted alphabetically ascending and descending by clicking on the column header. The second click toggles the sort order.

Double clicking on an entry of the list opens a window with detailed information. If an entry is linked to a document, it is possible to display the document direct in the Windows Client by clicking the button ***Show document (WinClient).***

Export part of the audit information

In order to export parts from the audit trail select the relevant entries. This can be done after having sorted the entries in a particular way. After having selected the entries, use ***Export list*** tool in order to export these records into a text file.

Report/Export



In order to export parts from the audit trail select the relevant entries. This can be done after having sorted the entries in a particular way. The option can be selected either by using the icon ***Report/Export*** from the ***Action*** menu bar or from the menu ***Extended***, on the right hand side, to export the selected AuditTrail information.

The following formats are available:

PDF	XLS
RTF	CSV

Toggle GDPR filter

§

This button allows toggling the list between ***all event logging entries*** or, if configured, ***only entries of the GDPR-compliant logging***. In this case only entries of the type ***Destroy*** are listed.

Blacklist



The Blacklist will display the user accounts that are currently being blocked from logging into FileDirector.

When manually logging in, if a user enters their password incorrectly 20 times, the user account will be automatically blocked for 20 minutes. For each further login attempt while the account is blocked, another 20 minutes will be added to the time that the account is blocked for.

The Blacklist functionality can be explicitly activated or disables.

Note:
The Blacklist functionality is a global setting and is effective on the whole FileDirector system.

Activate Blacklist



In case the Blacklist is activated, this button is inactive and can’t be selected.

Deactivate Blacklist



In case the Blacklist is deactivated, this button is inactive and can’t be selected.

Activities



The status of active schedulers can be monitored from the ***Activities*** display. Only those schedulers that are in progress, those that have completed successfully within the previous 5 minutes or those that have failed will be shown.

Cancel Activities

Any active scheduler can be cancelled by selecting it from the list of schedulers on the ***Activities*** page and then selecting ***Cancel Activities***.

Auto refresh

The list of active schedulers can be set to be automatically refreshed so as to always show current activities. The ***Auto refresh*** action is a toggle which will turn the refresh on or off

Active users



Selecting ***Active users*** will display a list of the currently active FileDirector users. For each user, the name of the client workstation, the type of licence being used and the name of the application and its version number is displayed.

Session time out / Licences

When installing FileDirector a value for a session time out in minutes is specified in the ***ConfigUtility (Server)***. This value specifies the delay after which a licence is freed again, after the application (FileDirector Enterprise Manager, WinClient, AutoCapture Client or WebServer) is not being used.

When an application is closed correctly, the licence is immediately freed for another user.

When an application is terminated with Windows Task Manager, the license is only freed after the session timeout (default: 30 minutes).

SQL-Table Active User

The list of active users is stored in the table ***Active User*** in the FDConfig database. In order to free connections that may have become fixed and, which have not been freed automatically, the entries within the table can be deleted.

Warning: You might interrupt an existing connection.

Notes:
If a scheduled message is set in the Windows Client options, each time after the set delay a connection to the FileDirector server is re-established. If this delay is shorter than session time out, the connection is never closed and the license is never freed automatically.

Users and Groups



When installing FileDirector a user account and six specific groups are created to work with FileDirector.

To ensure the integrity and security of the data stored in FileDirector, no user account has direct access to any document data; all document access is performed through the special server account. If a user account is to have access to FileDirector, the account must be member of one of the FileDirector groups created in the domain during installation.

FileDirector works with concurrent and named licenses. With concurrent licences, a pool of users has access to a defined number of licences. The pool of users can be greater than the number of licences available, which will be allocated on a first come, first serve basis. For named licences, each user account must have a named FileDirector licence.

Windows user accounts and/or Windows user groups must be a member of one of the FileDirector groups that will have been created in the domain during configuration. You can then give the Windows users and group's permissions within FileDirector Cabinets and Document Types.

Built-in Users and Groups

FileDirector also has the option of built-in user and group administration. This administration is independent from the Windows user administration. Multiple built-in sub-domains can be created

The FileDirector user provides functionality similar to using Microsoft Windows. Accounts, which can be configured to be time-limited, and users can be asked to change predefined passwords on first log-on and accounts can be disabled.

The configuration of FileDirector accounts is carried out through the ***Users and Groups*** section in Enterprise Manager.

> *Notes:*
> *Changes in IIS may be necessary when using the FileDirector built-in user administration. Please refer to the installation guide.*

Built-in Domains

When FileDirector is first configured using the Configuration utility, the Users and Groups tab allows you to select the Windows Domain to use for authentication. You can also define a built-in domain, called ***FileDirector*** by default.

From within Enterprise Manager you can then create users and groups within the built-in domain, managing access to FileDirector independently of the Windows domain.

You might, for example wish to give customers access to certain documentation held within FileDirector and by using the built-in user management, you do not have to create user accounts within the Windows domain.

Manage Built-in Domains

A built-in domain is created when you first configure FileDirector using the ***ConfigUtility (Server)***. To create further domains select the ***Users and Groups*** icon and then select the ***Edit*** tool.

General Tab

On this tab you can set, in days, the time after which a user accounts password expires. Once expired, the user will have to specify a new password. When the value is set to 0 the passwords will never expire.

Sub-Domains Tab

To manage built-in domains, select the ***Sub-Domains*** tab. Any existing domains will be listed. You must be a member of the fd-admins group to create built-in domains. Administrators of built-in domains – sub-administrators, cannot create built-in domains.

To create a new domain, select ***Add,*** type the name of the new domain and then press ***Enter***. The domain groups will then be created, together with a domain admin user account.

To remove a domain, select the domain you want to remove from the list and press the ***Remove*** button. The domain and its groups will be deleted.

For each domain or sub domain created, an administrative account is also created, called ***admin***. The account name cannot be changed.

Microsoft Azure Active Directory Accounts with SSO

Overview

In addition to local Microsoft Windows accounts, Active Directory accounts and FileDirector Built-in accounts, it can also use accounts from a Microsoft Azure Active Directory environment.

These Microsoft Azure Active Directory accounts can be used for logging on to the Enterprise Manager, WinClient and WebClient, with Single Sign-on (SSO) and thus offer the same comfort as a similar on-premise infrastructure.

Requirements

Single sign-on with Microsoft Azure Active Directory users for FileDirector client applications requires the following preparatory steps:

- A Microsoft Azure Active Directory group, named ***fd-admins***

  There does not have to be any users in this group.

- An ***Enterprise application***, configured in Microsoft Azure Active Directory ***AND***, depending on the FileDirector clients to be used
  - Configuration for Enterprise Manager in Microsoft Azure Control Center
  - Configuration for WinClient in Microsoft Azure Control Center
  - Configuration for WebClient in Microsoft Azure Control Center
- A ***FileDirector Sub-domain***, set-up in FileDirector Enterprise Manager

  Note:
  The name of the sub domain **must not** *contain special characters.*

- The ***AAD Connector*** must be enabled in FileDirector Enterprise Manager

  Note:
  For WebClient, only **MSAL 2.0** *is supported.*

Microsoft Azure Control Center – Active Directory



For the use of Single Sign-on (SSO) for Azure Active Directory, some configuration steps are necessary in advance within ***Microsoft Azure Control Center*** – ***Active Directory***.

Azure services (App registration)



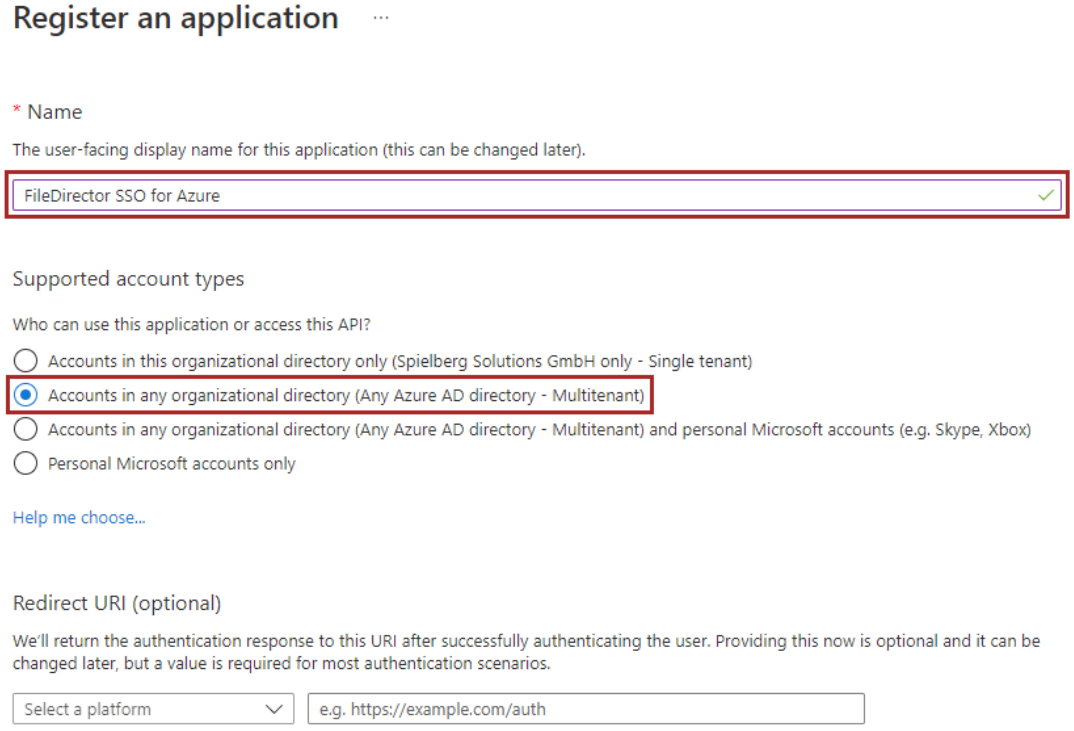
New apps must be registered with in the ***Microsoft Azure Control Center*** ⇨ ***Azure services*** ⇨ ***App registration***.



After selecting ***New registration***, a name must be provided and the option ***Accounts in any organizational directory (Any Azure AD directory – Multitenant***) must be selected.

Example:

The display name in the example below is ***FileDirector SSO for Azure***.



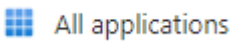
After clicking ***Register***, the Azure Center creates the corresponding, unique elements to identify the app, such as ***Application (client) ID*** and ***Directory (tenant) ID***.

Display IDs

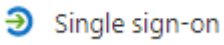
Option 1:



Return to the ***Overview*** of the Azure Active Directory.

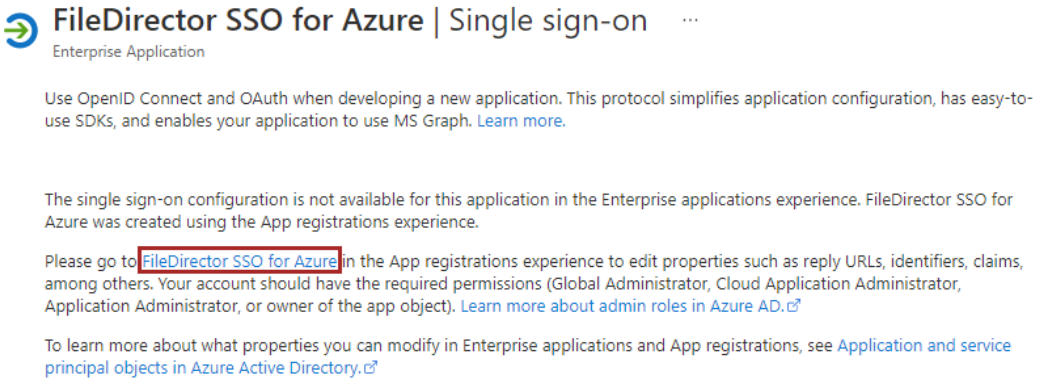


Select the application from ***All applications*** in the section ***Enterprise applications***.



Select ***Single sign-on*** from the menu on the left-hand side and click the link in the displayed text.

Example:



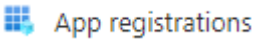
Displayed Information:



Option 2:



Return to the ***Overview*** of the Azure Active Directory.



Select the application from ***App registrations*** from the menu on the left-hand side and select the application from the list ***All applications***.

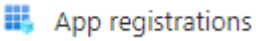
Displayed Information:



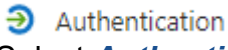
Configuration for FileDirector WebClient



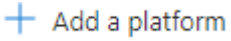
Go to ***Overview*** of the Azure Active Directory.



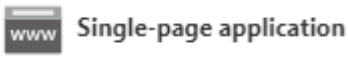
Select the application from ***App registrations*** from the menu on the left-hand side and select the application from the list ***All applications***.



Select ***Authentication*** from the menu on the left-hand side.



Select ***Add a platform***.



Select ***Single-page application*** from ***Configure platforms*** for the configuration of FileDirector WebClient

Redirect URIs

Enter the corresponding URL, according to the scheme, below and enable ***Access tokens (used for implicit flows)*** and ***ID tokens (used for implicit and hybrid flows)*** and select ***Configure***.

Scheme:

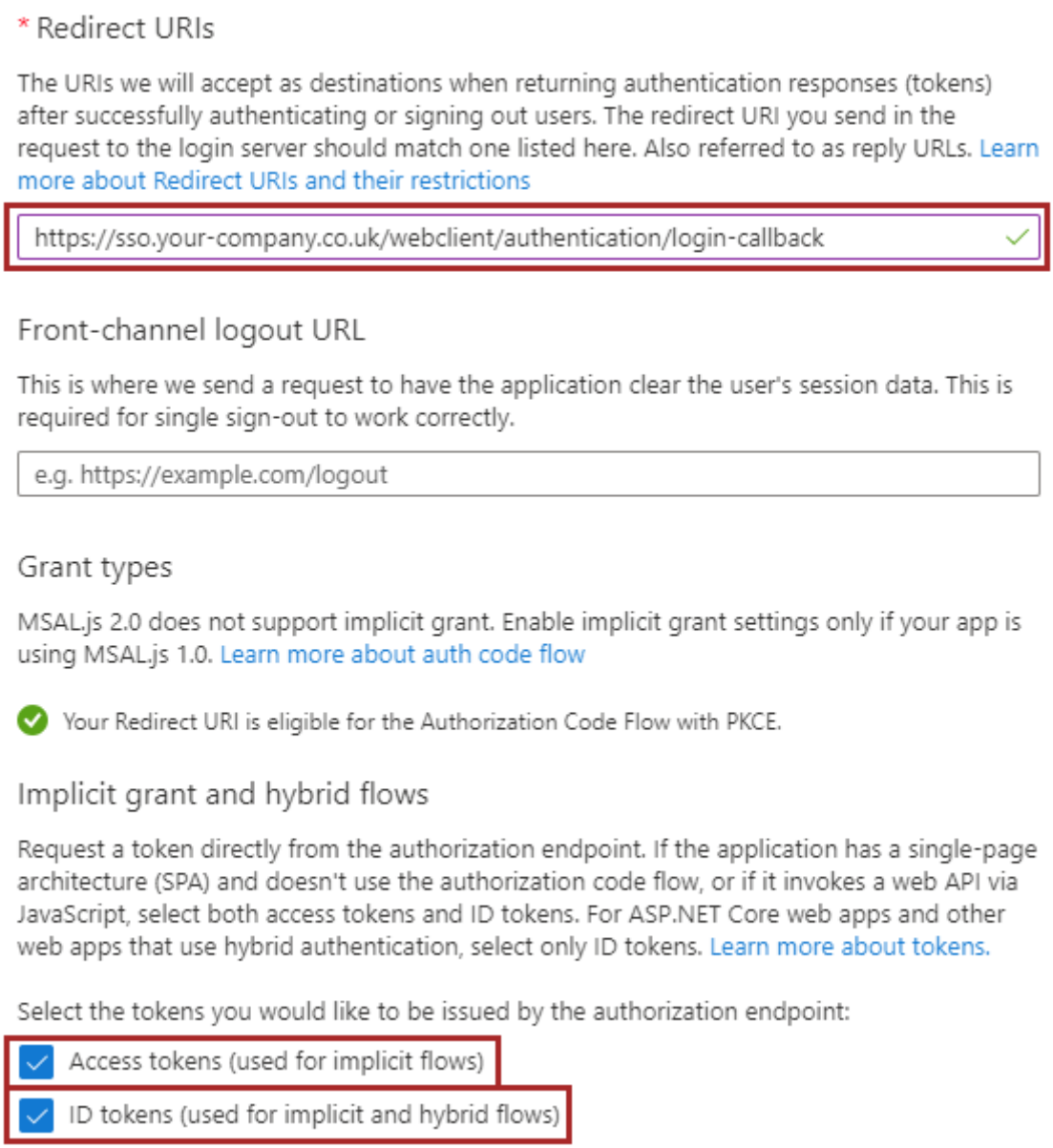
https://{FileDirector Sub-domain}.{FQDN}/webclient/authentication/login-callback

Example:

In the example, below, ***SSO*** is the name of the sub-domain, created in FileDirector Enterprise Manager.

Note:
See also Users and Groups – Sub-Domains

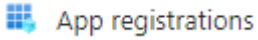
https://sso.your-company.co.uk/webclient/authentication/login-callback



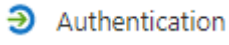
Configuration for FileDirector WinClient and Enterprise Manager



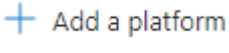
Go to ***Overview*** of the Azure Active Directory.



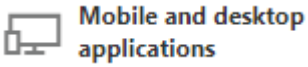
Select the application from ***App registrations*** from the menu on the left-hand side and select the application from the list ***All applications***.



Select ***Authentication*** from the menu on the left-hand side.



Select ***Add a platform***.



Select ***Mobile and desktop applications*** from ***Configure platforms*** for the configuration of FileDirector WinClient and Enterprise Manager.

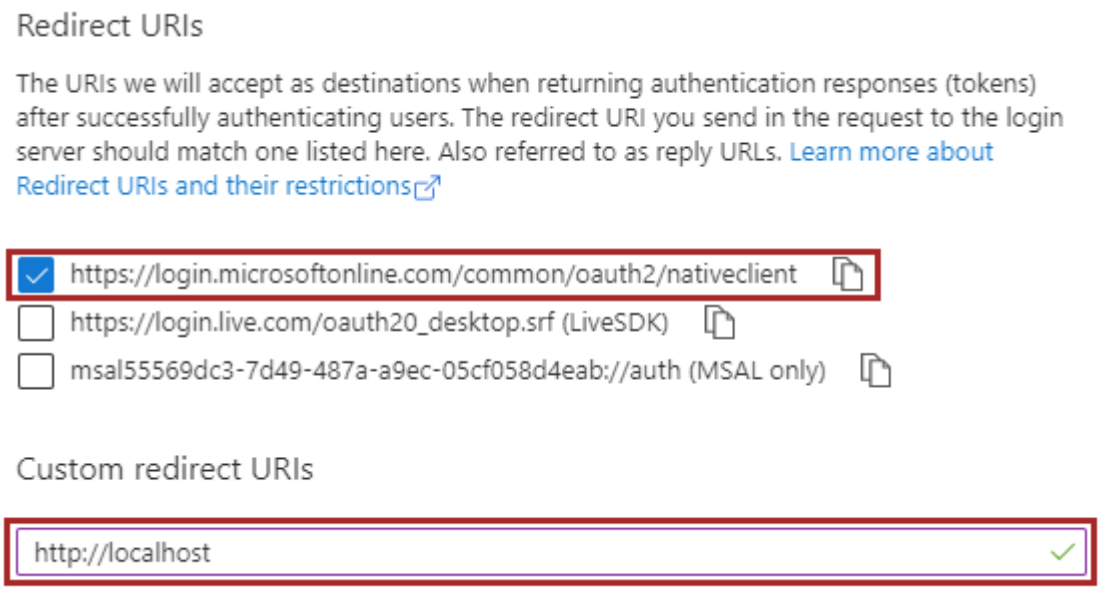
Redirect URIs

Select ***https://login.microsoftonline.com/common/oauth2/nativeclient***.

Custom redirect URIs

Enter ***http://localhost***.

Example:

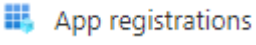


Configuration of API Permissions

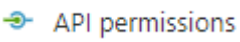
The setup of the following permissions in Microsoft Azure Active Directory are required to allow FileDirector the import of Microsoft Azure Active Directory accounts.



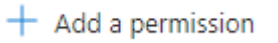
Go to ***Overview*** of the Azure Active Directory.



Select the application from ***App registrations*** from the menu on the left-hand side and select the application from the list ***All applications***.



Select ***API permissions*** from the menu on the left-hand side.



Select ***Add a permission***.



Select ***Microsoft Graph*** from ***Request API permissions*** and select ***Application permissions***.

The required permissions are:

- Group

  Group.Read.All

- GroupMember

  GroupMember.Read.All

- User

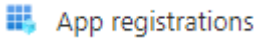
  User.Read.All

Creating the Client Secret

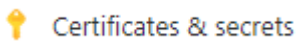
The client secret is needed for the configuration in FileDirector Enterprise Manager.



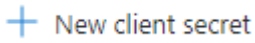
Go to ***Overview*** of the Azure Active Directory.



Select the application from ***App registrations*** from the menu on the left-hand side and select the application from the list ***All applications***.



Select ***Certificates & secrets*** from the menu on the left-hand side.



Select ***New client secret***, enter a ***Description*** and select and entry from the drop-down menu ***Expires***.

> *Important:*
> *This* **Value** *is only fully displayed during the initial setup.*

Example:



Configuration in FileDirector Enterprise Manager

Now, the configuration within the Azure Active Directory environment must be connected to the FileDirector ECM sub domain.

Users and Groups – Sub-Domains



This is done within the ***Settings*** of ***Users and Groups***.

Select the tab ***Sub-Domains*** and either select the sub-domain you want to manage or add a new sub-domain.

> *Note:*
> *The name of the sub domain* **must not** *contain special characters.*

Example:

Name of the sub-domain: ***SSO***

AAD Connector

Select ***AAD Connector*** and enter the following, required information:

Client Id/Tenant Id

How to request the information for the ***Client ID*** and ***Tenant ID*** is described in the *Display IDs* paragraph.

Example:



Client Secret

How to create a ***Client secret*** is described in the *Create the Client Secret* paragraph.

> *Important:*
> *The required* **Value** *is only fully displayed during the initial setup.*

Example:



Microsoft Active Directory Accounts

Active Directory users accounts administrated centrally-administrated within the Active Directory on the domain controller. All users are created using the operating system functionalities

Users are created and managed using operating system functionalities. The users or groups of users who will use FileDirector are added to one of the FileDirector groups that have been created within Active Directory.

If a single user that is a member of an existing group needs different rights than the group rights, then the user account itself must be imported.

Note:
See Import System Accounts
If accounts are available they can be assigned to Cabinets.

For more information see *Cabinet Level Security*.

The rights on Cabinets are inherited by Document Types and can be configured at this level as well.

Notes
Imported user accounts are stored in the **Accounts** *table of the configuration database. Accounts used at Cabinet level are stored in the* **CabRights** *table and accounts used at Document Type level are stored in the* **DocTypeRights** *table. Rights cannot be copied in database tables.*
If all records are deleted from these tables, the current user in the group fd-admins is automatically entered. With this action user access problems can be reset. Therefore only a database administrator should have access to the databases themselves.

Microsoft Windows Accounts

Windows users accounts administrated locally on the Windows workstation. All users are created using the operating system functionalities

Users are created and managed using operating system functionalities. The users or groups of users who will use FileDirector are added to one of the FileDirector groups that have been created on the local Windows system.

If a single user that is a member of an existing group needs different rights than the group rights, then the user account itself must be imported.

Note:
See Import System Accounts
If accounts are available they can be assigned to Cabinets.

For more information see *Cabinet Level Security*.

The rights on Cabinets are inherited by Document Types and can be configured at this level as well.

Notes
Imported user accounts are stored in the **Accounts** *table of the configuration database. Accounts used at Cabinet level are stored in the* **CabRights** *table and accounts used at Document Type level are stored in the* **DocTypeRights** *table. Rights cannot be copied in database tables.*
If all records are deleted from these tables, the current user in the group fd-admins is automatically entered. With this action user access problems can be reset. Therefore, only a database administrator should have access to the databases themselves.

Import Microsoft Windows and Active Directory Accounts



If user accounts are assigned to the FileDirector groups and these should receive more restricted rights, they must be available at the Cabinet or Document Type security level. Therefore accounts can be imported from the groups and can then be assigned and configured.

This is carried out periodically by an automatic scheduler, but can also be performed manually by selecting ***Users and Groups***, and choosing the Import OS Accounts tool.

Searching

By default, the every domain, sub-domain and all users and groups will be displayed in the list. The Search feature allows you to filter the user and groups list. The list will only display those user accounts and/or groups that contain the search criteria entered into the Search field. Using this, you can quickly find the user account or group that you want view or edit.

The search will be performed on the user name, Full name, description, email address and assistants columns.

Create Built-in User or Group

To create a FileDirector user account or group, select ***Users and Groups*** and choose the ***New*** tool.

Users and Groups General Tab

Within this tab, you can create the user account or group.

Name

The drop-down box shows you the virtual domains setup in the Configuration Utility and from within Enterprise Manager. The user name must then be entered.

Full name

The full display name of the user must be typed in.

Description

A descriptive text can be typed in.

Group

This option is used to create a group instead of a user. A group name and a full name must be provided to create a group successfully.

The name you entered in the ***Name*** field is the name of the group.

When ***Group*** is selected, all further options on the ***General*** and ***Details*** tabs are disabled.

E-mail

An e-mail address can be stored for messages coming from FileDirector BusinessProcessManagement.

If accounts are imported from Active Directory, e-mail addresses are added automatically. If the installation is on a local system or it is not using Active Directory, the e-mail address can be manually added in FileDirector Enterprise Manager in the properties of the respective account.

To import a later configured email address from ADS you can import the appropriate users/groups again.

Account is disabled

If this checkbox is selected, the access for this user is denied.

Account expires on

An expiring date could be defined. The account is then disabled automatically.

This is recommended if a user only needs access for a specific period.

User must change Password at next logon

It can be defined that the password set by the administrator during the installation must be changed at next logon.

Password

A password for the user must be set in this field. When the checkbox above is selected this password must be changed at next logon.

The password has to be at least five characters long.

Repeat Password

Repeat the password entered above for confirmation.

Users & Groups Details Tab

Additional information about the user can be entered on the ***Details*** tab, such as Company, Title, Position, address and telephone.

Managing Users

Any user account, whether it is a Windows or built-in FileDirector account can be further configured. User accounts can be allocated to groups and absence settings applied, whereas groups can have members added to them, and have user licences allocated to them.

Although Windows user accounts and groups can be added or removed from built-in FileDirector groups, they cannot be added to Windows groups. Built-in FileDirector accounts or groups cannot be added to Windows groups.

A user account cannot be a member of more than one of the FileDirector licence groups.

To display the list of users and groups, double-click on the ***Users and Groups*** icon.

Add Group membership

By double-clicking on a user account the account properties will be displayed. Selecting the ***Member of*** tab allows you to configure the groups the user account is a member of.

To add the account to a group, select ***Add***, select the appropriate groups from those listed and press ***OK***.

To remove the user from a group, select the group name from those displayed, and press ***Remove.***

Once the changes have been completed, press the ***OK*** button to save the changes.

User Absence Settings

When using the FileDirector ProcessManagement option, users may be part of a process and have to perform actions as parts of the process. To take account of the times a user may be away, absence settings can be applied on the user account ***Absence*** tab.

When the ***Absent*** tick box is ticked, the dates from and to when the user will be away can be set. In addition, tasks that are meant to be performed by the user can instead be forwarded to an alternative user during the period of absence.

Managing User Groups

After the groups are configured the users can be allocated to the groups.

This can be done by with the user properties as described above, or within the group configuration.

> *Note:*
> *A user must not be member of more than one licenced group. Please keep this rule in mind when designing your group structure.*

Group Members

By double-clicking on the group name and then selecting the ***Members*** tab, the list of members of the group will be displayed. To add users and/or groups to the group, press the ***Add*** button, and then select the users and groups from the list displayed. Once you have completed the selection, press the ***OK*** button to save the additions.

To remove members from the group, highlight the user or group, and then select the ***Delete*** tool.

As mentioned previously, a group can be a member of another group. A group's membership of other groups can be managed from the ***Member of*** tab.

As an example, the acme\accounts group, which has three members, is a member of the acme\fd-user group. Therefore all three members of the acme\accounts group are members of the acme\fd-user group.

Users per Group

From the ***Users per group*** tab, you can manage how many FileDirector licences are available to a group of users. As mentioned previously, the acme\accounts group has three members; this group has been allocated two concurrent user licences, which means that any two of the three members of the acme\accounts group can be logged into FileDirector at any one time.

This is disabled for sub-domain admin user accounts.

Delete accounts

To delete built-in domain user accounts, select the accounts to be deleted, then select ***Delete***.

If a Windows user account needs to be deleted from FileDirector, the user account should be removed from the relevant Windows FileDirector group and the group should be re-imported.

FileDirector Groups Default Rights

The following groups have to be administered in order to allow users to have access to FileDirector. A user should always be assigned to one of these groups. If a user is a member of more than one group, the most restricting rights become effective.

> *Note:*
> *If the group names are changed, the group configuration can be displayed in the* **User and groups** *tab of the* **FileDirector ConfigUtility (Server)**.

fd-admins

Accounts in this group have full administrative access to FileDirector. They can configure the system administration area of the Enterprise Manager, user management and the schedulers of the server. Members of this group are FileDirector System Administrators.

Members of the fd-admins group of a built-in domain are restricted within Enterprise Manager. They are able to only manage their built-in domain. This includes access to Events, Users and Groups, Client Configuration and FileDirector Cabinets associated with the built-in domain. Members of a built-in domain fd-admins group are Sub-Administrators.

fd-scan-named (Named Scan Licence)

Members of this group have guaranteed access to FileDirector, and can scan and capture documents. The number of accounts made a member of this group must not exceed the number of named licences purchased.

fd-scan (Concurrent Scan Licence)

Members of this group have access to FileDirector and can scan and capture new documents. If this group has full permissions within a Cabinet, the user is allowed to administrate the Cabinet. There can be more users added to this group than licences exist. If all licences are in use, one user must be logged out to free the licence for the next user.

fd-user-named (Named User Licence)

Members of this group can search and edit documents, but they cannot scan or create new documents. The number of accounts made a member of this group must not exceed the number of named licences purchased.

fd-user (Concurrent User Licence)

Members of this group can search and edit existing documents. If a user only belongs to this group, they can login to the Windows Client to search and edit. There can be more users added to this group than licences exist. If all licences are in use, a user must log out to free a licence for another user.

fd-web (Unlimited web access)

When the unlimited web access option is enabled, any member of this group can access Webserver without requiring a scan or user licence. The members of this group must not be a member of any other FileDirector user group, and can only use WebServer, and not the Windows Client.

Licence Usage Hierarchy

The following shows the order in which licences are allocated to users, when available. This does not apply to WebServer.

Abbreviations

ScanN = Scan (named)
ScanC = Scan (concurrent)
UserN = User (named)
UserC = User (concurrent)
X = not licensed

User access to Enterprise Manager

Enterprise Manager does not use a FileDirector Licence.

User access to the FileDirector WinClient/WebServer

FD-Admins	(ScanN)	⇨ScanC ⇨ (UserN)* ⇨ UserC ⇨ X
Scan-Named	ScanN	⇨X
Scan-Concurrent	ScanC	⇨X
User-Named	UserN	⇨X
User-Concurrent	UserC	⇨X

If a user who is a member of the group ***FD-admins*** is allocated a named-licence, the user must be a member of that specific group.

Example

If a user who is a member of ***fd-admins*** logs on at a workstation without a scanner, without being a member of a named-group, first a scan concurrent licence is used. If all those licences are in use, the next free user concurrent licence is used.

If the user is member of a named-group, first a licence of this group is used. If there is not any licence of that named-group available a free concurrent licence is allocated.

Notes:
The administrator can view the logged in users, and the licences used under Active Users

User access to the WinClient with the /scanstation switch

FD-Admins	ScanN*	⇨ ScanC ⇨ X
Scan-Named	ScanN	⇨ ScanC ⇨ X
Scan-Concurrent	ScanC	⇨ X
User-Named	ScanC	⇨ X
User-Concurrent	ScanC	⇨ X

/Scanstation Parameter

Members of the groups fd-user-named and fd-user are able to use the Windows Client to search and edit documents however, scanning is not possible.

If these users need to be able to log on to a workstation for scanning, they can use a scan licence. The WinClient must be installed on the scanner workstation and a shortcut manually created to the following file.

> ***C:\Program files (x86)\Spielberg Solutions GmbH\FileDirector WinClient\ FileDirector WinClient.exe***

You must then add the parameter ***/Scanstation*** in the properties of the shortcut.

> ***C:\Program files (x86)\Spielberg Solutions GmbH\FileDirector WinClient\ FileDirector WinClient.exe /Scanstation***

When a user of the fd-user-named and fd-user groups logs into the Windows Client using the above shortcut, a scan licence is allocated. When the user logs on to their own computer without this option a standard user licence is allocated.

Schedulers



FileDirector offers user definable schedulers for tasks such as OCR full text recognition, retention processing, COLD import and file import and index import.

All schedulers are part of the ***FileDirector Scheduler Service***, which is a Windows service. This is configured to start automatically when the server boots.

Double-clicking the ***Scheduler*** icon will display the configured schedulers. For each scheduler the columns Type, Description, Server, Start time, Interval, Enabled, Status, Created by and Created on are displayed.

> *Note:*
> *To be able to manage and review scheduler activities, logging of the schedulers should be switched on in audit trail settings.*
> *See Audit trail configuration*

The configuration of schedulers is always linked with other configuration settings. Notes to this can be found in the descriptions of each scheduler type.

Scheduler: Start and Stop

A schedule can be started immediately by right-clicking on the schedule and selecting ***Start Scheduler***. The start time of this scheduler is set to the new value.

If a large amount of data has to be processed, it may be necessary to stop a scheduler during runtime. This can be done by right-clicking on the schedule and selecting ***Stop Scheduler***.

Scheduler: OS Account Import

The OS Account Import scheduler can be configured to automatically import users from the Windows FileDirector groups.

Full details on configuring users and groups are given in the *Users and Groups* chapter, and in the FileDirector Installation Guide.

Requirements

The OS account import scheduler requires either local Windows or Active Directory accounts selected in the tab ***User or Groups*** of the FileDirector Config Utility (Server).

Providing only FileDirector built-in user and groups management is used, the OS account import scheduler is not created.

The scheduler is created when a connection to the server is established for the first time. This can be done, for example, by:

- A call of the dataaccess.asmx.
- A connection through the FileDirector Enterprise Manager.
- A connection through FileDirector WinClient.

Scheduler: New

To create a new scheduler, select the ***Scheduler*** icon and choose the ***New*** tool. The list of available scheduler types will then be displayed. You can then select the type of scheduler you want to create.

The lists of available schedulers are:

System Schedulers	Import Schedulers
Full text reading	File import
Retention processing	Index import
Storage container	Index & file import
Document replication	COLD import
Cloud Storage Container	XML import
	FileDirector XML/File import
	Retrieval import
	MailStore
	Mailbox Archiver
	Mailbox Archiver IMAP

Scheduler: General Settings

There are settings that are applied to all schedulers.

Execute on server

There are special settings for every scheduler. If more than one FileDirector server exists the licence can be chosen for every scheduler. If ***any*** is selected, the first server found with a valid licence will run the scheduler.

> *Note:*
> *If several servers are configured, the scheduler can only be started when Enterprise Manager is connected to a server on which the scheduler should be started.*

Enable scheduler

The scheduler must be enabled to be active and ready to start. Status displays actual status and time when the scheduler was started for the last time. This information can also be seen in the scheduler list display.

Run on server start

When set, the scheduler will automatically start whenever the FileDirector server service starts, irrespective of the schedule.

Scheduler interval

The start date shows the initial start date of the scheduler.

The configured start date/time is relevant for each selected day.

On each selected day the scheduler is started at the start time specified. The scheduler is restarted each time after the interval is elapsed until midnight of the specified day.

Ending a scheduler

Using the ***End time*** option the activity of a scheduler can be ended at a certain time. This way you can pause, for example, a file import so as to start a backup process.

Monitor directory

When this option is selected, the specified import directory is constantly monitored, and the scheduler will automatically start when a file is copied or created in the directory.

If there are already files in the import directory when this option is selected, they will only be imported when a new file is copied or created in the directory.

The ***Monitor directory*** option is available in the following schedulers;

File Import

FileDirector XML/File Import

MailStore

Scheduler: Full Text Reading

In order to configure full text reading, it must be enabled first.

Requirements for full text reading configuration:

- OCR-Server-Licence
- FileDirector ComponentService is installed on the Server.
- The FileDirector Server account must have access to the directory storage pool locations.
- The FileDirector OCR Engine must be installed on the server.
- Full text index must be installed in SQL-Server.

Note:
If the storage pool location (path to the FileDirector document storage) is located on a different server to the FileDirector server, the Windows service **FileDirector Component Service** *must be started under account* **fd-server**.

Setup Document Types for full text recognition

Full text reading is only performed on Document Types which have been configured for full text reading. The full text reading must be switched on for the Document Types required.

The check box ***Include in OCR full text*** must be switched on in the Document Type properties. *See Document Type*

Functionality of the scheduler

This scheduler automatically performs OCR full text reading of all the documents stored in the relevant Document Types. The recognised text is written to the Cabinet database.

You must configure the *Scheduler General Settings,* as described above for the scheduler to function.

Notes:
SQL database fields:
The recognised text is written by the scheduler to the table FD-Images. The fields **OCRReadOn** *and field* **OCRText** *are filled out. If the field* **OCRReadOn** *already contains a date, the document is not read. When reading has been performed correctly <Long text> cab is seen in the field* **OCRText.** *If the filename of the file to be processed can be seen, the file could not be processed with OCR or it does not contain any text data. In this case check access rights of the account fd-server to this path.*
If a page needs to be recognised again by OCR, the column **OCRReadOn** *should be emptied using SQL Enterprise Manager (enter* **CTRL + 0** *in this field).*

To make the OCR text available for full text search, a scheduler in SQL server configuration must be set to build a SQL full text catalog.

Configure Microsoft SQL Server for Full text

In order to retrieve documents via full text search in the Windows Client and WebServer SQL Server must be configured to build and maintain a full text catalog of the recognised text. The configuration of this will be dependent upon the version of SQL you are using. You must ensure that SQL server has been installed with Full Text option, so as to be able to build SQL full text catalogs.

Note:
You can perform the following query on the SQL server to check whether full text is installed or not.

select FULLTEXTSERVICEPROPERTY ('isfulltextinstalled')

0= *not installed* / **1**= *installed*

In Enterprise Manager, determine the Cabinet ID of the FileDirector Cabinet to be selected for full text indexing.

Start ***SQL Server Management Studio***, open the relevant Cabinet database and select Tables. The list of Tables will then be displayed in the tree. Right-click on the table ***dbo.FD_Images*** and then select ***Full-TextIndex – Define Full-Text Index***. The Full-Text Indexing Wizard will then be displayed.

Select an Index

Select as the unique index for this table ***PK_FD_Images***, which is the default value. Press ***Next***.

Select Table Columns

Select the column ***OCR Text*** and press ***Next***.

Select Change Tracking

Select to automatically track change.

Select Catalog

In the field ***New Catalog***, enter a name of the full-text Catalog. Press ***Next***.

Define Population Schedules

You must then define a schedule as to when the Catalog will be updated by SQL. You should define this so as to suit your organisations procedures and to take into account that the SQL catalog should not be updated until the full-text reading has been performed by the FileDirector scheduler.

SQL Server Agent

The Service ***SQL Server Agent*** must be started for SQL full text scheduler functionality. This should be started with the same account as the service ***MSSQLServer***.

Scheduler: Retention Processing

In order to use the ***Retention control***, which is configured in the cabinet itself, a Retention processing scheduler must also be setup.

Note:
For more information on how to setup Retention Control, see Retention Processing.

For this type of scheduler, only the ***General settings*** must be defined.

Note:
For more information, see Scheduler General Settings.

Scheduler: Container Storage*

Containers that are defined in the storage pools and the storage location can be filled up using this scheduler. The data of the storage pools are stored compressed in a Container to provide a comfortable backup. By using container the backup is more comfortable because of the compression of the data and therefore the increase of the performance.

When this scheduler is run, the data from the data path (standard: filedirector.data) is written to the target directory of the container. Data stored in mirrored storage directories are not put into a container. When a document is changed, the revision will be stored to the original storage location (and with a corresponding configuration mirrored). During the next run of the container scheduler the data will be written to the container.

Enter a describing text in the dialog window which will be displayed in the list of schedulers. When a scheduler is activated the backup to the predefined Container will run to the stated intervals.

See the *Scheduler General Settings* for the basic configuration.

Settings

In the ***Settings*** tab the Cabinet can be selected and conditions applied for the documents to be saved to the Container.

All, selected or single Document Types can be selected, and the documents to be saved to the Container can be filtered by applying a field value condition. All the Cabinet fields are available, as well as the ***Document Created On*** and ***Document Last Modified On*** fields.

Scheduler: Document Replication*

This scheduler starts the replication of data on a FileDirector Server located on the other site. In order to do so, the replication licence has to be activated on the server starting the scheduler and the connection setting of the Cabinet(s) to be replicated has to be set to ***online*** (*see Configure Cabinet for replication*).

Enter a description in the dialog window which will be displayed in the list of schedulers. When a scheduler is activated the backup to the predefined Container will run to the stated intervals.

See the *Scheduler General Settings* for the basic configuration..

Scheduler: Cloud Storage Container*

A ***Microsoft Azure Blob Storage*** is necessary for the use of the Cloud Storage Container scheduler and, in addition, an optional FileDirector Container licence is required.

The connection to the storage location is set up per cabinet within ***Storage pools*** ⇨ ***Storage location***.

> *Note:*
> *For more information see* Configuration: Type Azure (Microsoft Azure Blob Storage)

By using a Microsoft Azure Blob Storage the backup is more comfortable because all data stored in Microsoft Azure is being backed up automatically, according to the selected Microsoft Azure plan.

When this scheduler is run, the data from the data path (default: filedirector.data) is written to the target directory of the Microsoft Azure Blob Storage. Data stored in mirrored storage directories is not being uploaded to a Blob Storage location.

Enter a describing text in the dialog window which will be displayed in the list of schedulers. When a scheduler is activated the transfer to the predefined Microsoft Azure Blob Storage location will run to the stated intervals.

See the *Scheduler General Settings* for the basic configuration.

Scheduler: File Import

This scheduler performs an automatic file import with or without automatic Forms recognition/OCR. A description is entered in the scheduler configuration window which is later displayed in the list of schedulers. Enable the scheduler for starting. Configure a time interval and a start date/time for the scheduler to be active. Each day of the week can be selected individually for scheduler activity.

See the *Scheduler General Settings* for the basic configuration.

> *Note:*
> *If files are to be imported which are already present in the directory, they are only imported after this event occurred, that means if a new file is copied to the directory. In this case the scheduler can also be started manually in FileDirector Enterprise Manager.*

Cabinet and Document Type

Choose the Cabinet and the Document Type where the documents will be saved to. When you choose the Cabinet, the Document Types of this Cabinet will be selectable as target for the file import.

Import directory

In the tab File import a dialog will be opened where you can configure the import directory. The user fd-server must have appropriate rights to access this folder, as the server retrieves the data with this user.

> *Note:*
> *Please note that no other program (e.g. a virus scanner) should be allowed to have access during an import process. If so, errors may occur during import due to blocked files.*
> *Also the temporary folder \Windows\temp\FileDirector\Server\Import should not be accessed by other programs.*

Use OCR and form recognition

If OCR forms are defined for the data to be imported, the documents can automatically be indexed in the background. Make sure that the form recognition is licensed. The configuration of the forms should be scrutinised before an automatic import is started. See the *OCR chapter* for information on configuring forms reading.

Full forms recognition

If all forms should automatically be recognised and sorted to the defined Document Types, the option ***full form recognition*** must be used.

Document Type limited form recognition

If multiple forms are defined for the Document Type which is set in the field ***Document Type***, only these forms are used.

No form recognition - Always use this form

If only a special type of documents has to be indexed, a clearly defined form can be used.

Single page mode

When you use this option for importing, each file in a folder is read and imported as a single page document. Multipage TIFF files are split up and imported as single page documents. By default a multipage TIFF file is imported as a multipage document.

The settings of the OCR recognition of following and last page are not used for files in subfolders (e.g.: VNP), because VNP automatically creates a new subfolder per document.

Settings for following and last pages are only taken into account for multi-tiff-files.

> *Important information for the data import*
> *In the default setting single tiff files are saved as one document. If these tiff files are saved in a subfolder, they are treated as a multipage document.*
> *A multi-tiff file is imported as multipage document in the default setting.*
> *The settings in the form recognition for following- and end pages are not applied to documents in subfolders (e.g. VNP), because in the normal case here is one document saved per subfolder. The following- and end pages configuration is only considered for the import of a multipage file.*

Split PDF and OCR

When you use this option for importing, each PDF file is converted into a document, consisting of TIFF/JPEG.files. This option cannot be combined with the ***Single page mode*** option above. When this option is combined with ***Use OCR and form recognition***, an internal routine uses the single page mode automatically.

Split file information

File, path or both information can be used for indexing documents when imported through an import scheduler.

Example

Files which have been named with the index data as filename, the name can be split and imported as an index. The precondition is to have field separators in the filename between the indexes.

In the import path are tiff files with the following names:

0001_Schneider.tif

0002_Schmitz.tif

As ***field separator*** the underscore is configured "_". The number of fields counts 2.

Value 1 is mapped to the field, which will be filled with the content 0001, e.g. customer number- Value 2 is mapped to the name.

If Include path in filename is activated, the path will be taken into consideration during the split process.

Set field to value

Here fields can be set to a fixed value. This setting is identical to the setting in the scan profile. With this option you can set, for example, a state field or a condition field for the process management.

Overlay

An overlay is an image which is put behind a text. If e.g. via the VNP only the text is put into a tiff-file, you can add a letterhead with an overlay for archiving. This overlay is being merged with the imported Tiff-file and is stored in FileDirector.

Select the files and add them to the list to add an overlay. The stored files should have been scanned with the same resolution as the files imported. If more than one overlay is loaded into the list, they will be available in this Cabinet as option in the next File Import Scheduler.

Using the down arrow icon to select the overlay which is to be stored from the list. If you want to delete the stored file, please use the ***X*** button.

Force creation of black-and-white pages

When a coloured overlay is stored, you can merge and save this file as a black-and-white image with the imported data. The advantage is that the data volume of the images is reduced markedly.

Preview of the merged image

Using this option, you can see how the master suits the final data. For testing purposes, you can select a file that is to be imported later. This might be e.g. a file created with the VNP for testing.

> *Note:*
> *Please keep in mind that now the conversion of the formats and the merging of the images are being tested. A major deviation of the dpi-values of the overlay and the final data might mean a major calculating effort and a loss in quality. The amount of RAM can increase extensively as well.*

Errors folder

If documents cannot be recognised during file import, they are moved to a subdirectory ***Errors*** and the file name is amended with a date/time stamp.

More information concerning errors during importing can be found in audit trail log of FileDirector Enterprise Manager or in the application log of Windows event viewer.

Scheduler: Index Import

This scheduler is able to import index data to an existing document automatically. For example client information from a client list (comma separated text file) can automatically be imported to FileDirector index, if part of the client information is already indexed.

See the *Scheduler General Settings* for the basic configuration.

Index Import settings

In the ***Index Import*** tab the import directory can be specified. The ***fd-server*** user account must have access to this directory, because schedulers are performed automatically by the server.

Below is an example of index data without control characters:

201,Smith,Walter

202,Kern,Richard

203,Tiger,Tina

Select the Cabinet and Document Type to be used for index import.

Configure the field separator (in this case comma) and the number of fields, so that the index file can be processed correctly.

If the Document Type contains a field already indexed (for example Customer), this field is defined as the Connect value. using this connect value the other fields are assigned to the index fields.

If multiple fields are defined as connection fields, they all have to match in order to add data from the index file.

> *Note:*
> *Multiple connection fields can only be setup when using an index file. The option is unavailable when importing from an ODBC source.*

During the import customer surname and first name are imported according to the customer number already specified.

Some software applications create index files with control characters. A possible example could be as follows:

L001-101,Smith,Walter

L002-202,Kern,Richard

L003-203,Tiger,Tina

In order to process this index format, any control characters at the beginning and end of an index entry must be ignored. This can be achieved by using ***Left trim*** and ***Right trim*** of single characters. In the example above, 'L00x-' needs to be removed, so ***Left Trim*** would be set to ***5.***

Index Import via ODBC

To perform a direct index import from an ODBC source, the ODBC source must be configured first. An ODBC source could, for example be a table from a different database.

See *ODBC Links*

Select the Cabinet and Document Type from where the index data should be imported. If unique index information is already stored, further index can be read from the ODBC source.

For example if documents are already stored with unique client number, the relevant address data can be read directly from an ODBC source, which contains this information.

Connect value with --Document ID --

Each document gets an individual document-ID. This ID is saved in the database of the Cabinet in the table FD_Documents.

With this ID every document can be identified. If imports are controlled from other systems it can be helpful to connect with this ID the index data for the unique indexing.

If the document ID's are read from the database by another system and are made available for the index import, the ID can be configured as a connection field in the index import scheduler.

Create documents with 0 pages via index import

If the connection field in FileDirector is not found, you can set that index records are created with 0 pages by selecting ***Create 0 page documents***.

Additionally, a key in the web.config of FileDirector Server is needed:

<add key="FDServer.IndexImportCreate0PageDocs" value = „1" />

Conditions

Conditions can be used to specify the rows of index data source imported more detailed.

Therefore, you can set up one or more conditions that are checked, before the values of a row of your source is imported to a FileDirector document.

For defining a condition column, operator and value must be set.

Operators could be:

*	
=	< >
>	<
>=	<=

In case you define several conditions you can either use an AND, OR, "=" or "< >" link for the set conditions.

Note:
The set condition(s) must match for a successful import of index data.

Deleting double documents during index import

If documents are imported multiple times you may have identical documents with the same index data. To delete these double entries from the data folder ***filedirector.data*** the following entry can be set in the web.config:

<add key="FDServer.DeleteDuplicateDocuments" value="D:\path\" />

Note:
The path must exist on the same local drive as the Inetpub folder of the Filedirector.
The data is moved in the configured folder and completely deleted from the storage pool and the database.

Move Index file to the folder save

If the Index file is not to be read again after an import, it can be automatically moved to a folder which is named ***save***. This folder is automatically created as subfolder \save in the path where the index file is imported. To move the index file after the import the following switch needs to be set in the web.config of the server:

<add key="FDServer.ImportSourceCopyTo" value="1" />

Scheduler: Index and File Import

This scheduler is able to import complete documents which are stored as pages/files and an additional index file. The functionality of this scheduler is comparable with the manual import of the Windows Client, but the scheduler can perform this task at defined times automatically.

A describing text can be entered, which is later displayed in the list of configured schedulers. If the scheduler is activated, it will start after the configured interval.

See the *Scheduler General Settings* for the basic configuration.

In the ***Index- and File-Import*** tab a dialogue is opened where the import directory can be specified. The account ***fd-server*** must have sufficient rights on this directory, because FileDirector server accesses this directory.

Below is an example of Index- and File-Import data without control characters:

201,Smith,Walter,000001.tif

202,Kern,Richard,000002.tif

203,Tiger,Tina,000003.tif

In order to be imported the listed documents (in this case 000001.tif) must be stored in the same directory where this index file is stored.

Select the target Cabinet and target Document Type to which the data have to be stored. Define the field separator (here: comma) and specify the number of index fields correctly so that the index file can be processed.

As in all other schedulers the settings should be specified in Enterprise Manager on the server itself. Select Cabinet and Document Type to which the data should be imported. With this scheduler new documents are created and each of them is stored with a new unique DocGuID.

> *Note:*
> *If documents should be appended to already existing documents, the index used must be unique (seeing in properties of the relevant index field).*

The ***Left trim*** and ***Right trim*** options can be used to remove special control characters like field delimiter characters. Some external systems create index files including those control characters, which must be filtered out during import.

The Index- and File import scheduler can also be used in connection with ODBC configurations.

Scheduler: COLD Import*

This scheduler enables automatic COLD import of spool data according to the import templates configured. In defined time intervals the system will process and import the data stored in the defined directories according to the COLD template settings specified for the relevant directory. Index data are imported directly from the spool files. The text pages are stored together with the index data in the relevant Document Type.

A description is entered in the scheduler configuration window which is later displayed in the list of schedulers. For configuration of a COLD import template See *Setup COLD Import template.*

See the *Scheduler General Settings* for the basic configuration.

Scheduler: XML Import

This scheduler allows the import of data held in XML files, where the index data is stored as tags.

A name and describing text is entered in the scheduler configuration window, which is displayed in the scheduler list. If the XML scheduler is activated, it will start on the defined schedules.

See the General Settings for Schedulers for the basic configuration

In the ***XML Import*** tab the import directory must be specified. Account fd-server must have access rights to this directory, because the XML import is executed by the server. This directory contains the XML file, which contains the tags to be imported and configured in the bottom part of this window.

Example of an XML file

```
<?xml-stylesheet type='text/xsl' href='edj_display.xsl'?>
<?xml version="1.0" encoding="utf-8" ?>

<EDI_XML>
<INVOICE>
<INVOICE_HEADER>
<INVOICE_TYPE>INV</INVOICE_TYPE>
<INVOICE_NUMBER>2000004958</INVOICE_NUMBER>
<INVOICE_DATE>08 Apr 2005</INVOICE_DATE>
</INVOICE_HEADER>
</INVOICE>
</EDI_XML>
```

The listed <Tags> are read from the XML file and entered into the index fields linked with the tags. In order to select index fields, a Cabinet and a Document Type must be selected.

In order to assign a layout to an XML file, it is linked to an XSL file. The header of the XML-file contains a link to the respective XSL file. In order to import data with a defined layout, the respective XSL file can be selected as an overlay. Once an overlay is selected, it is automatically listed. Using the ***Overlay selection*** button, the overlays can be selected from a list. The ***X*** button will remove an overlay from the list.

When configuration is completed, data can be imported from the respective directory. After being successfully imported, files are deleted from the import directory.

After an import an exclamation mark in a yellow triangle appears next to the import directory. This denotes that the listed file has been deleted from the import directory. As long as there is no new file stored in this directory, no configuration changes can be made to the import settings, because a file with <Tags> to be read must be present to change this setup.

Scheduler: FileDirector XML/File Import

Documents and their associated index data can be imported, where the index data and document name is stored as tags in an XML file.

A description is entered in the scheduler configuration window which is the scheduler name, as shown in the list of schedulers.

See the *Scheduler General Settings* for the basic configuration.

Scheduler: Retrieval Import

Using this scheduler you are able to import data from Cabinets that have been created by the Retrieval Export in the WinClient (Please read the chapter ***Create Retrieval CD/DVD*** in the FileDirector WinClient user manual).

The Retrieval Export is for creating a CD or DVD holding the data together with the Retrieval Client, so that it can be read without a FileDirector installation. The data can be imported to an existing FileDirector Server by using the Retrieval Import. Therefore it is not necessary to license the exported data with a ticker.

In the dialog window a description text is entered which appears later in the list of the schedulers. If a scheduler is activated, the data is checked into the configured intervals.

See the General Settings for Schedulers for the basic configuration.

Keep in mind that the log file is saved with a new time stamp in the configured time interval and the log folder should be sometimes manually purged. It is not recommended to configure the time in too short intervals.

Import file

When performing the export command in the WinClient a schema file ***Schemes_CabID.XML*** is created (***CabID*** is the corresponding Cabinet). This file contains the required information for a file import. You must ensure that the user ***fd-server*** is allowed to access this file and the export file to be able to import this schema file.

Cabinet

Select the target Cabinet. Fields and Document Types with the same name are allocated immediately.

Document Types/ Index fields

The Document Types and index fields that can be read from the file are shown in the array ***Source***. The Document Types and fields that are identified from the selected Cabinet are shown in the array ***Target***.

If fields cannot be mapped by the field name automatically, a red exclamation mark will be shown instead of a green check. Several other hints are shown in this place when the allocation is corrupt – such as when it is impossible to fill in a field because of different length of fields.

In the target area, precisely in the selection of Cabinet fields and Document Types, you can change or allocate the fields manually.

Scheduler: MailStore

To import *.eml files from a MailStore path a scheduler must be configured in Enterprise Manager.

> *Note:*
> *A licence option must be present in FileDirector when MailStore scheduler is used.*

With this scheduler *.xml files and *.eml files can be imported and the info data can be stored in the relevant index fields.

A description can be entered to describe the scheduler. This text appears in the list of started schedulers. When the scheduler is enabled, MailStore starts importing data to the specified intervals.

See the *Scheduler General Settings* for the basic configuration.

MailStore Settings

The scheduler will automatically assign the contents of extended fields such as ***E-Mail from, E-Mail To, E-mail subject***, etc. to the corresponding e-mail information.

The ***BCC*** field is not available in MailStore 2007-2010.

Import directory

Input the folder in which the mails are saved by the MailStore tool.

Reject folder

Input the folder in which the mails which cannot be imported are moved to.

Cabinet

To configure the target settings for the MailStore Scheduler, specify the Cabinet to which the e-mails are to be imported to.

Condition

For the import of mails, you can configure conditions. Each condition can be mapped to a different target document type. Condition can be added by ***Add*** and then be linked to a target document type below. The following example the following condition is defined:

If the word ***Code*** is part of the mail Subject, the mail is saved to the specified Document Type.

The filenames of the attachments can also be allocated to an index field.

Definition of a condition

For the import of mails, you can configure different conditions, which define the allocation to the Document Type. In

Multiple conditions can be configured, and can be ***AND*** or ***OR*** combined, depending on the selected setting.

Document Type

This sets the Document Type to which the mail will be stored to. The mail must match the import condition.

Target field

This option is similar to ***Set field to value***. The entered value is set to the specified field for each imported document.

Convert to Msg

This option converts imported mails to .msg format. The setting is global for the Scheduler and all defined conditions within a MailStore scheduler.

Set fields

In the section ***E-mail field*** the fields of an e-mail, such as ***Mailfrom_Address*** and ***RcptTo_Address*** are listed. These fields can be allocated to the appropriate fields of the Document Type. Please ensure that the field lengths in the Document Types are long enough for the information being imported, such as multiple e-mail addresses which are written in a row, separated by a semicolon.

To fill special fields you can create allocations. The colon in the example can be defined as field separator. The number following the colon is to be written in the field ***RcptTo_Address*** of the Document Type. Accordingly the field is mapped.

If a field is split with a field separator (see example) an email-field can be assigned multiple times to an index field.

Field separator

The field separator enabled the separation of a line to indexes, which are allocated to the fields. In the example the colon is set as a field separator. So index 2 is the index number from the defined subject line.

Subject: Code:123456

Index: 1 : 2

Code = field value
: = field separator
123456 = content of the index 2, which is mapped to the field ***RcptTo_Address***

If additional text is written after the number, a further colon must be set in between to separate the text. If there is not any further separator, the text would also be written in the field 2.

A field separator is only necessary, when the content of an email field is to be split into multiple index fields.

Test settings

To test the settings an xml file can be loaded manually and verify the information that has already been written in the import folder. A result mask with all field contents and the recognised target Document Type appears. So the configuration can be controlled with all allocated fields.

If the files are imported, they are deleted from the folder.

Should an error occur during the import, a subfolder called ***errors*** will be created and the files are transferred to it with a time stamp. This can happen if, for example, the numbers of characters of the target fields are not enough for the field content. Make sure that the account ***fd-server*** has sufficient rights to collect the files on the import folder. For a complete import the user must have rights for reading, moving and deleting files.

If no condition is defined for an email, it is not imported and it stays in the import path. To import these emails an adequate condition must be defined. During the next start of the scheduler these mails are imported then.

Scheduler: Mailbox Archiver

The Mailbox Archiver scheduler will import emails and their attachments directly into FileDirector from Microsoft Exchange mail accounts. Groups of users, and individual user accounts can be selected.

Emails held in each user accounts Inbox and Sent Items folders can be imported, as well as other specified folders. Other mail accounts, not related to FileDirector user accounts can also be imported.

When the scheduler first runs, if no email Document Types and fields have been configured within the Cabinet, these will be automatically created, and set for email storage. The email fields created in the Document Types will be:

Mails in	Mails out
Email-From	Email-From
Email-To	Email-To
Email-Cc	Email-Cc
Email-Subject	Email-Bcc
Email-Received on	Email-Subject
	Email-Sent on

If the above fields already exist in the Cabinet, the existing fields, in their respective Document Types will be used.

See the *Scheduler General Settings* for the basic configuration.

Exchange Web Services

The Mailbox Archiver uses Microsoft Exchange Web Services to access the mailboxes of the user accounts in Exchange 2007 onwards.

The default URL for EWS is ***https://mail.domain.com/ews/exchange.asmx***

If this address is not functional, the correct URL can be retrieved in a number of ways:

1. Use the Mail Archiver Auto discover, *described below*.
2. Use the PowerShell command on the Exchange Server
    a. Open Powershell
    b. Type ***Get-WebServicesVirtualDirectory \|Select name, *url* \| fl***
3. Use the Outlook Auto Discovery feature
    a. Right click on the Outlook icon in the system tray, while holding down the Ctrl key (Outlook 2007 onwards)
    b. Select Test email Auto Configuration
    c. Enter a valid email address for the Exchange Server
    d. Ensure that ***Use Auto Discover*** is the only checkbox selected
    e. Click on the ***Test*** button
    f. The line starting ***Availability Service URL*** contains the URL

User and Group Names

Groups of users and individual user accounts can be selected for mail archiving. Active directory, Windows and built-in FileDirector accounts can be added, as long as they have a valid email address that is associated with the selected Exchange server.

To select the accounts, press the ***Add*** button, and the users and groups list will be displayed. To select a group of user, double click on it, and it will be added to the selected accounts list. Once all the users and groups have been selected, press the ***OK*** button. The accounts will then be displayed in the accounts box.

To remove a group or user account from the current selection, click on the account and press the ***Remove*** button.

Cabinet

The Cabinet that the emails will be stored to can be selected from those shown in the drop down list.

The Document Types for the emails are not selected, as these will be automatically set.

User Name and Password

The account and password for the Exchange service account must be entered. This account should have been granted the Impersonation role in Microsoft Exchange to enable it to access other user's mailboxes.

For more information on the Impersonation role and its configuration, please see the following Microsoft articles:

https://msdn.microsoft.com/en-us/library/office/dn722376(v=exchg.150).aspx#bk_addresources

https://technet.microsoft.com/en-us/library/dd776119(v=exchg.150).aspx

Exchange Server URL

The URL for the Exchange server should be entered. Please see the *Exchange Web Services* section above for information on how to determine the URL.

Auto Discover



You may be able to auto discover to find the Exchange URL by using the Auto Discover URL tool. Press the button and then enter an email address that exists on the Exchange server. The URL may then be returned.

If this option does not return the URL, please use one of the options in the *Exchange Web Services* section above.

Start Import On

Use the dropdown calendar to select the date from which emails will be imported from. All emails in the selected mailbox folders either sent or received on and after the selected date will be imported.

Restart Import Process

By default, the scheduler will import emails from the date and time of the last import. Only new emails will be imported.

When this option is set, the scheduler, when next run, will import all emails from the selected date in the ***Start Import On*** calendar.

Once the scheduler has run, this option will then be reset, so that only new emails are once again imported.

Additional Mailboxes

Mailboxes that are not associated with user accounts can also be imported by adding them to the Additional Mailboxes list.

Enter the email address of the account to be imported in to the field. For multiple email addresses, enter each one on a new line.

Mailboxes

The ***Inbox*** and ***Sent Items*** folders can be selected individually for importing. When ticked, the mailbox will be imported.

AutoCapture

When the checkbox ***AutoCapture*** is selected, all incoming e-mails with ***attachments in PDF*** format are processed by FileDirector AutoCapture.

When only the checkbox AutoCapture is selected, FileDirector only picks the attached PDF file, but does not store the e-mail itself in the document type, used for incoming e-mails.

Both, e-mails and attachments are stored when ***AutoCapture*** and ***Mailboxes*** is selected.

Now FileDirector stores the e-mail in the document type, used for incoming e-mails and passes the PDF attachments to the FileDirector AutoCapture routines.

> *Note:*
> *FileDirector AutoCapture is an optional module.*

Replace Attachments

When this checkbox is selected, all e-mail attachments are stored only in FileDirector ECM system and no longer in the Microsoft Exchange storage location and the FileDirector side. FileDirector stores the attachments and replaces them with an FDCF-Link in the Microsoft Exchange server.

When these mails are opened in Microsoft Outlook, the user can select the FDCF-Link and the stored attachment is shown in FileDirector WinClient.

Additional Folders

Emails that may have been stored to sub folders created with the Inbox folder will be automatically imported to FileDirector. There may be however additional folders that have been created that need to be imported. The names of these can be added here.

Enter the name of the folder to be imported into the field. For multiple folders, enter each one on a new line.

Scheduler: Mailbox Archiver IMAP

The Mailbox Archiver scheduler will import emails and their attachments directly into FileDirector from IMAP mail accounts.

Emails held in each accounts Inbox and Sent Items folders can be imported, as well as other specified folders.

When the scheduler first runs, if no email Document Types and fields have been configured within the Cabinet, these will be automatically created, and set for email storage.

The email fields created in the Document Types will be:

Mails in	Mails out
Email-From	Email-From
Email-To	Email-To
Email-Cc	Email-Cc
Email-Subject	Email-Bcc
Email-Received on	Email-Subject
	Email-Sent on

If the above fields already exist in the Cabinet, the existing fields, in their respective Document Types will be used.

See the *Scheduler General Settings* for the basic configuration.

Cabinet

The Cabinet that the emails will be stored to can be selected from those shown in the drop down list.

The Document Types for the emails are not selected, as these will be automatically set.

Mail Server

Define the URL of the mail server.

Port

Define the port used by the IMAP mail server, defined above.

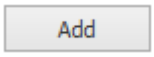
> *Note:*
> *The default settings of IMAP servers are* **Port 143** *when using* **unencrypted transmission** *and* **Port 993** *when using* **encrypted transmission**.

Use SSL

Provided that the IMAP mail server, specified above, uses SSL connections.

> *Note:*
> *In default, IMAP server use* **Port 993** *for* **encrypted transmission**. *The port used by the specified IMAP server, must be filled in above.*

Accounts

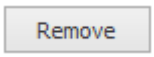


One or multiple inboxes can be defined for this scheduler configuration, using ***Add***.



Provided that the list does already contain email accounts, existing accounts can be edited.

After an account is selected from the list, the button ***Edit*** opens a corresponding pop-up windows.



The button allows to ***Remove*** selected accounts from the list.

Removed accounts are no longer taken into account by the scheduler.

Credentials

After the selection of either ***Add*** or ***Edit***, a pop-up window is displayed, where a new account and its corresponding credentials can be added or existing credentials can be altered.

Within the section ***Accounts***, the email addresses of one or multiple IMAP accounts are added to this scheduler.

The section ***Authentication mode*** provides ***Password*** or ***Google OAuth***.

Password

Enter the corresponding password of the IMAP account.

Google OAuth

Using this option, the button ***Retrieve*** requests a token from the Google authentication service. An existing token can be deleted through the button ***Delete*** and, if necessary, a new one can be re-created through ***Retrieve***.

Start Import On

Use the dropdown calendar to select the date from which emails will be imported from. All emails in the selected mailbox folders either sent or received on and after the selected date will be imported.

Restart Import Process

By default, the scheduler will import emails from the date and time of the last import. Only new emails will be imported.

When this option is set, the scheduler, when next run, will import all emails from the selected date in the ***Start Import On*** calendar.

Once the scheduler has run, this option will then be reset, so that only new emails are once again imported.

Folders

The ***Inbox*** and ***Sent Items*** folders can be selected individually for importing. When ticked, the accounts will be imported.

Additional Folders

In some cases, inboxes contain several sub-folders, which are also to be imported. These folders can be added here.

> *Note:*
> *If no additional folders are added, FileDirector will only import mails from the inbox without mails stored in sub-folders.*

Enter the corresponding names directly into the window.

Scripts

Overview



FileDirector can provide individually designed scripts to users. These scripts can be run in the Windows Client by users previously defined in Enterprise Manager.

Configuration

Selecting the ***New*** tool with the Scripts icon selected a dialog opens to create a new defined script. You can set individual security settings for each script.

Double-clicking on the Scripts icon will display the list of current scripts.

Name

This is the name of the script shown in the Windows Client.

Description

Enter a description which makes it easier to administrate the different scripts.

Script

Enter the script itself as you would do it in a SQL query window.

Table names

Define the names for the tables passed back from SQL. The names can be separated by a semi colon. The first entry names the first table and so on.

Parameters

Set parameters for the script entered above. These are specified within { }

> *Note:*
> *Using the test option the parameters aren't taken into account and the corresponding values must be entered into the script above to provide a proper, working SQL script.*

Execute

Execute runs the script on the database server, using the ***fd-server*** account.

Note:
The security settings of scripts are extremely important because the scripts are run under the fd-server account on database server. This account has normally administrative rights.

Client Configuration

Overview



In the client configuration the settings and menus of Enterprise Manager for the clients can be predefined. Thus it can be ensured, that members of the same group use the same settings.

Double-clicking on the ***Client Configuration*** icon will display the current configurations. Selecting the ***Client Configuration*** icon and choosing the ***New*** tool will create a new configuration.

General

In the General settings a name and description for the client configuration is entered. With Add the users and groups using this layout can be selected. All users of the selected groups will use the stored layout when starting the Windows Client.

Note:
If a user is member of several groups, the first layout found is used. Please be aware of possible unique assignments of groups and layouts.

Configuration

The general settings available in the Windows Client can be preconfigured for groups of users. A full description of each setting is available in the ***WinClient User Guide***.

Allow changes on client

With this option selected, the settings will be available to a user in the WinClient.

Allow to work offline

The option determines whether the Windows Client can be used when not connected to a FileDirector server. With it you can prevent or allow tasks being carried out while offline.

Layout

The Layout settings of the menu can be configured. The menu settings can be configured as in any other Windows application. Each toolbar has a pull down menu, which is opened by clicking to the relevant arrow. Complete toolbars can be switched on and off.

Allow changes on client

If this option is not checked, the user cannot change the layout.

If it is checked, the settings menu can be accessed directly in the Windows Client by double clicking the right mouse button.

Allow quick changes on client

The quick layout change displays the arrows between the on and off icons for the users of this layout. This makes adjustments easier.

The layout, shown in the tab ***Layout***, depends on the layout selected in tab ***Layout*** under the main tab ***Configuration***.

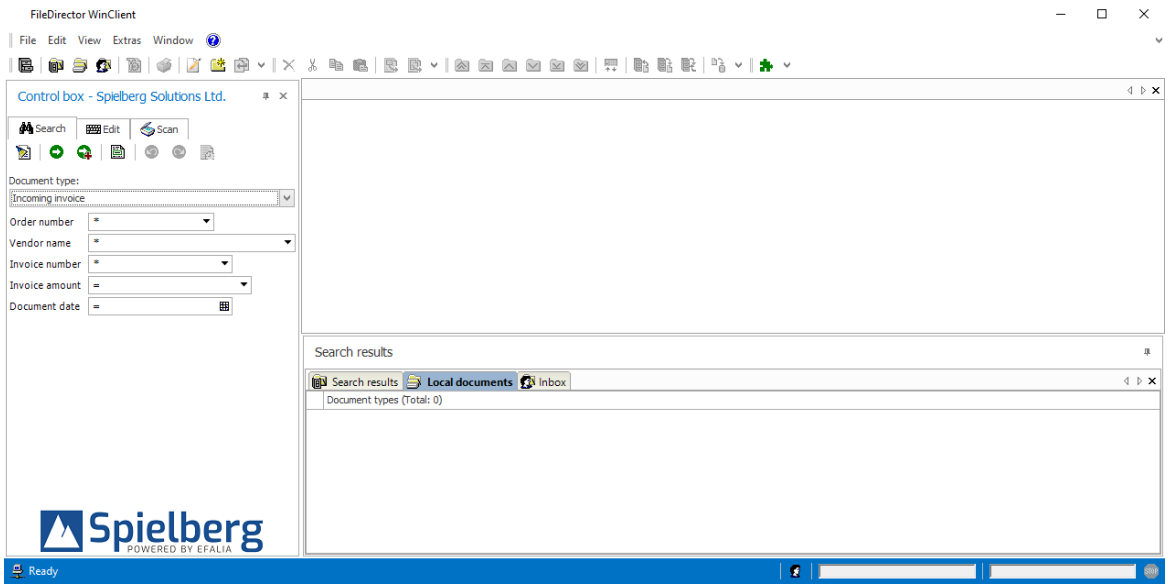
Allowed Layouts

This option allows to define a centrally-specified FileDirector WinClient layout.

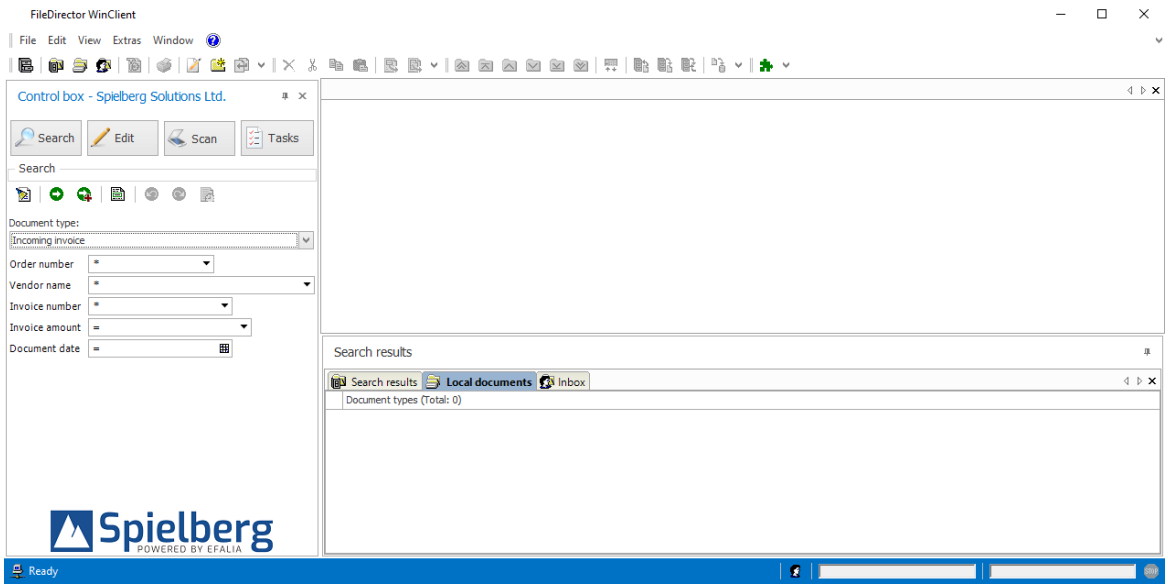
The drop-down menu shows a selection of 3 layouts. The menu allows either a selection of all available layouts, a free combination of two styles or the definition of a single layout.

> *Note:*
> *A layout, selected in* **Layout** *under the main tab* **Configuration**, *cannot be deselected in the drop-down menu.*

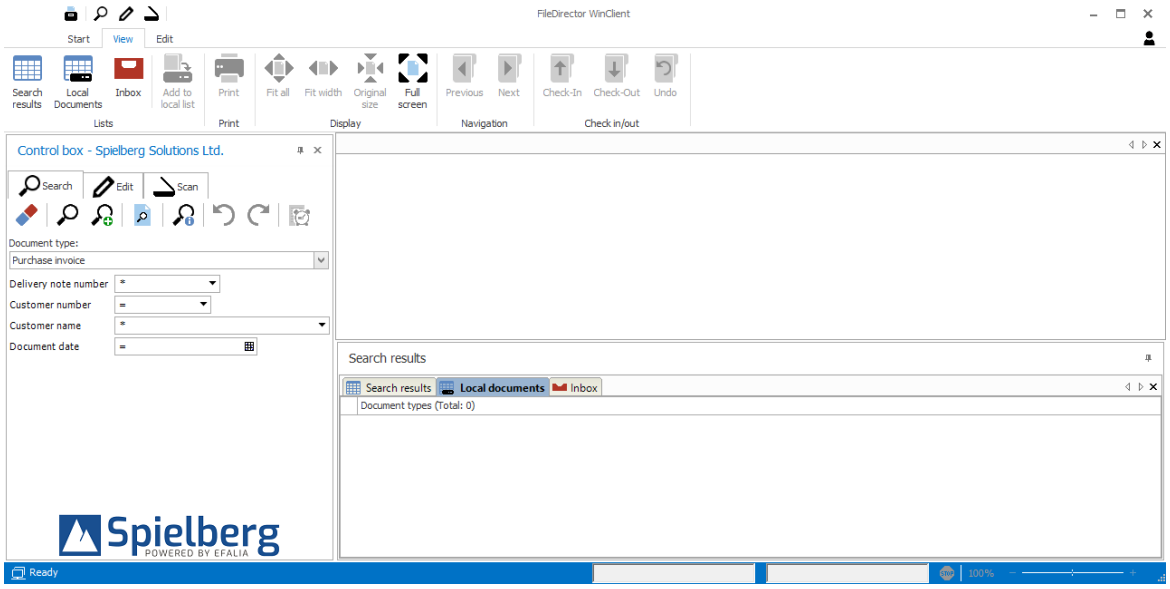
Style 1



Style 2



Style 3

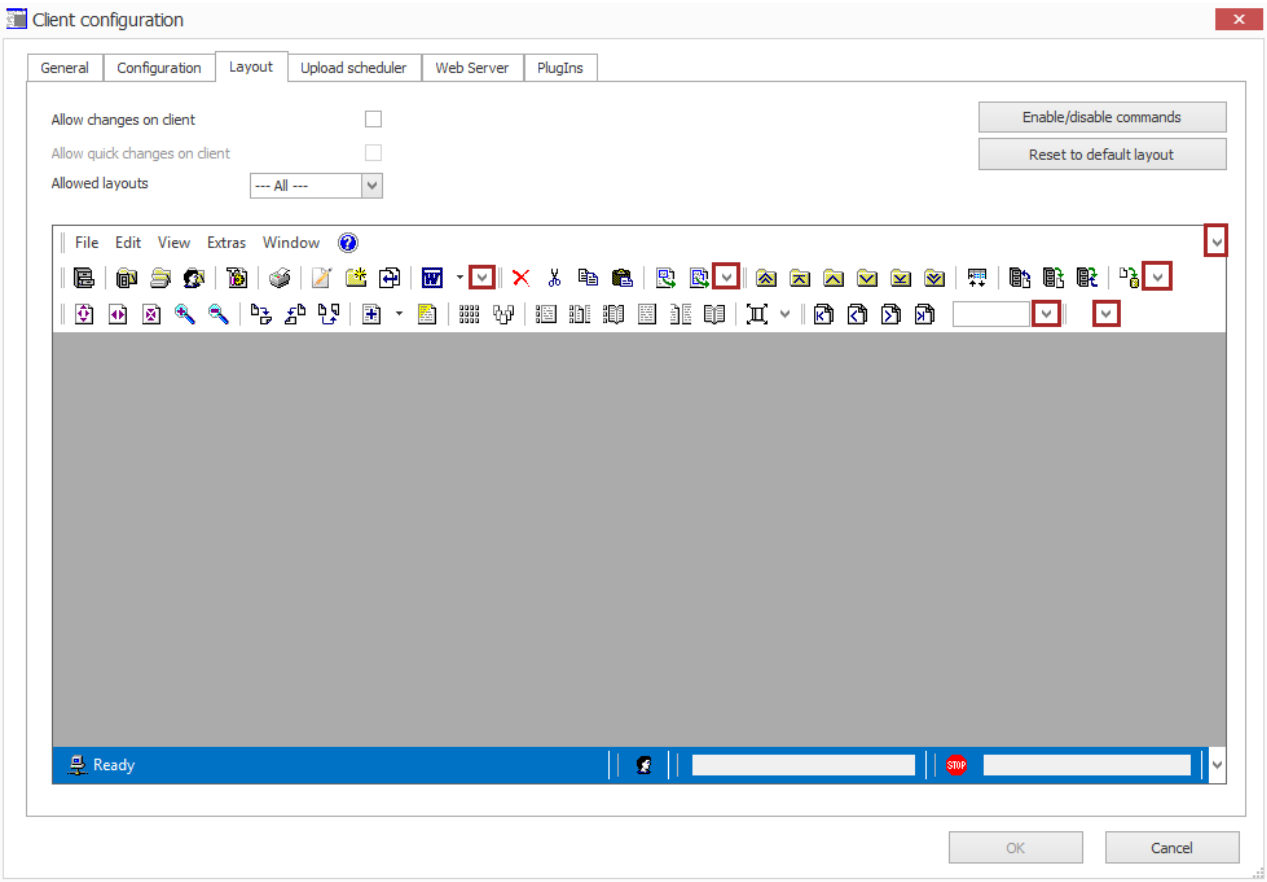


Enable/Disable commands

This option allows switching off commands for a client from the menu bar and the control box. With this method commands can be restricted although the client is allowed to perform changes.

Customised configurations (Style 1 and Style 2)

Provided that FileDirector WinClient is run in ***Style 1*** or ***Style 2***, a separat window ***Customization*** allows additional settings.



Click ⌄, marked red on the screenshot above and select ***Add or Remove Buttons*** and ***Customise*** to open the ***Customization*** window.

Toolbars

Within the tab ***Toolbars***, different toolbars can be selected. The following categories are available:

Style 1

File	Navigate Documents
Edit	Main Menu
View	Status
Navigate Pages	Plug-ins

Style 2

File	Main Menu
Edit	Status
Navigate Documents	Plug-ins

Commands

Within the tab ***Commands***, different icons and commands can be added to one of the existing default toolbars or an addional userdefined toolbar via drag&drop.

> *Note:*
> *Additional toolbars can be added by selecting* **New** *in Toolbars tab.*

Options

Within the tab ***Options*** of customised configurations, different usability settings for the menus can be made. For example, menus can be set to ***Always show full menu*** or only show it fully after short delay. The ***menu animations*** can be defined as well.

Always show full menus

All menus are showing immediately full content when opened.

Show full menus after a short delay

Provided that the option, mentioned above, is not selected, the option ***Always show full menus*** causes the menu to unfold fully after a short delay.

Large icons

Large icons changes the size of all icons of the menubar. These setting can improve the perceptibility.

Example of large icons



Example of standard icons



Show ScreenTips on toolbars

ScreenTips can be a helpful information which appears when the mouse cursor hovers an icon. In addition.

Show shortcut keys in ScreenTips

This will add any keyboard shortcuts configured for the icon command to the ScreenTips.

Menu animations

If a toolbar icon is configured to display a menu, the control determines how the menu appears on the screen. Current options are: ***System***, ***None***, ***Slide***, ***Fade***, ***Unfold***, ***Random*** and ***Default.***

Remove a command from menues

If a command should be deleted from a menu, open the customization window and drag the icon from the toolbar to an empty area on screen.

Upload Scheduler

The Upload scheduler is used to check in new or checked-out documents automatically. In client configuration the settings are stored for the relevant groups and accounts. Contents of index fields can be used as conditions which must be fulfilled for an automatic Check-In for the specified groups and accounts.

Requirements

The Windows Client must be active and logged on with a correct account when the automatic Check-In time is reached

Setup condition for automatic Check-In

The settings for Cabinet and Document Type must be specified. Only documents for this Cabinet and Document Type are processed during automatic Check-In. The conditions for automatic Check-In are then defined by specifying index fields.

Index field

The field must contain information, which must follow the following conditions:

Comparison	Description
*	If the character string is part of the index information.
=	Exactly this value.
>	Bigger than field value.
>=	Equal to or bigger than field value.
<	Smaller than field value.
=()	If field is empty.
<>()	If field is not empty.

Field value

This value defines the field content. A field must contain a specified value to be checked in by the upload scheduler at the specified time.

If several conditions for automatic Check-In are specified, they are processed one after the other and are not linked logically. Ensure that the conditions specified are logically structured and do not list contra dictionary settings.

Configuration of Check-In time

The time for Check-In has to be set to a specific time of the day.

If an upload scheduler is defined for an account, it is displayed as an icon in the tray of the client PC when the relevant user is logged to the Windows Client. If you position the mouse cursor on the upload scheduler icon, a tip tool appears which displays the specified time for automatic Check-In.

The configured time is the time of the client.

Example

If you set a time of 15:00 on a server in Europe, the upload runs at 15:00 in Europe and delayed to 15:00 local time in the USA.

Note:
If the specified time is changed in Enterprise Manager, the Windows Client needs to be restarted.

WebServer Settings

When data is retrieved using FileDirector WebServer, the basic settings for WebServer can be predefined for the clients. Should the logged in client user not be allowed to change the settings on his own profile, demark the option ***Allow changes on client***.

Allow Changes on Client

Selecting this option will allow the logged in user to modify the settings configured here.

Language

Configure the language that WebServer will use for the user group.

PDF Download

If PDF Download is set, the downloaded documents will be automatically converted to pdf files.

Hitlist Page Size

You can select the number of records displayed in the search results list.

Thumbnails

You can set whether thumbnails of the document pages are displayed or not.

JPEG Quality

The quality of the download image can be set. The higher the value the better the quality.

Index

A Documents index data can be set to be displayed alongside the document images.

Revisions

You can set whether the user is allowed access to document revisions.

PlugIns

PlugIns are additional functionality that can be added to the Windows Client to perform specific tasks that are not included in the main application, and that are not required by every installation, or workstation within an installation. PlugIns can also be developed to make the system more versatile for specific business requirements.

The plugins available to users can be added by selecting ***Add Plugin***, and then typing the name of the Plugin. The name is the folder name that the Plugin is stored in.

Plugins can be removed from the list by highlighting the Plugin, and then selecting ***Remove Plugin***.

Plugins can be enabled or disabled within the configuration by highlighting the Plugin and selecting the ***Enable/disable Plugin*** tick box.

The Plugins settings can be locked, or temporary changes can be allowed by users running the Windows Client, by the ***Allow quick changes on client*** setting. This setting is only active when the ***Allow changes on client*** setting is selected on the ***Layout*** tab.

CodelessConnector

Overview



Using the CodelessConnector a link can be created between FileDirector and any third-party Windows application. The great benefit of the CodelessConnector is to take over data from another application for indexing or searching using a simple keyboard combination without having to resort to large programming time and cost.

Note:
The principle of the CodelessConnector is based on the module name and the ID of the control used. Controls are objects such as buttons, menus or fields within the third-party application. The content of the controls (fields) are read and passed to FileDirector. In this way the passing of information is independent of the application used.

Requirements

The CodelessConnector must be licensed. Each user who needs to use the CodelessConnector requires a licence. The configuration is carried out in FileDirector Enterprise Manager on a workstation where the application to be linked by the CodelessConnector is installed.

Keyboard shortcuts

The keyboard shortcuts are configured by selecting the ***CodelessConnector*** icon and choosing ***Settings***. For each function: ***Search, Edit, Scan and Process***, a combination of the keys CTRL, ALT, SHIFT and a character can be selected. Mouse clicks can also be used as shortcuts (left, middle or right mouse button as single or double click). Please note, that the combinations configured must be unique for each function and must not clash with other shortcuts (also from other applications).

Single or all configured fields of the application can be taken over from the application to FileDirector.

The following functions can be set with shortcuts:

Function	Description
Search Hotkey (Single)	Only the active field is used for search
Search Hotkey (All)	All fields of the application are used for search
Edit Hotkey (Single)	
Edit Hotkey (All)	
Scan Hotkey (Single)	
Scan Hotkey (All)	
Process Hotkey (Single)	
Process Hotkey (All)	

Settings

The following steps must be carried out for configuration:

- Create one or more Codeless connections to fields in FileDirector
- Map the field in a Connector to the field in the third-party application.

To open the *S*ettings window, select ***CodelessConnector*** and choose the ***New*** tool in order to create a new connector, or ***Settings*** to edit an existing connector.

Connector Name

The name of the connector must be entered, and an optional description can also be added.

Link Connector To

The connector must be linked to a field in FileDirector. To do this this, select a target ***Cabinet***, ***Document Type*** and a target ***Field*** into which the content of the field from the source application will be linked to.

An existing ***Process*** can also be selected, where the document found or scanned can be automatically assigned to the selected process.

Clear fields

With this set, the contents of the fields in the WinClient are cleared before new information is added by a shortcut. When not set, the new information is added to the field content already present.

Display document

When selected, a document found by the Connector is displayed immediately in the WinClient.

Link Application field

On the right of the Settings windows are two small crosshair targets. These are used to link the field in the third-party application to FileDirector.

By using the ***target-with white background*** option the linkage of fields with any Windows-application which are using controls is possible. Fields of Java-applications from a browser can be linked.

The CodelessConnector can be configured for applications where the text-needs to be read by OCR, for example, when running a terminal session. Using the ***target with black background*** option you drag the aim over the application and an OCR zone can now be defined. Ensure that the entry of the target window is always at the same place to ensure that the OCR-Zone is able to readout the correct values.

> *Note:*
> *Using this option, OCR is used to recognise the text on the screen. Read errors can occur if, for example, a flashing cursor is acquired or a background colour affects the recognition.*

To link the application, click on the appropriate crosshair target and, keeping the mouse button pressed, drag the crosshair to the relevant field in the third-party application. Once the field is highlighted, release the mouse button.

The ***Text found*** field will then display the content of the third-party application field in order to verify the connection.

Selected Text

This option increases the scope of the CodelessConnector significantly. When set, there is no direct link to any application. All that needs to be done is to highlight text in an application, and then action the appropriate shortcut. The highlighted text is taken as the search or index criteria.

Full Text

When selected, the retrieved text is entered into the full text search field in the WinClient Search tab, rather than being associated with an index field. A full text search of the documents will then be performed.

With this option, a Document Type can be selected, or set to ***None***. With a Document Type selected, the search is limited to those documents within the selected Document Type. When set to ***None***, the search is performed across all Document Types the user has access to.

The Index field setting is ignored when Full Text is selected.

Filter Full text results

For the Full Text filtering, the following key must be set in the WinClient ***app.xml***:

<add key="FilterFulltextSearch" value="true" />

Full text search results can be filtered by the values held in index fields of the documents being searched. This is achieved by configuring multiple connectors within the same application, one of them being set to Full Text, and the others associated with index fields. When the ***Search All*** shortcut is actioned, the results of the full text search will return only those documents that match all the criteria.

Using the CodelessConnector

In order to import field entries directly into FileDirector, start the relevant application and the FileDirector Windows Client. Display the linked fields in the Windows application and apply the configured shortcut to import the field contents. The content of the field(s) are now passed to the relevant fields in FileDirector and the relevant function (Search, Edit, and Scan) is performed.

If a CodelessConnector is configured, a tray icon will be displayed:

Security

The configured CodelessConnectors are assigned to Users/Groups for usage. Select ***CodelessConnectors*** and click ***Security*** (button with yellow key or right mouse button menu). The configured connectors can assigned to users that work with the relevant applications. For each user different fields can be configured in different applications.

SAP

FileDirector ArchiveLink



FileDirector ArchiveLink is a proven interface for integration between FileDirector and SAP Net Weaver.

It offers the following functionalities:

- SAP HTTP Content Server 6.2
- OLE/HTTP Frontend
- Barcode BAPI
- System Landscape Directory (SLD) Registration

ArchiveLink is a FileDirector option and a licence must be obtained for its use.

SAP Content Repository Connection

For documents to be stored from SAP into FileDirector, the target location for the documents must be specified in FileDirector. A SAP content repository must be assigned to a FileDirector Cabinet and Document Type.

To create a new connection, select the ***SAP*** node and select ***New*** tool.

SAP content repository

An existing SAP content repository should be entered here. In a SAP content server the SAP system only uses content repositories identified by an ID as assignments. SAP denotes that an ID either has only two characters or must begin with ***Y*** or ***Z***.

Note:
It is useful to specify the entry in the FileDirector configuration first. This way the connection can be immediately tested, with a connection to the repository established.

Target Cabinet/Document Type

For data to be sent from SAP, and a document scanned via the WinClient or ScanClient, the FileDirector Cabinet and Document Type the document is to be stored to must be set.

From the drop down lists, select first the target Cabinet and then the target Document Type within the selected Cabinet.

Default Scan Profile

If a scan profile is predefined, an immediate action can be specified in the SAP configuration. If this is not defined, an action will have to be manually selected.

> *Note:*
> *See the* OLE SAP system settings *for information on the SAP actions*

Default Document Protection

When storing a document the level of protection should be set. When the document is accessed, only the predefined allowed actions can be carried out on this document.

For further information contact your SAP consultant.

It may happen that SAP does not send and specify the protection parameters of a document during sending. In this case, the default document protection specified here should be used.

Password

SAP protects transmission to the Content server with signatures. A certificate is necessary for the Content server to check the signature. The usage of the certificate can be protected with a password.

Print lists

SAP print lists can be

Target Document Type

The Document Type that the print lists will be saved to can be selected. The Cabinet is selected on the ***General*** tab.

Header types

The print headers can be linked to FileDirector Index fields within the selected Document Type.

To do this, Press the ***Add*** button, then drop down the list of ***Print list header types***, select the appropriate header and then select the ***Index field*** it should be linked to.

Header links can be removed by selecting them in the list, and then pressing the ***Remove*** button

Certificate

A certificate is used by the FileDirector ArchiveLink in order to check the transmission signature. In the upper part of the window the certificate used by the FileDirector ArchiveLink is displayed.

A new certificate can be sent by SAP, it is first displayed in the lower part of the window. To activate this new certificate, an administrator user must accept it in order to ensure that the certificate was approved by an authorised person.

SAP Settings for Content Repository

The following settings are required within SAP, and should be configured by a SAP consultant.

Notes:
To access the SAPGui configuration template follow:

SAPGui ⇨ ***Transaction OAC0 – Customizing Content Repositories*** ⇨ ***Create***

Content Repository

This is the ID assigned in FileDirector as the content repository.

HTTP-Server

Address of the machine on which the FileDirector Server is installed.

Port Number

This is normally 80, if different as setting in IIS.

HTTP-Script

This is the URL of the FileDirector ArchiveLink interface without the host name. If the complete URL is***: http://hostname/filedirector30/archivelink***, the following should be specified for the http-script: ***filedirector30/archivelink***.

Barcode BAPI Functionality

If a document with a barcode is checked in to a Document Type which is connected with a SAP Content Repository, the barcode and the Document GuID are sent to the SAP-System.

The barcode itself is being read using FileDirector, where the type of barcode has to be set.

The connection settings for the link between FileDirector and SAP are set by selecting the ***SAP*** icon and choosing the ***Edit*** tool.

SAP Client

The SAP defined client has to be specified.

SAP Credentials

SAP has its own user management. The SAP account details must be entered which FileDirector then uses to send the barcode to the SAP system.

Further Connection Settings

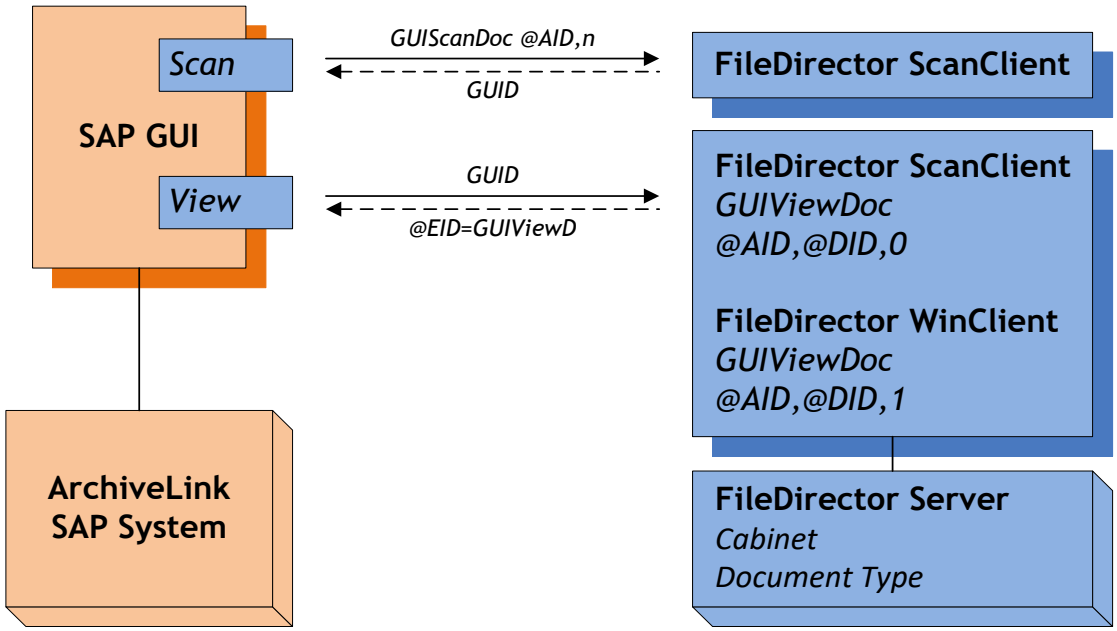
The connection settings are specified in the fields ***Machine name of the SAP server***, ***SAP system number***, ***AP gateway host*** and ***SAP gateway service***. This information can be obtained from your SAP consultant.

Write Rfc Trace

If this option is selected, the send barcode tasks of the FileDirector server are stored in ***rtc*** files. These files are stored in the FileDirector program folder within the folder ***\bin***: example: C:\Program Files\Spielberg Solutions GmbH\FileDirector Server\bin

Note:
The files are generated by a program library from SAP, which FileDirector uses for barcode sending. FileDirector has no control on the contents of these files.

Configuration of OLE/http Frontend Overview



In the SAPGUI (User Desktop) two command calls must be configured. A Scan command and a command to view stored documents (View).

When a document is created in SAP, a command call ***GUIScanDoc@AID,n*** is sent, which opens the ScanClient. Together with the command, a parameter (n) can be sent, which starts an automatic action (Single scan, batch scan, etc). The actions are described in section ***Scan from Front End***.

Using ScanClient, a document is scanned and indexed, but the index data is only available when retrieving from within FileDirector. SAP receives a message which contains the document ***GUID*** a unique identifier.

To view an existing document, the WinClient as well as ScanClient can be configured to perform this task. For this call the command ***GUIViewDoc @AID,@DID,n*** is sent, where n is either 0 or 1. When 0 is used, the ScanClient opens, when 1 is used, the WinClient opens.

For SAP configuration, please contact your SAP consultant.

SAP SLD integration

The SLD (System Landscape Directory) of SAP NetWeaver™ is a central repository which contains information about currently installed software components, that is, SAP components as well as third party components from SAP's point of view, such as FileDirector.

FileDirector achieves the SLD integration by generating an xml file automatically and sending it via http to a previously specified SLD.

To configure SLD, select the ***SAP*** icon and choose the ***Edit*** tool. Select the ***SLD*** tab

SLD url

This is the host of the SLD that is used for the integration of FileDirector and FileDirector ArchiveLink.

SLD user name and password

The User name and password for the specified SLD.

Execute

This generates an xml file and sends it via http to the SLD for activation.

FileDirector ScanClient

To scan documents using ArchiveLink the ScanClient can be used. It is specifically designed for linking FileDirector with SAP in order to scan and view documents. Microsoft .NET Framework 2.0 is required to install the ScanClient.

Using the Retrieval only option ***Cancel*** is available in the upper right of the toolbar. The menu is similar to that of the WinClient. A description of the tool functions can be found in WinClient User Guide.

Notes for SAP system Settings– OLE

Functions for SAP OLE automation 2.0: ***DSDMSAUTOM.FDSAPOLE***

Store from frontend (Scan)

M GUIScanDoc @AID,n n= 1 ⇨ Scanmode Single
n= 2 ⇨ Scanmode Batch

G @EID=GUIScanDocRC
G @DID=GUIScanDocID

Notes:
*An **M** in front of the described entry denotes that this call is sent, a **G** denotes that this is a confirmation.*

If a scan profile is predefined in FileDirector, the profile can be included with the scan call.

Display stored document (View)

M GUIViewDoc @AID,@DID,n n=0 ⇨ View in ScanClient
n=1 ⇨ View in WinClient

G @EID=GUIViewDocRC

Notes for SAP System Settings – Content Repository

For detailed settings in the SAP system, you should contact your SAP consultant.

Cabinets

Overview



FileDirector stores documents in Cabinets. These virtual Cabinets are able to store any document format. There are no limitations set by FileDirector on the size or number of documents stored.

Multiple Cabinets can be created to store documents. These documents are held in different Document Types within a Cabinet. It is possible to search for documents in a Cabinet over all Document Types stored.

Toggle Cabinet View



Existing Cabinets are displayed by default with a Cabinet icon, and the Cabinet name underneath. Selecting ***Toggle cabinet view*** from the ***Extended*** commands with alternate the display between the default, and a list display of the Cabinet information, which shows the Cabinet name, description, storage location, size, version the user that created the cabinet and the creation date.

Create Cabinet



Clicking on the ***New Cabinet*** tool opens a window for the creation of a new Cabinet.

> *Note:*
> *In exceptional cases a Cabinet with a certain predefined ID is needed. In order to create such a Cabinet, Enterprise Manager must be started with the command line parameter* **/NewCabID:3D104E6C**, *where* **3D104E6C** *is the ID used for the Cabinet created next.*

General Properties

In the ***General*** tab a name for a cabinet must be entered and a description can be added. The storage path for the Cabinet database which SQL server creates is listed. If the storage location for the database needs to be changed, it must be done using the SQL Server database configuration tool.

A database with a unique database ID can be automatically or manually entered into the field ***database name***. If no name is provided in the field ***database name***, a database will be created using the ID as name for the new database in database server. The ID is shown in the lower, left section of the configuration windows.

> *Note:*
> *A distinct name and a clear description of a cabinet will help users working with multiple cabinets.*

Maximum Hitlist Size

In order to limit the time taken, and the volume of data transfer between the server and client, the maximum number of records returned when a search is performed can be limited. By default, the server is configured to return a maximum of 1,000 records, but this can be overridden by setting a value in ***Max. number of hits in hitlist***.

Configure Cabinet Logo

A logo image is stored with the Cabinet database. When a new Cabinet is created, or the settings changed, a logo can be selected.

Selecting ***Change logo,*** a graphic file can be selected, which will then be displayed in the Windows Client when the Cabinet is open.

If a specific logo is not assigned to a Cabinet, the default logo from the FileDirector Windows Client will be used and is stored as the file: custlogo.gif in the program path of FileDirector Windows Client. See more detailed information in installation guide.

Cabinet Level Security



Using the ***Security*** tab, the groups and users are listed and configured as to who is allowed to use the Cabinet in FileDirector. Cabinets will only be displayed in Enterprise Manager if the user has ***Full control***. An administrator or a user that has ***Full control*** can configure access rights for groups and users.

When a Cabinet is created, only the user that created it is granted permissions for the Cabinet.

General Windows rights are configured for each group/user in the security setting of the Windows system.

Access rights can be granted in FileDirector at different levels:

Special FileDirector access rights	See *FileDirector Users/Groups*
In Cabinets	
In Document Types	See *Document Type Security*
In Fields	See *Filter*
In Filing System	See *Filing System Designer*

Note:
For single documents in the FileDirector WinClient, see the FileDirector WinClient User Guide

IP Restrictions

By default, access to a cabinet is only restricted by the FileDirector rights management.

In addition, however, access to a cabinet can also be permitted only from certain IP addresses.

As soon as this function is used, access to the respective cabinet is only permitted from addresses that have been entered here.

If access is requested from a system whose IP address is not listed here or is not within the listed address range, access to the cabinet is denied, even if the user account used has corresponding access rights.

Multiple entries must be semicolon (***;***) separated.

Example for possible entries:

Addresses	Description
192.168.0.18***;***192.168.0.30***;***192.168.0.31	Only ***.18***, ***.30*** and ***.31*** are allowed All other IP addresses are forbidden
192.168.0.18-192.168.0.31	Only devices with an IP address between ***.18*** and ***.31*** are allowed. All other IP addresses are forbidden.
192.168.0.18-192.168.0.31***;***192.168.0.33	Only devices with an IP address between ***.18*** and ***.31*** are allowed and the device with the IP address ***.33***. All other IP addresses are forbidden.
192.168.0.18-192.168.0.31***;***192.168.0.45-192.168.0.58	Only devices with an IP address between ***.18*** and ***.31*** and ***.45*** and ***.58*** are allowed. All other IP addresses are forbidden.

General rules for granting access rights

To grant rights correctly, some rules must be obeyed. Rights can be granted for users and groups, rights can be granted directly or be inherited and rights can be allowed or denied.

The following rules have to be considered:

Account rights have priority against group rights

If the right to ***Delete*** has been denied for a group, but has been granted for a special user of this group, that user will be allowed to delete.

Direct rights have priority against inherited rights

If rights are specified at Cabinet level, they are automatically inherited at Document Type Level. Inherited rights are displayed as filled squares; rights directly assigned are displayed as check marks.

Icon	Description
	Not defined (inherited)
	Allowed (inherited)
	Denied (inherited)
	Allowed (explicit)
	Denied (explicied)

If the right ***Delete*** is denied for a group in a Cabinet, it can explicitly be set for the same group for a specific Document Type. This group may only delete in this special Document Type, in all other Document Types deleting is not allowed, as the relevant right was inherited from the Cabinet.

Denied rights have priority against allowed rights

If a user is a member of two different groups and a specific right is allowed for the first group but denied for the second group, this special right is denied, because denied rights have priority against allowed rights.

Example:

A user account is a member of ***Group A*** and ***Group B***.

Group A		Group B		Permission
	+		=	
Allowed		Denied		Denied

Providing rights at Cabinet level without allow/ deny

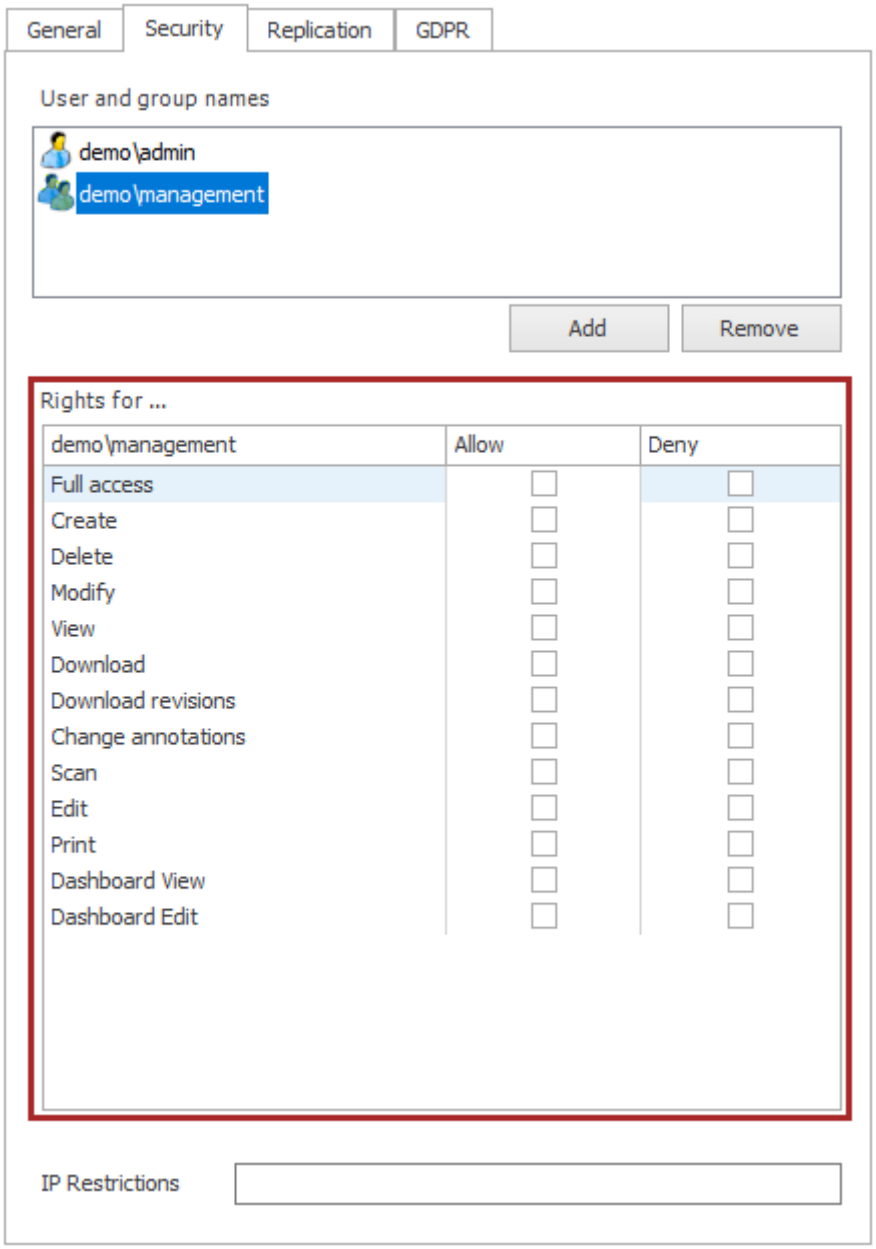
Rights cannot be handed down unless the rights were already being granted to a user on Cabinet level and the function is denied firstly.

Thus you can ensure that rights will be granted on Document Type level.

The benefit of this approach is that any new document types created must be explicitly allowed to be accessed by users, so that a newly created document type is not unintentionally visible to a user or a group.

Example:

The ***Management*** group contains the users Peter and Paul. The group ***Management*** is in the FileDirector group fd-scan.



The group ***Management*** is assigned to the Cabinet but no rights have been set, therefore the group has no rights at Cabinet level.

As it is not possible to hand rights down, the group won't have any rights at the Document Type level. At this level you can release documents types for this group which they need be able see and work with.

Add Users/Groups

If a user should be given special access rights in FileDirector, his account must be imported using FileDirector Users/Groups. This account is then known to FileDirector and appears in the list of accounts. *See FileDirector Users/Groups.*

Select ***Add***, in order to select accounts and groups.

> *Note:*
> *If the user, who should configure and administrate FileDirector, is given complete control before configuring other rights, he will always be able to have full control over the system, even if he accidentally removes the full control rights for the administrator group.*

Select accounts

Several accounts can be selected and added to the list with one click. The list of users and groups can be sorted alphabetically by clicking on the column name.

Rights on Cabinets

The access right system is built hierarchically to allow access rights on Cabinets to be inherited to the Document Types of that Cabinet. Deny always has a higher priority than Allow.

If rights should be allowed or denied, the relevant check box Allow or Deny should be checked explicitly. If only the tick is removed, the relevant group rights or inherited rights are automatically used.

Full access

Allows the user to allow or deny rights and to perform check-out undo on documents created or edited by other users.

Ensure that the administrator user for FileDirector has full control.

If this right was denied, the administrative user cannot change access rights.

> *Note:*
> *If group FD-admins is deleted, it is automatically recreated with all rights after restart.*
> *In the SQL table CabRights users and groups are listed. Do not delete entries, rename them.*

Create

If Create is denied for a user, they can create documents in their local cache, but they cannot then be checked into the server. This is only relevant for the creation of new documents.

Amending pages or changing of a document is not denied when this option is denied.

Delete

If deleting is denied, the user may not delete documents already checked into the server.

Documents in the local Document folder and the Inbox may be deleted.

> *Note:*
> *Deleting a document on the server does not delete the index record or the data itself. The document is marked as deleted in table* ***FD_Documents*** *and is then no longer listed in the search results.*

Modify

If this option is denied, check out of archived documents is not possible. Modifying of new documents on the local list and check in afterwards is allowed.

View

If view is denied for a Cabinet, the Cabinet is not displayed in the Cabinet list and cannot be selected for opening.

Download

If ***Download*** is denied, the index information of a document can be retrieved and displayed, but the relevant pages are not displayed, because downloading these documents to the local list is forbidden. Changing the index is not possible.

> *Note:*
> *With these options, the control and configuration of the local cache is important! If standard authentication is used, the security may not be sufficient if users with different rights in FileDirector work on the same PC.*
> *See Automatic Login using Windows authentication in FileDirector Installation Guide.*

Download revisions

If ***Download revisions*** is denied, a user can only display the latest revision of the document, not older revisions.

Change annotations

Annotations stored on a page cannot be changed if this right is denied to a user. Parts of a page can be hidden for certain user or groups.

Scan

If this right is denied, the user has no scan options in the Windows Client. The Scan tab will not be available.

Edit

If this is denied, the Edit tab will not be available in the Windows Client and inaccessible to this user or group.

Print

If Print is not allowed, the printing options available in the menu are inactive and are not accessible for this user or group.

Dashboard View

If Dashboard View is not allowed, the FileDirector Dashboard cannot be opened in View mode.

> *Note:*
> *If neither the right Dashboard View nor Dashboard Edit is granted, the Dashboard button in FileDirector WebServer is inactive.*

Dashboard Edit

If Dashboard Edit is not allowed, the FileDirector Dashboard cannot be opened in Edit mode.

A user or group needs this right to create new or edit existing dashboards.

> *Note:*
> *If neither the right Dashboard View nor Dashboard Edit is granted, the Dashboard button in FileDirector WebServer is inactive.*

Replication



Replication allows you to share documents across FileDirector installations. Requirement to configure the replication in a Cabinet is the connection setting to the target server (see Create connection for replication).

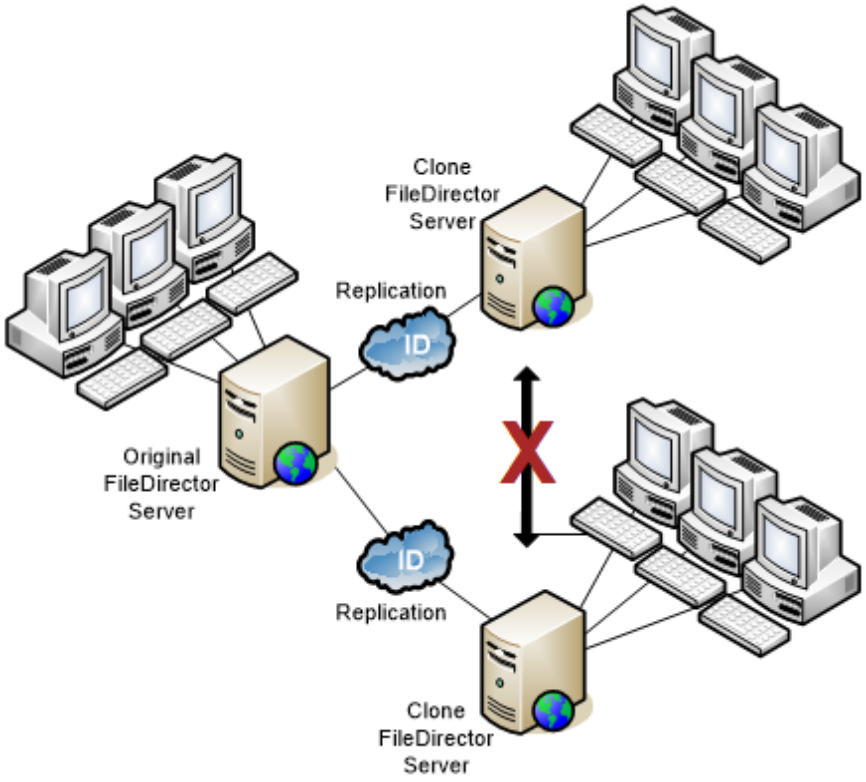
The tab to allow the replication settings to be configured is located in the Properties of a Cabinet. Select the ***Cabinet*** icon and choose ***Settings***.

Add

If the target server is set up, it can be assigned to the Cabinet using ***Add.*** You can select which server replicates the data of the Cabinet.

Documents can only be replicated with servers listed in this table. If replicated documents should be checked out by the original server, the original server has to be added on the target server.

A replication between two target servers is not possible (see drawing)



Note:
The responsibility for documents can be transferred to another server. If the responsibility is transferred from the original server to a clone, the clone becomes the original server.

Scan / Edit / Search

If documents are scanned in on the original server and replicated to the target server (clone), they can be searched for and displayed on the target server without further adjustments. Editing replicated documents on the target server is only possible, when they can be checked out by the original server. The original server has to be setup in the Cabinet settings of the target server and the connection must be online.

Examples:

Headquarters (original server) ⇨ branch office (target server)

Documents are scanned and checked in in both offices. Documents from headquarters should be made available to the branch office.

Case 1:

Headquarters are scanning in. The branch office is only retrieving, but not editing the data.

A simple replication connection from the original server to the target server is sufficient. The scheduler will be setup in the Headquarters and needs a licence to replicate.

Case 2:

Headquarters are scanning in. The branch office is retrieving and editing the data. The data scanned in is not retrieved or changed in headquarters.

The replication connection has to be setup on both servers. Data is transferred from headquarters to the branch office with a scheduler, thus headquarters needs a licence. If a replicated document is altered at the branch office, the document needs to be checked out/in in the headquarters. The branch office server needs a replication licence. The headquarters server needs to be introduced to the branch office server and the connection setting in the Cabinet must be set to ***Online***.

Case 3:

Documents are scanned in headquarters and branch office. Data is replicated both ways.

The headquarters server has to be introduced to the branch office server and vice versa. Both servers replicate data via a scheduler; servers need a replication licence; both servers have to be known on each system, and the connection has to be online.

Transferring document responsibility

If a document is created on a designated replication server, the id of this server (HomeSN) is assigned to it. This server id is used to identify the owner of the original document. In some cases it may make sense to transfer the document responsibility. To transfer the id of the document to the target server, the option ***Transfer document responsibility*** needs to be selected before the replication process starts. After transferring the responsibility, the documents can be edited on the target server without an online connection to the original server.

Example:

A service provider scans documents for a customer. These documents are going to be transferred to the customer's server later on. The customer should be able to work with the documents as if they were scanned in-house; no connection to the server of the service provider is going to be established for this.

For this scenario the service provider needs a replication licence and starts the replication scheduler on the customer‘s server after scanning in. In order to do so the server of the service provider needs to be familiar with the customer's server. If the responsibility for the documents is transferred with the documents to the customer's server, the customer can work self-sufficient.

Replicate documents when checking in

This option has to be set, if documents should be replicated when checking in. In this case the scheduler is ignored and the documents are immediately checked in. Even if the remote server is offline, the documents are added to the “Sync” table. They will be replicated later, with the replication scheduler.

Documents for replication schedule

This option is used for subsequent replication. The replicated documents can be restricted by state and date.

Status

Documents can be marked for replication

All documents
Never replicated documents
Documents for which a prior replication failed

Mark means that the documents are added to the table ***Sync***, compiling a list of the marked documents

The documents shall not be automatically added to the Sync table written when configured to connect to the Cabinet and has been assigned. Once the target server is aware that the document will automatically check the table marked for synchronization. The next time the scheduler runs, the documents are replicated.

Modified after

When a date in entered, any documents modified prior to this date in the ***Sync*** - table are not included.

Mark all documents for replication

This option is used for subsequent replication. If documents have already been scanned without a replication connection being configured, all existing documents can be marked for replication.

Marked means the documents are added to the table ***Sync***, thus creating a list of documents waiting to be replicated.

The documents are only added automatically to the ***Sync*** table when a connection has been configured and assigned to a Cabinet.

As soon as the target server is familiar, the document will be automatically added to the synchronisation table when being checked it. With the next start of the replication scheduler all listed documents are replicated.

Mark all documents modified after [date] for replication

This option is – as the option described previously – for subsequent replication. Not all older documents are added to the ***Sync*** table by selecting a date.

Show statistics

The statistics display the approximate size and number of documents in the ***Sync*** table. It can be estimated how much data is going to be transferred when starting the replication scheduler. The size of the XML files is not accounted for.

GDPR

§

GDPR document types

In tab ***GDPR***, all settings are done to set-up a GDPR compliant FileDirector log.

On the one hand, the tab offers two columns which show the existing document types and fields of the selected cabinet. The corresponding document types and fields needed for an extended, GDPR compliant log, can be selected here.

On the other hand, the option ***Purge GDPR log*** can delete all extended, GDPR compliant entries of the FileDirector log, without touching other log entries.

GDPR Log



The option Purge GDPR log deletes all GDPR compliant log entries from the FileDirector log.

This option does affect any other log entries.

GDPR log entries are created when a ***Destroy*** event has taken place.

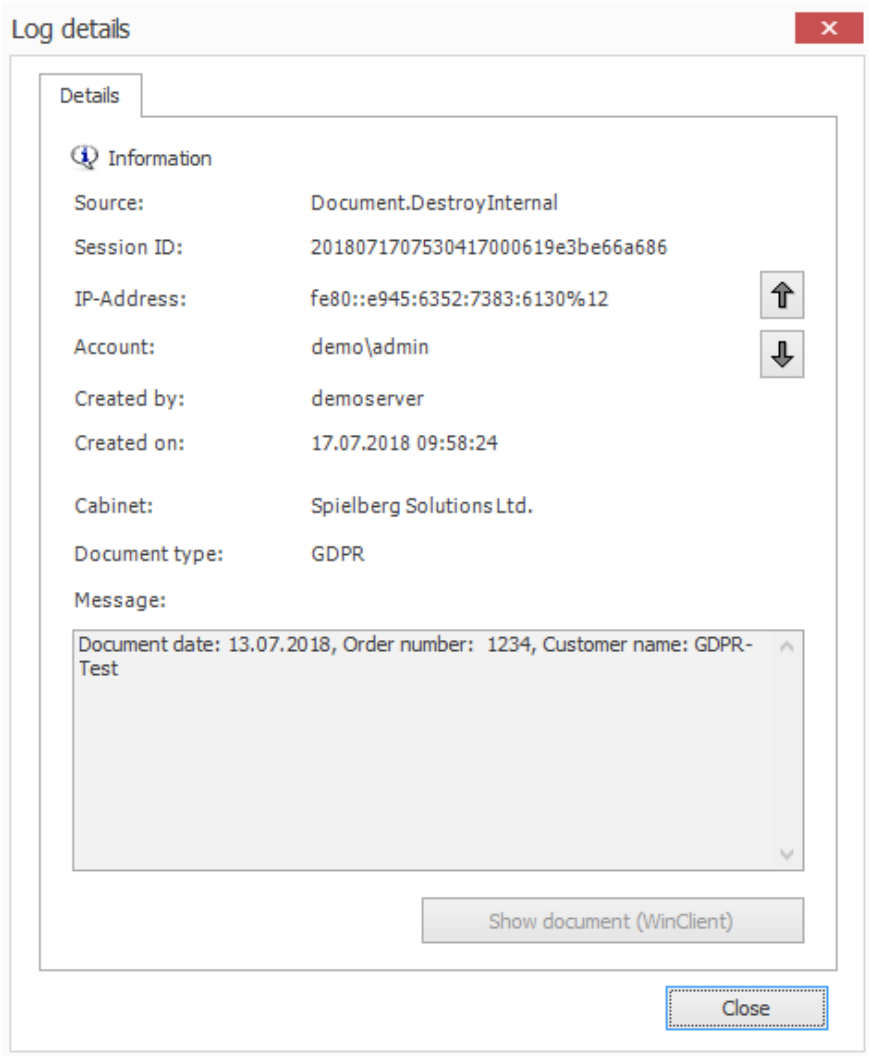
Example

In the example below, document type ***GDPR*** is selected from the list ***Document types*** and from the list ***Fields*** the corresponding fields ***Document date***, ***Order number***, ***Customer name***. The field ***Agent*** is not selected.

Extract from the FileDirector AuditTrail:

Category	Type	Action	Cabinet	Doc. Type	Message
Document		Destroy	Spielberg Solutions Ltd.	GDPR	Document date: 13.07.2018, Order number: 1234, Customer name: GDPR-Test

Log-details of the entry shown above.



Now, the index information of the selected fields are logged and shown in the area ***Message*** of the ***Log details***.

Note:
For further information about FileDirector AuditTrail see Audit Trail Configuration *and* GDPR compliant log data*.*

Delete Cabinet

When a Cabinet is created, a database with a unique Cabinet ID is created. Additionally the Cabinet information is entered into table ***Cabinets*** of database FDConfig in SQL server.

If a Cabinet is deleted, the entry in the table ***Cabinets*** is deleted, the SQL database itself remains untouched. It is possible to reregister a database and make it available for FileDirector although it was “logically” deleted.

If documents have already been scanned or imported into a folder, document data is stored in a subdirectory Fd_xxxxx in the general storage pool, where xxxxx denotes the unique Cabinet ID. The scanned pages are physically stored there.

To delete a Cabinet completely, the following components must be removed:

- Cabinet in FileDirector Enterprise Manager
- Database in SQL Server - (index data are stored here)
- Data subdirectory of Cabinet data (filedirector.data\ FD_ID…..CAB)

Purge Cabinet



When you purge the contents of a Cabinet the data in the storage pool as well as the entries for the documents in the database are permanently deleted, unless a backup of the data and the SQL-database has been made.

Only the content of the Cabinet, not the configuration of the Cabinets, fields and Document Types are deleted.

Delete full Cabinet

If the option Full Cabinet is selected and the purging is started, all documents from all Document Types in this Cabinet are deleted. All data from the database and the storage pool are being deleted. The configuration of the Cabinet persists.

Delete selected Document Types

If the option ***Selected Document Types*** is used, only documents and data types of the marked Document Types are purged. All configuration information remains.

Delete only deleted documents

When documents are deleted from the server in the Windows Client by a user, the data and database entries are not really deleted. They are only marked as deleted in the database. The deleted documents can be restored anytime.

If these documents are to be deleted permanently, you can select this by using this option. It is always connected to the other two options; you can decide whether to delete all documents of a Cabinet which are marked as deleted or if only documents in the selected Document Types should be deleted permanently.

> *Note:*
> *a) Deleting a document counts both checked-out documents and documents in a process. The result can be that documents appearing on a local users' list are not available any longer. Therefore you should provide that these documents are checked-in beforehand or are deleted afterwards from the local list.*

b) The following actions are taken when you purge:
The following content of tables in the database of the Cabinet are partially or completely deleted:
FD_Documents, FD_Revisions, FD_Images, Userdocs and DocLog.
Furthermore the size of the Cabinets are recalculated and the data from the storage places are deleted
The Sync Table is also deleted, that is only important when using the replication option.
c) Data put into a container and storage places with **read only** *settings are not deleted.*

Save Cabinet Structure



To export the data structure of a Cabinet, select the Cabinet and choose the ***Save structure as***…. tool. The file name is named as structure of 12345678.XML, where 12345678 is the ID of the Cabinet.

Note:
Please note the section **Important notes for structure import** *before exporting and the section* **New from structure** *before importing.*

Import Cabinet Structure



To create a new Cabinet from an exported structure, choose the ***New from Structure*** tool.

Note:
Following a successful import you may need to refresh the view.

Important Information for structure import

Place of creation of a Cabinet database

The database of a Cabinet is created in the path that contains the configuration database ***FDconfig***.

Version of the SQL-database

An export of structure data between an SQL Server 2000 and an SQL Server 2005 is possible in both directions. The exchange of structure data with an Oracle Server is not supported.

Identical version number of the FileDirector Server

Remember the version numbers of an exported FileDirector Cabinet must be identical with the version number of the FileDirector Server that it needs to import to. So the exported database of the Cabinet must have the identical structure of the database as the target server.

Rights are not adopted

The structure of rights is not adopted from the source Cabinet – neither for the copy nor for the clone. They have to be correspondingly reconfigured as either the structure of rights of the server environment or the access structure of the copy/the clone might be different.

User, configured in processes, are firstly adopted but must be checked after the import and if need be adapted to the new user structure.

ODBC

The configured ODBC links are copied to the copy/ clone, whereas the ODBC sources must correspondingly exist in Windows or must be set up.

Global counter

When the copied structure has a field that contains a global counter on the server, the counter cannot be transferred to the copy or to a clone. The value of a global counter is set to the default value ***1***. If this value is to be different, the counter must be changed in the configuration of the field after the import.

Clone or copy Cabinet structure

During the import of a data structure XML file it will verify firstly whether the ID of a Cabinet already exists. When this is not the case, the following query appears ***Do you want to create the new Cabinet as a clone? Clones can be used for multiple-site replication***. Answering this query in the affirmative, a database with the same ID as the exported one is created. If answered ***No*** a copy with a new Cabinet ID is created.

When during importing a Cabinet ID already exists on the SQL server, a copy of the Cabinet with a new Cabinet ID is created. The ID's of the other objects, such as fields and Document Types, remaining the same as in the source Cabinet.

Clone Cabinet structure

When cloning a Cabinet a replication of the database with the same Cabinet ID is created on the target server. Only the original server structures can be added. These additions/changes can be synchronised by "Sync using structure". The clone cannot be changed manually.

Copy Cabinet structure

An exported XML structure can be copied to the same FileDirector server to copy the structure of a complete Cabinet. By using ***Save structure as…*** the structure is exported. The exported XML file is imported again by using the command ***New from structure***. It is not possible to install a clone as the database already exists. A copy with a different ID is created automatically.

> *Note:*
> *During a search for an already existing ID the existing database is checked – not the listed, registered Cabinets. Thus an unregistered Cabinet can be recognised, if the database exists in the background.*

Sync using structure



When a structure and an existing clone or copy is to be synchronised, the version of the FileDirector Server must be identical on both servers; otherwise the synchronisation cannot be performed. When an update is performed, it is be necessary to run it on both servers, then both Cabinets must be updated.

Synchronise a clone

Additions and changes to the structure of the database can only be added on the source server and synchronised afterwards with the clone. No manual changes can be done on the clone.

Synchronise a copy

Changes are not adopted

Changes of existing fields are not synchronised and must be changed in the copy manually.

Structured data are not deleted, only added

The structure data is NOT deleted when synchronising. If fields or other objects are to be deleted in the original, they must be deleted in the copy as well. If objects of the copy are deleted, they will be restored by synchronisation with the original export.

Example:

> If, for example, fields are created manually in the copy and the original, they will be created each with different ID's. Once the original is exported, it again and it is synchronised with the copy, the fields exist twice as the synchronisation checks only ID's not names.

Reregister Cabinet



Select the ***Attach deleted Cabinets*** tool to register a deleted Cabinet

Cabinets previously deleted in FileDirector can be reregistered by selecting ***Reregister Cabinet.*** This is only possible, if the database still exists and was not physically deleted in SQL server.

If you have copied a Cabinet from another installation and connected the relevant database to the SQL server, it can be registered to FileDirector in the same way.

> *Note:*
> *If the Cabinet was copied from another network, check if access rights have to be adjusted according to your installation. See the Installation Guide.*

Upgrade Cabinet



Upgrade Cabinet will update existing database formats from older Cabinets and earlier FileDirector versions. If a Cabinet has not been updated to the current version, the following icon will be shown.

To upgrade, select the Cabinet and choose the ***Upgrade Cabinet*** tool.

Fields

Overview



FileDirector saves the index data of documents in index fields. Information held in index fields is used for referencing and the retrieval of documents.

FileDirector allows an unlimited number of index fields to be created in a Cabinet for document description. These fields can be amended, changed or deleted at any time.

Fields are created globally; they can be used simultaneously in different Document Types. Because of this internal structure it is very easy to perform a comprehensive search over different Document Types, if they contain at least one common index field.

Create new field



Select ***Fields*** within a Cabinet in the left part of FileDirector Enterprise Manager window. Click the ***New*** tool to create a new field.

General

In the General tab a name and a description for an index field are specified. Additionally field length and content (allowed characters) must be configured.

The tab is divided into two sections:

In the section Settings, general definitions are set for the respective field as a name and a description, for example. In addition, the settings for length and valid characters must be set. In some cases, for example a date field, the field length is set automatically by the FileDirector system and cannot be changed.

The lower section Keyword list is only available when the drop-down list ***Contains*** is set to ***Keyword.***

Settings

This section is to define the general settings of a field.

Display name

The display name of a field can be set individually and is a global setting for all users of the FileDirector cabinet.

> *Note:*
> *A display name can be altered.*

The display name is used in FileDirector WinClient, WebServer, Retrieval Client and AutoCapture Client.

Length

The length of a field can be set individually. The default value is 10.

> *Note:*
> *A set and saved length of a field must not be altered as this could cause database issues.*

Contains

The intended content of a field can be selected from a drop-down menu.

Any character

If a field can contain any character, it can be filled in the Windows Client with digits, alphanumeric characters or special characters. Additionally a wildcard search can be performed using this index field also. Entering an asterisk or part of the index information is sufficient for retrieval of documents.

Numbers

This field may only contain digits (0-9). Leading zeroes are ignored. If leading zeroes must be used, either “All characters” must be used or a user defined input template must be introduced.

NumbersPlus

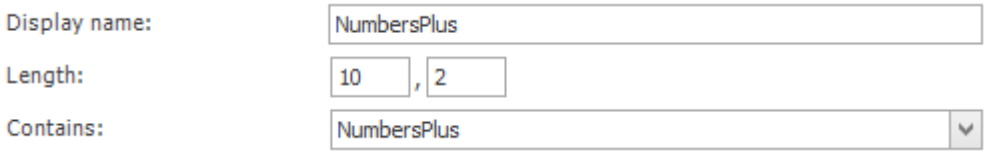
A ***NumbersPlus*** fields can contain digits (0-9), **+** (plus), **-** (minus).

When ***NumbersPlus*** is selected, the field length is defined in the two boxes in ***Length***. The first value sets permissible length preceding the decimal separator. The second value sets the permissible length after the decimal separator.

In the overview of the existing fields, the value of the field length is shown as follows:

Value1 + ***Value2*** + ***decimal separator*** = ***total length***

Example



The total length of this field is 13 characters.

Date, Time, Date and Time

If a date or time is specified, the date/time format of the Windows settings is used. If the format should be changed, it must be done in the Windows settings:

Start ⇨ ***Settings*** ⇨ ***Control panel*** ⇨ ***Regional settings***

To set the date/time automatically in index field:

See Extended settings

Custom template

The user defined input template allows an exactly defined entry format for an index field. This configuration is done in tab Input template of this window.

See Input template

Keyword list

A keyword list is used for fast manual indexing using abbreviations or index lists. If an index field should be connected to a keyword list, this keyword list must be created first in section Keyword lists of the Cabinet and then linked to the relevant index field.

Extended

When Extended is selected, an additional field property can be set from the ***Extended Contains*** dropdown list. This drop-down list provides field settings for FileDirector ***OfficeLink***, the contents ***Hyperlink*** and ***GPS coordinates***.

When emails are saved from Microsoft Outlook using OfficeLink, FileDirector fields can be automatically filled with information from the email, such as to To and From addresses and the subject. Additionally, when using OfficeLink to save files to FileDirector from Explorer or other Office applications, information such as the filename and file creation date can be automatically saved.

Hyperlinks stored into a field, defined for hyperlinks allow that the hyperlink can be selected from the Search Results list in the Windows Client.

AutoCapture

As soon as ***AutoCapture*** is selected from the list, the content must be specified further in the drop-down list ***Contains-Extended***, below.

As soon as documents are to be processed by FileDirector AutoCapture, the associated fields must be set with the definition ***Contains: AutoCapture*** and a more detailed content specification from the list ***Contains-Extended***, for example invoice number, invoice date, Net1 amount and Net2 amount.

All available fields are listed in the drop-down menu *Contains-Extended: AutoCapture*.

Contact

As soon as Contact is selected from the list, the content must be further specified in the drop-down list ***Contains-Extended***, below.

As soon as documents are to be processed by FileDirector AutoCapture, the associated contact data fields must be set with the definition ***Contains: Contact*** and a more detailed content specification from the list ***Contains-Extended***, for example Name, VAT identification number and VAT number.

All available fields are listed in the drop-down menu *Contains-Extended: Contact*.

Contains-Extended: Extended

Email-From, Email-To, Email-Cc, Email-Bcc

64 characters have been reserved for these fields. Email addresses are automatically saved.

Email-Subject

The subject field may contain up to 255 characters.

Email-Body

The text of an Email is treated like a memo field and has virtually no index limitation.

Email-Received on, Email-Sent on

These settings saves the relevant date. The date format depends on the Windows setting.

Email-subject or file name (with or without extension)

The Email subject field may contain up to 255 characters.

This option contains two indexing possibilities: If files are stored using drag and drop (using the Windows Client), the file name is saved, if the relevant file is an Email, the content of the subject field is saved.

Email archiving with separately saved attachments

With the Component Service a settings file app.xml is saved in the program path of the Component Service. The file is saved in the following path:

C:\Program Files\Spielberg Solutions GmbH\FileDirector Component Service

It contains the following entry:

<!-- EMailSplit: 'Ask', 'On' or 'Off' --> (Comment line)
<add key="EMailSplit" value="Off" />

With the option ***Ask***, the user is asked during the archiving process whether the attachments are to be saved separately in the original format. The text of the email attachment is saved as a separate page in the document. By using the option ***On*** the attachment is automatically saved separately, and with the option ***Off*** the mails are saved as *.msg files as they are created in Outlook.

File name (with or without extension)

If files are archived using ***Send To*** in Explore context menu or via drag and drop, the file name is used for archiving with up to 255 characters length.

File creation time, File modification time, File last accessed time

This field is configured as a date format field. The relevant file properties are automatically archived.

For internal information, the unique field ID used in the Cabinet database is displayed in the bottom right part.

HyperLink

When this setting is used, any hyperlink that is saved to the field will be selectable from the document lists in the Windows Client.

GPS Coordinates

When this field setting is used, the GPS information in the file header of the imported file is read automatically and written into the field as a field value when imported.

> *Note:*
> *The feature is available for files imported through File import Scheduler and manually imported files through drag&drop into WinClient or Send to…FileDirector, from the system right click menu.*

Contains-Extended: AutoCapture

Invoice number

In default, 10 characters have been reserved for these fields. This field is for invoice numbers, recognised by FileDirector AutoCapture.

Invoice date

In default, 10 characters have been reserved for these. This field is for invoice dates, recognised by FileDirector AutoCapture.

Order number

In default, 10 characters have been reserved for these. This field is for order numbers, recognised by FileDirector AutoCapture.

Net1 amount; Net2 amount

In default, 12 characters have been reserved for these fields. This field is for net amounts, recognised by FileDirector AutoCapture.

Tax1 amount; Tax2 amount

In default, 12 characters have been reserved for these fields. This field is for tax amounts, recognised by FileDirector AutoCapture.

Gross amount

In default, 12 characters have been reserved for these fields. This field is for gross amounts, recognised by FileDirector AutoCapture.

Discount amount

In default, 12 characters have been reserved for these fields. This field is for discount amounts, recognised by FileDirector AutoCapture.

Advance payment

In default, 12 characters have been reserved for these fields. This field is for amounts of advanced payments, recognised by FileDirector AutoCapture.

Handling costs

In default, 12 characters have been reserved for these fields. This field is for amounts of handling costs, recognised by FileDirector AutoCapture.

Shipping costs

In default, 12 characters have been reserved for these fields. This field is for amounts of shipping costs, recognised by FileDirector AutoCapture.

Work reference

In default, 10 characters have been reserved for these fields. This field is for amounts of work references, recognised by FileDirector AutoCapture.

Custom 1

In default, 10 characters have been reserved for these fields. This field can be used in addition to the pre-defined fields, listed above, to capture additional information, using FileDirector AutoCapture.

Custom 2

In default, 10 characters have been reserved for these fields. This field can be used in addition to the pre-defined fields, listed above, to capture additional information, using FileDirector AutoCapture.

Note:
The field length can be individually set when the corresponding field is created.
The field content definition cannot be changed e.g.: **Any character** *to* **NumbersPlus**.

Content-Extended: Contact

ID

In default, 10 characters have been reserved for these fields. This field is for supplier IDs of the FileDirector AutoCapture routine.

Name

In default, 50 characters have been reserved for these fields. This field is for supplier names, recognised by FileDirector AutoCapture.

Address1

In default, 50 characters have been reserved for these fields. This field is for supplier's street name and number, recognised by FileDirector AutoCapture.

Address2

In default, 50 characters have been reserved for these fields. This field is for supplier's street name and number, recognised by FileDirector AutoCapture.

ZIP Code

In default, 10 characters have been reserved for these fields. This field is for supplier's postcode, recognised by FileDirector AutoCapture.

City

In default, 50 characters have been reserved for these fields. This field is for supplier's city, recognised by FileDirector AutoCapture.

State

50 characters have been reserved for these fields. This field is for supplier's state, recognised by FileDirector AutoCapture.

Country

In default, 50 characters have been reserved for these fields. This field is for supplier's country, recognised by FileDirector AutoCapture.

Phone

In default, 10 characters have been reserved for these fields. This field is for supplier's phone number, recognised by FileDirector AutoCapture.

Fax

In default, 10 characters have been reserved for these fields. This field is for supplier's fax number, recognised by FileDirector AutoCapture.

WebSite

In default, 50 characters have been reserved for these fields. This field is for supplier's website, recognised by FileDirector AutoCapture.

VAT-ID

In default, 50 characters have been reserved for these fields. This field is for supplier's VAT identification number, recognised by FileDirector AutoCapture.

Tax #

50 characters have been reserved for these fields. This field is for supplier's tax number, recognised by FileDirector AutoCapture.

Bank name

In default, 50 characters have been reserved for these fields. This field is for supplier's bank name, recognised by FileDirector AutoCapture.

Bank #

In default, 50 characters have been reserved for these fields. This field is for supplier's bank number, recognised by FileDirector AutoCapture.

Account #

In default, 50 characters have been reserved for these fields. This field is for supplier's account number, recognised by FileDirector AutoCapture.

> *Note:*
> *The field length can be individually set when the corresponding field is created.*
> *The field content definition cannot be changed e.g.:* **Any character** *to* **NumbersPlus**.

Accelerate search

With the option ***Accelerate search*** a key is set to an index field in the database.

A search can have faster results if fields are frequently used for a search. Do not check this option for all fields, as this can greatly affect the database size.

Keyword list

A keyword list is used for fast manual indexing using abbreviations or index lists. If an index field should be connected to a keyword list, this keyword list must be created first in section Keyword lists of the Cabinet and then linked to the relevant index field.

> *Note:*
> **Keyword** *must be selected beforehand from the drop-down menu* **Contains**, *above.*

Name

This drop-down menu shows all selectable keyword lists. The selected list and its content will be connected to field.

Note:
Keyword lists must be created beforehand in the area **Keyword lists**.

Allow for filing system

This option must be checked to provide the content of the selected list as node in the filing system designer.

Allow manually typed input

If this option is marked in addition to the defined words you can add entries using FileDirector WinClient. The entries can either be added by using the Edit tab of the control box or within the index capture window.

These user-generated entries are added to the keyword list.

Note:
Not supported in FileDirector WebServer.

Allow multiple selection

With the option ***Allow multiple selection*** the wordlist is configured to choose more than one word in the wordlist. The words are set with a semicolon as field separator.

Note:
Not supported in FileDirector WebServer.

Prevent auto selection

When a ***Linked Keyword List*** displayed in the WinClient, by default the first keyword in the linked list is automatically shown. Selecting this option will leave the list field of a subsequent list blank, until a keyword is selected.

Filter Dependent lists

When the Filing System is being used, this option allows dependent keyword lists to be filtered for users and groups, so that only selected keywords from the dependent list are displayed in the WinClient.

The filtering of keyword lists is configured within the Filing System Designer security.

See Filing System Designer

See Keyword lists

Memo

A memo field contains any text, with a virtually unlimited number of characters.

If full text search is configured, the content of memo fields is also used for full text retrieval.

A memo field can contain an Excel form that can be filled in the Windows Client. In the memo field only the entered data is administrated. In the ***Extended settings*** an overlay can be added to a memo field.

Extended settings

In the Extended settings tab field attributes are specified for each field individually.

The field attribute helps during indexing using automatic actions, preventing the user from incorrect entries and controls, which happen if the same index is keyed in again.

Automatic actions

None

If the option ***None*** is set, index data entered are not used during single page scanning and batch scanning for the next document to be scanned.

Preserve

If scanning with Windows Client, the index already keyed in is preserved for the next document to be scanned when the option ***Preserve*** is set. The field is not cleared after scanning; the information can be used for further indexing. This speeds up manual indexing, if some indexes do not have to be entered again.

Increment

If a start value is specified in a field with this setting, the value is incremented by one each time a new document is scanned.

Decrement

If a start value is entered, it is automatically decremented by one each time a scan is started. The user should ensure that the start value is big enough, as the counter will not create negative values. If 10 is specified as start value, the system will decrement as follows: …,01,00,99,98,…

Increment /Decrement by page

When increment or decrement by page is configured, the number of the pages is filled into the index field during the scanning process. This works for all the documents and the page of the previous document is added to or subtracted from the number of pages of the following document.

Increment/ Decrement (Global)

With this option a global counter is set from the server. If documents are checked in, the last number is searched from the server and counted up or down depending on the last number on the server.

Increment on check-out

When a document is created, a field with this action set will be given an automatic value of 1. Each time the document is checked-out for editing, the value of the field will be incremented by 1.

When ***Undo Checkout*** is selected, so as not to save any changes made to the document, the previous value in restored.

Increment on page modification

When a document is created, a field with this action set will be given an automatic value of ***1***. Whenever pages are added to or removed from the document, and the document checked-in, the value will be incremented by ***1***.

When ***Undo Checkout*** is selected, so as not to save any changes made to the document, the previous value in restored.

Set to system date / Set to system time

If a field is set to date format, the system date can automatically be filled in.

In addition to that the year, the week and the system date + n days can be set.

> *Note:*
> *The system time of a client must not differ more than 5 minutes from the server; otherwise the server will refuse to check in the document.*

Set to user name

This action automatically sets the user name including domain name.

Set to short user name

This action automatically sets the user name without domain name.

Set to machine name

If the computer name should be automatically indexed this action can be used.

Set to printed by

This action automatically sets the user who printed the document.

Set to printed on

This action automatically sets the date the document was printed on.

Set to user full name

The full name of the user, as set in Active Directory or for a built-in user account, will be automatically saved to the field.

Content verification

Mandatory fields are marked with a red exclamation sign in the Windows Client. Any field set with content verification which does not meet the verification criteria cannot be checked-in to the FileDirector server.

Empty not allowed

Document cannot be checked in, if field is empty. In the Upload status display of the Windows Client, an error message will appear and indicate which field must not be empty.

Must be full

If this option is set, all characters of the specified length must be entered. If the index entered does not meet the specified requirements, an error message appears in the ***Upload*** status.

Date

The value entered into the field must be a valid date when this option is selected.

Date (not in future)

The value entered into the field must be a valid date, and must be the current or past date when this option is selected

Checksum algorithms

Checksums with different algorithms can be specified for specific requirements. The following checksums are supported:

Checksum ***ISBN***, ***EAN-13***, ***Mod2***, ***Mod10***, ***Mod11***, ***Mod11.1***, ***Mod11.2***, ***11-Check***, ***CPF*** and ***CNPJ***.

When data is entered into this field, the content is checked using the relevant algorithm and is either accepted or rejected.

IBAN

The International Bank Account Number (IBAN) is an internationally agreed system of identifying bank accounts across national borders to facilitate the communication and processing of cross border transactions with a reduced risk of transcription errors.

When data is entered into a field set for IBAN, the content is checked and is either accepted or rejected

Duplicate index action

This function checks whether the same index information had already been entered. One of the following actions can be taken:

> *Note:*
> *If several index fields together should build a unique index, the confirmation can lead to requests, which are not logical.*
> *Consider this setting very carefully.*

None

If a document is checked in with a value in this field that is equal to a value of an existing, stored document in the same document type, FileDirector creates an additional, new document

Reject

If a document is checked in without index information in this index field and another document without index information in this index field is already stored in the same document type, the server will refuse to check in the new document. The server will also refuse to check in a new document with index information, which is already stored for another, existing document in the same document type.

> *Note:*
> *For a successful check-in, a new index value must be added and must not exist for a document in the document type.*

Reject if not empty

If a document is checked in without index information in this index field and another document without index information in this index field is already stored in the same document type, the server will create another, new document.

If a document is checked in with index information, which is already stored for another document of the same document type, the server will refuse to check in the new document. Only after the index is changed to a unique index value, can it be checked in.

> *Note:*
> *For a successful check-in, a unique index value must be added and must not exist for a document in the document type.*

Append

If a document is checked in without index information in this index field and another document, without index information in this index field, is already stored in the same document type, the server will append the new document to the existing document.

The server will also append to an existing document when the index information in the field is identically to an existing document, which is already stored for another document in the same document type.

Append if not empty

If a document is checked in without index information in this index field and another document without index information in this index field is already stored in the same document type, the server will create another, new document.

If a document is checked in with index information, which is already stored for another document of the same document type, the server will append the document to the existing one.

> *Note:*
> *For a successful check-in, a unique index value must be added and must not exist for a document in the document type.*

Append after confirmation

Using this setting, the user is asked whether a new document is to appended to an existing document where the index information in the field matches.

When the user negates the append action, the document is not checked in.

Append after confirmation if not empty

Using this setting, a new document can be appended to an existing document where the index information in the field matches.

When the user negates the append action, the document is not checked in.

An empty field does not trigger an append after confirmation action and a new document is created.

Append or new document

If a document is checked in with index information, which is already stored for another document, the user is asked whether the document is to be appended or a new document should be created.

The user is also asked whether the document is to be appended or a new document should be created, when a document without a value in this field is already stored in the same document type.

Append or new document if not empty

If a document is checked in with index information, which is already stored for another document, the user is asked whether the document is to be appended or a new document should be created.

The user is not asked whether the document should be appended or a new document should be created, when a document without a value in this field is already stored in the same document type. In this case, a new document is created.

Prepend

If a document is checked in without index information in this index field and another document, without index information in this index field, is already stored in the same document type, the server will prepend the new document to the existing document.

The server will also prepend it to an existing document when the index information in the field is identical to an existing document, which is already stored for another document in the same document type.

Prepend if not empty

If a document is checked in without index information in this index field and another document without index information in this index field is already stored in the same document type, the server will create another, new document.

If a document is checked in with index information, which is already stored for another document of the same document type, the server will prepend the document to the existing one.

Prepend after confirmation

Using this setting, the user is asked whether a new document is to be prepended to an existing document where the index information in the field matches.

When the user negates the prepend action, the document is not checked in.

Prepend after confirmation if not empty

Using this setting, a new document can be prepended to an existing document where the index information in the field matches.

When the user negates the prepend action, the document is not checked in.

An empty field does not trigger a ***Prepend after confirmation if not empty*** action and a new document is created.

Prepend or new document

If a document should be checked in with index information which is already stored for another document, the user is asked whether the document is to be prepended or a new document should be created.

Prepend or new document if not empty

If a document is checked in with index information, which is already stored for another document, the user is asked whether the document is to be prepended or a new document should be created.

The user is not asked whether the document should be prepended or a new document should be created, when a document without a value in this field is already stored in the same document type. In this case, a new document is created.

Replace

If a document with the entered index already exists in the Cabinet database, the existing document is replaced by the new document

Replace if not empty

If a document is checked in without index information in this index field and another document without index information in this index field is already stored in the same document type, the server will create another, new document.

If a document is checked in with index information, which is already stored for another document of the same document type, the server will replace the existing one.

Replace after confirmation

Using this setting, the user is asked whether a new document should replace an existing document where the index information in the field matches.

When the user negates the replace action, the document is not checked in.

Replace after confirmation if not empty

Using this setting, a new document will replace an existing document where the index information in the field matches.

When the user negates the replace action, the document is not checked in.

An empty field does not trigger a ***Replace after confirmation if not empty*** action and a new document is created.

Replace or new document

If a document is checked in with index information, which is already stored for another document, the user is asked whether the document should replace the existing document or a new document should be created.

Replace or new document if not empty

If a document is checked in with index information, which is already stored for another document, the user is asked whether the document should replace the existing document or a new document should be created.

The user is not asked whether the document should be replaced or a new document should be created, when a document without a value in this field is already stored in the same document type. In this case, a new document is created.

New document after confirmation

With this option, a new document will be created, after confirmation by the user.

New document after confirmation if not empty

With this option, a new document will be created, after confirmation by the user.

The user is not asked whether a new document should be created, when the document is checked in without a value in this field.

Field protection

If a field is protected, no entries are allowed during editing and scanning.

None

This is the ***Default*** setting.

The field will allow entries during creating, editing and scanning.

In Revisions

If field protection is set for revisions, a new document can be indexed and checked in. After this initial check in, the field value is protected and cannot be changed.

In this case, it is irrelevant whether or not the field contained a value at the time of the first check in.

Always

This protection may for example be used for a field which has system date/time set automatically. If a document is checked out and changed, it is protected and not updated with the new system date/time.

If not empty

This setting can be used, for example, for a field in which a value is only entered at a later point in time, but which should then no longer be changeable by editing or scanning.

Overlay for memo fields

Overlays in memo fields are predefined forms to enter special texts to save notes to documents as form. As overlay an excel document with protected fields is used.

If an overlay is added to a memo field, it can be filled as a form in the Windows Client. Only the entries are saved in the database, not the whole form.

The overlays are not designed for an index search, because the values are only visible in the form. If an overlay is assigned to a memo field, the field will not be visible in the hitlist any longer, because the content cannot be shown directly in an index field.

However the entered text from the overlay can be read by full text, as for standard index fields. The content of the forms can be searched in the full text with ***Word****. To use the full text search, full text must be configured.

Preparing an overlay

A form for an overlay is created using an Excel table. This Excel table contains protected and non-protected fields. The non-protected fields are transferred into the index field.

> *Note:*
> *How to protect fields can be found in the help file of Excel.*
> *A short description to protect fields:*
> *Choose fields in Excel table: format cells (right click) ⇨ Choose the tab* **Protect** ⇨
> *Select the cell or cells that you want to unlock ⇨ Choose Format – Cells ⇨ In the Format Cells dialog box, click the Protection tab ⇨ Remove the checkmark from the locked checkbox ⇨ then Extras ⇨ protect worksheet*
> *Now the fields, where the protection is unlocked, can be filled with entries.*

Using in the Windows Client

To use the overlay Excel must be installed on the Client. If the form is opened with a click on the index field (Tab Edit) and a text is entered, a different field must be selected in the Excel table to the last entered field, before it is applied with OK. The entries are saved in the sheet when the field is changed.

The changes must be applied with ***Save changes*** in the ***Edit*** tab, when the form is closed. The document is checked out and the changes are saved as revision with the next check-in. If an index field is changed, a yellow background of the index field will be noticed.

The overlay entries cannot be searched in the index field. If the full text is configured, the entries can be found with the full text search.

ODBC link

In order to connect a field with an ODBC link, a valid ODBC source must be configured in Windows. *See ODBC Link*

If a table is configured and the field assignments have been made, this field can be connected with an ODBC link.

If this file is indexed in the Windows Client, a search is automatically performed in the ODBC database. If a corresponding match is found in the ODBC link, the connected fields in FileDirector are filled automatically with the information found in ODBC.

This link offers a quick indexing possibility for several index fields, which belong together and contain linked information. This can be a Customer No., where the ODBC link automatically offers further information like name, address, Email, etc.

Note:
An ODBC-source in a field can only be set if the field is mapped in the ODBC-link.
If it not mapped, the ODBC-source will not be available to select in the field.
When the same ODBC-Link is assigned to multiple fields a search for additional field contents is started when the index is entered. However, the data structure of each field in the ODBC-Source must be clear, or incorrect results may occur.

Example

ODBC-table:

Customer number (ODBC-Link in a field)	Name (ODBC-Link in a field)	City (Only in ODBC-configuration)
100	Peter	Hamburg
200	Peter	Duisburg

When entering in the field ***Customer number*** the value 200, the correct data record [200, Peter, Duisburg] is displayed. When entering in the field ***Name*** the value ***Peter***, the data record that was found first will be displayed; [100, Peter, Hamburg], because the name ***Peter*** is not a unique value.

Here the ODBC-Link should only be assigned to fields which can provide a clear data record result.

Input template

Using Input template manual index entering can be limited to correct characters and format.

The template type can be selected between Simple and a Regular. A template can only be configured if in tab General type if Custom template was selected.

A list with the valid mask expression characters can be displayed, by pressing the ***Question Mark*** icon. This will list simple templates and regular templates. If you select ***Simple only*** the characters described in section Simple mask characters can be used.

If the template type is ***Regular*** characters from the section Regular mask characters are used.

Test field offers the possibility to check if the template accepts the typed characters.

Filter (Security)

Filters are part of the FileDirector security system. They allow the selection of documents for certain users and groups depending on the index and the specified filter.

If a user performs a simple or extended search in the Windows Client, the resulting hitlist is filtered according to the filter values specified.

If a filter value is specified for a user account, this user will only be able to retrieve a document if index and filter value match in this field.

> *Note:*
> *If the filter field is connected to a word list only the comparison (reference) value* **equal (=)** *or* **not equal (<>)** *can be used. All other comparison (reference) values are used as* **equal**.

Add accounts

Click Add account and select the relevant account which should use filtering.

Compare

In the column Compare a comparing operator must be specified, which compares index and filter values: These are disabled for email address fields.

Operator	Description
*	If the character string specified is part of the index, the document can be retrieved.
=	A user can only retrieve this document, if only this character string is stored in the index field.
>	Greater than a specific number
>=	Greater or equal to a specific number
<	Smaller than a specific number
<=	Smaller or equal to a specific number
<>	Not equal
=()	Empty
<>()	Not Empty

Variable

Using the Variable option accounts can be set during the working process. To configure, the fields must be the correct value for the variable like account name, full name of the user or the email address.

Example:

The filter field contains the e-mail addresses of the FileDirector users. These email addresses must exist in the list of the users and groups. The logged in user should only see the documents with its own email address.

In this case you can use the entry ***Current user (E-mail)*** and let the filter value be ***field content.*** Now the content of the field will be checked for the email address of the current logged in user.

For other entries, ***Account*** or ***Full name*** you can configure it in the same way.

Filter value

If you set a filter, make sure that the length of the text is not longer than the characters of a field.

At the beginning the filter value is automatically set to the account name. Each user will only see their own data.

Hide

When ***Hide*** is checked, the relevant index field is not displayed in the control panel and in the hitlist when using the relevant account.

Hide index fields without filter value

If Hide is selected for an account without specifying a filter value, this account is able to retrieve all documents, but the specific index field is hidden in the Windows Client for this account.

Default

If ***Default*** is checked when a document is checked in, the index field is automatically filled with this value.

Example

Entry in the filter field:

Account	Compare	Filter value	Hide	Default
spielberg\administrator	=	111	☑	☑
spielberg\agents	>	111	☑	☐

The user ***spielberg\administrator*** will see all data which contains the string ***111*** in the filter field. If this user creates and checks-in a document, the value ***111*** is automatically set in the index field. – This also applies if the field is not hidden.

The user ***spielberg\administrator*** cannot see the field in the Windows Client.

In the background the index field is always filled with ***111***. If this user searches for a document, they can only find the documents with this string in the index field.

The users of the group ***agents*** can see all documents with a value higher than ***111*** in the filter field. They will not be aware that the documents are filtered, because the filter field is hidden. If the user created a document, the filter field is not filled with a value. If it is a user who just searches and who does not check documents in, it is not necessary to set a filter as the value is only set during check-in.

> *Note:*
> *When* **Default** *is selected for a user or group, the value set in column* **Filter value** *is filled in database for documents checked-in or edited by the specified user or group.*

AND/OR Relation filters

a) If in ONE index field several entries are configured for one user, these filter entries are related to ***OR***.

In order for several entries to one user to be connected with ***AND*** in an index field, the following entry can be added to the web.config:

```
<!-- FDServer.FieldFilterSetToAND: 0 = OR, 1 = AND -->
<add key="FDServer.FieldFilterSetToAND" value="1" />
```

b) If one user filters in DIFFERENT fields are configured, these fields are related to ***AND*** or ***OR*** - depending on the settings in the web.config.

If the entry is not in the web.config. ***AND*** is set as a default entry.

Example 1:

Configuration in the file web.config (AND Relation):

```
<!-- FDServer.CombineSearchFieldsWithOR: 0 = AND, 1 = OR -->
<add key="FDServer.CombineSearchFieldsWithOR" value="0" />
```

A user is to be allowed to see a document only if two fields contain a certain value. Configure each filter with the appropriate field for the user. Because the filter is in this case related to ***AND***, the user is allowed to see the document not until BOTH fields are applied.

Example 2:

Configuration in the file web.config (OR Relation):

```
<!-- FDServer.CombineSearchFieldsWithOR: 0 = AND, 1 = OR -->
<add key="FDServer.CombineSearchFieldsWithOR" value="1" />
```

A user is to be allowed to see a document only if one of two fields contain a certain value.

Configure each filter with the appropriate field for the user. As the filters are related to OR the user is allowed to see the document if ONE of the fields is applied.

Line Colour

With this, background colours of lines within the document lists of FileDirector WinClient can be change, according to field values.

The displayed line colour is linked to definable conditions for field values. The set condition defines how a content of a field is interpreted for line colours.

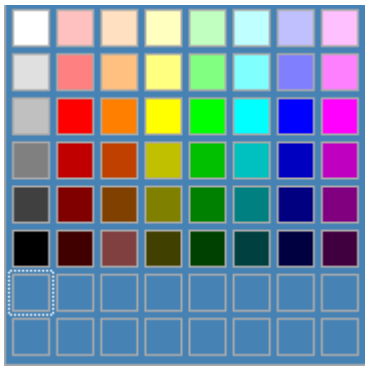
It is possible to define several conditions for different values of an index field.

Available conditions are: ***Equal***, ***Not equal***, ***Less than***, ***Less or equal***, ***Greater***, ***Greater or equal*** and ***Range***.

The reference value is entered into the first column ***Value***.

When the option ***Range*** is selected, the start value of the range is entered into the first column ***Value*** and the last value of a range is entered into the second column ***Value***.

Colour



In the column ***Colour***, a drop-down menu offers a pre-set range of colours.

In addition, an individual colour can be set.

This can be done by a right mouse button click on one of the blank squares of the two bottom rows. An extra window is opened, where the individual colour can be defined and added.

Conditional Colour

With this, background colours for fields, displayed in the control box of FileDirector WinClient, can be defined.

The background colour is adapted, when a value, matching a condition, is entered.

The displayed conditional colour of an index field is linked to definable conditions for field values. The set condition defines how a content of a field is interpreted for conditional colours.

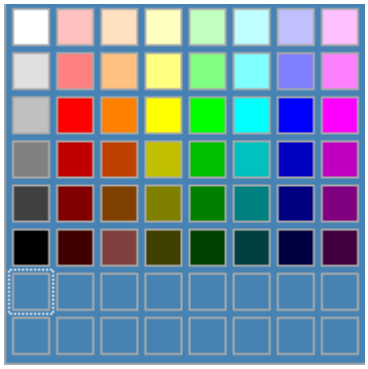
It is possible to define multiple conditions for different values of an index field.

Available conditions are: ***Equal***, ***Not equal***, ***Less than***, ***Less or equal***, ***Greater***, ***Greater or equal*** and ***Range***.

The reference value is entered into the first column ***Value***.

When the option ***Range*** is selected, the start value of the range is entered into the first column ***Value*** and the last value of a range is entered into the second column ***Value***.

Colour



In the column ***Colour***, a drop-down menu offers a pre-set range of colours.

In addition, an individual colour can be set.

This can be done by a right mouse button click on one of the blank squares of the two bottom rows. An extra window is opened, where the individual colour can be defined and added.

Document Types

Overview



In a FileDirector Cabinet, documents are organised and filed in Document Types. Since each Document Type can be configured individually, it can specifically be modified to the customers' workflow requirements.

FileDirector allows an unlimited number of Document Types to be created in a Cabinet. These Document Types can be changed, amended or deleted at any time.

New Document Type



Click on the ***New*** tool after selecting ***Document Types*** and the Document Type configuration window will open.

General Document Types Properties



Selecting the Document Types icon and choosing the ***Edit*** tool will allow you to set an alias and sort order for the Document Types.

Alias

By default, the Windows Client will label the Document Types drop-down list as ***Document Types***. You can choose to override this with a description of your choosing.

Sort Order

You can select the order in which the Document Types drop-down list will display in the Windows Client. Pressing the ***Sort A-Z*** button alternately, you can sort the list in ascending or descending order.

You can also manually select the order in which the Document Types are displayed by selecting one in the list, then dragging and dropping it in the required position.

Other Aliases

By default, the Windows Client will label the list showing documents held locally as the ***Local Documents*** list. You can choose to override this with a description of your choosing on the ***Other Aliases*** tab.

Duplicate Document Type



Existing Document Types in a Cabinet can be duplicated. Select the item to be duplicated and click the ***Duplicate*** icon. A new Document Type will appear in the list, which has the same name but prefixed with ***Copy of***. This Document Type has exactly the same properties as the original. If required, the new Document Type can be changed by selecting the ***Edit*** icon.

General

In the General tab the name and the storage pool must be specified. A description text for this Document Type can be entered in description. The description would be displayed in a tool tip in the Windows Client, when the mouse cursor stays on the Document Type name. In this way a user can promptly achieve information about the Document Type used.

Storage Pool

Image data is saved in the storage pool. The SQL database Cabinet only stores index information. By default a directory filedirector.data is created during installation. The account ***fd-server*** must have full control of this directory.

Basic configuration

The basic configuration of storage pools is specified in the *Storage Pools* chapter. The storage pools configured can be assigned here.

Disable Revisions

With this option set, revisions will not be created and stored in the Document Type. An example could be incoming mail that has been scanned initially. Index information and annotations can be applied without storing a revision each time. After distributing and working on the incoming mails, they can be stored in the relevant document types.

This setting can only be applied when creating the Document Type. Once the Document Type has been created, it cannot be changed.

Include in full text OCR reading

The Document Types can be set for full text reading individually. If a full text scheduler is configured, it works on the Document Types specified for full text reading.

For configuration of full text search: *see Full text scheduler*

Notes:
If the scheduler is introduced, after documents have been archived, they are also processed by full text reading.
Notes for full text recognition of pdf-documents:
You must distinguish between the pdf-files. There are editable and non-editable pdf-files. Non-editable pdf-files could be e.g. tiff-files converted into pdf-format. These files are not unpacked during a full-text recognition and therefore not read full text. Only editable pdf-file can be read full text, whereas these files must not be compressed or encrypted.

Perform instant OCR reading

If this option is checked, full text reading is immediately performed on a document after Check In on the server. For each Check In of a new document the OCR engine must be started. This can result in delays and reduced performance of the system during check in.

Note:
A full text search can only be successful when the scheduler has been executed, which fills the full text index in SQL server.
See Setup SQL Server for full text reading

Accept signed docs only

If only signed documents are to be checked in to the Document Type this option must be set. For documents which are checked in by a user in the Windows Client, the user needs a signature which must be provided by the administrator. The user must load the signature from the FileDirector WinClient menu ***Extras*** ⇨ ***Options***. The user must load his signature to ensure documents will be checked in with the signature in this Document Type.

If a scheduler is configured to check in documents in a Document Type which only allows signed documents, the certificate must be loaded to the FileDirector Server.

Note:
See server certificate.

Use for E-mail storage

With this option selected, the user's email address specified in their user account is used as a filter when searching for emails. When a user searches within the Document Type, they will only be able to retrieve those emails that were either sent to or received by them.

If this option is not selected, they may be able to see emails sent to or received by all other users.

Use for AutoCapture

With this option selected, the document is set for the usage with the optional FileDirector AutoCapture module. FileDirector AutoCapture needs at least two document types configured – a document type for ***New documents*** and a document type for ***Process documents***.

An individual and descriptive name can be entered in the field ***Display name***, above.

> *Important:*
> *It must not be configured with more than one document type as* **New documents** *per cabinet.*

Settings	Description
New documents	A document type, set to ***New documents***, is the inbox for the FileDirector AutoCapture routine. The routine checks this document type for new documents and sorts, after a successful recognition, the processed documents into one of the document types, which are set up as ***Process documents***. It must not be configured with more than one document type as ***New documents*** per cabinet.
Process documents	Document types, set to ***Process Documents*** are target document types, where FileDirector AutoCapture stores processed documents after a successful recognition. Multiple document types can be set to ***Process documents*** per cabinet.

Document Type ID

The Document Type ID is needed to narrow down database search requests to the documents of a certain Document Type. The ID denotes the unique number under which a Document Type is stored.

Document Type Fields

Once fields are created, they can be used in several Document Types. If that is the case a search can be performed over more than one Document Type.

In the ***Fields*** tab select the required fields to be associated with the Document Type from the total pool of fields available. Clicking ***Add*** will display the list of available index fields for selection.

The fields are displayed in the Windows Client in the order which is specified in the Document Type setup. The fields selected for the Document Type can be sorted automatically or manually. Clicking on the ***A to Z*** button will sort the field display alphabetically, alternating between ascending and descending display.

To select the display order manually use ***Drag and Drop***. Select a field press the left mouse button and move the relevant field to the new position.

New fields can be added, and fields removed from the list. When a field is removed, the next fields move up one position. The fields can be resorted and rearranged

Extended Settings on Document Type

For index fields extended properties can be set, for example ***Empty not allowed*** or ***Set to system date/time***. These settings are specified when creating the fields.

Note:
See Extended settings.

The setting specified is a general setting which is valid for all Document Types.

The extended settings of each field can be changed individually for each Document Type by clicking the properties of a field in a Document Type (double click or right mouse button – Properties) and change the setting there, they are different from the general settings. As default value, the general settings are specified. The field list to each Document Type displayed in the right part of the Enterprise Manager window displays the actual extended settings.

On this level you can define the keyword lists to provide different keyword lists for a single keyword field in different Document Types.

You can also define whether the keyword field should be used for the filing system, a manually typed input is allowed or a multiple selection is provided.

Line Colours

The background colour of record in the Document Lists can be set, depending upon the value held in a field. This can be set by the selecting the ***Line Colour*** tab in the ***Field Settings***, within a Document Type.

First, a condition must be set. The options are that a value held in the field should be: Equal to, Not equal to, Less than, Less or equal to, Great than, Greater or equal to, a between a range.

Once the condition has been set, either one or two values can be entered. For all conditions apart from Range, one value should be entered into the first Value field. For a Range, the start value and the end value should be entered.

The colour to be used can be selected by clicking on the Colour dropdown.

Multiple conditions can be set so that different colour backgrounds can be used.

Note:
Not displayed in FileDirector WebServer.

Security for all Cabinet Document Types



Selecting ***Security*** on the ***Document Types*** node, a window containing an overview on all Document Types and their security setting of the selected Cabinet is displayed.

To configure rights for the Document Types select the Document Types with the mouse.

By holding the Ctrl or shift key and selecting the fields with the mouse it is possible to select and change multiple fields at once by using the space key after selecting.

In the lower part of the window the group membership of the selected user is displayed or the members of the selected group.

Using the button ***Show rights for…*** the rights at Document Type level for a group or user can be displayed. Multiple selections with Ctrl or shift are also possible.

Document Type Security

On the Security tab, individual access profiles for the relevant Document Type can be configured. When clicking ***Add***, a list of the available users and groups are displayed for selection. For each user and group the access rights can be specified in the lower part of the window by checking boxes ***Allow*** or ***Deny***. Using the ***Remove*** button, the selected user or group entry can be removed from the list.

When a Document Type is created, only the user that created it is granted permissions for the Document Type.

Generally all rights specified on Cabinet level are automatically inherited to Document Type level. If a new user or group is added by clicking ***Add***, the inherited rights (squares) are displayed after clicking ***OK*** and refreshing this window.

For granting access rights, the user must be specified on Cabinet level because the user must be able to see the relevant Cabinet to work with it. On Document Type level a denial of rights can be configured. In order to explicitly deny rights, the check box should be set to Deny, the removal of the relevant tick is not sufficient.

The properties of the rights are similar to the rights at Cabinet level.

See Rights at Cabinet level.

Specify rights at document level

If a user has full control at Document Type level, he is able to specify individual rights for single documents directly in the Windows Client.

See: FileDirector WinClient User Manual ⇨ Windows Client Rights on document level

Rights on Document Types

The access right system is built hierarchically so that access rights on Cabinets are inherited to the Document Types of that Cabinet. ***Deny*** always has a higher priority than ***Allow.***

If rights should be allowed or denied, the relevant check box Allow or Deny should explicitly be checked. If only the tick is removed, the relevant group rights or inherited rights are automatically used.

Full access

Allows the user to allow or deny rights. Ensure that the administrator user for FileDirector has full control.

If this right is denied, the administrative user cannot change access rights.

> *Note:*
> *If group FD-admins is deleted, it is automatically recreated with all rights after restart.*

Create

If Create is denied for a user, they may create documents in their local cache, but they cannot be checked into the server. This only applies for the creation of new documents.

Amending pages or changing of a document is not denied when this option is denied.

Delete

If deleting is denied, the user may not delete documents already checked into the server.

Documents in the local Document folder and the Inbox may be deleted.

> *Note:*
> *Deleting a document on the server does not delete the index record or the data itself. The document is marked as deleted in table* **FD_Documents** *and is then no longer listed in the search results.*

Modify

If this option is denied, check out of archived documents is not possible. Modifying of new documents on the local list and check in afterwards is allowed.

View

If View is denied for a Cabinet, the Cabinet is not displayed in the Cabinet list and cannot be selected for opening.

Download

If Download is denied, the index information of a document can be retrieved and displayed, but the relevant pages are not displayed, because downloading these documents to the local list is forbidden. Changing of index is not possible.

> *Note:*
> *With these options the control and configuration of the local cache is important! If standard authentication is used, the security may not be sufficient, if users with different permissions in FileDirector work on the same PC.*

Download revisions

When Download revisions is denied, a user can only display the latest revision of the document. Older revisions are not available.

Change annotations

Annotations stored on a page cannot be changed, if this right is denied to a user.

With this setting, parts of a page can be hidden for certain user or groups.

Scan

If this right is denied, the user has no scan options in the Windows Client. The Scan tab will not be available.

Edit

If editing is denied, the ***Edit*** tab will not be available.

Print

When ***Print*** is not allowed, the printing options available in the menus are inactive and are not accessible.

Document Type Views

Within the ***Views*** tab individual settings for users and groups for the fields in the control box and the Search Results in the Windows Client for a Document Type can be set.

These settings can be defined for the Search and Edit/ Scan tabs separately.

Additionally, the views for displaying index fields in the control box and the Search Results list can be configured individually.

User & Group Names

In the upper section of the ***View*** tab users and/ or groups can be added, removed, or the settings of a previously configured group or user can be copied.

The settings for a user or group can be be configured only when the the user or group is selected.

Views

The Document Type fields will be listed, and can be added to the Control Box Index list and the Search Results list. The selected field will be either shown in the Index and Hitlist tabs or only in the selected tab.

This depends on the selected button.

 Adds the selected index field or index fields to the active tab.

 Adds the selected index field or index fields to both tabs.

 Removes the selected index field or index fields from the active tab.

 Removes the selected index field or index fields from the active tab.

Different configurations can be set for the cabinet Control Box Search tab and the Search Results list, and the Edit & Scan tabs in the Control, Box and the Document list.

Any fields not already added can be added by selecting all the fields and pressing the Add all fields button

Fields can be removed from the Index and Hitlist tabs by selecting them and then pressing the Remove field button.

The selected fields can be ordered by dragging and dropping the fields to the desired order, or by using the up and down buttons to move fields.

If the view settings are only configured for one of the two tabs - ***Search*** or ***Edit/ Scan***, the tab without any assigned fields is evaluated as ***denied view*** and none of the fields are displayed.

> *Note:*
> *If none of the fields are displayed for a user, the search for that user within that Document Type cannot be restricted, and the server will return all documents of that Document Type as a search result.*

Default Value

Any of the selected fields can be set with a default value that will be displayed in the Cabinet Control Box in the WinClient. Select the field in the Index tab, and type in the Value field next to the field name.

Separators

Insert a separator

This adds a separator to the index field's view. Using separators provides the option to divide the index fields into logical sections. A name can be assigned to each separator by adding it to the ***Value*** field next to the separator.

Insert group separator

All fields shown below a Group separator will not be automatically displayed in the Windows Client Control Box. The Group of fields can either displayed or hidden. The end of the field group is the next separator, or the end of the field list. . A name can be assigned to each separator by adding it to the ***Value*** field next to the separator.

> *Note:*
> *Separators are not linked with the document and are therefore not stored with the documents of the selected Document Type.*

Edit/ Scan Tab Settings

In the ***Edit/ Scan*** tab in the lower section of the window are the available fields of the Document Type. If a value is added for a selected field in the index tab on the right side of the lower section, this value is used as a default value in the Windows Client for that index field.

The fields are assigned as described for the ***Search*** tab.

Keyword Lists

Overview



FileDirector allows a simplification of repeated manual indexing with use of keyword lists, which contain abbreviations for often used index entries. These abbreviations are automatically converted to full index entry during indexing. Several index entries are possible; they are displayed in a selection box.

FileDirector allows an unlimited number of keyword lists to be created. They can be amended, changed and deleted anytime.

Create new keyword list

With the Keyword lists icon selected, choose the ***New*** tool and the window for keyword list creation is displayed.

General Settings

The keyword list name and a descriptive text are specified for the keyword list. A keyword list can be filled either by entering keywords one at a time manually or by importing from a file.

Clicking ***OK*** creates the keyword list. This is denoted by the new entry in the keyword list appearing in Enterprise Manager.

Sort Order

Once keywords have been added to a list, they can be sorted either manually or automatically. The keywords will be listed in the ***Sort order*** tab and can be sorted alphabetically, ascending or descending by clicking on the ***A to Z*** button. Alternatively, keywords can be moved up and down the list manually, either by dragging them to the required position in the list, or by selecting a keyword and using the ***Up*** and ***Down*** arrows to move it to the position required.

Create new Keyword

To create a new entry in an existing keyword list, the keyword list must be selected in Enterprise Manager. Clicking ***New*** opens the keyword editing window which allows the creation of a new keyword entry.

Keyword Name

Enter the name of the keyword in the Name field. Using one or more Shortcuts can speed up manual indexing in the Windows Client.

Keywords cannot contain ***;*** or ***\.***

Shortcut

If one or more Shortcuts are to be specified for a keyword, they must be entered separated by a semicolon.

If a shortcut is already in this keyword list, a message appears. Shortcuts and names must be unique. There is no distinction between upper and lower case writing.

> *Note:*
> *Blanks are considered part of a shortcut.*

If a description is specified for a keyword list, it is displayed in the list of keyword lists in Enterprise Manager for easy identification.

In the section ***Extended settings*** linked keyword lists can be configured. Index fields and lists to be linked have to be created first.

See Link keyword lists

If a keyword name is updated in the list, the change can be applied to each document the keyword is associated with by selecting the ***Update the latest revisions of your documents to reflect this keyword change*** setting.

Import keywords from file

Structure of text file

The text file consists of ***Name***, ***Shortcut*** and a ***Description***. A field separator should be defined which should not be a semicolon, as semicolons are used as a separator between shortcuts.

If only one shortcut is used for each keyword, a semicolon can also be used as a separator character.

Examples

Import file with separator semicolon:

Miss Ulla Schmitz;schm;Secretary

Mr. Anton Miller;mi;Accounts

Import file with separator comma and several shortcuts:

Miss Ulla Schmitz,schm,Secretary

Mr. Anton Miller,mi;an,Accounts

Blanks can be used in keywords, as they cannot be used as separator characters.

Field Separator / number of header lines to be skipped

When a keyword list is created from a third party application the resulting file may contain header lines, which should not be imported. This can be configured in ***Number of header lines to be skipped***.

The ***field separator*** for keyword list import can be set. Field separators can for example be a comma, semicolon, the pipe symbol (|) or other printable characters. Blanks and tabs cannot be used as field separators.

Both of these are specified within the Keyword List ***Settings*** tab.

Connect keyword list to a field



After a keyword list is created it can be connected to an index field. It can then be used for indexing in the Windows Client afterwards.

Create a new index field in the section ***Fields*** or select an existing one.

See Fields

Select ***Keyword*** in the section ***Contains*** of the field settings. The section ***Keyword list*** in the bottom part of the settings window can then be configured. Connect this field to one of the keyword lists created.

> *Note:*
> *When linked keyword lists are used, only the primary list is connected to the field. Fields containing secondary lists must be specified as Keyword in Contains, but the connection to a list is done via the linked fields in the relevant keyword lists.*

Allow manually typed input

If this option is marked in addition to the defined words you can add entries using FileDirector WinClient. The entries can either be added by using the Edit tab of the control box or within the index capture window.

These user-generated entries are added to the keyword list.

Note:
Not supported in FileDirector WebServer.

Allow multiple selection

If this option is set, the user can link a document with several keywords simultaneously. The keywords are selected by a mouse click directly from the keyword drop down list. They are stored in the relevant index fields' separated by semi colons.

Calculate keyword usage

This option is on the right side of the FileDirector Enterprise Manager in the ***Extended*** section when the content of a keyword list is shown.

The usage of a keyword can be calculated by selecting the keyword and pressing ***Calculate keyword usage***. The result is shown in the column ***Usage*** of the selected keyword.

Link keyword lists

With linked keyword lists, the content of an index field is limited to certain values, depending on the contents of another index field. An example explains the use of this facility, which is useful for a lot of applications. The depth of linked lists can be larger than explained in this example.

Example:

1. The Index field ***Country*** will contain a selection of countries stored in a keyword list.
2. If a country is selected in this field, a second index field, ***City,*** will display only the cities of the country selected previously.
3. The primary list in this case is a list of countries.
4. First, Create and link lists
5. Create a list of countries and a list of cities for each country.
6. Connect field ... to list
7. If a country is selected from the list, only the cities of this country will be displayed in the relevant index field for the cities. In this case, for ***England****, the* field ***Cities*** is linked with keyword list ***English cities***.
8. Connect linked lists to fields
9. The lists must be linked to index fields for proper indexing according to the lists.
10. The field ***Country*** should offer the available countries stored in the keyword list ***Countries***. In the field ***City*** only the cities linked with the relevant entry in the primary list of countries will be displayed in index field ***City***. The cities (keyword list) must be selected dependant on the selected value in ***Country***. For the field ***City*** the ***Contains*** property ***Keyword*** must be selected.

Duplicate keyword list



Existing keyword lists can be duplicated in a Cabinet. Select the relevant keyword list and choose the ***Duplicate*** tool. A new keyword list is created carrying the same name plus additional numbering appended. This new keyword list has identical properties compared to the original one. The properties of the new keyword list can be changed and edited according to the requirements of the application.

Dynamic keyword lists using ODBC

In order to fill keyword lists dynamically, an ODBC link must be created first. Via this link all data sources can be used, which can be accessed via ODBC drivers – for example a SQL database, an Access database, a text file, an Excel spread sheet or an Oracle database. General information about configuration of an ODBC data source can be found in *Setup ODBC link in Windows.*

Prepare ODBC link for keyword list

The keyword list to be imported must be located in a table which contains the columns ***Name***, ***Shortcut***, and ***Description***. If these columns are present, they can be assigned in FileDirector during configuration of an ODBC link.

While assigning three categories, the keyword lists are displayed at the end of the listed fields:

<Keyword name>
<Keyword shortcut>
<Keyword description>

If these columns are assigned according to the entries in the keyword list, the ODBC link can be used for configuration of a keyword list.

Assign ODBC-link to a keyword list

Open the ***Settings*** for the keyword list. The ODBC-link can be selected here.

Afterwards the keyword list field must be defined, which should contain the ODBC link. Create a field with property ***Keyword list***. Specify the keyword list, which is stored with the underlying ODBC-link.

Merging of fixed and dynamic entries

A keyword list with an ODBC link can also be completed with values, which are entered directly in FileDirector. When displaying the entries in the Windows Client the fixed entries are displayed first, followed by the dynamic entries.

Dynamic keyword lists (ODBC) and normal ODBC links

A keyword list being filled with an ODBC link can also be linked to another ODBC-list. As in normal linked lists this configuration is set in ***Field*** ⇨ ***Settings*** ⇨ ***Extended settings*** ⇨ ***ODBC-link.***

The filling can for example be performed as follows:

- A shortcut is entered into the keyword field.
- The shortcut is automatically replaced by the keyword from the ODBC table of the keyword list.
- The keyword can be looked up in a different ODBC table and using this information, further fields can be filled according to the standard ODBC procedure.

Note:
These settings must be carried out with great care in order to ensure correct functionality.

Filing System Designer

Overview



FileDirector provides an easy way to offer an Explorer-like structure in the Windows Client. The tool is the Filing System Designer.

Preparations

The first step is to create in the Cabinet an appropriate number of fields as keyword fields for the number of levels you want to create in your filing system.

The keyword lists connected to the created fields should be empty. All entries should be created within the filing system designer.

Starting the Designer

The designer is started by choosing the ***Filing system designer*** tool.

Document Type

Select the Document Type the keyword fields are linked with. The index field level is shown below this option.

The index field level is defined by the sorting order of the fields in the Document Type. The field on top of the list is the highest level in the index field levels.

Allow new entries

The checkbox toggles the option on or off to show the ***new entry node*** at the end of each keyword list.

Load

Previously saved structures of the filing system can be loaded either from file system or from the database.

Save

The designed structure can be saved. This can be done in an XML-file or into the database. The option ***Save to file*** saves the structure as XML-file.

The option ***Save to settings*** saves the structure into the database.

Save as

The designed structure can be saved. This can be done in an XML-file or into the database.

The option ***Save to file*** saves the structure as a XML-file.

The option ***Save to settings*** saves the structure into the database.

> *Note:*
> *This function differs from the function* **Save**, *because the internal ID's of the keyword lists are changed.*

Expand all

Expand the whole structure of the filing system with a single click.

Collapse all

Minimise the whole structure of the filing system with a single click.

Create filing system

In the lower part of the window enter the names for the different classifications.

This is done by simply typing the name. After confirmation, a new empty entry on the same level is shown.

Repeating this step will create new entries at the same level.

Filing System Security

You can control access to the filing system directories by setting access permissions. The permissions can be used to define the access level that you want to set for specific users and user groups.

The appropriate configuration in the filing system designer is of crucial importance in preventing unauthorised access to documents.

The rights in FileDirector filing system created with the filing system designer must not be considered separately from the rights on cabinet or document type level.

The rights of the filing system stick to the rules of the general rights system FileDirector provides – with a few special characteristics

Deny generally takes precedence over an allow permission but an explicit set ***allow*** on level 2 in filing system can take precedence over an inherited ***deny*** right on level 1.

Rights applied explicitly to a user or a group take precedence over rights inherited from a group. Permissions from different user groups, set at the same level, are cumulative.

For example, a user is member of two groups where one group is granted ***allow*** on the right ***View*** and the other group is configured with ***allow*** for ***Print***, the user will have both rights on this level – ***View*** and ***Print***.

If the right ***View*** is denied on cabinet or document type level for a user or a group, cabinet and document type are invisible.

In case there is no permission set for a user or a group on cabinet or document level, the cabinet and the document type is visible but not the documents within.

In general, rights are inherited and merged from a higher level, respectively from cabinet or document type level in case rights are not configured explicitly for a user or a group.

> *Note:*
> *A right setting with denied all except the right view should not be applied because in this case no document would be visible on that level or levels below. The right* **View** *is related to the right* **Download**.

Right click on a keyword in the storage system designer, and then select ***Security***.

Security

In the Security tab you can set permissions for users and groups against the specific keyword. Select the User or Group, and then either ***Allow*** or ***Deny*** each of the available settings.

> *Note:*
> *Explicitly set corrections for users or groups in the storage system designers use the inherited corrections of Document Type override.*

Full Access

Full Access allows the user to set permissions. You should make sure that the fd-admin has these rights.

Create

The user may create new documents, but will be unable to check them in to the server. This applies only to the creation of new documents. Editing documents is not affected.

Delete

If the deletion is denied, the user may not delete a record from the server. Documents in the local Document folder and the Inbox may be deleted.

> *Note:*
> *Server-side delete does not delete from the database, but is marked as deleted, and will no longer be included within a search.*

Modify

If this option is denied, editing of archived documents is prevented. Editing of new documents on the local list and then check in is permitted.

Display

For a filing Cabinet, the display is generally denied, so the user cannot select the file Cabinet when opened.

Download

With Download denied, the document index data can be seen as a result of a search, but the document itself cannot be downloaded and viewed.

> *Note:*
> *With this option, the administration of the local cache and logins are important. Multiple users logging in to FileDirector on the same workstation may have access to another user's local cache.*

Download Revisions

With this option denied, the user can view only the latest version of the document.

Change Annotations

With this option denied, the user cannot change any annotations on the document.

Scan

If this right is denied, no scan options are available.

Edit

When ***Edit*** is denied, the Edit tab in the Windows Client will not be displayed.

Print

If printing is not allowed, then the print options in the menu are inactive or no longer available for the user.

Advanced

On the ***Advanced*** tab, you can define, for an index field associated with a keyword list, the keyword that will be displayed.

Select in the Index field from the drop down list, then the keyword list. The keywords will then be displayed with a checkbox next to each one. Only the keywords selected will be displayed when the list is viewed in the WinClient.

The option ***Filter dependent lists*** must be selected in the index field ***General Properties***.

Filing system in the WinClient

The settings carried out in the designer are shown in the Windows Client as soon as you open a Document Type which is set up for this filing system view.

Therefore it is possible to mix the standard view and the filing system view in one Cabinet.

Storage Pools

Overview



FileDirector stores the index data of the archived documents in the corresponding database on the database server and documents in a storage pool. There, in addition to each document, an XML file is stored that describes the documents and the index data respectively.

The storage pools are created, configured and managed in the Storage Pools section.

Possible locations for FileDirector storage pools are the ***File system***, ***FileDirector Container*** and ***Microsoft Azure Blob storage***.

During installation, a storage location is always defined in the ***FileDirector Config Utility (Server)*** in the ***Database tab*** under ***Default Storage Location***.

This location is displayed in the table in the ***Default pool*** area with the description ***Default location***.

Note:
The Container and Azure options require a FileDirector Container licence.

New Storage Pool



Choosing the ***New*** tool a window for creation of storage pools is displayed.

General Settings

In the ***General*** tab, first select the preferred ***Target*** and thus also the type of storage location. Three different types are available here via a drop-down menu.

Target	Description
File system	***Image data*** and the associated ***XML files*** of the documents are stored in the file system. By default, this is the ***default pool*** that was specified as the default storage location in the ***FileDirector Config Utility (Server)*** when the FileDirector ECM system was installed. *Note:* *Even when using the* **FileDirector Container** *option or* **Azure**, *a* **File system** *type target must always be set up as well.* *Documents are always stored in the file system first and then, if applicable, transferred to a storage location of the type* **Container** *or* **Azure** *via a scheduler.*
Container	Defines a storage location for the use of FileDirector containers. A system must not contain only one storage location of the type ***Container***. The configuration of the storage location is done below in the ***Embedded Container*** section. *Note:* *Also when using the* **FileDirector Container** *option, the* **image data** *and* **XML files** *of the documents are always stored first in a* **File system** *type location.*
Azure	Defines a storage location for the use of a ***Microsoft Azure Blob Storage***. A system must not contain only one storage location of the type ***Container***. The configuration of the storage location is done below in the ***Azure*** section. *Note:* *Also when using* **Microsoft Azure Blob Storage**, *the* **image data** *and* **XML files** *of the documents are always stored first in a* **File system** *type location.*

Setup storage pool

The configuration settings of a storage pool can be opened by a double click on the selected storage pool.

A dialogue window appears where settings can be specified for a storage location, its priority among the existing storage pools and the number of documents to be stored per subdirectory.

File system and container

Initially, the document and index information will be saved as image data and XML files into the file system. The structures of the folder and the files require as much space again for backing the storage pool up. Backing up large volumes of folders and files can also be quite time consuming.

By using a container, the data of the file system can be compressed, encrypted and saved in planned intervals, managed by a scheduler. FileDirector is able to read the data directly from a container when required.

Advantages of using containers:

- The newly typed data can be saved. Existing data need not be saved again. (Incremental backup).
- The disc space will be used more efficiently due to compression.
- The cluster units are used more efficiently due to the larger data packets and therefore less disc space will be needed.
- Due to the Blowfish – Encryption, if a user has rights on the data folder of FileDirector they still cannot access this data.
- Data backup is much faster.
- The size of a packet of saved data is variable. This makes the back up to different types of media easier.

Note:
A licence is required to use the container. If you do not own this licence, you can only configure container but the scheduler will not work.

File system and Microsoft Azure Blob Storage

Initially, the documents and the corresponding index information will be saved as image data and XML files into the file system. These files will then be transferred by a scheduler to the set-up Microsoft Azure blob storage location.

Note:
A FileDirector Container licence is required to use the option Azure. If you do not own this licence, you can only configure Azure but the scheduler will not work.

Setup Storage location

By default document data is stored in the directory ***\filedirector.data***. This location is setup during the installation and configuration of FileDirector using the ***FileDirector Config Utility (Server)***. This location is always of the ***File system*** type.

If a page of a document is to be displayed in the FileDirector client applications, the relevant document must be downloaded from the storage pool.

> *Note*
> *If a UNC path on a network is specified, the settings can be made on any computer in the network which runs an Enterprise Manager. If a local path on the server is used (e.g. C :\...), the settings can only be performed on the server, as this path is evaluated from the PC as a local path. The data may not be found on the server and the settings must be repeated and corrected on the server itself.*
> *Do not use mapped paths, because they depend on the log in of the users.*
> *The user fd-server may not access these folders, but the administrator can do that. You should only use "real" drives or UNC paths.*

After the initial installation of FileDirector, additional storage locations and types can be setup, using FileDirector Enterprise Manager.

Access to the storage location

The account ***fd-server*** must have full control on the directory created and used for document storage. If not, FileDirector cannot manage document data correctly.

Priority

Any number of storage locations can be specified in a storage pool. Which storage pool is used, can be specified by assigning priorities. If a storage location is full, the storage location with the next priority is used. The size of a storage place depends on the size of the disc. To change a storage place it must be set manually to ***read only***.

A priority can only be assigned once, including container and file system storage locations.

Configuration: Type File system



Storage Location

Path of the storage location.

If a local path on the server is used (e.g. C :\...), the settings can only be performed on the server, as this path is evaluated from the PC as a local path.

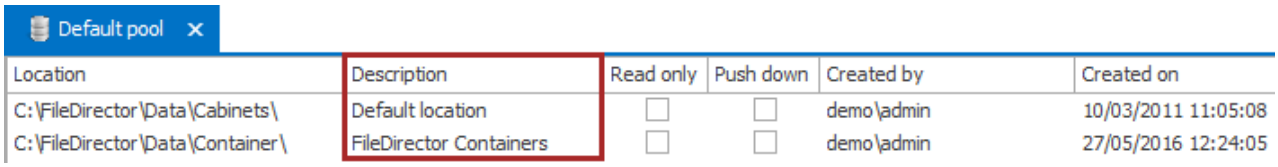
If a UNC path on a network is specified, the settings can be made on any computer in the network which runs an Enterprise Manager.

> *Note:*
> *Do not use mapped paths, because they depend on the log in of the users.*

Description

The given description will be shown in the table of setup storage locations.

Example



Priority

The preferred priority can be selected, using the drop-down menu. A storage location can be either set ***1***, ***2***, ***3*** or ***4***.

Here, a storage location with ***Priority 1*** is used ***before*** a storage location with ***Priority 2***.

Thus, a lower priority must always be selected for a local storage location of the ***File system*** type than for an associated storage location of the ***Container*** or ***Azure*** type, since a local storage location is always used first for storing documents and these are then transferred to a ***FileDirector Container*** or a ***Microsoft Azure Blob storage*** via an appropriate scheduler.

> *Note:*
> *A priority can only be assigned once, including container and file system storage locations.*

Number of Documents per Sub-Location

The number of document stored in a subdirectory can be specified. If the number specified is reached, a new subdirectory (Location-SubID) is created automatically. The documents are stored in a subdirectory named with the Cabinet ID denoting the relevant Cabinet. In this subdirectory the documents are stored as subdirectories, which are named according to the GUID of the document.

Parts of a document

Each document consists of the document itself in the original file format and the corresponding XML file with the index data. The index data is also stored in the cabinet's database on the database server. The thumbnails displayed in the client applications are not stored as separate files; they are part of the XML description.

Changes/Revisions

When changes are made, only new or changed pages are stored.

For electronic documents, the whole electronic document is again stored in its original format.

Currently using Sub location (Location-SubID)

The current subdirectory displays, how many directories have already been created and to which directory documents are currently stored.

Location is Read-only

Storage locations can be set to read-only. Documents stored in these locations can be retrieved and even edited but new revisions of existing documents will be stored in a different storage location. Also storage locations set up to read-only.

Push-Down search (Jukebox)

The push-down search is a setting for the usage of jukeboxes. It indicates that the data is always located in a sub directory.

Configuration: Type Container*



The data is written from the file system to a container by the scheduler. The container file is stored in the predefined folder. The user fd-server must be able to access this location.

A storage pool, where a container is to be created, must always have a storage location from which the data is moved via the scheduler into the container. A container is only configurable when a storage location exists.

Storage Location

Path of the storage location.

If a local path on the server is used (e.g. C :\...), the settings can only be performed on the server, as this path is evaluated from the PC as a local path.

If a UNC path on a network is specified, the settings can be made on any computer in the network which runs an Enterprise Manager.

Note:
Do not use mapped paths, because they depend on the log in of the users.

Description

The given description will be shown in the table of setup storage locations.

Example

Default pool

Location	Description	Read only	Push down	Created by	Created on
C:\FileDirector\Data\Cabinets\	Default location	☐	☐	demo\admin	10/03/2011 11:05:08
C:\FileDirector\Data\Container\	FileDirector Containers	☐	☐	demo\admin	27/05/2016 12:24:05

Priority

The preferred priority can be selected, using the drop-down menu. A storage location can be either set ***1***, ***2***, ***3*** or ***4***.

Here, a storage location with ***Priority 1*** is used ***before*** a storage location with ***Priority 2***.

Thus, a lower priority must always be selected for a local storage location of the ***File system*** type than for an associated storage location of the ***Container*** or ***Azure*** type, since a local storage location is always used first for storing documents and these are then transferred to a ***FileDirector Container*** or a ***Microsoft Azure Blob storage*** via an appropriate scheduler.

> *Note:*
> *A priority can only be assigned once, including container and file system storage locations.*

Location is Read-only

Storage locations can be set to read-only. Documents stored in these locations can be retrieved and even edited but new revisions of existing documents will be stored in a different storage location. Also storage locations set up to read-only.

Maximum size

The container files are stored to the indicated folder with the maximum size limit which is defined beforehand. This ensures that the data packets fit to the used storage medium.

Three options are available:

- 620 MB
- 700 MB
- 4400 MB

Encryption

The data encryption is implemented through a Blowfish-Algorithm. Depending on the password, all XML and image files are encrypted when checking in. The password can only be assigned once. The encryption can only be decrypted if the password is known. Please use it with care. The length of the password must be between 6-10 characters.

Compression

When selecting ***Compression***, the data is compressed in a 7-zip format.

Exclude

Existing file formats can be excluded. As a default setting ***.zip***, ***.rar*** and ***.jpg*** is already stated.

Information to container file

The file name is combined from the Cabinet-ID and a continuous number. In the stated storage location, several files will be created depending on maximum size that was defined initially. The overall size shows the size of all container files existing in this directory. The size and name of the active file will be shown in Current size and Current name. Container files have the extension *.FDDC (Field Document Container).

Automatic purge of container files

When documents, e.g. by a retention control process, are deleted, they remain in the corresponding container file.

A container is only purged and deleted, when all documents in this container are deleted by an action, taken in FileDirector.

An example of this action is purging a no longer used document type, using the FileDirector Enterprise Manager option Purge Cabinet.

Important:
Container files must not be manually deleted, using Windows file system.

Configuration: Type Azure (Microsoft Azure Blob Storage)



The data is written from the file system to the specified Microsoft Azure Blob Storage location by the ***Cloud Storage container scheduler***.

A storage pool, where a storage location of the type ***Azure*** is to be created, must always have a storage location from which the data is transferred via the scheduler to the Microsoft Azure Blob Storage.

The transferred data is checked against the ***MD5 hash*** value generated by Microsoft.

Important:
Documents that are permanently deleted via FileDirector, for example via the **Purge cabinet** *function or via* **Retention control**, *are also deleted from an Azure-type storage location.*

The Microsoft Azure Blob Storage must first be created and configured in the ***Azure Portal*** interface.

After creating and configuring the Blob Storage in the area ***Storage account*** ⇨ ***Containers*** of the ***Azure Portal*** interface, the connection to this storage location is set up in the Enterprise Manager via the ***Connection*** and ***Priority*** options, below.

Hint:
The Microsoft Azure Portal offers two options under the general settings for Blob Storage, Temporary Delete, for both Blobs and Containers.

Connection

This is where the connection string to the Microsoft Azure Blob Store is stored.

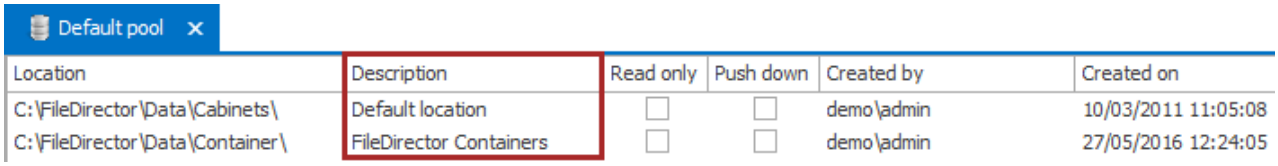
This information can be found within the Microsoft Azure Portal, in the section ***Security + networking*** ⇨ ***Access Key***.

> *Note:*
> *It is recommended to use the Connection string Key 1 to connect to FileDirector.*

Description

The given description will be shown in the table of setup storage locations.

Example



Priority

The preferred priority can be selected, using the drop-down menu. A storage location can be either set ***1***, ***2***, ***3*** or ***4***.

Here, a storage location with ***Priority 1*** is used ***before*** a storage location with ***Priority 2***.

Thus, a lower priority must always be selected for a local storage location of the ***File system*** type than for an associated storage location of the ***Container*** or ***Azure*** type, since a local storage location is always used first for storing documents and these are then transferred to a ***FileDirector Container*** or a ***Microsoft Azure Blob storage*** via an appropriate scheduler.

> *Note:*
> *A priority can only be assigned once, including container and file system storage locations.*

Location is Read-only

Storage locations can be set to read-only. Documents stored in these locations can be retrieved and even edited but new revisions of existing documents will be stored in a different storage location. Also storage locations set up to read-only.

Assign storage pools

Storage pools created here can be assigned to Document Types in the Document Type properties.

> *Note:*
> *For further information, see Storage Pools in the Document Types chapter.*

Mirror storage pool

The storage pool can be mirrored to a second storage location/device for backup and security purposes.

Create a second storage pool and specify the storage location for it. Select the storage pool normally used for storing your documents and select ***Settings***. The setting ***Mirror to***, where the second storage pool can be specified as target will be found.

The user fd-server must be able to access the target directory to copy the data.

> *Note:*
> *An existing storage pool is NOT copied. Only files checked in after the set-up of the mirroring option will be mirrored.*

Delete Storage pool/Storage location

A storage location can only be deleted when referring to an empty directory. Setting up a new location with a link to an existing filled directory cannot be deleted. To delete the entry, change the path to an empty directory. Now it can be deleted.

A recently created storage pool uses an already existing location as a default setting. If the location contains data already, it cannot be deleted immediately. To delete a storage pool, the location must be empty.

Splitting a storage pool

If many documents are saved in a storage location, it becomes more and more difficult to back up the data and the performance becomes slower.

This is a description on how to split ONE storage pool and create several storage locations.

To split one storage pool to more storage locations see below.

The structure, in normal circumstances is shown below:

:\filedirector.data\CABINETID.CAB\ 00000001

\ 00000002

00000001 is the Sub-Location. The count of documents in one sub location can be set in the configuration of storage location (here 5000):

Split the Data

For every new location create a new folder with the name of the Cabinet ID, for example;

\filedirector.data1\FD_CabID

The folders must be shared for the fd-server account and must be writeable. For best performance these folders should be on different hard drives. The sub-locations can now be moved to the different storage locations.

Example:

0000001-0000010 in storagelocation1\FD_CABID, (each with 5000 Docs)

0000011-0000020 in storagelocation2\FD_CABID,

0000021-0000030 in storagelocation3\FD_CABID…

Configure the storage pools in Enterprise Manager

After the data is copied to different folders, the storage locations in Enterprise Manager must be relocated to these folders. All locations which are listed in the Enterprise Manager are browsed for documents.

The priorities are set in the browsing order. All storage locations where nothing will be written to must be set to ***read only***. The last storage location in which the current documents are written must be writable.

Example

Storage Pool:

Storagelocation1 = (Priority 1, read only= ☑)

5000 documents in 10 sub-locations = 50000 documents

Storagelocation2 = (Priority 2, read only= ☑)

5000 documents in 10 sub-locations = 50000 documents

Storagelocation3 = (Priority 3, read only = ☐: current storage location)

5000 documents in 10 sub-locations = 50000 documents

Current documents are now saved in the third storage location and the ***read-only*** storage locations can be browsed.

The data in read only storage pools cannot be changed and will therefore only need to be backed up once.

Retention Processing

Overview



With retention control a defined time can be specified for older documents to be removed automatically from the system or to be sent to a defined process.

Retention control can be set individually for each Document Type. In order to start the configured actions, once the configured time is elapsed; the retention control must be activated and be controlled by a scheduler. The retention actions are carried out for all the configured Document Types.

Create Retention Process



To create a retention process select the ***Retention control*** icon and choose the ***New*** tool.

From the subsequent ***Retention Settings*** window, you can define the settings for each Document Type within the Cabinet. All Retention processes performed on documents within the Cabinet are based upon a specific date from which the retention period starts.

Each Document Type can be configured separately, so that different actions are performed, depending upon the requirements for the documents stored within each Document Type.

To apply settings for each Document Type, select the Document Type from the list displayed in the ***Settings*** window, and then apply the Retention settings.

Conditions

Document type

The drop-down menu contains all document types in the cabinet. The rules, defined in section Rules are applied only to the selected document type.

Note:
If more than one document type is to be set up for retention control, a separate retention process must be setup for each document type.

Field values

Within this table, additional conditions can be setup, based on field values. Multiple entries are AND connected.

The corresponding field can be selected through a drop-down menu in the column ***Field***. Only fields, connected to the selected document type are shown in the drop-down menu.



This button adds another line to the table.



This button removes the last line from the table.

Rules

Date based on

The base date upon which the documents lifetime and the action to be taken after the documents lifetime has expired must be configured.

Option	Description
Document creation date	The date the document was created in FileDirector.
Last modification date	This is the date of the last revision.
Index field ***<Date>***	Here a date index field can be selected. All available ***date fields*** of the selected ***Document Type*** are listed.

Retention Period

The Retention Period can be set, applying years, months and days following the selected Base date, after which the configured retention process will start.

Press the ***Plus*** button to add a retention period.

More than one retention period with actions can be configured for each Document Type.

External action



The checkbox ***External action*** allows the implementation of actions into your retention process that are not performed by FileDirector.

When selecting external action, ***years*** is set to ***999***.

Numbers like ***999***,***888***,***777*** etc. are reserved for ***External action***.

In this case, a user has to confirm by ***Commit phase*** this external step in the FileDirector WinClient. Commit phase is located in the ***Edit*** tab of the ***Ribbon tool bar*** and in the context menu of the right mouse button.

Start Action

Multiple, different, consecutive actions can be set here for each document type.

Press the ***Plus*** button to add a retention period.

> *Important:*
> *The first action defined in the list in the* **Start Action column** *will be executed immediately the next time the Retention Control Scheduler runs.*

The following actions can be applied.

Parameter	Description
None	No Start Action will be applied.
Export	Copies document data held in the storage pool to the location set in ***Export to***. The data in database is not changed. The index data and document remains in the Cabinet.
Export and delete	Moves document data held in the storage pool to the location set in ***Export to***. The index data in database is not changed. *Note:* *The export directory should be added to storage pools as the documents are still retrievable for users.* See *New Storage Pool*.

Parameter	Description
Mark as deleted	Flags a document as ***Deleted*** and is not listed on ***Search*** or ***Extended Search*** hitlists of WinClient or WebServer. An ***Info Search*** using the option ***Status: Deleted*** is required to retrieve these documents. *Note:* *The document is not deleted physically from the storage pool and the index data in database is not changed.*
Process	If processes have been defined, the documents can be sent to a specified process.

End Action

The ***End Action*** will be applied to the documents once all retention processing periods have expired.

The available options are:

Parameter	Description
None	No end Action will be applied.
Export	Copies document data held in the storage pool to the location set in ***Export to***. The data in database is not changed. The index data and document remains in the FileDirector Cabinet.
Export and delete	Moves document data held in the storage pool to the location set in ***Export to***. The index data in database is not changed. *Note:* *The export directory should be added to storage pools as the documents are still retrievable for users.* See *New Storage Pool*.
Export and destroy	Moves document data the storage pool to a defined location, and deletes the document held in the storage pool and all index data from the database.
Destroy	Deletes all document data held in the storage pool, and all data from the database.

Parameter	Description
Mark as deleted	Flags a document as ***Deleted*** and is not listed on ***Search*** or ***Extended Search*** hitlists of WinClient or WebServer. An ***Info Search*** using the option ***Status: Deleted*** is required to retrieve these documents. *Note:* *The document is not deleted physically from the storage pool and the index data in database is not changed.*
Process	If processes have been defined, the documents can be sent to a specified process.

Export To

The location that document data should be exported to can be set.

Please note that the ***FD-Server*** account will require permissions to the location selected. Only an administrative FileDirector user can set the export path.

Fiscal Year

The ***Fiscal Year*** setting allows you configure any retention period to action at the end of your company's financial year only. It may be that a document's retention period expires at the end of May, but you only want documents to be processed at the end of your financial year, which is the end of December.

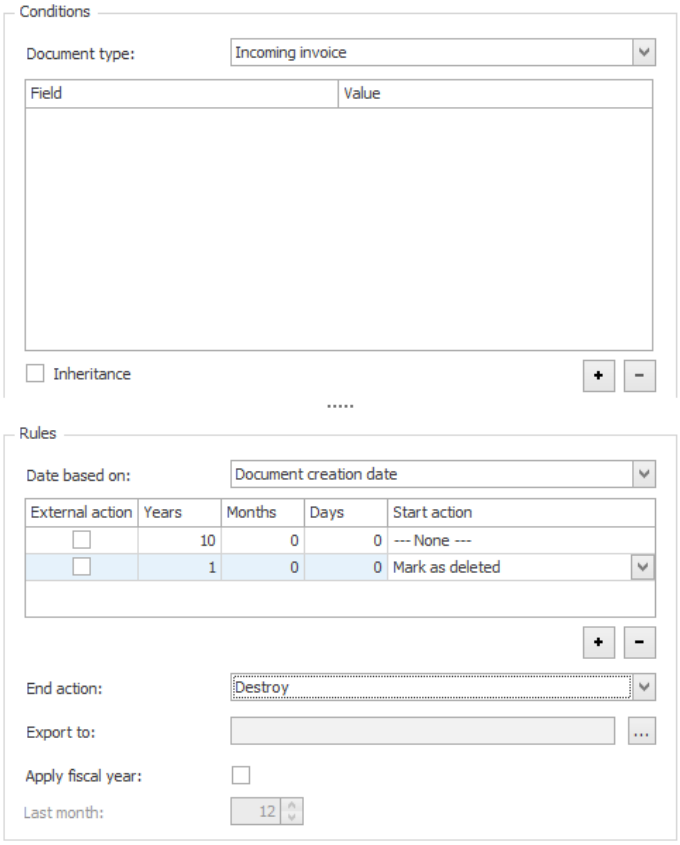
In that case, set the value to ***12***.

Example

The following example shows a ***Retention Control*** for the document type ***Incoming Invoice***.

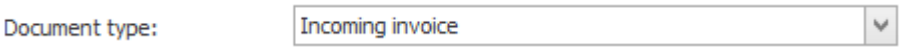
Invoices should be ***Mark as deleted*** after 10 years and ***Destroyed*** after 11 years.

The retention period is based on the ***Creation date*** of the respective document.

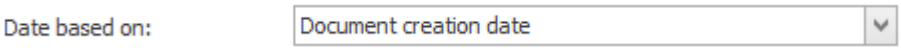


Elements used in this example

Document type



Date based on



First action – None

The action, defined in the first row of the table, is executed immediately the next time the Retention Control Scheduler runs.

The value entered in the ***Years*** column in this example (***10***) starts after the action in this row has been executed and is calculated based on the date defined under ***Date based on***.

In this case the action is ***None*** and is calculated based on ***Document creation date***.



Second action – Mark as deleted

The action, defined in the next row of the table, is executed after the period, defined in the previous row

In this case, after ***10 years***.



End action

The ***End action*** is executed after the period, defined in the last row of the table above

In this case, 1 year after the respective document was ***Mark as deleted*** or 11 years after the ***Document creation date***.



Important:
The values in the table are based on the previous row and are not calculated from the value set under Date based on

Export and Retrieval of Data on CD's

If data is exported to a defined directory, an empty file is created in this directory with a media ID in the filename. (File name: date and exact time, for example: FD 2005-01-17T17_03_48.096.mid) together with the data directory of the Cabinet. This file must be copied to CD in order to make retrieval from CD possible.

In the SQL database this media ID is stored against the relevant exported documents.

Note:
If the action **Destroy** *is set, the documents are completely deleted and can no longer be retrieved.*

In order to retrieve documents from index data still present in the SQL database, the CD drive must be specified as an alternative storage pool. If a document is searched, first the default storage pool and then storage locations according to their priority are searched. Then the search is spread on the *.MID files stored in the SQL database. If the CD drive was specified as an alternative storage pool, the CD with the relevant media ID must be inserted. If it's not present, a message is displayed, and the system prompts for the correct CD to be inserted.

It is necessary to label the CDs with the correct media ID.

Note:
When using **Oracle** *as a database server, the file name of the *.mid file is not specified including the thousands of a second.*

BusinessProcessManagement

Overview



FileDirector documents can be integrated into workflow processes using the BusinessProcessManagement option. In this module the path of a document through the steps of a defined workflow process can be represented electronically.

A process consists of multiple steps that are performed consecutively. Each process step can be individually configured to be worked on or whether an action is to be performed by one or more users. Defined tasks are specified for each user, for example approve, reject, comment or simply view (confirm notice).

If the task specified is carried out, the document is routed to the next step of the process depending on the structure of the process. BusinessProcessManagement controls the path of a document through the single process steps and keeps track of the status and location of a document.

For BusinessProcessManagement a license is required.

Ad hoc Workflow

Using the WinClient, a FileDirector user can create ad hoc processes with a maximum of two process steps. These cannot be managed from Enterprise Manager, and only the user who created them or a Cabinet administrative user can delete them.

Please see the FileDirector Windows Client manual for further information.

Process Flow

Processes are created and maintained using FileDirector Enterprise Manager and selected in the Windows Client and WebServer. A process consists of several steps during which an action can be carried out.

These processes can be selected from a process list in the Windows Client and if necessary a defined action can be run. The sent documents appear in the Inbox of the respective user.

During the definition of new processes, it is highly recommended to have a document flow mapped out, which will assist greatly during configuration.

Security

Selecting the ***Security*** tool while displaying the list of processes will show the window containing an overview of all processes and their security setting is displayed.

To configure rights select the user or group and then the process or multiple processes by holding the Ctrl or shift key and selecting the processes. For each process, you can then allow or not allow permissions to the process for that user or group.

In the lower part of the window the group membership of the selected user is displayed or the members of the selected group.

Selecting ***Show rights for…*** will display the process rights for a user. Multiple selections with Ctrl or shift is also possible.

Global Business Process Properties

Global properties can be configured to be applied to all processes. Select the ***BusinessProcessManagement (BPM)*** icon and choose the ***Edit*** tool.

Office Hours

Office hours can be set so that timeout actions are not triggered outside of working hours.

You can select a range of working days, or individual days, set the working hours, and then press ***Add.***

To remove an entry, highlight it in the list and press ***Remove.***

Business process notification Email

This allows you to configure an email that will be sent to process recipients to inform them of the number of documents in their Inbox waiting to be processed.

Send Email

You can configure the days, and the time of day, that the email will be sent to users.

Email From

A valid email address must be entered in the Email from field.

Email Subject

The Subject of the email can be set. By default it will inform the user of the number of documents waiting to be processed in their inbox.

Email Body

The text of the email can be either text or HTML. If HTML is used, all HTML codes such as Color and Font can be applied, as per the example below:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
  <head>
    <title>Business process management notification</title>
  </head>
  <body>
    <p>You have <span style="color:red"><strong><Count></strong></span>
documents in your personal folder.</p>
  </body>
</html>
```

The ***<Count>*** placeholder can be used in the email content. This will be replaced when sending by the number of documents in the recipients Inbox.

Client launch attachment name

The attachment name can be entered here.

Test

When all adjustments have been made, a test email can be generated to validate the configuration.

User Action - Email Notification

A default email format can be configured to be sent as part of a process.

Email From

The sender of the email must be specified. Specific email addresses can be specified, or they can be read from a field within the FileDirector Cabinet. When reading Cabinet fields the field unique ID must be entered, such as ***FD_12341234***.

Multiple email addresses or Cabinet fields must be separated by a semi-colon.

Email Subject

The subject of the email can be entered. The name of the process action can be used by including ***<ProcessAction>*** in the subject line.

Email Body

The body of the email can be in plain text or HTML. If HTML is used, it can include tags such as Color, Font and Bold.

The email body can include the following FileDirector placeholders, which will add the relevant values to the email:

Parameter	Description
CabinetName	Add the Cabinet Name
DocTypeName	Add the Document Type Name
ProcessName	Add the name of the Process
StepName	Add the name of the Process Step
ProcessAction	Add the Process Step Action
FD_IMGEMBED001	Embed the document in the email body
FD_xxxxxxxx	Add the contents of the specified Field
FDAllFields	Add the contents of all Fields
FDWinCLinkUser	Add link to open document in the Windows Client
FDWebLinkUser	Add link to open document in the Web Client
FDCommentFullAll	Add all automatic and user comments set within the Process
FDCommentFullLast	Add the last automatic and user comment set within the Process
FDCommentUserAll	Add all user comments set within the process
FDCommentUserLast	Add the last user comment set within the process
FDWinCWebLinkUser	Not currently active

Insert user action buttons

Inserts html code for user action button into the selected position.

Client launch attachment name

The attachment name can be entered here.

Test

Use ***Test*** to check the validity of the email configuration.

> *Note:*
> *The test mail is sent to the inbox of the logged-in user.*
> *Please verify that the respective user account has a valid email address.*

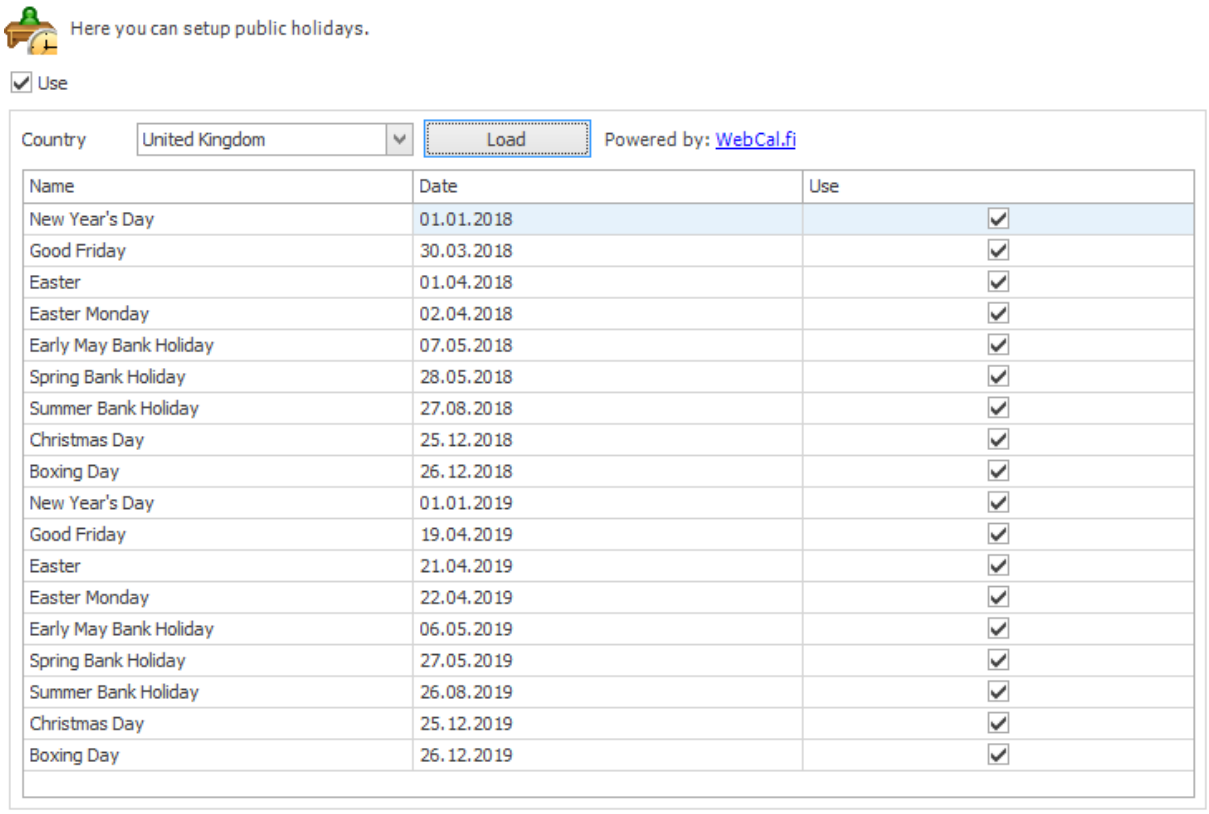
Public holidays (Set field to value)

Through the tab Public holidays, a list of country-specific public holidays can be used for the BusinessProcessManagement.

The public holidays, set up in this tab, are only used in offset calculations in process steps defined as ***Auto action "Set field to value"*** using the option ***Date based on (Offset)***.

In addition, weekends (Saturdays/Sundays) are also added into the offset calculations.

> *Note:*
> *For further information see also* Field value settings.



Name	Date	Use
New Year's Day	01.01.2018	☑
Good Friday	30.03.2018	☑
Easter	01.04.2018	☑
Easter Monday	02.04.2018	☑
Early May Bank Holiday	07.05.2018	☑
Spring Bank Holiday	28.05.2018	☑
Summer Bank Holiday	27.08.2018	☑
Christmas Day	25.12.2018	☑
Boxing Day	26.12.2018	☑
New Year's Day	01.01.2019	☑
Good Friday	19.04.2019	☑
Easter	21.04.2019	☑
Easter Monday	22.04.2019	☑
Early May Bank Holiday	06.05.2019	☑
Spring Bank Holiday	27.05.2019	☑
Summer Bank Holiday	26.08.2019	☑
Christmas Day	25.12.2019	☑
Boxing Day	26.12.2019	☑

Country

The drop-down- list ***Country*** provides a list of available countries. After a country was selected and the list loaded from the website, it is displayed in the table, below.

Table of downloaded public holidays

This table shows the columns ***Name***, ***Date*** and ***Use***. After a country-specific list was selected and loaded, the displayed values in the columns Name and date can be edited.

The column ***Use*** allows a manual selection of the public holidays.

New process

Select the ***BusinessProcessManagement (BPM)*** icon and choose the ***New*** tool to create a new process.

The graphical user interface

When configuring a process, a general settings window appears.

The windows can be expanded or minimised by pressing the icon in the top right corner. The top area of each window summarises the properties as text. The hidden information and properties will be displayed by leaving the mouse over an entry for a second. This information is available even if the window is closed and not all information is visible.

Name of the process

To set up a name of a process, mark it and type in the preferred description.

Description

The name and the description of a process are displayed in the Windows Client during the selection of a process. Thus a user can receive a more detailed description of a process.

Business Process Management Menu

Open or close the windows for all process steps using the process management menu.

Show all details (key page ⇧)
Hide all details (key page ⇩)
Print
Delete - Using this function single action steps are deleted.

By using the Print function an overview of all steps and options is printed as displayed in the window. Opened windows are printed completely, closed windows only with the heading line. Below the printout, the details of a process and the properties for each step are fully listed as text.

When a new step is created an arrow appears on the lower frame. By clicking on this arrow a menu with options to add new actions, a branch or link is displayed.

The description for these options is in the following sections.

Change order and connections of actions

Connecting several actions in series will be graphically connected with a line. For each action, it is possible to have several inputs but only one output. Click on an icon (e.g. icon for auto action) and drag it to a connecting arrow till a plus-icon appears to rearrange the steps of an action. After dropping the step it will be put in the new location.

Pull the arrow via drag & drop onto the junction to be connected to modify connecting lines. Delete a connection by pulling the icon to an empty space. An X will appear because no junction can be found. If you release the mouse click when the cursor is an X, you will delete the connecting line.

If an action is extracted from a process without having a connection to any other step, it is ignored in the process. It can be integrated again later by moving and establishing new connections.

> *Note:*
> *For example, a connection to another step within the same process can be created to ensure that it is possible to create skips within a process.*

Do not accept new documents (Disable process)

When this option is selected the relevant process will not be available within the Windows Client for selection. It is not possible to send new documents to the process. The documents already sent to the process will continue on the process until complete.

If single documents, which have been already sent to a process, should be recalled this process can be stopped immediately in the Windows Client using the info displayed for each document (see User manual).

Not selectable process (Hidden in client list)

If nested processes are created, the users should not be able to see all the configured processes in the Windows Client. This option is used to hide processes in the Windows Client.

Send to process on Check in

New documents

If a new document is checked-in, the process is triggered.

After selecting this option ***New*** will be displayed after the name of the process.

Existing Documents

If an existing document is checked-in the process is triggered.

When this option is selected ***existing*** will be displayed after the process name.

Defining conditions for field values

In this section the conditions are defined that must be fulfilled to send the document to a process automatically.

If a document is sent manually in the Windows Client to this process, the properties of the condition will not be taken into account.

You can define entry points for a process only. If multiple conditions with nodes are to be defined for a document you can do this with a branch. Read the section ***Append new branch***.

The conditions of an entry point of a process can be connected by ***AND*** or ***OR***. The defined conditions must be clear otherwise the process cannot be started.

A test of the contents of the field can be set so that the document gets added to the process only if the value condition is met.

The following options are available:

Parameter	Description
*	Wildcard
=	Equal
>	Greater than
>=	Greater or equal
<	Less than
<=	Less than or equal
<>	Not equal
~	Modified

Add new Auto-Action

Send to agent

The ***agent*** is the user who edited the document and claimed it during a process. If multiple users are specified in the defined user-action-window, the user who claimed the document by the action ***apply*** will become the ***agent.*** If no user claims the document the user who sent the document to the process is the agent.

Send to user

Using this option the document will be sent to a pre-defined user.

Send to user (prompt for name)

With this action, the document will be directed to a user selected from the user list. In the Windows Client the list of users will be displayed for selection.

The actions which must be completed by the selected user are predefined (e.g. ***approve/reject*** or ***comment***).

Send to user (from field)

This option allows the selection of a user whose name is stored in a field. The user must be a FileDirector-User and is listed in the FileDirector accounts list. Only use fields that hold single user names. If a field is used where the name cannot be verified, the setting will be ignored.

Send to email

Using this email function, informative e-mails can be sent during a process step to persons without access to FileDirector.

To send a pre-configured e-mail via an auto-action in a process, an SMTP Server must be configured in the Configuration Utility on the server.

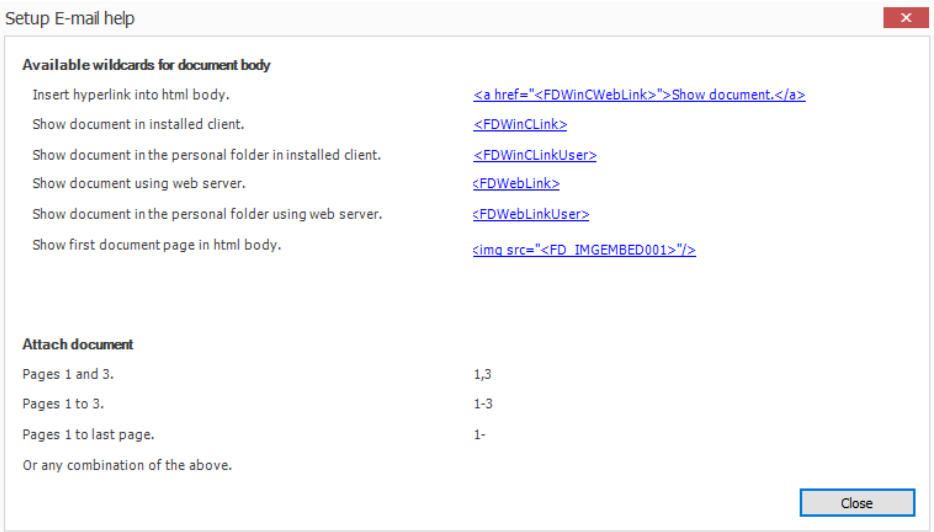
See the Installation manual.

Configure e-mails

Selecting ***Setup email*** allows you to customise the appearance of the email, and a link to retrieve a document using the Windows Client or WebServer can be configured with an HTML definition.

Help Window:

When selecting an entry from the help window, it is copied to where your cursor is in the preview window.



Example

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
  <head>
    <title>Business process management notification</title>
  </head>
  <body>
    <p>Click below to show the document.</p>
    <p><a href="<FDWinCLink>">Show document in installed client.</a></p>
    <p><a href="<FDWinCLinkUser>">Show document in the Inbox in installed client.</a></p>
    <p><a href="<FDWebLink>">Show document using web server.</a></p>
    <p><a href="<FDWebLinkUser>">Show document in the Inbox using web server.</a></p>
    <p><img src="<FD_IMGEMBED001>"/></p>
  </body>
</html>
```

Link in the automatic e-mail to WinClient or WebServer:

In the text file the expression <FDWinCLink> is replaced by the link to the Windows Client in the email created. The entry <FDWeblLink> is replaced by a link to display a document in WebServer.

Embedded preview of the first page in the document of the email

An embedded preview can be configured by adding <FD_IMGEMBED001> to the predefined HTML code. 001 is the first page of the FileDirector document. If this page is not found in gif, jpeg or png format, it will be converted to *.png. The entry needs to be created in an ***img.src*** tag in html.

Email address fields

You can enter a static email address into the email address field or select a field or user account from the drop down list. Multiple email addresses must be separated by a semicolon. If multiple fields containing email addresses are to be used, they also must be separated by semicolon in the following way: ***<FD_12345678>;<FD_12341234>***.

EMail subject

The email subject can be entered, or it can be dynamic. The subject be can defined as the contents of a field The ID of the g field can be entered in angle brackets e.g.: ***Bill no. <FD_12345678>.***

Email-Text

The text of the e-mail can be written either in simple text form or in html-code. If html-code is used, it is possible to configure the font, e.g.: color (example below) or bold type.

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
 <head>
        <title>E-Mail Test</title>
 </head>
 <body>
        <p style="color:red">red</p>
        <p style="color:blue">blue</p>
        <p style="color:black">black</p>

<p> Text <FD_12345678> Text </p>
 </body>
</html>
```

Contents of the FileDirector fields can be included in the email text as well by adding the field ID in angle brackets.

Attach documents

A document can be attached to the sent mail.

It can be defined whether the current document of the selected process, a document linked to the current document of the selected process or a referenced document should be attached to the mail.

Current document

The current document of the selected process is attached to the email.

Linked Document

A document linked to the current document of the selected process, is attached to the mail.

Referenced Document

A referenced document is attached to the mail.

The Document Type of the referenced document must be specified. In addition, an index field of the current Document Type and the corresponding index field of the referenced document need to be associated.

Page Range

If an option to attach the current, a linked or a referenced document is selected, a page range can be set. You can select the pages to be appended to the email.

You can add the filename for a PDF converted document into this field, such as ***Converted_<FD_12345678> pdf, 1*** –The document can be attached in its original format. Alternatively the document can be converted to PDF. For this, you have to configure how electronic documents are converted by the EDoc Conversion. This allows you to set colour or black & white, resolutions and JPG quality.

Black/white converts each page to TIFF format with 200 or 300 DPI resolution.

Colour creates JPEG files with 200 or 300 DPI resolution. By reducing the JPEG quality the file size is reduced.

Client Launch Attachment

The name of the attachment can be set in either ***Show document*** or ***Show document in the Inbox***.

Preview

When all adjustments have been made, a preview of the email can be generated to check the result.

Export document

If this step is set, a document can be exported as a part of the process.

Setup export

The export can be specified with various conditions.

Export this document

The current document will be exported.

Settings

Options	Description
Target folder:	Select a location to store the exported document.
Pages:	Choose which page(s) you want to export. Multiple pages must be separated by a comma, for example: ***1-33***, ***44***, ***55***.

Options	Description
Filename	Export setting ***Original***: The original file name will be used for the respective file. Export setting ***Convert to PDF***: By default, the GUID is used for the file name. ***Example*** XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX.pdf In addition, this option allows it either to enter a specific file name or to use FileDirector index fields for the file name or part of file name. The fields used must not be connected only to the referenced document type. For it, the field ID is needed: ***Example*** XXXXXXXX XXXXXXXX_YYYYYYYY ***Field value***.pdf **Field value_Field value***.pdf*
Original	The corresponding document will be exported in the original file format.

Options	Description
Convert to PDF	Alternatively, the document can be converted to PDF. *Note:* *If* **Convert to PDF** *is selected, the GUID of the respective document is used for the file name by default.* *See also* **Filename**, *above.* The options for the ***EDoc Conversion*** are available after ***Convert to PDF*** was selected. These options include the selection between ***Black and White*** or ***Colour*** and ***Resolution (DPI)***. ***Black and White*** converts each page to TIFF format with 200 or 300 DPI resolution. ***Colour*** creates JPEG files with 200 or 300 DPI resolution and allows to set the ***JPEG quality (%)***. *Note:* *By reducing the JPEG quality the file size is reduced.*
Embed annotations	This will include all annotations added to the document, and they will become part of the exported document.
Overwrite document	This overwrites an exported document with a new exported document, if the file names are identical.

Export referenced document

Only the referenced document will be exported.

The reference document must fulfil the following criteria:

Document Type: Choose the document type for the referenced document.

Index field: Select the first field that is referenced to the field selected second to the current document.

The field value of the referenced document must match the field value of the current document.

Export Settings

Options	Description
Target folder:	Select a location to store the exported document.

Options	Description
Pages:	Choose which page(s) you want to export. Multiple pages must be separated by a comma, for example: ***1-3***,***55***,***55***,***77***.
Filename	Export setting ***Original***: The original file name will be used for the respective file. Export setting ***Convert to PDF***: By default, the GUID is used for the file name. ***Example*** XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX.pdf In addition, this option allows it either to enter a specific file name or to use FileDirector index fields for the file name or part of file name. The fields used must not be connected only to the referenced document type. For it, the field ID is needed: ***Example*** XXXXXXXX XXXXXXXX_YYYYYYYY ***Field value***.pdf **Field value_Field value***.pdf*
Original	The corresponding document will be exported in the original file format.

Options	Description
Convert to PDF	Alternatively, the document can be converted to PDF. *Note:* *If* **Convert to PDF** *is selected, the GUID of the respective document is used for the file name by default.* *See also* **Filename**, *above.* The options for the ***EDoc Conversion*** are available after ***Convert to PDF*** was selected. These options include the selection between ***Black and White*** or ***Colour*** and ***Resolution (DPI)***. ***Black and White*** converts each page to TIFF format with 200 or 300 DPI resolution. ***Colour*** creates JPEG files with 200 or 300 DPI resolution and allows to set the ***JPEG quality (%)***. *Note:* *By reducing the JPEG quality the file size is reduced.*
Embed annotations	This will include all annotations added to the document, and they will become part of the exported document.
Overwrite document	This overwrites an exported document with a new exported document, if the file names are identical.

Export document and referenced document

The current and the referenced document will be exported.

Note:
If the setting **Convert to PDF** *is selected, both documents will be exported into a single PDF file and the referenced document's pages will be appended to the pages of the current document.*

The reference document must fulfil the following criteria:

Document Type: Choose the document type for the referenced document.

Index field: Select the first field that is referenced to the field selected second to the current document.

The field value of the referenced document must match the field value of the current document.

Export Settings

Options	Description
Target folder:	Select a location to store the exported document.
Pages:	Choose which page(s) you want to export. Multiple pages must be separated by a comma, for example: ***1-3***,***55***,***55***,***77***.
Filename	Export setting ***Original***: The original file name will be used for the respective file. Export setting ***Convert to PDF***: By default, the GUID is used for the file name. ***Example*** XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX.pdf In addition, this option allows it either to enter a specific file name or to use FileDirector index fields for the file name or part of file name. The fields used must not be connected only to the referenced document type. For it, the field ID is needed: ***Example*** XXXXXXXX XXXXXXXX_YYYYYYYY ***Field value***.pdf **Field value_Field value***.pdf*
Original	The corresponding document will be exported in the original file format.

Options	Description
Convert to PDF	Alternatively, the document can be converted to PDF. *Note:* *If* **Convert to PDF** *is selected, the GUID of the respective document is used for the file name by default.* *See also* **Filename**, *above.* The options for the ***EDoc Conversion*** are available after ***Convert to PDF*** was selected. These options include the selection between ***Black and White*** or ***Colour*** and ***Resolution (DPI)***. ***Black and White*** converts each page to TIFF format with 200 or 300 DPI resolution. ***Colour*** creates JPEG files with 200 or 300 DPI resolution and allows to set the ***JPEG quality (%)***. *Note:* *By reducing the JPEG quality the file size is reduced.*
Embed annotations	This will include all annotations added to the document, and they will become part of the exported document.
Overwrite document	This overwrites an exported document with a new exported document, if the file names are identical.

Create CSV file

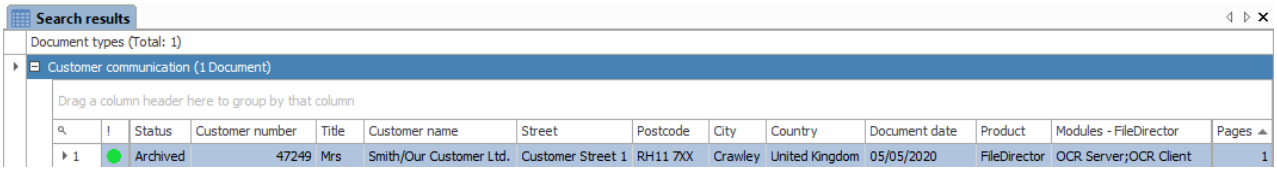
Options	Description
Field seperator:	Select a field separator from the selection box
Field delimiter	Enter an optional field delimiter. Space and Tab are allowed.
Column headers (optional)	Enter the column header names separated by ***;***

Options	Description
Fields to export	Enter fields to be exported to the CSV file Timestamp: followed by formatting information (for detailed information you can refer to http://msdn.microsoft.com/en-us/library/8kb3ddd4.aspx) 8-digit FieldID Filenames
Filename	FileDirector allows the use of a predefined file name, a file name dynamically based on field values and/or timestamps, or a combination of both. *Note:* *If any elements within a dynamically generated file name change, a new CSV file is created.* Sections using field IDs or timestamps within a filename must be closed by the selected separator.

Example 1

The following field values of the document, shown below, will be exported:

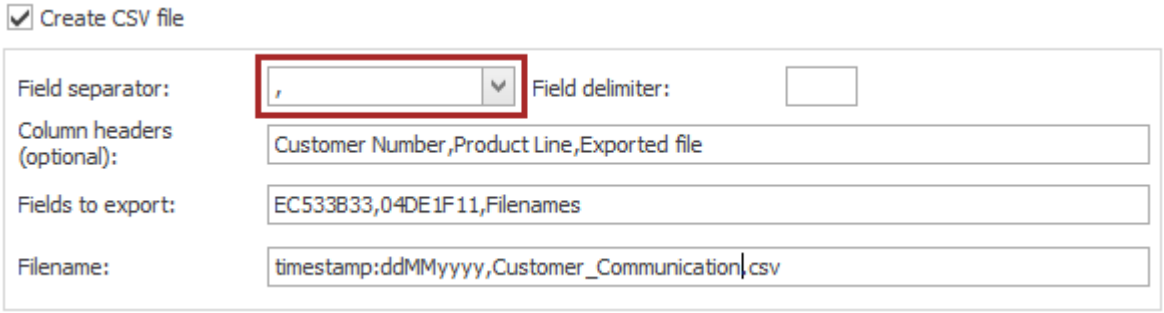
- Customer number
- Product



The corresponding FileDirector field IDs are:

- EC533B33 (Customer number)
- 04DE1F11 (Product)

The section ***Create CSV file*** is set-up with the following settings:



Note:
The selected **Field separator** *must be used to separate the values in* **Fields to export** *and* **Filename**.
Sections using field IDs or timestamps within a filename must be closed by the selected separator.

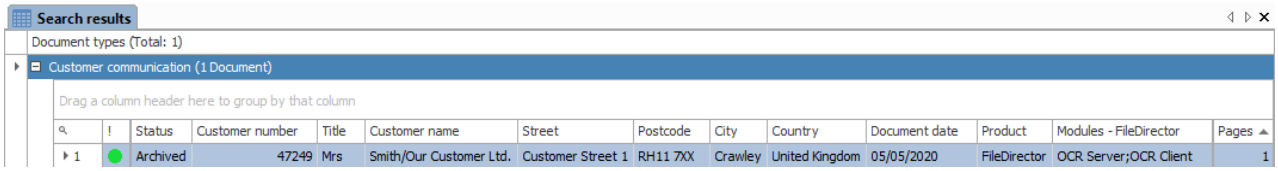
The corresponding CSV file will be:

Field separator	, (Comma)
Dynamic elements	timestamp
Filename (Example)	27102020Customer_Communication.csv
Content	Customer Number,Product Line,Exported file 47249,FileDirector,Example.pdf

Example 2

The following field values of the document, shown below, will be exported:

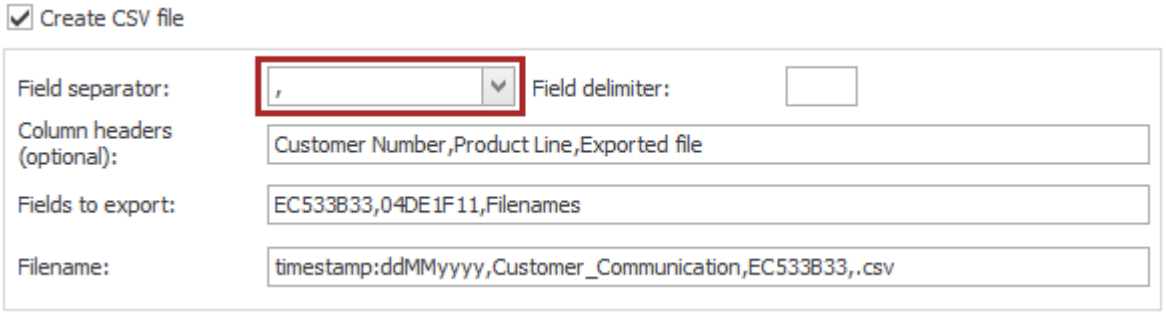
- Customer number
- Product



The corresponding FileDirector field IDs are:

- EC533B33 (Customer number)
- 04DE1F11 (Product)

The section ***Create CSV file*** is set-up with the following settings:



Note:
The selected **Field separator** *must be used to separate the values in* **Fields to export** *and* **Filename**.
Sections using field IDs or timestamps within a filename must be closed by the selected separator.

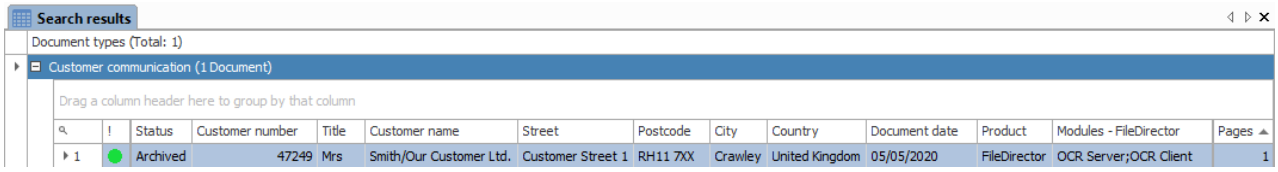
The corresponding CSV file will be:

Field separator	, (Comma)
Dynamic elements	Timestamp Corresponding field value of the field EC533B33.
Filename (string)	timestamp:ddMMyyyy,Customer_Communication,EC533B33,.csv *Note:* *Sections using field IDs or timestamps within a filename must be closed by the selected separator. In the example above, the string ends with* **,.csv**.
Filename (Example)	27102020Customer_Communication47249.csv
Content	Customer Number,Product Line,Exported file 47249,FileDirector,Example.pdf

Example 3

The following field values of the document, shown below, will be exported:

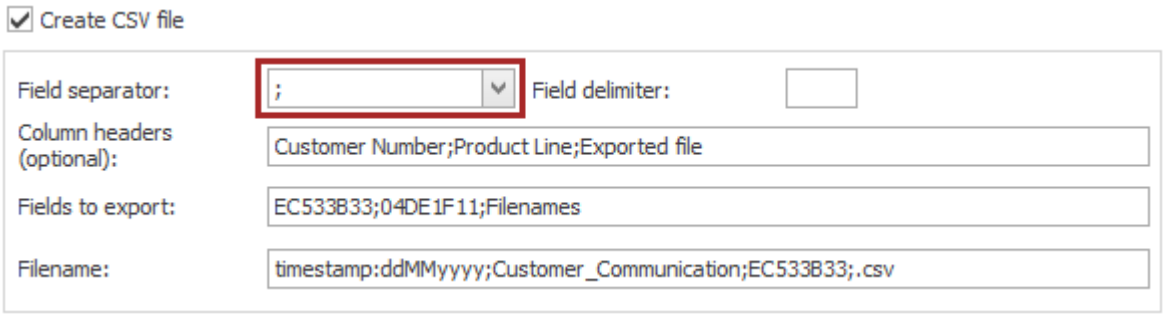
- Customer number
- Product



The corresponding FileDirector field IDs are:

- EC533B33 (Customer number)
- 04DE1F11 (Product)

The section ***Create CSV file*** is set-up with the following settings:



Note:
The selected **Field separator** *must be used to separate the values in* **Fields to export** *and* **Filename**.
Sections using field IDs or timestamps within a filename must be closed by the selected separator.

The corresponding CSV file will be:

Field separator	; (Semicolon)
Dynamic elements	Timestamp Corresponding field value of the field EC533B33
Filename (string)	timestamp:ddMMyyyy;Customer_Communication;EC533B33;.csv *Note:* *Sections using field IDs or timestamps within a filename must be closed by the selected separator. In the example above, the string ends with* **;.csv**.
Filename (Example)	27102020Customer_Communication47249.csv
Content	Customer Number;Product Line;Exported file 47249;FileDirector;Example.pdf

Create completion / confirmation file

Per document: The file is created for each document.

The file name created is the name of the first page of the file stored in the storage location of FileDirector.

Per page: The file is created for each page.

The file name created is the name of the page of the file stored in the storage location of FileDirector.

Extension: Here you could define the extension.

Add: The above defined file extension is not replaced.

Replace: The above defined file extension is replaced.

Example 1 (Add)

Extension	.exported
Add/Replace	Add
File name (Document)	Invoice_47249.pdf
Filename (confirmation file)	Invoice_47249.pdf.exported

Example 2 (Replace)

Extension	.exported
Add/Replace	Add
File name (Document)	Invoice_47249.pdf
File name (confirmation file)	Invoice_47249.exported

Set field to value

Set field to value

If this step is selected a field can be set to a value in the actions configuration.

Set field for this document

This is the default setting for the auto-action.

With this option, the value to be set in the selected index filed will be applied to the current document. Depending on the type of index field, the following options are available:

Set field for a referenced document

Using this option, the value to be set in the selected index field will be applied to another document that matches the set criteria.

In the section below, the criteria is set the referenced document must meet.

Document type

Selection of the document type containing the document, which is referred to.

Index field

The left drop-down menu defines the field of the referenced document. The right drop-down menu defines a field of the document being in this step.

Both field values are compared.

> *Note:*
> *The field values must match for a successful auto-action.*

Field Value Settings

Index Field

Select the Index field to be set from the drop down list. Depending on the field type, different options are available.

Value

When value is selected, a specific value can be manually entered for the field, the agent can be set or the value can be taken from another index field, which can be selected from the drop down list.

Additionally, depending on the field type, the following defined values are available:

Value	Description
<LastModifiedBy>	User who last modified the document
<CreatedBy>	User who created the document
<1*>	Agent user
<1*_Full>	Agent user full name

and the syntax below is possible

<PrevX_00000000_Y_Full>

Variables:

Value	Description
X	1 = The user who performed a view action 2 = The user who performed a comment action 3 = The user who performed an approve or reject action
00000000	The process ID containing the user action. 00000000 means that the step is within the same process the auto action is in.
Y	The step number of the user action you want to refer to
Full	Full name instead of identity name When the syntax ends after the step number with an '>' the identity name is used.

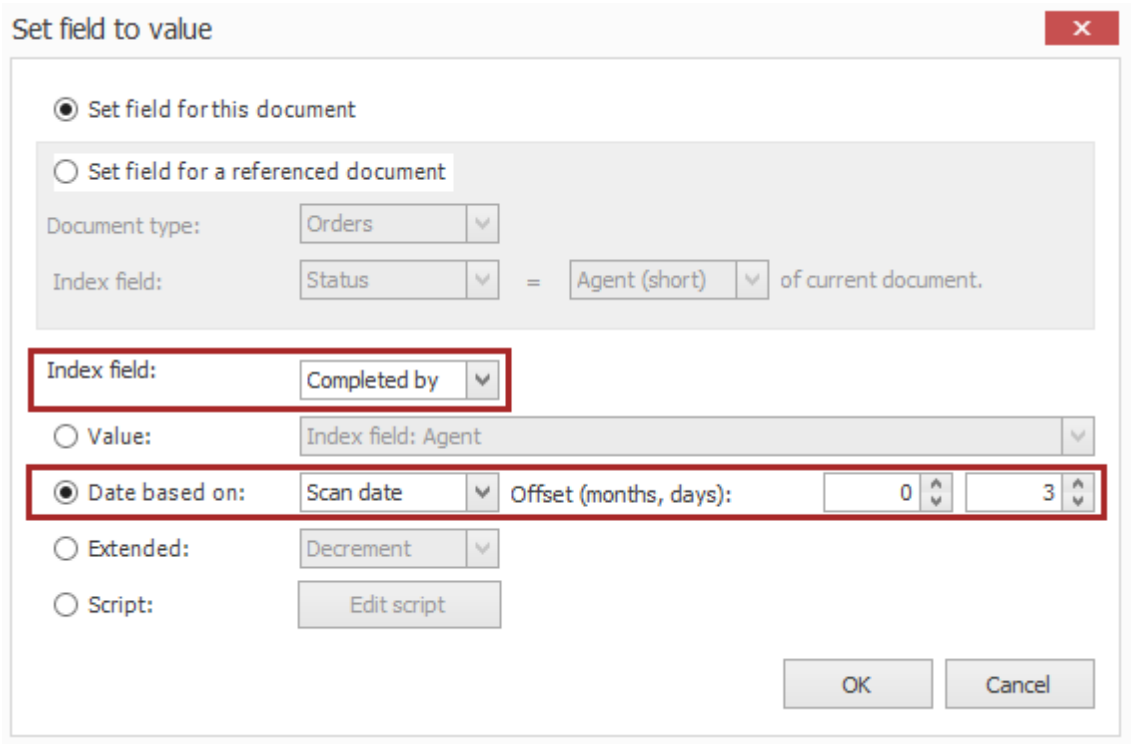
Date based on

When the selected field is a date format field, the date of another Date index field can be written into the field, with or without a date offset. The month and days can be moved forward or back.

Use Public holidays tab

The option ***Date based on*** can be used with a list of public holidays connected.

In this case, the FileDirector server does add a day, automatically, to the offset calculation, if a public holiday is in the calculation period.



Example

A document is scanned and checked into FileDirector on the ***23.12.xxxx***.

Without calculation of public holidays

Without using the feature Public holidays, FileDirector set the field ***Completed by*** to the value ***26.12.xxxx***.

Scan date ***23.12.xxxx*** + a defined ***Offset 3 days*** = ***26.12.xxxx***

With calculation of public holidays

When using the feature Public holidays (United Kingdom), FileDirector set the field ***Completed by*** to the value ***28.12.xxxx***. It adds two extra days because of ***Christmas Day*** and ***Boxing Day***, which are public holidays in the United Kingdom.

Scan date ***23.12.xxxx*** + a defined ***Offset 3 days*** + ***Using the feature public holidays*** (Christmas Day [***+1***] and Boxing Day [***+1***]) = ***28.12.xxxx***.

> *Note:*
> *A list of country-specific public holidays can be set up in the tab Public holidays.*

Extended

The existing field value can be either ***incremented*** or ***decremented*** or the field can be set to an automatically determined value.

> *Note:*
> *Only field type number can be incremented/decremented.*

The following values are available:

Further options

Set to approver/rejecter

Set to commenter

Set to created by

Set to last modified by

Set to short user name (agent)

Set to system date

Set to system date/time

Set to system time

Set to user name (agent)

Set to viewer

Set to week

Set to year

Set to year + week

> *Note:*
> *The field type must allow the selected extended setting.*

Script

A Visual Basic or C# script can be applied to determine the value to be set in the field. An editor is available to develop the script, with an option to test the script.

ODBC index import

If the action ***ODBC index import*** is set in a step of a process, index information can be filled in automatically as part of a process.

Change Document Type

If the action change Document Type is set in a step, a document is moved to the specified Document Type. Index fields which exist in both Document Types are transferred.

Change rights of a document

The rights of a document can be changed in a step. It is possible to force a document to not be changed by specific users after this step.

Delay (prompt for date)

If a step is defined with a delay, a calendar will appear in the Windows Client when a document passes this step. The user is able to determine the period a document is to pass a defined action.

Delay (from field)

With this option a date can be readout from a field. It is mandatory that a field is defined as date field or field containing date and time. To this date a period of time can be added to provide a delay of date + n days.

Execute Plug-in

A server based plug-in can be set to execute when the auto action step is reached.

Cancel pending document

This option can be configured to cancel the current document, or another document in the current or another process.

Add Signature Field to PDF

This auto action adds a Signature Field to PDF documents passing this step.

The field can then be used later in third party applications to sign a document at this position.

Documents that are not yet in PDF format can be converted to PDF/A format beforehand.

Options

Convert to PDF/A

The PDF document is converted to PDF/A format beforehand.

Signature settings

Page

In case of multipage documents, the signature field is either always added to the first or the last page of a document.

Position

After a template has been chosen, an area for the signature field can be defined by clicking and dragging.

This area is applied to all documents that pass through this process step.

Add new user action

In this step-type the action a user has to take is defined. One or multiple users are added to a step that must perform several actions. Furthermore you can define whether a user needs to sign or will be informed via email with a link to this document to perform the defined action (Approve/ Reject, Comment, View or Claim document).

Use timeout

For each step an action to be taken in case of a timeout can be set. In this case the document will be processed automatically after exceeding a term.

Once the timeout is activated a small clock-like symbol  appears as another output for an action. You can define here what should happen in case of a timeout.

The timeout can be used for e.g. an employee cannot process the data during a term because of absence and therefore the document should be sent automatically after a defined period to another user or step.

> *Note:*
> *After timeout within a process, it should be forwarded to another step. This can be configured by creating connection lines via drag & drop to the accordant action.*

Keep copy

This option provides that a copy of a document stays in the users folder after being automatically sent due to a timeout to the next step.

Add user

To add a user, click on the ***Plus*** button in the left half of the window and select the user or users from the list of users who are to perform an action during this step. Only users who are in one the FileDirector groups can be added.

Usually a user is chosen from the list of users able to perform the action. In the field ***variable*** select users from other sources than the pre-set user list. The following settings are possible.

Agent

The agent is a user who resumed a document by using the option ***resume***. This can be another user in each step. The agent is determined during editing.

Prompt user

For the ***variable*** select a field and the option ***ask user***. Then the user who is editing a document is asked in the Windows Client to whom the document is to be forwarded next. Several users can be set up. The Windows Client provides a list of the users selected. The action is determined during the step of a process.

You can use the ***Settings*** to modify or complete the list of users.

Index field

A user can be identified from an index field as well. In the area ***variable*** a field can be selected from the existing index fields. You have to select a field which contains the user the document is to be sent to. This can be e.g. a field which is […] with a wordlist containing the appropriate user names or a field which is automatically fulfilled with the user who applied the document.

> *Note:*
> *a) Users can be entered using their* **Full name***- it's not necessary to use the defined* **Logon name***. In the background the server converts the* **Full name** *to the* **Logon name***.*
> *b) Using word-choice-list please keep in mind that multiple choice is not possible. Only a single user can be selected.*

ODBC link

Under ***Variable*** an ODBC link can also be selected. In this case the users are taken from an ODBC source. The ODBC source must contain a full user name or a short user name.

Prior to this, an index field must be configured as ***business process management user*** in the ODBC link settings.

> *Note:*
> *It is not possible to create an* **ask user** *action with the option ODBC link option.*

Viewer of step…

Under ***Variable*** the option ***Viewer of step***… can be selected in a field. In this case a user selected in a previous step as viewer can be selected.

Commenter of step…

Under ***Variable*** the option ***Commenter of step***… can be selected within a field. In this case a user selected in a previous step as commenter can be selected.

Approver/ Rejecter of step…

Under ***Variable*** the option ***Approver/ Rejecter of step***… can be selected within a field. In this case a user selected in a previous step as approver or rejecter can be selected.

Document: Last modified by/ Document: Created by

The fields ***Last modified by*** and ***Created by*** are maintained by the system automatically and are displayed in the info of a document. As the fields containing user names automatically they can be used by a user during a process.

Actions

View

The user has to display the document and confirm the information.

Comment

The user has to confirm the information by commenting.

Approve /Reject

In case of approval or rejection a separate action can be defined. In the Windows Client two buttons appear with the document in the Inbox which allow the document to be approved or rejected. The text which can be defined appears later in the Windows Client.

Claim document

The option ***claim document*** is used when a document can be edited by several different users of a company. Therefore you would define a user action containing all those users. Each of these users is set up with the action ***claim***. The user who has claimed the document becomes the Agent of the document. The steps and actions set up can be referred to the agent. Therefore create the next user action at the Exit arrow for claim and connect it with the user ***Agent.*** (selectable in ***Variable***) with an action e.g. ***approve/ reject***.

All users have to take action

Action on tie

Using this option you can configure what is to happen if an equal number of users have given positive and/or negative responses.

If during a step even numbers of user all perform an action before the document is forwarded, it may result in having an action on tie.

If e.g. two users have to approve or reject and one of them approves and the other rejects the process decide what to do with the document.

E-Signatures

Configuring signatures

Signatures are configured in the Windows Client. Therefore you need a signature pad and the mock signatures. For the installation and configuration of the signatures please read the ***BusinessProcessManagement*** chapter of the user manual.

Reset/ delete signatures

If a signature needs to be reset, choose the user in ***users and group*** and open the context menu by pressing the right mouse button. Reset the signature by selecting ***reset signature***.

Email

If this option is set in a process, the user automatically receives an email containing a link to the relevant document.

In order to send Emails, a SMTP server must be configured.

See the Installation Guide.

The users Email address can be stored with the properties of a user in Enterprise Manager. Open ***Users and groups*** and select the relevant user. Open the ***Settings*** for the user, and the email address can be entered.

> *Note:*
> *The sender address is automatically assembled by the server -* **fd-server** *and the* **domain** *fd-server@domain and cannot be modified.*

User defined action

User defined actions can be set up for each user. You can list multiple actions separated by a semicolon. The user sees these entries as a list which is to be completed before the document can be processed any further. In case of permissions, the document can be processed or permitted when all matters are fulfilled. The user can open the list and check the articles. When all articles are not yet complete the action ***Reject document*** is the only option available. Single entries are written to the comment to see which articles of the list are already completed. The entries are displayed as a check list in the Windows Client.

Use Colour

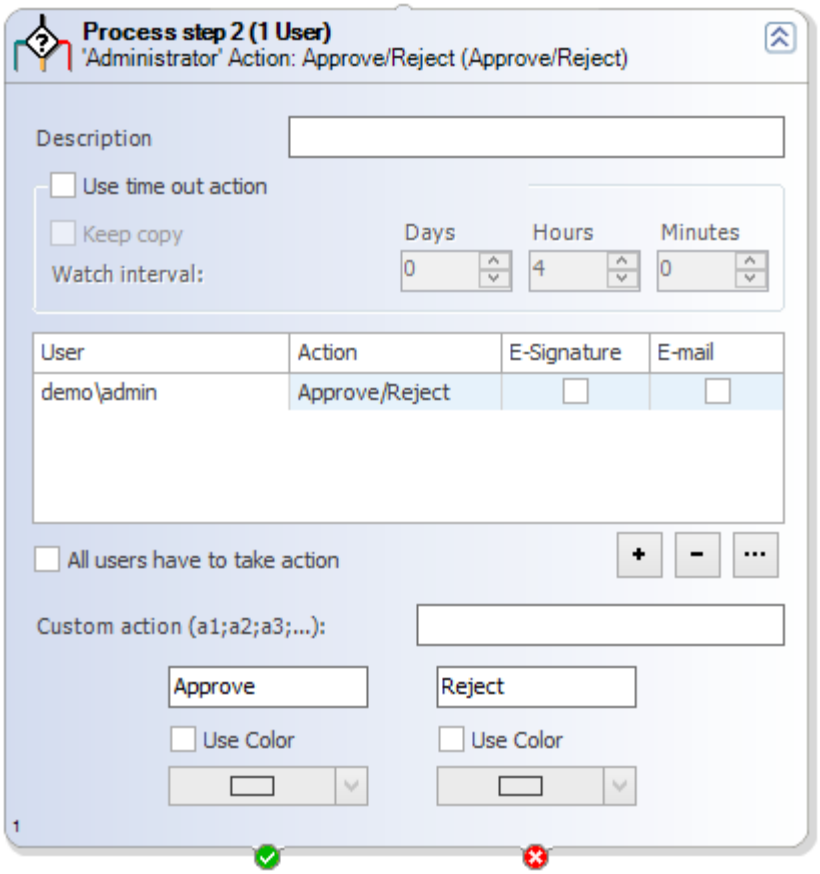
This option can be used to define the colour of the buttons shown for the corresponding ***User action*** in FileDirector WinClient.

The colours, defined here, are applied for all users of this ***User action*** process step.

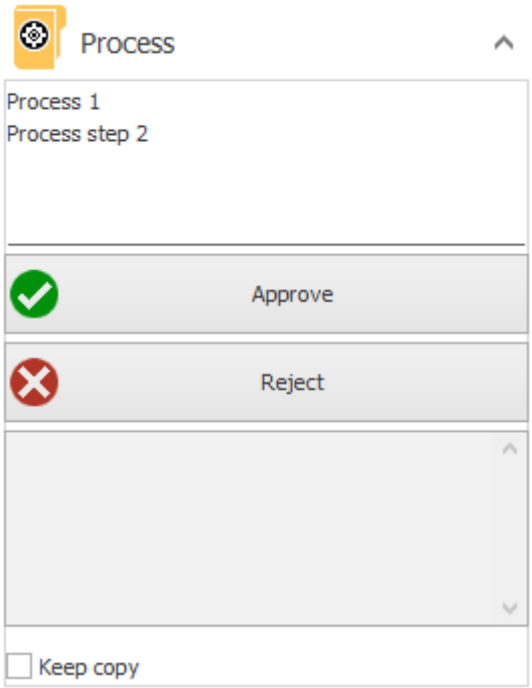
> *Note:*
> *The colours, set here, are used only for FileDirector WinClient. All other FileDirector applications use the default scheme.*

Use colour is not configured

Settings in FileDirector Enterprise Manager

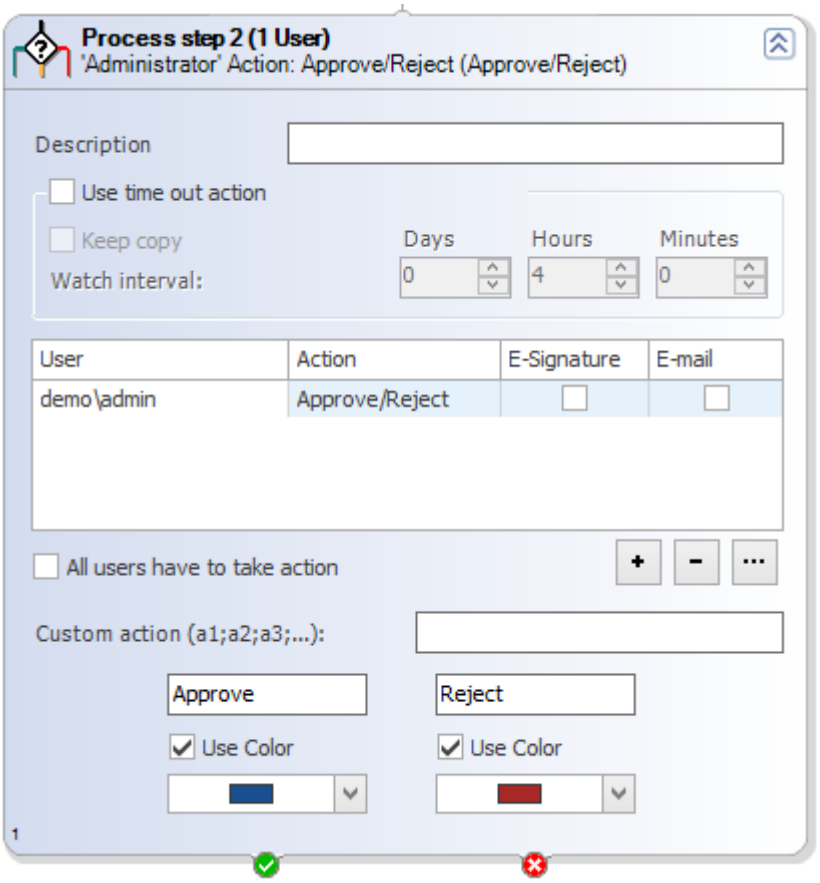


The corresponding display in FileDirector WinClient:

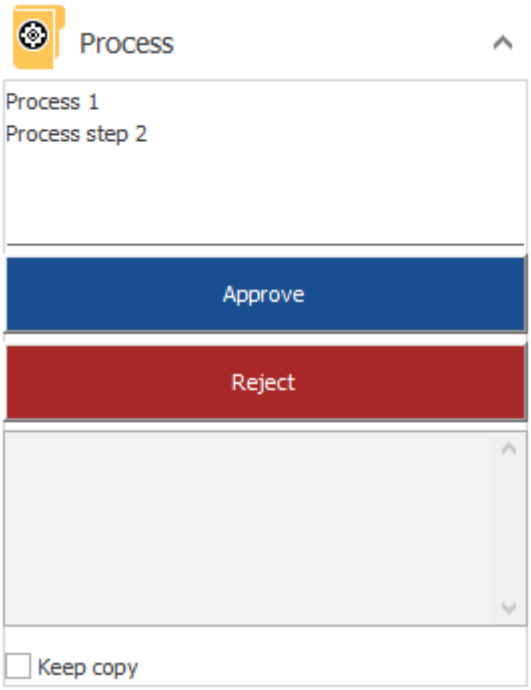


Use colour is configured

Settings in FileDirector Enterprise Manager



This part shown in FileDirector WinClient



Add new branch

Here you can define the nodes of a process, depending on the field content or a user decision.

When several conditions are configured, an arrow for each condition will be displayed. It is possible to define multiple conditions within one ***Branch***.

> *Note:*
> *No contradictory conditions must be set. Otherwise the document cannot be processed correctly.*

FileDirector BusinessProcessManagement has three different types of branches.

Conditional

The definition of a conditional branch refers either to a single document type or to all document types of a cabinet and to an index of a field or indexes of multiple fields.

At least one field has to be given a condition. The field contents is compared to the value, using the following conditions; **** Wildcard***, ***= Equal***, ***> Greater than***, ***>= Greater or equal***, ***< Less than***, ***< Less than or equal***, ***<> Not equal and ~ Modified***. Given they are compared using ***equal (=)*** or ***not equal (<>)***.

In case of multiple fields, they can be linked with ***AND***, ***OR***, **=** or **< >**.

The document type and the content of the specified field or fields are checked when a document hits a process management step of the type ***Branch***.

Parallel

A parallel branch allows the process to route a document through different process actions at the same time.

The option ***Parallel*** can also be used conditions for document type and field indexes.

Example 1:

Multiple departments have to check the same document. Each department must be able to work with a document – independent of the other departments. The process itself should wait until all departments processed a document and then continues with non-parallel steps.

> *Strongly recommended:*
> *If these parallel processes are to be joined again, a workflow setup with status fields for each parallel action will be useful. For joining the parallel steps, a conditional branch, checking for these status fields is recommended.*
> *This helps to avoid infinite loops within a process.*

Example 2:

Documents can be routed internally through the company and be exported to a file system or sent via e-mail to an external department at the same time, without any delay.

In this case, the second path ends after exporting or mailing, while the same document continues on the first, internal path.

Interactive

An interactive branch is for non-static document routing. In this case, the routing cannot be done by previously specified and fix index values. The selection of conditions for document types and field values is disabled.

A process management step of the type ***Interactive Branch*** must be directly connected to a user action.

To add a radio button, click on ***add*** and a number is added to the drop-down menu. The different branches of an ***Interactive Branch***, can be selected from the drop-down menu.

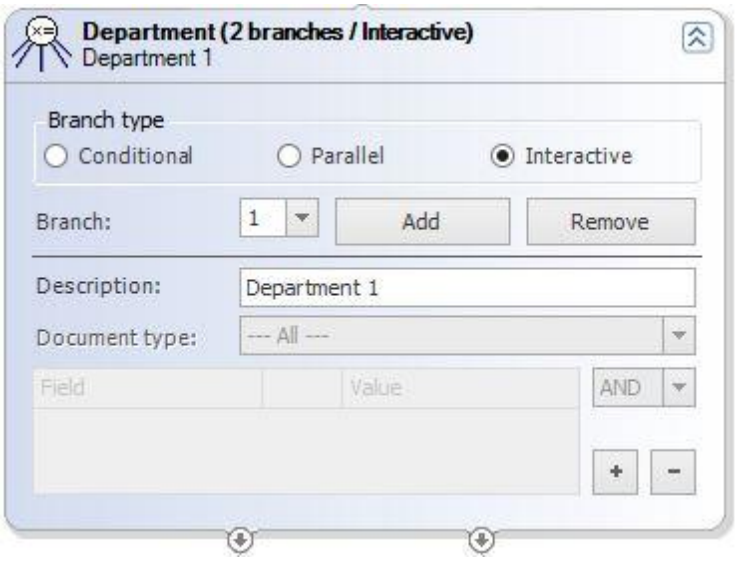
The given description is the naming of the radio buttons, a process management user sees within the pop-up window.

To remove a radio button, the option that has to be removed must be selected from the drop-down menu and click on ***remove*** and the selected number is removed the drop-down menu.

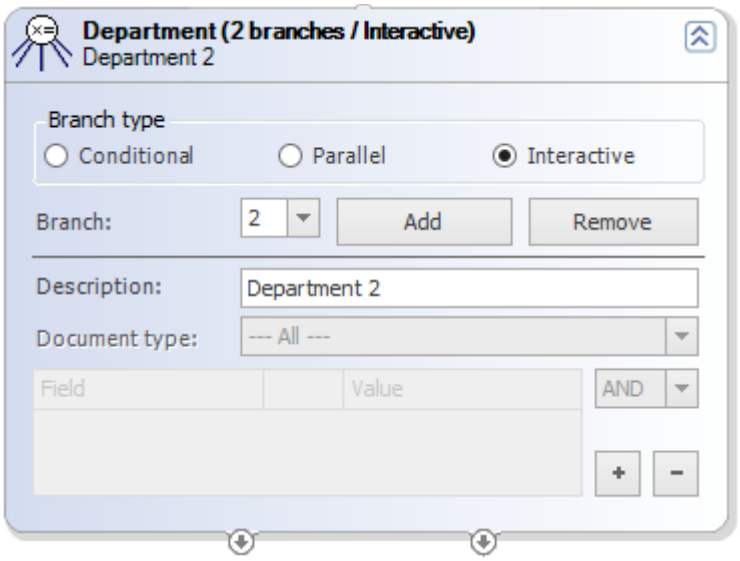
When several options are configured within an ***Interactive Branch***, an arrow for each option will be displayed. With this, the following step, according to the user's decision, must be linked. It is possible to define multiple options within one ***Interactive Branch***.

Example:

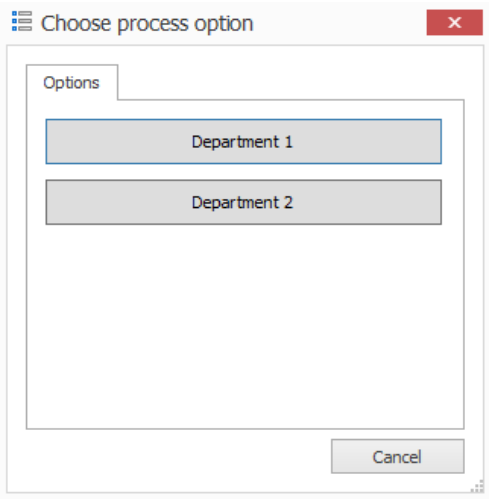
Setup in FileDirector Enterprise Manager for the button ***Department 1***:



Setup in FileDirector Enterprise Manager for the button ***Department 2***:



The GUI in FileDirector WinClient shows two buttons, with the labels, given in the Description.



Add new link

By using a link you can connect one process with another. The process which is linked to must be set up beforehand so that it can be selected here. You can specify any step of a process of the other process.

Change process

No process should be changed or deleted while a document is being edited in a process. A process can be copied, so that it can be changed. A process with a document on it can be changed if it remains logical e.g. no relevant steps of the old process are deleted.

Replace user in process

Select Process management in Enterprise Manager and select a process Choose the ***Replace user in process*** tool.

Using this option you can replace a user in a process without changing every step.

Copy process

If a process is already defined and a similar process is to be created, it can be copied and changed.

Logging process activities

There are different ways to follow process actions:

Activate setting in Audit trail in order to be able to record process management activities and make them visible in Enterprise Manager.

In the FileDirector WinClient: ***Extras*** ⇨ ***Process Status***, the active processes are displayed here.

Select document in the Windows Client and call Info in context menu with right mouse button. All actions are listed, which have been taken on the relevant document.

Distribute Load to several servers

Process load can be distributed to several FileDirector servers.

If several servers are installed with a single license each, one server could for example carry an OCR license and a second server could be equipped with a BusinessProcessManagement license. Process management could be shifted to that server only, which carries the appropriate license.

For the Web farm license model please read explanations in the Installation Guide.

OCR Forms Recognition

Overview



FileDirector can fill index fields automatically with OCR forms using automatic text recognition, barcode or checked boxes.

Graphics or text can be used as identifiers to recognise a form. By using different identifiers on different forms, FileDirector can identify the correct form from the range of configured forms for automatic index recognition and Document Type selection.

Requirements

OCR text recognition in FileDirector is performed by the ***OCR Engine***. This must be installed on each computer which carries out OCR functions. ***Component Services*** must also be installed.

> *Note:*
> *FileDirector ComponentService must be installed first.*

The OCR engine is a licensed option and a computer which is used to configure OCR forms must have access to an OCR licence.

Two different types of OCR are used:

Manual forms recognition

Forms recognition can be started manually when scanning with a scan profile. In this case the OCR engine must be installed on the workstation where scanning is done. The documents are scanned to the local list of the workstation and checked in after manual index control.

Automatic forms recognition

If file import is performed, forms recognition can be carried out on the server. This setting must be configured in the file import scheduler. The OCR engine must be installed on the server. This setup is mostly used in conjunction with VNP used to archive and index output data.

Functionality of OCR Forms Recognition

When forms recognition is used, the imported or scanned documents must have a unique structure. Index data to be recognised and imported must always be located on the same position of a page. Reading zones for OCR recognition can be specified.

Different documents are identified by a graphic (for example a logo) or unique text or a combination of both. These identifiers must be the same and present on each page to be recognised and read.

If a document is identified, the zones are read, the index is created and the document is stored in the relevant Document Type.

If the document could not be recognised, it is stored to a predefined Document Type (fall back). Documents in this Document Type can be manually indexed.

General OCR Properties

Select the ***OCR*** icon and then choose the ***Settings*** action. You can configure general OCR settings which must be set before specific properties for a form can be configured.

An OCR form can only be created if a ***Fallback-Document Type*** has been created and assigned. This can be done during creation of the first OCR form or later in the properties of the OCR node in the section OCR parameters. All non-recognised documents will be put into this Document Type and be indexed later and put into the correct Document Type.

> *Note:*
> *If a user is to use the OCR form recognition, they must have permissions for all Document Types which can be recognised. When using the form recognition, access to the Fallback-Document Type for unrecognised documents must also be provided.*

Improving Full text/AutoCapture

The OCR properties set here, are used for OCR forms and full text reading.

The full text reading is an important part of the FileDirector AutoCapture option. Thus, the OCR properties effect the quality of the FileDirector AutoCapture results.

Recognition languages

For recognition different languages can be set. The OCR engine offers the following languages:

English	German	French
Dutch	Norwegian	Swedish
Finnish	Danish	Portuguese
Spanish	Catalan	Italian
Greek	Polish	Czech
Hungarian	Slovenian	Turkish
Russian	Brazilian-Portuguese	
Japanese	Chinese simplified	
Korean	Chinese traditional	
Welsh		

When languages are selected, the language specific special characters can also be recognised.

Recognition options

The quality and accuracy of OCR recognition depends strongly on the quality and accuracy of the scanned image. In order to improve recognition several options can be set.

Enhance recognition

This is a general setting of the OCR engine. Where documents are of bad quality and contrast the recognition may be able to be enhanced.

Skew correction

When a page is scanned manually, it may not be recognised if it is skewed during scanning. This option attempts to correct the skew and may enhance the result.

Image Pre-Processing

Using image pre-processing you can filter the scanned image to improve the quality for the recognition of the identification feature of a form. This setting becomes operative when, during a form recognition, it is at first not clear what specific form it is. We strongly recommend testing the filters and the order of the filters on a form to see the result of the settings.

The following filters are available

Filter	Description
Noise Removal	This will remove orphaned pixels from the image. Level 1 removes the smallest dots, level 2 slightly larger dots, and level 3 slightly larger again.
Horizontal Line Removal	Removes horizontal lines from the image
Vertical Line Removal	Removes vertical lines from the image
Brighten	Brightens the image – 2 levels available
Darken	Darkens the image – 2 levels available
Background Removal	Will remove background text/images
Text Improvement	Improves the quality of the text
Shrink Horizontal	Used to improve quality from reading dot-matrix print
Colour Filter	Removes colour backgrounds from the image

The filters are executed successively so that the order is important for the result. If you darken the page first, the noise pixels will be enlarged. If you remove the noise first and darken the page after it, the remaining text will be accentuated.

The order of the filters can be changed using drag & drop.

> *Note:*
> *There are no recommendations for* **best** *settings. You should test the optimum settings for each sample. These settings are helpful when you scan barely readable samples, dot-matrix prints or coloured paper. Please note that a wrong setting can worsen the result.*

Form recognition: Document identification threshold

In a document one or more document identifiers are specified. If the similarity between the scanned document and the stored reference exceeds 80% (default value), the document is treated according to the recognition zones specified for that form. The zones are read, the index is stored and the documents are stored in the Document Type linked with that form. If necessary the threshold can be adjusted to enhance or ensure recognition.

Form recognition: Fall back document type

If documents cannot be assigned to one of the stored forms, they are stored automatically in the ***Fall back Document Type*** (Document Type for unrecognised documents). If documents appear in that Document Type, they can be manually indexed and stored to the appropriate Document Type.

When forms recognition is used, a ***Fall back Document Type*** must be specified

When the first form is created, this setting appears automatically, because a Fallback Document Type must be specified.

Asian full text

Windows language settings

In order to display Far East languages on a western Windows operating system, the following option must be installed:

Control Panel ⇨ Language settings ⇨ Regional settings ⇨ Install Far East language support.

Levels of OCR parameter

OCR parameters are valid for

- General settings for the Cabinet and all Document Types, which are set in the OCR properties.
- At form level, settings can be configured within ***Scan Profiles***.

OCR engine settings

The OCR Engine displays characters that are not recognised as **~** . The threshold can be configured in a *.config file. This file is stored in a standard installation under:

C:\Program files\Spielberg Solutions GmbH\FileDirector Component Service\IPRO Engine\FileDirector OCR Engine.exe.config.

The default value is 75, the maximum value is 100. The bigger the value, the more tolerant the engine treats insecure characters.

key="CertaintyThreshold" value="75"

Create OCR form

To create a new OCR form, select the ***OCR*** icon and then choose the ***New*** tool. The OCR configuration window will then open.

In the OCR tab a name and a descriptive text are entered.

When creating an OCR form a sample page must be used to configure the properties.

The sample page can be loaded from a file or be scanned. If the form is to be scanned, the user must have access to a scan profile. After selecting the scan profile the sample page can be scanned and is displayed in the right part of the configuration window.

Icon	Description
	Load image from file
	Scan
	Stop scanning
	Fit display
	Fit width
	Display original size
	Zoom +
	Zoom -

References for samples

It is not mandatory to use the same resolution for the sample and the documents being scanned. Nevertheless it is recommended as different filters e.g. ***noise removal*** will have different effects on sheets with different scan resolutions. The result can be that the recognition result in Enterprise Manager can differ from the result of scans carried out in the WinClient.

Experience has shown that an optimum resolution for OCR-recognition is 300dpi but the values depend on the source. A lower resolution might worsen the result. The lower the resolution the smaller the final size of the scanned document. A TIFF-file with a 300dpi resolution will be about 30-60 KB. Try some settings for a sample. If the quality is acceptable a lower resolution can be used.

EDoc Templates

Electronic files such as Word documents and Excel spreadsheets can also be used as a template.

For recognition, a 200dpi png file is created in the background. When using electronic files created with different versions of the original software (for example different WORD versions) the display can be different.

When electronic documents are to be indexed using forms recognition, VNP is recommended. The sample file should be created with VNP and be used during forms configuration.

See the VNP chapter in the Installation Manual.

Form settings / Configuration

Double-clicking on an existing form will open the Forms configuration window.

In ***Form settings*** the name and descriptive text of a form is displayed. These entries can be changed at any time.

Menu

Change image



When this is selected the form creation window is displayed. In this window a new sample page can be assigned.

Image information



Information about the form and the image is displayed:

Number of zones
Number of field assignments
File format
Width (in pixels)
Height (in pixels)
Resolution X (DPI)
Resolution Y (DPI)
Colour depth
Uncompressed size
Compressed size
Compression rate

Recognise



With this option the recognition and the settings can be tested. Different pages can be scanned for testing, to check whether they are recognised and the fields read.

A detailed description can be found in ***Test Recognition*** section.

Icon	Description
	Fit to window
	Fit to width
	Show original size
	Zoom +
	Zoom -
	Create zone
	Zoom window

If a box is dragged, when the button with the magnification glass is displayed, the display is zoomed. When clicking this button the system switches to zone mode. When dragging, a new zone is created.

Icon	Description
	Select previous zone
	Select next zone
	Moves zones up in sort order
	Moves zone down in sort order

Right click Menu

Recognise zone

The OCR engine is started for the selected zone. This function can also be started by double clicking on the zone.

If characters are not recognised correctly a **~** sign is set.

Recognise all zones

This option recognises all the configured zones simultaneously and displays the result in the result area. The zones are all displayed individually numbered even when several of them are assigned to the same index field.

Recognise full text

The full text recognition in this area has a test function. As a quality check the results of complete text recognition can be displayed. OCR settings and their influence on the recognition results can easily be checked.

When full text search is to be used, it must be configured on the server.

See Setup full text recognition

Recognise full text and zones

This option combines Recognise all zones and Recognise full text. The result is displayed in the bottom part of the window.

Recognise all index fields

In the result area, all zones contents are displayed with the respective zones. If several zones are assigned to an index field, this function tests how the field content will look. If the content read is too long for the specified field, a warning is displayed. Field separators can be checked, if specified (⇨ Prefix/Postfix).

Display identification results

If a graphic document identifier is specified, the similarity of a scanned page can be compared with the template. When using a text identifier only a result of 100% or 0% is possible.

When using a graphic identifier a similarity between 0% and 100% can be the result, because similarity is checked.

Delete

Zones can be deleted using this option.

Fit window, Fit width, Original size

If the sample page is zoomed, the displayed part can be moved if the right mouse button is pressed and the mouse moved.

Select Document Type

Select the Document Type to which the recognised pages of this form should be saved. If a page is scanned and recognised correctly, it is stored to the Document Type specified in the scan profile.

Create / select / change zone



Ensure the ***zone mode*** is active.

Drag a zone on the displayed page around the information which is to be read by OCR.

The mouse cursor changes to a crosshair if moved over the display area. A zone can be changed at any time by dragging the zone boundaries with the left mouse button. If the mouse cursor is positioned on a zone boundary, it changes to a resize symbol and the boundary can be dragged with a pressed left mouse button. If the cursor is positioned in a zone, the whole zone can be moved with left mouse cursor pressed.

If several zones are created, the active zone is framed red and the others are framed blue. To switch to a different zone just click it once or move through the zones by buttons ***Select next zone*** or ***Select previous zone***.

Document identification

For identifying and classifying a document it must contain at least one zone for unique identification, which is only located on the relevant document but not on another document. This can either be a graphic element or a text identifier.

Graphic element

If a graphic identifier is selected, the recognition rate is between 0% and 100% denoting the similarity of this zone with the stored sample. Identical graphic elements would result in a rate at or near 100%.

A graphic element must be different for the different documents to be recognised. If an identifier is located on several documents and it cannot uniquely be assigned to a form, it is stored in the ***fall back*** Document Type.

> *Note:*
> *When using many different forms, it is recommended to use graphical identification because it is faster than text identification. For text identifiers each time the OCR recognition engine must be started. Make sure that the graphical identifiers on the different forms are not similar to each other. For recognition the similarity must not exceed a defined threshold.*

Text element

A text identifier can be unique text which identifies the document, for example the word ***INVOICE*** on an invoice. If this text is recognised at the defined zone position, the document is recognised and classified. The identifier text can be entered into the form configuration automatically by double clicking on the zone. The OCR engine starts and writes the text into the identifier field.

When recognition is tested using ***Identification results*** the text is either recognised completely (100%) or the result is 0% if any of the characters do not match the identifier text.

Find text anywhere in zone

When this option is marked the text in the document identification can be anywhere in the identifier zone that has been configured.

If this zone is added to an index field, the complete read text will be used as the text of a normal zone and may be configured with the index field configuration options (trim, replace etc.).

Optimise identification results with <RegEx>

Regular expressions can be used as a filter for the identifier of the OCR. This way inaccurate recognition (e.g. dot matrix printer outputs) can be optimised. Prepend <RegEx> in the zone to optimise identification.

Example:

Page: 1 De:2 could be recognised as ***Pa3e: 1 DE: 2.***

The ***g*** was not recognised by the OCR. To make the identifier despite this, a regular expression can be configured to ignore the ***g***.

This could look like the following expression:

Text element: <RegEx>Pa.e:[ ]*[1I]\.?[\t]*De:

Note:
Ticking the option **Find text anywhere in zone** *avoids the expression being overwritten when the zone is read.*

Element	Description
<RegEx>	Needs to be placed at the beginning of the text element definition to flag the use of a regular expression. ***Find text anywhere in zone*** is ignored when using <RegEx>
Pa.e	The character combination “Pa” is expected, then any character, followed by a colon. (Alternatively: [g39] would allow characters “g”, “3” and “9”)

Element	Description
[ ]*	Allows “0” or any length of spaces.
[1I]	Allows “1” or a “|”, but one of the characters has to be present.
\.?	Allows a dot, but it can also be missing (sometimes a “|” has been read).
[\t]*	Allows a “0” or any length of spaces or tabs.
De	The character combination “De:” is expected.

Multiple expressions can be ***OR*** combined when they are connected with a pipe separator.

Example

<RegEx>Expression1|Expression2

Note:
A selection of regular expressions can be found in the configuration of regular mask fields (see Valid mask expression characters)
A common description of regular expressions can be found at Microsoft: http://msdn2.microsoft.com/en-us/library/az24scfc(vs.71).aspx

Regular expressions also allow it to search for the non-existence of a value.

Example

A single OCR Form should match for single page and multipage documents.

The documents in the batch contain either ***1 of 1***, ***1 of x*** or ***x of x***.

The goal is to split all documents appropriately into single page and multipage documents.

A new document will be created as soon as either a page contains ***1 of 1*** or ***1 of x*** in the drawn zone.

In this case, the following expression can be used:

Text element: <RegEx>1 of [^1]|1 of 1

Note:
Ticking the option **Find text anywhere in zone** *avoids the expression being overwritten when the zone is read.*

Element	Description
<RegEx>	Needs to be placed at the beginning of the text element definition to flag the use of a regular expression. ***Find text anywhere in zone*** is ignored when using <RegEx>
1 of	The character combination "***1 of*** " is expected.
[^1]	Allows any character, except ***1***.
|	***OR*** combination of the given expressions
1 of 1	The character combination "***1 of 1***" is expected.

Threshold

The threshold specifies the minimum similarity which must be exceeded for a document to be recognised. This value is stored in the OCR parameters of a Cabinet and is valid for all OCR forms in this Cabinet.

Image improvement (Zones)

Using the image improvement you can filter the scan result to improve the image for the OCR-process.

The following filters are available

Option	Description
Noise removal	This will remove orphaned pixels from the image. Level 1 removes the smallest dots, level 2 slightly larger dots, and level 3 slightly larger again.
Horizontal line removal	Removes horizontal lines from the image – 2 levels available
Vertical line removal	Removes vertical lines from the image
Brighten	Brightens the image – 2 levels available
Darken	Darkens the image – 2 levels available
Background removal	Will remove background text/images
Text improvement	Improves the quality of the text

Option	Description
Shrink horizontal	Used to improve quality from reading dot-matrix print
Colour filter	Removes colour backgrounds from the image

The image improvement for the zones is executed after the filter settings of the OCR option for the whole form. There is a tab for the settings of the whole form named ***OCR-Parameter*** *OCR Parameter (properties).* When filtering the whole form and a zone the effect will be doubled.

The filters are executed successively so that the order is important for the result. If you darken the page at first, the noise pixel will be enlarged. If you remove the noise first and darken the page after it, the remaining text will be accentuated.

You can view and check the result of the filter settings immediately. Filter settings e.g. ***Darken*** can be used multiple times. The order of the filter can be changed via drag & drop, this means you can, for example, move the 5th entry to the 2nd position and see the changes immediately. If the zone is being moved you can see the change for the section of the zone immediately.

These improvements will be executed before all other character adjustments in a zone. After these changes an OCR-scan be done.

> *Note:*
> *There are no recommendations for* **best** *settings. You should test the optimum settings for each sample. These settings are helpful when you scan barely readable samples, dot-matrix prints or coloured paper. Please note that a wrong setting can worsen the result.*

Zone content

The content of a zone for index recognition must be specified. A zone can only have one type of content, but the content can be assigned to several index fields.

Content type

The type of data a zone contains must be specified. The following options are available

Content	Description
Automatic	This setting tries to recognise the content type automatically (apart from barcode and OMR). If the characters cannot be recognised, one of the specific settings should be tried.
Omnifont	This setting is suited for printed text from laser printers or ink jet printers. Pages created on typewriters are also recognised if the quality is good.

Content	Description
9-pin-dot-matrix 24-pin-dot-matrix	Use this setting if the scanned documents were originally printed on dot-matrix printers. Be aware that dot-matrix printers use ink ribbons, which deteriorate when older so quality decreases and OCR recognition might not acceptable.
Dot digits	The characters are composed of single dots.
Dash digits	The characters are composed of single bars.
OCR-A	A special font designed for OCR recognition. The characters of this font are designed to be different from each other in form and contrast in order to enhance OCR recognition. This font is used on cheques.
OCR-B	Another special font used for OCR recognition. This font is similar to normal print fonts and is easier to read.
Magnetic Ink MICR (E-13B)	E-13B is used e.g. in USA, Canada, Australia and England (Numeric with 4 control characters)
Magnetic Ink MICR (CMC-7)	CMC-7 is used e.g. in France, Spain and South America. (Numeric with 5 control characters)
Asian Asian vertical	This specifies which orientation should be used for Asian text to be recognised.
Optical Mark (OMR)	This option is used to decide if a check box is checked or not.
Barcode	The following barcodes are supported by FileDirector: 2 of 5 interleaved, Alpha 39, Codabar, Code 93, Code 128,PDF 417, DataMatrix and QR Code

Content	Description
Floating Barcode	If a floating barcode is assigned to a zone, the barcode type must be specified. A floating barcode searches for barcodes on the whole page and reads the first barcode found. *Note:* *A barcode of type 2 of 5 interleaved is a very simple barcode type. The barcode module may be confused by graphics on the page. A barcode which is only located on the first page of a document can be used as an automatic document separator in batch scan mode.*
Anchor	If an anchor is assigned to a zone, the positions of the other specified zones on that page are calculated relative to that anchor zone. That means that if an offset of the anchor is recognised – as it could happen during scanning or printing – the positions of the other defined zones are adopted to the new position of the anchor. *Note:* *It is recommended to define an anchor text for an anchor zone.* *This text should be unique. If the text is not unique the first match is taken as anchor.* *This option does not contain an automatic deskew.*

Allowed characters

To test recognition in a zone just start the OCR engine on this zone by double clicking. If only specific characters are to be read in this zone, the allowed characters can be limited, for example to ***Uppercase, Lowercase, Digits, Punctuation and Miscellaneous***. If an index field is already limited to a digit for example, the limitation should also be used in the OCR form. If for example a ***0*** (zero) has been recognised as the letter ***O*** this document cannot be checked in because the index field does not allow letters.

The setting ***user-defined*** uses the character selection which is typed in the main mask of form setting.

The content settings specify what can be recognised by the OCR engine. The characters read can be post edited after recognition by field settings.

Optical mark (OMR)

Using the content type ***Optical mark (OMR)***, checkboxes can be automatically analysed. If this content type is active, the entries Mark set or Mark not set are switched to active.

A zone is placed around a check box ☒ and the system can recognise if the box is checked or not. It is not important what type of check (☒ or☑) has been used, as the system tries to find diagonal lines. Fields can be easily recognised even when they are filled by handwriting.

> *Note:*
> *This option can also be used if an index field is set to a special value if anything was written at a certain position of a page or if it is empty. If the field has been specified as an OMR field, text would result in* **box checked** *and an empty field would result in* **box not checked**. *For each of these events a defined value can be written to that field.*

Barcode

When ***Barcode*** is specified as a content type, the fields ***Barcode Type*** and ***Barcode Settings*** become active. For each zone one barcode type can be specified.

The following barcode types are supported:

Type	Description
2 of 5 interleaved	Can only contain digits.
Alpha 39	Can contain letters and digits including ***- . + % $ /***
Codabar	Can contain ABCDENT and the special characters ***- / $: * .***
Code 93	Can contain letters and digits including ***-***, ***.***, ***$***, ***/***, ***+***, ***%***, ***SPACE***
Code 128	Contains a complete character set including digits, letters in uppercase and lowercase. Using numeric values, the information density is very high. A check digit is always used but not displayed as part of the information.
PDF 417	Barcode PDF 417 is a two-dimensional barcode, which can contain up to 3000 characters. The barcode can contain the whole ANSI character set. An internal check is always implemented which can correct errors during reading. This check is automatically performed on each barcode read.
DataMatrix	DataMatrix is a two-dimensional matrix barcode consisting of black and white "cells" or modules arranged in either a square or rectangular pattern.

Type	Description
QR Code	The two-dimensional QR Code matrix barcode has become popular due to its fast readability and greater storage capacity compared to standard ***UPC barcodes***. Applications include product tracking, item identification, time tracking, document management, general marketing, and much more.

Barcode Settings

For barcodes additional settings can be specified. A barcode may contain a check digit. The recognition and check with this check digit can be switched on or off for some barcodes.

If a barcode is auto rotated on the page, this can be set for reading. For other types of recognition zones this rotation is not possible.

Extended Search (not on floating barcodes)

The extended search is a function to use in exceptional cases for barely recognisable barcodes. This option cannot be used for floating barcodes.

The recognition using extended search is slow compared to the regular search. Therefore, consider changing the used barcodes to better readable types.

Barcode threshold

With the barcode threshold the return value can be affected, but not the quality of the recognised values. The threshold filters the result of the recognition and is only used in exceptional cases. If the default setting “0” is used, all recognised values return and no filter is set. When configured to “99”, all positive values return. With the setting ***100*** no values return.

Verification for unsafe recognition is made in the following situations:

- If ***check digit*** is used in the barcode settings.
- In the barcode type 2 of 5 interleaved. Here the line size is checked and sometimes it’s possible that an unsafe recognised value returns which is ***50***. In this case the threshold ***51*** configured, the unsafe recognised barcodes are filtered.

Floating barcode

The zone for a position independent barcode can be placed anywhere on the page.

In general the following rule holds:

Index 1 (zone 1) contains the first barcode to be found, index 2 (zone 2) contains the second barcode… if index fields have to be assigned. If the second barcode has to be placed into the first index, a *dummy* must be created for the first barcode.

Floating Barcode as identifier

A floating barcode can only recognise the first barcode as an identifier. The second barcode cannot be an identifier. Therefore the series of barcodes on a page must be considered when using identifiers. A barcode is always recognised from top left to bottom right. A barcode must not be too skewed on the page (when using labels). Barcodes must also be of sufficient size and quality.

Assign index fields

When assigning zones to an index field make sure that the index field length is long enough to accept the characters read. Prefix and postfix characters in addition to the maximum number of characters possible during recognition must be taken into account. Be aware that a scanned document could also be different to the stored sample and may deliver more characters per zone after OCR.

Assign zone content to an index field

Create a zone by dragging the mouse cursor and open the ***Index field*** drop down menu. The zones of the target Document Type can be selected. Double clicking this zone displays the result of the zone reading and the result of the index field.

The results are different, if changes are made later by specifying settings in ***Remove, Left/Right trim, From left/right*** or ***Prefix/Postfix***. This feature helps to check the content result of the index field.

Assign several zones to one index field

Each zone can be assigned to an index field. If several zones are to be written to one index field, simply connect the zone to the same index field. Using Prefix or Postfix the zone contents can be separated.

Change order of zones



The zones are being written to an index field in the order which is automatically created during zone setup. This order can be changed using the buttons in the toolbar.

Assign zone to several index fields

It is possible to distribute segments of the zone content to different index fields. This is especially useful when a PDF 417 barcode is used. This barcode may contain a complete address.

The whole address is being read in one zone, but different index fields are filled with the information recognised.

Field separator

Different characters can be used as field separators. These characters may be visible, for example a comma, dot, pipe, etc., but invisible characters can also be used such as:

Field Separator	Description
{Space}	Blank
{CR}	Carriage Return
{LF}	Line Feed
{CLRF}	Carriage Return Line Feed
{TAB}	Tabulator

These characters can be chosen in a list of field separators. You can also use multiple field separators and a user defined entry is also possible.

Assignment with index number

The segments created by the separator are internally numbered and can be connected to the index fields. After connection to the fields ***Remove***, ***Left/Right trim***, ***From left/right*** or ***Prefix/Postfix*** can be specified individually.

Example

Segment (Index) 1 = Firma Sand (CRLF)
Segment (Index) 2 = Sandmüllersweg 10 (CRLF)
Segment (Index) 3 = 33333 Sandhausen (CRLF)

Index	Description
Index 1 = F1	The first segment is written to index field “Name“: “Firma Sand“
Index 2 = F2	The second segment is written to index field “Street“: “Sandmüllersweg 10“.
Index 3 = F3	The third segment is written to index field “City“: “33333 Sandhausen“ and the content is trimmed left by 5 characters. The third segment is also written to index field “Post code“: “33333 Sandhausen“ and only the first five (most left) characters are used.

Assignment by identifier

If assigning is done by an identifier, a text for the identification can be specified.

For example text ***Invoice #***: is recognised and the number following this text is written into the index field. The identifier is ignored and not written into the index field. Potential blanks between identifier and index are automatically ignored.

> *Note:*
> *The option* **Find anywhere** *is only visible when* **assigned by text ID** *is selected. This option allows it to define the text ID more easily.*
> *If the word in front of the ID changes, the value after the ID is filled into the selected index field.*

Character adjustment

Order of the character adjustment

The changes after scanning the zone will be carried out in the order listed below:

Left trim / Right trim
From left / From right
Prefix / Postfix
Delete / Replace by

Left trim / Right trim

Using this option characters can be removed from the text recognised by OCR. A zone may read a bigger text, by trimming the necessary part of the recognised text, it can be removed.

From Left / From Right

If a defined number of characters should be written into an index field, this option can be used. If for example the 5 most left characters should be used, specify 5 in ***From left***. In the same way a defined number of characters from the right can be specified ***in From right.***

> *Note:*
> *You can set up additional settings for spaces or tabs in fields Trim left/Trim right or From left/From right. You need to enter a -1 for Space and a -2 for Tab. This can help when e.g. using* **Assign by text ID***, when several values are separated by tabs or spaces.*

Prefix / Postfix

If several zones are connected to one index field, they can be separated by a character, which is defined as Prefix or Postfix. A Prefix is written in front of the index to be written, a postfix follows the index to be written.

> *Note:*
> *Make sure the field length of the index field is big enough to store the maximum number of characters of all zones involved including Prefix and Postfix.*

Character Adjustment

With this function you can delete or replace characters from a zone after the recognition. There are the same character choices (visible and invisible) as the option field separator.

Clear if not

With this function you can clear the field of the content read by OCR if the content does not comply with the definition set in this field.The definition can be a regular expression.

Example:

The field must be filled with an invoice number with the following format ***xx-xxxxx***.

For this, the definition in ***text element*** would be as follows: ***<RegExClear!>[0-9]{2}-[0-9]{5}***

Element	Description
<RegExClear!>	Needs to be placed at the beginning.
[0-9]	Only numbers are allowed.
{2}	A total of two characters previously defined in "***[…]***" are expected.
-	A **-** is expected.
[0-9]	Again, only numbers are allowed.
{5}	A total of five characters previously defined in "***[…]***" are expected.

Note:
Multiple expressions can be or combined when they are connected with a pipe separator.

Example

<RegExClear!>Expression1|Expression2

Note:
A selection of regular expressions can be found in the configuration of regular mask fields (see Valid mask expression characters)

A common description of regular expressions can be found at Microsoft: *http://msdn2.microsoft.com/en-us/library/az24scfc(vs.71).aspx*

Following and Last pages

With this option the following and the end pages which differ from the first page can be defined. In addition to that it is possible to fill index fields from the content of the following and end pages.

Click on the tab ***Following pages***. A link is displayed to load the following page as a template for the configuration. The end page is defined in the same way within the tab ***Last page***. If the template is loaded, the identifier and index fields can be defined.

If the same index fields are mapped on different pages, the value is compared. The value must be unique to fill the index fields with the correct content.

Extended Settings

Additional settings can be applied on the Extended settings tab.

Use barcode as… batch start/ batch end

This is only valid for a static form without document identification. Normally this setting is set to batch start, so that a barcode on the first page of a document serves as a document separator. In some cases the barcode is placed on the last page and serves as document end indicator. In that case the setting has to be switched to ***batch end.***

Discard page

In some cases for the batch scan, a separation sheet is used to distinguish multiple batches and to begin a new document.

To delete such a page, you can configure recognition for this page and after the recognition it can be discarded. This option can only be set for the first page.

Page must exist

This option can be set for the following pages. The first page must always exist for the identification. If an end page is defined, it must also always exist to recognise the end of a document.

> *Attention:*
> *If this option is activated and the page does NOT exist, error messages might appear or a file import may fail.*

Treat empty zones as blank

If the automatic action from a field is set to ***Preserve***, the field is filled with the content of the previous dataset. In the recognition of the OCR zones you can make the optional setting for a zone read the blank or preserve the last entry. This setting can be set separately for normal OCR zones and for barcode zones.

User defined characters

For the zone content user defined allowed characters of a form are defined here. When opening the area ***zone content***, select the option ***Allowed characters***, the option ***User defined***. With it only characters will be recognised which have been defined here. The specified characters must be written in a row.

Note:
The list cannot be defined for each zone but is used for every zone where **user defined** *is chosen.*

Set field…to value

This option is not relevant for the actual OCR recognition, but for a file import you can fill fields automatically with constant values. This option is configured in the same way as in the scan profile, but this value overwrites a setting for the same field in the scan profile.

Verification settings

In this section the settings can be done for the option ***Form settings*** ⇨ ***Index field*** ⇨ ***Index field mapping*** ⇨ ***Verify***.

The first option is that the field values are cleared.

The second option allows the administrator to choose a predefined or to enter an individual value that should be filled in a field of that Document Type in case of a valid or invalid verification.

These settings allow it to retrieve for and check documents more easily.

Notes:
The check box **verify** *must be selected for the fields that are to be checked.*
At least two zones with the same content for a field must be selected to verify the content.

Plug-in

Plug-ins allow additional functions to be processed as part of the OCR reading. This may, for example, be transferring data to an external source such as another database. Plug-ins are usually produced for specific applications. If a Plug-in has been produced. It can be associated with the OCR form by selecting it here.

Threshold

The Threshold setting affect the brightness of the image for OCR reading. The valid range of the setting is 1 to 256.The default value is 128.

Test recognition / Check assignment

Recognise



Recognise checks if the form is identified and assigned to the correct Document Type and if the index recognition and settings are configured correctly.

Test Configuration

Testing the OCR-Recognition of documents

If a document is not recognised correctly, you can test whether the OCR works for this option. Use this function during the forms configuration to check if the template is being recognised correctly. Pages which are scanned later and not recognised, can also be loaded and tested if the zones are configured correctly. Use this tool to check for errors in the OCR configuration and to make it easier to solve problems.

The following items can be a reason for incorrect recognition of documents:

- The document is scanned with a different resolution than the stored sample
- No identifiers specified on sample
- Several forms have similar identifiers, no unique identification possible
- No Document Type or wrong Document Type specified for ***Fall back***
- Resolution is too high
- Resolution is too low
- Threshold is set too low/high
- OCR engine not installed
- The image is larger than 8400 x 8400 pixel

Select Document Type

In ***Form recognition*** the form to be recognised can be selected from the available forms. The page displayed in the preview window is checked. If ***All*** is specified, all available forms are checked against the displayed document.

To run a recognition test again, click on ***Reset batch***.

Result of recognition

If all forms of all Document Types are checked, the recognised form is displayed in ***Selected form***. The settings of this form are used for indexing. In ***Target Document Type*** the Document Type is displayed, to which the displayed document would be stored.

The list displays all forms and their respective recognition rate which were checked against the document. If a document could not be classified uniquely, it is assigned to the ***Fall back*** Document Type.

The bottom left part of the window displays the recognition results, if the document can by classified.

Independent of the page definitions a start page must be recognised first. The recognised page is displayed in the field ***Status***. Test the Configuration with following pages.

If a configuration is to be tested with following and last pages, the order must be strictly kept so as to recognise the correct page.

Scan or load the first page and do the following:

- Reset batch
- Chose Document Type ***All*** or ***target Document Type***
- Recognise… ***start page recognised*** must be displayed
- Scan or load a following page
- Recognise… ***Following page recognised*** must be displayed
- Scan or load an end page (if configured)
- Recognise… ***End page recognised*** must be displayed

If the correct page is not displayed, check the configuration for incorrect settings, e.g. no unique identifier zones or double mapped index fields with other contents on the different pages.

Full text

Starting the recognition also performs a full text reading of the page. This is a test reading for a quality check, the result is not stored. Using this you can check which words are being recognised and available in a genuine full text reading.

OCR parameters of a form

On the OCR-parameter tab in the OCR Form configuration the settings will apply to the whole form and not only for the single zones.

Selecting the appropriate language allows the recognition of country-specific special characters.

First, the properties for the whole form are used for the image improvement and after this the properties for the zone. Please refer to the section *image improvement (zones)* to learn how to configure the filter for image improvement.

All properties for a form are used in test recognition during form configuration and during the recognition of the zones. The properties for manual OCR-recognition are configured in a scan profile.

See *Use OCR and form recognition*

When using OCR recognition in an import scheduler the language settings of the OCR parameters of the relevant form are used.

See *File Import scheduler*

Deactivate an OCR form

In form recognition all configured and active forms are used.

To make adjustments or configure OCR forms you can deactivate forms to exclude them from the recognition.

To deactivate an OCR form, you must select the form and choose the ***Exclude from form recognition*** tool. The form can be made active again by choosing the ***Include in form recognition*** tool.

If a form in a scan profile or in a scheduler is directly mapped with the option ***Always use this form***, the deactivation is ignored. It's possible to map the forms directly and exclude them for global form recognition. These forms are ignored for the option ***full form recognition*** or ***Document Type limited form recognition***.

The form recognition can be controlled better and the performance becomes higher.

Form Recognition Summary

- Check that your license allows the creation of OCR forms.
- Create target Document Types to ensure that the OCR recognition may allocate the corresponding documents.
- Create a ***Fall back*** Document Type for documents that are not recognised
- Create a form in Enterprise Manager – assign ***fall back*** Document Type.
- Select the target Document Type for which the form was created.
- If multiple forms are to be automatically recognised, create a unique identifier for the document.
- Assign the index fields to the reading zones specified.
- Test recognition, check the recognition rate and classification of the documents.

After this the configuration of a form is finished.

Manual scanning in the Windows Client:

The recognition for manual scanning must be switched on in the relevant scan profile, because recognition for manual scanning is performed there.

See *Use OCR and form recognition*

Automatic form recognition:

If the recognition is to be automatically performed on the server by an import scheduler, the OCR recognition must be switched on in the import scheduler.

See File Import Scheduler

AutoCapture (Plus)

Overview



The optional module FileDirector AutoCapture allows documents as invoices and credit notes to be automatically recognised and indexed.

FileDirector allows storing documents into multiple different AutoCapture target document types per cabinet.

> *Note:*
> *The FileDirector AutoCapture is able to recognise basic values of new suppliers without a training.*
> *This feature is only available when FileDirector AutoCapture is setup with a single document type "**Processed documents**".*

General

In tab ***General***, the location of the AutoCapture supplier database is set.

A supplier database can either be created and stored within the actual FileDirector cabinet or an external source can be connected via ODBC.

Notification

FileDirector AutoCapture can provide users with status information. These mails inform users or administrators about the status of the AutoCapture queues.

EMAIL-To

FileDirector AutoCapture sends status mails to the email addresses, entered in the box. When multiple addresses are entered, they must be semicolon separated.

EMAIL-Subject

An email subject used for FileDirector AutoCapture status mails can be entered here.

Time

FileDirector AutoCapture sends daily status mails at the time, specified here.

One invoice per document

This setting is recommended when it is ensured, due to company's guidelines, that no documents are imported that contain multiple invoices per document.

Hide category

This option hides the field ***Category*** in the form fields section in the FileDirector AutoCapture Client control box. This setting set per cabinet.

Hide grouping

This option hides the field ***Group pages by*** in the form fields section in the FileDirector AutoCapture Client control box. This setting set per cabinet.

Hide currency

This option hides the field ***Currency*** in the form fields section in the FileDirector AutoCapture Client control box. This setting set per cabinet.

Disable Line Items

This option disables the line items functionality of ***AutoCapture Plus***.

If this option is enabled, an existing FileDirector ***AutoCapture Plus*** option will process invoices without the processing of line items.

Also the option ***Single Line Mode*** will be unavailable.

Single Line Mode (AutoCapture Plus)

This option changes the way FileDirector ***AutoCapture Plus*** captures and stores line item information into the added PDF file.

The difference is shown in an example below.

> *Note:*
> *This functionality is only available for FileDirector systems with an* **AutoCapture Plus licence**.

Example

If the ***Single Line Mode*** functionality is ***disabled***, FileDirector will evaluate the item as a ***single connected line item***, as shown below,

	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
1	1	Training (60 minutes) AutoCapture Plus Serial: 2313212344	xx £	xx £
			Subtotal	xx,xx £
			VAT	yy,yy £
			Total	xy,xy £

If the ***Single Line Mode*** functionality is ***enabled***, FileDirector will evaluate the line item with ***3 independent lines***, as shown below.

	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
1	1	Training (60 minutes)	xx £	xx £
2		AutoCapture Plus		
3		Serial: 2313212344		
			Subtotal	xx,xx £
			VAT	yy,yy £
			Total	xy,xy £

Separator

This option improves the processing of batch jobs of FileDirector AutoCapture.

Basis for this are separator pages. These pages have a specific attribute and are added to the batch before scanning. The specific attribute is being defined below and can either be plain text or a barcode.

Value

FileDirector AutoCapture uses the value, filled in here, as a document's end identifier.

> *Note:*
> *The recognised value is only used as mark for the separation of documents and can't be transfered into an index field.*

As Barcode

When this option is ticked, the value, defined above, must exist as barcode.

The type of barcode used, must be selected from the drop-down menu, below.

Barcode Type

The following barcode types are available and can be selected from the drop-down menu:

Code 93	PDF 417
DataMatrix	QR Code

Always use OCR

PDF documents can hold the information, relevant for FileDirector AutoCapture, in different formats.

The relevant information can be stored within a single PDF document in different formats.

This means, that some information is stored in text elements and some in image elements.

If all elements within a PDF document are text elements, FileDirector will extract the data, relevant for AutoCapture, without using OCR.

If all elements within a PDF document are image elements, FileDirector will extract the data, relevant for AutoCapture, using OCR.

Using this option, can improve the batch processing of mixed-type PDF documents.

When this option is ticked, all PDF documents are read by using FileDirector OCR.

Supplier settings

In tab ***Supplier settings***, the location of the AutoCapture supplier database is set.

A supplier database can either be created and stored within the actual FileDirector cabinet or an external source can be used via an ODBC connection.

> *For more detailed information about ODBC and FileDirector see also:*
> ODBC Links

Cabinet Database

Unless no ODBC source containing supplier contact data is available, FileDirector uses the cabinet's database.

The entries of the supplier database are created through the FileDirector AutoCapture Client.

This is either done when a new form is created or entered within the pop-up window ***Supplier data***.

ODBC

Source

The connection settings of the ODBC source must be done within the AutoCapture node.

> *See also:*
> *Setup ODBC link in Windows*

If the data source is configured, it can be used for FileDirector AutoCapture.

Select the option ***ODBC*** in the tab ***Supplier settings***.

The drop-down list ***Source*** contains all, on the server, existing ***System-DSN***s. The appropriate ODBC source can be selected.

Under ***ODBC table*** specify the name of the database table from where index data should be read. The table names cannot be selected from a list, they must be known during configuration. If the table name is specified correctly, the field names of these tables are listed after hitting ***Retrieve***, in ***ODBC Column***.

Now the entries from the ODBC table can be connected with the relevant FileDirector AutoCapture contact fields.

Connection string

In this line, enter the connection string of the selected ODBC source.

Example

DSN=value;UID=value;PWD=value;Connection Timeout=600

Matching fields

In tab ***Matching fields***, the AutoCapture supplier fields are configured.

When no individual configuration is done within this tab, the FileDirector AutoCapture default settings for validation and display are used.

In this case, all AutoCapture fields are shown in ***Form fields*** area of the AutoCapture Client, when ***Pin fields*** is selected.

Supplier field

This column lists all AutoCapture fields. These names are as they stand.

Custom label

Within this column, aliases can be set for one, multiple or all names listed in the column Supplier field.

These aliases are shown in the FileDirector AutoCapture Client instead of the original labels.

Use for matching

In this column, the rules for a clear identification can be set individually for each FileDirector system.

FileDirector AutoCapture uses an internal threshold value for a successful matching. The threshold value is 75% of the fields selected as ***Use for matching***.

Example 1:

Only the minimum of three FileDirector AutoCapture fields have been selected as ***Use for matching***, e.g. ***Name***, ***Address 1*** and ***ZIP***.

In this example, each field represents ~33.3%. In this case all three fields must be identified.

Example 2:

Four FileDirector AutoCapture fields have been selected as ***Use for matching***, e.g. ***Name***, ***Address 1***, ***ZIP*** and ***VAT-ID***.

In this example, each field represents ~ 25%. In this case three out of the four fields must be identified.

Example 3:

Seven FileDirector AutoCapture fields have been selected as ***Use for matching***, e.g. ***Name***, ***Address 1***, ***ZIP***, ***City***, ***Phone #***, ***Tax #*** and ***VAT-ID***,

In this example, each field represents ~ 14,29%. In this case six out of the seven fields must be identified.

Five matching fields would be ~71,43% and below the required threshold value of 75%.

> *Note:*
> *At least* **three** *fields must be selected from the column* **Use for matching***, when the default is changed.*

Show in client

This column defines, which ***Supplier fields*** are displayed in FileDirector AutoCapture Client when a document is displayed.

When a field is marked for both, ***Use for matching*** and ***Show in client***, the name is displayed in bold.

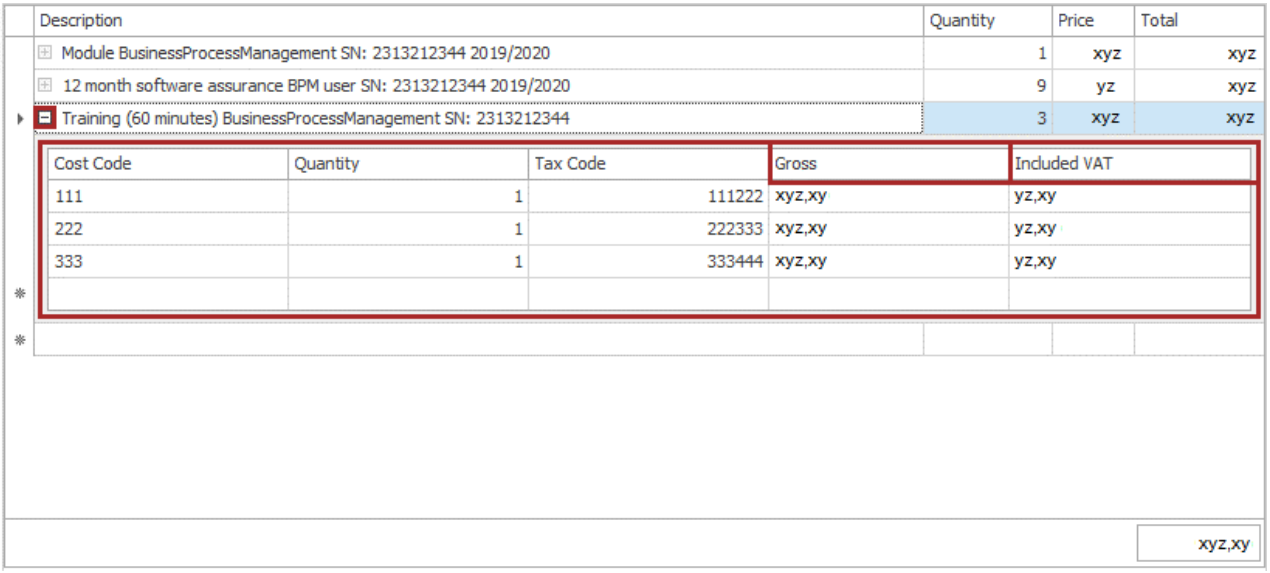
Cost codes

In tab ***Cost codes***, the corresponding settings are made.

The selected elements are used for the Cost codes feature in FileDirector WinClient and define the table where a user enters the information in addition to the line item data, read by FileDirector AutoCapture Plus beforehand.

Example

In the example, shown below, ***Custom1*** was defined as ***Gross*** and ***Custom2*** as ***Included VAT***.



Description	Quantity	Price	Total
Module BusinessProcessManagement SN: 2313212344 2019/2020	1	xyz	xyz
12 month software assurance BPM user SN: 2313212344 2019/2020	9	yz	xyz
Training (60 minutes) BusinessProcessManagement SN: 2313212344	3	xyz	xyz

Cost Code	Quantity	Tax Code	Gross	Included VAT
111	1	111222	xyz,xy	yz,xy
222	1	222333	xyz,xy	yz,xy
333	1	333444	xyz,xy	yz,xy

xyz,xy

Cost codes

This checkbox must be checked to ensure that a cost code table can be created in FileDirector WinClient.

Cost Code

This checkbox adds or removes the column Cost code from the cost code table.

Tax Code

This checkbox adds or removes the column Tax code from the cost code table.

Quantity

This checkbox adds or removes the column Quantity from the cost code table.

Custom1

The custom columns can be individually labelled.

Custom2

The custom columns can be individually labelled.

COLD Import

Overview



The COLD module allows spool data to be imported into FileDirector, with the index data being automatically extracted from the data. FileDirector allows an unlimited number of import templates to be created in a Cabinet. They can be amended, changed or removed anytime.

What is COLD?

COLD is an abbreviation for ***Computer Output on Laser Disc***, an historical term. This module imports spool data (ASCII/ANSI data), which is normally printed. The import module can separate the data into single pages, group them to documents if necessary and extract the index for each document automatically.

Each of the pages (consisting of more or less only text) can be displayed and printed with an overlay. This is normally a scanned empty form to make the displayed and printed output document look as closely similar to the original as possible.

COLD License

COLD needs a license option which must be switched on for the COLD module to work. If this option is not licensed, import templates can be created, but the COLD import scheduler cannot be started for data import.

Create new COLD template

To create a new COLD template, select the ***COLD*** icon and choose the ***New*** tool.

General Setting

In General Settings you can give the template a name, description, assign the template to a Document Type, and select the spool file path.

Setup template

To start, a sample file must be opened by selecting ***Open spool file***. The sample file opened is not saved in the template setup. A COLD template must be reloaded if it gets changed.

Open spool file

Clicking to this button opens a spool file. The content of this file is displayed in the configuration window.

Field preview

If index fields are defined, a preview will show, which index fields are read during browsing. This is especially helpful when using composed fields.

Add fields

When clicking this button, the system switches to the ***Fields*** tab.

Add filter

To add a filter, select the text to be filtered press ***Add filter*** or right-click and select ***Add filter***. The display switches to the list of filters, so that settings for the selected filter value can be specified.

Use filter

Using this button the configured filters are applied to the displayed text and the button remains clicked. After clicking again the button is released and the text is displayed unfiltered (no filters applied).

Graphic display

Clicking to this button switches the display to graphic mode. In this mode the text is displayed together with the specified overlay. (Select overlays in tab page settings of this configuration window). When clicking again the display switches back to text mode without overlays.

Step to page …

 First page,  Previous,  Next,  Last page

Use the tools above to browse through the pages of the spool file. The page number is displayed in the upper right corner.

Process of COLD setup

Ensure COLD is licensed. If this licence is not present, COLD templates can be created but the COLD import scheduler cannot be started.

Create a new COLD template. Specify a name for the template and a path from which spool data should be imported.

Switch to ***Template*** tab and load a sample spool file to crate the template. If you do not know the file format of your sample file, you can run an automatic recognition in tab Page settings. To help with this recognition the relevant filter settings for the known formats are set automatically.

If the page separation character cannot be set automatically with recognition, it has to be specified manually. The spool file must either contain a page separation character (or character string) or a constant number of lines per page can be used.

If single characters (or character strings) should for example be cut out, a filter must be set.

See Filter

Index can be imported automatically from a defined position (line, column) if the relevant information is always represented at this position (like an invoice number on an invoice form). This position can be selected with the mouse and linked to index fields.

If a document in the spool file consists of several pages they should be grouped.

Setup a COLD import scheduler after creation of COLD templates.

See COLD Import Scheduler

Spool formats

Several types of spool files can be used. Common to all of them is the postulation to be able to separate the data into pages, either by a page separation character or by specifying a fixed number of lines per page.

There are fixed file formats which already contain defined separation characters. Such formats are for example created by IBM AS400 mainframe computers. These formats (we called them COM1 and COM2) can be recognised automatically and the filters/separation characters automatically set.

Using COLD the index is automatically extracted from the text data, no OCR recognition has to be performed.

In the Page ***settings*** tab the automatic file type recognition of the sample file can be started.

If a file of this format is recognised, the relevant filter settings are automatically defined.

The index fields and the overlay with the text settings have to be specified.

If a spool file does not contain page separation characters, the single pages can also be defined with a fixed number of lines. The spool file must then be structured accordingly.

Filter

Setup page separator

Text files which contain a separation character at the beginning of a page are suited very well to setup a COLD template.

If this character is missing, the pages should consist of a fixed number of lines per page or a character string must exist at the beginning of the page which can be used as a page separator.

There are fixed file formats generated from other systems which are supported by COLD. Formats called COM1 and COM2 contain defined separator characters which are automatically recognised by COLD.

If COM1 or COM2 are not recognised, the standard page separator ***0C*** (form feed) is predefined. It is automatically set in the filters. In the second filter entry the character is cut out in order to not be displayed on page.

Select the relevant character at the beginning of a page and specify a filter by clicking in context menu (right mouse button) or by clicking ***Add filter***

When the filter is set it will appear in the list of filters and a character option can be assigned.

If the page separator is defined, it is possible to browse through the sample file using the page navigation buttons.

If the filtered values should be displayed, the filter button in the configuration window can be switched on and off.

Field – Define index fields

After the filters have been specified (for page separation and unwanted strings cut out for display) the index fields for import can be specified.

Select the character string which is to be imported to a defined index field and select ***New index field*** in the pop-up menu.

Select ***Fields*** and select the correct index field for the selected characters. It is displayed where (line, column) the information for the index field is imported from on the page. This index information must be located at the same position on each imported page.

Because these documents are imported from a spool file, the format settings should be unchanged. If the page layout of the output data changes, the COLD import settings have to be adapted.

The length of the field to be read can be changed later if necessary. The maximum field length of the index field should be specified. Make sure that the field length specified in Enterprise Manager for the relevant field is sufficient.

Import text from different files

Index fields can be filled with text located on different pages. Specify an index field and specify the page number for the page to be used for reading. If this option should be used, bundling of pages must be defined.

Read index from last page

When bundled, documents contain several pages. This page number is not fixed and depends on the document. If the relevant information should always be imported from the last page of the document (for example the final amount of an invoice) this can be set if “0” is set for the page number.

Import several text parts into one index field

One index field can be linked with several text parts in COLD. Assign the relevant field several times. The succession of the imported text parts can be controlled by ***Sort order***.

Prefix / Postfix

If several text fields are written into one index field, they can be separated by a separation character. Always make sure that the index field length is specified long enough in Enterprise Manager.

Field Preview

In the ***Template*** tab a field preview can be displayed.

If index fields have already been assigned, the imported information can be checked. This is especially useful, if several index fields should be filled with the information of a zone or when the content of several zones should be imported to one index field with ***Prefix/Postfix***.

Bundle if ...

If several successive pages are to be bundled and stored as one document, a condition must be specified for page bundling.

This can be one of the following options:

No bundling

If no bundling is specified, a document is created for each page.

Increasing number

Bundling using page numbers. If the page number increases, the page should be appended. If the page number starts with “1”, a new document is created.

Empty on next page

If a certain index is only present on the first (leading) page (for example order number) and is not present on the following pages of a document, this setting can be used. The following pages are automatically appended.

Not empty on next page

If a field is only empty on the first page, but is not empty on the following pages (for example a page numbering after the leading page) this setting can be used.

Equal on next page

If for example a unique invoice number is always printed on the same position on each page of a multipage invoice, this setting can be used. The pages are automatically appended until a new entry (here: invoice number) appears.

Page settings

Graphic mode

In the configuration window the display can be switched to graphic mode. This shows how the test is placed on the page and on the overlay.

If no overlay is specified, the blank text is displayed on a white page. A blank white page is set at 200x200 dpi to display the text of the spool file. In Page settings the text can be configured and positioned on the page. In graphic mode the page layout can be controlled.

Overlay Image

In the ***Page settings*** tab a page size can be specified when no overlay is specified. If an overlay is set, the page size is derived from the overlay.

With an overlay a blank page with a logo can be combined with the text of a page in order to create a display and print close to the original in FileDirector.

Two different overlays can be specified for the first and the following pages. If the following pages should have a white overlay which should not have 200x200 dpi resolution, a special white overlay must be set.

> *Note:*
> *A background generated automatically is always setup in 200x200 dpi. If an overlay has a different resolution the size of the text compared with the overlay does not match with the leading page. The second page can only be set, if bundling of pages is switched on.*

Select Codepage/Character table

Normally, a fixed pitch font should be selected, as this ensures that text and tables will be formatted correctly. The font specified must be installed on the FileDirector server.

Different character tables can be selected:

- OEM – Multilingual Latin I (denotes ASCII)
- ANSI – Latin I
- Arabic – ASMO 708
- Arabic – ASMO 449+, BCON V4
- ISO 8859-6 Arabic

The available character tables can be extended in later versions if necessary.

Save as PDF

Selecting this, each COLD document imported will be saved in PDF format.

When selecting to save as PDF, two further options will become available.

Alternate line colouring

This option when selected will save the line items in alternating colours.

High efficient storage

By default, an overlay will be saved with the data in a PDF, making the file size larger. With this option selected, only the data is saved in the PDF, and will be combined with the overlay when displayed in the WinClient.

Text positioning

After specifying an overlay, switch back to the graphic display mode in the ***Template*** tab.

Check if the text position is satisfactory on the overlay. If necessary the text can be adapted to the overlay with X-offset, Y-offset or line offset.

Dashboard

Overview



FileDirector Dashboard is implemented into and directly connected to FileDirector WebServer.

It provides information about utilisations within FileDirector BusinessProcessManagement and about values, connected to existing entries in FileDirector fields. The information is provided in diagram format, whereas the format and the shown information is adaptable.

FileDirector Dashboard offer three types of data sources.

Process overview

This data source contains all processes with the total documents on each process of the specific cabinet.

Process detail view

This data source contains all processes with all process steps and the total count of documents for each process step of the specific cabinet.

Document Index Fields

This data source uses information of a specified document type. Compared to the other two sources, this one is not directly linked to user action steps within process management.

Setup

The basic configuration of FileDirector Dashboard is done in the FileDirector ConfigUtility (Web), as FileDirector Dashboard is part of the WebServer, and in the FileDirector Enterprise Manager.

Note:
For detailed information see the separate **FileDirector Dashboard Quick Guide**.

Dashboard Settings

The node Dashboard in FileDirector Enterprise Manager provides the ***Settings*** for the FileDirector Dashboard. These settings contain of two tabs, ***Settings*** and ***Data sources***.

The Dashboard node can be found within each cabinet and the settings are valid for all corresponding dashboards of the respective cabinet.

Tab: Settings

Within this tab, timer values and font sizes can be set.

> *Note:*
> *These settings are valid for all dashboards of the respective cabinet.*

Timer

Data refresh (min)

The FileDirector Dashboard updates the data according to the interval set ***FileDirector Enterprise Manager*** for the corresponding cabinet.

The default value is 20 minutes.

> *Note:*
> *The minimum value here is* **5** *minutes and the maximum value* **60** *minutes.*
> *If the website is updated or reloaded, using F5, the data source will not be updated.*
> *The data is only being updated according to the interval value set in the FileDirector Enterprise Manager.*

Tab page switch (min)

The ***Tab page switch*** option defines the change interval in minutes for tab containers.

The minimum value is ***1*** minute and the maximum value is ***20*** minutes.

The default value is ***5*** minutes.

> *Note:*
> *The switch interval is only active in* **Show Mode**.

Font size

The section ***Font size*** within the ***Settings*** allows to change the size of the used font for different sections of the Dashboard.

> *Note:*
> *These values are global values and valid for all created dashboards and diagrams of the corresponding cabinet.*

Title

Dashboard

The default value is ***13***pt.

The value can be altered by using  on the right hand side.

> *Note:*
> *The maximum value is 35pt.*

Toolbar

The default value is ***13***pt.

The value can be altered by using  on the right hand side.

> *Note:*
> *The maximum value is 35pt.*

Diagram

Chart

The default value is ***13***pt.

The value can be altered by using  on the right hand side.

> *Note:*
> *The maximum value is 35pt.*

Pie

The default value is ***13***pt.

The value can be altered by using  on the right hand side.

> *Note:*
> *The maximum value is 35pt.*

Grid

The default value is ***13***pt.

The value can be altered by using  on the right hand side.

> *Note:*
> *The maximum value is 35pt.*

Treemap

The default value is ***13***pt.

The value can be altered by using  on the right hand side.

> *Note:*
> *The maximum value is 35pt.*

Pivot

The default value is ***13***pt.

The value can be altered by using  on the right hand side.

Note:
The maximum value is 35pt.

Gauge

The default value is ***13***pt.

The value can be altered by using  on the right hand side.

Note:
The maximum value is 35pt.

Tab: Data sources

This tab provides the additional settings for the data sources ***Document index field*** and ***Process detail view***, which, unlike the data source ***Process overview***, can be combined with FileDirector fields.

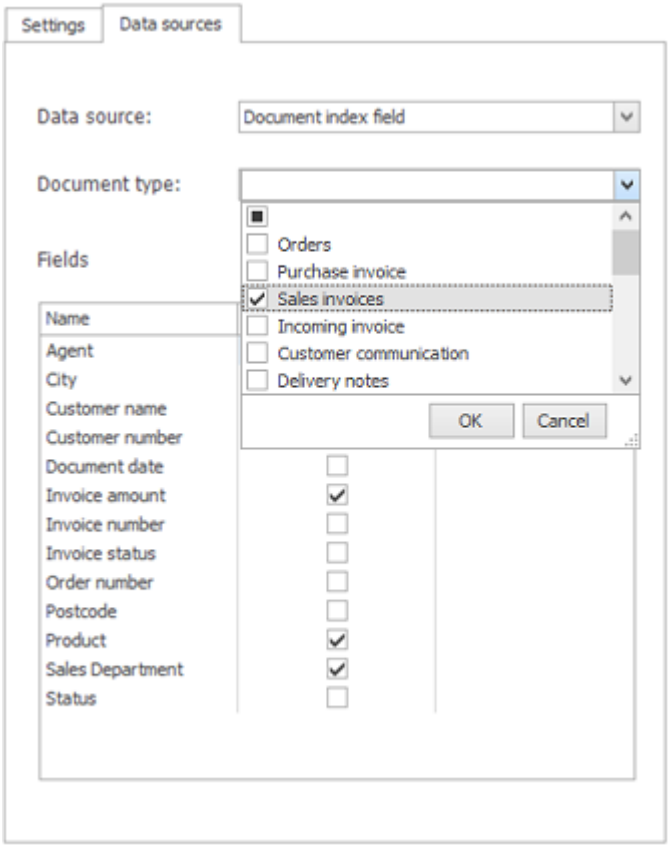
Note:
These settings are valid for all dashboards of the respective cabinet.

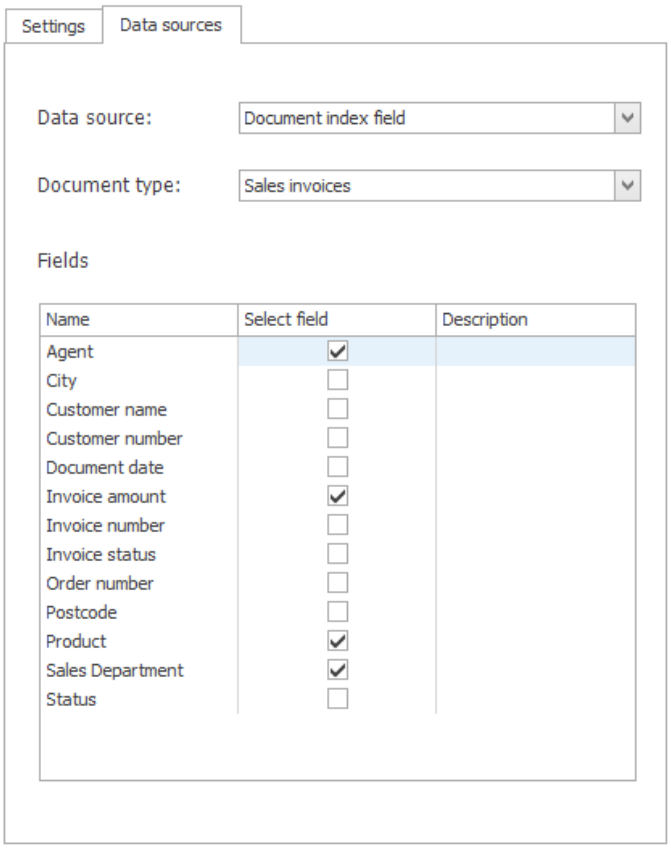
The drop-down menu ***Data source*** shows the two internal sources ***Document index field*** and ***Process detail view***.

The drop-down menu ***Document type*** shows the available document types of the corresponding cabinet.

Multiple document types can be selected.

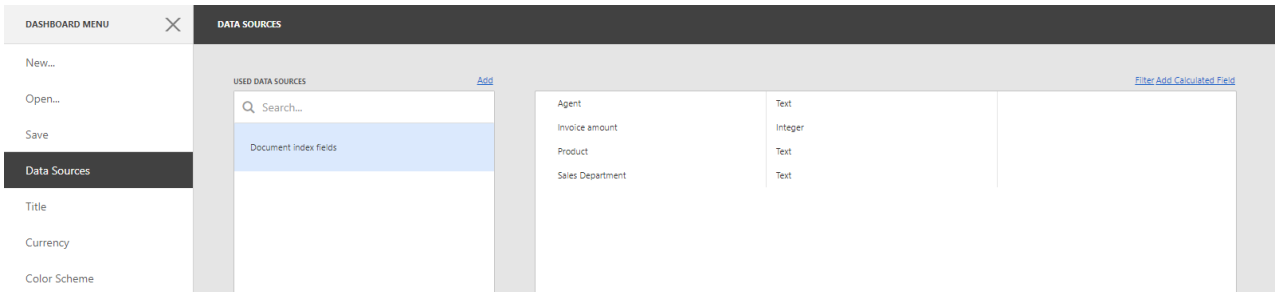
Example


Settings
Data sources
Data source:
Document index field
Document type:
Fields
Orders
Purchase invoice
Sales invoices
Incoming invoice
Customer communication
Delivery notes
OK
Cancel
Name
Agent
City
Customer name
Customer number
Document date
Invoice amount
Invoice number
Invoice status
Order number
Postcode
Product
Sales Department
Status


Settings
Data sources
Data source:
Document index field
Document type:
Sales invoices
Fields
Name
Select field
Description
Agent
City
Customer name
Customer number
Document date
Invoice amount
Invoice number
Invoice status
Order number
Postcode
Product
Sales Department
Status

In this example, only the document type ***Sales invoices*** and the following fields of this document type are selected for the use in FileDirector Dashboard, in combination with the data source ***Document index field***:

- Agent
- Invoice amount
- Product
- Sales Department



Storage location of Dashboard Settings

The settings of FileDirector Dashboards are stored within the ***dbo.settings*** of the corresponding cabinet's database.

ODBC Links

Overview



ODBC is an abbreviation for ***Open Database Connectivity*** and allows connecting via a standard interface to different data sources. Such data sources can be other databases, Excel tables or text files.

After connecting a FileDirector index field with a field from the data source, additional index can automatically be read from the database in order to complete the FileDirector index.

If this feature is configured, for example indexing a table from an existing database should be used; an ODBC link must be established in Windows.

Note:
The following characters cannot be used in the column names of an ODBC source:
, . , ; + - # * ? = : blank < >

Setup ODBC link in Windows

To link a data source, select on FileDirector server: ***Start*** ⇨ ***Control panel*** ⇨ ***Administrative tools*** ⇨ ***Data sources (ODBC)***, then select the tab ***System DSN***.

Click ***Add*** and select the type of data and click ***Finish***. Now the relevant data source can be selected.

For other types of data sources (for example SQL database) select the relevant type, and configure the settings necessary for data access.

Ensure that the user ***fd-server*** has access rights for the ODBC source, if a driver is used that does not request user name and password.

Note:
This is a generalised description of the configuration of several ODBC-Drivers, because the drivers are third party products and not included in FileDirector.
If you have problems with these drivers, please contact the driver-manufacturer.

Configure ODBC link

If the data source is configured, it can be used for indexing in FileDirector.

Select the ***ODBC Links*** icon and choose the ***New*** tool.

Specify a name for the ODBC link and a description if necessary. In the field ***ODBC source*** the ODBC link created on the server can be selected.

Under ***ODBC table*** specify the name of the database table from where index data should be read. The table names cannot be selected from a list, they must be known during configuration. If the table name is specified correctly, the field names of these tables are listed after hitting ***Return,*** in the section ***ODBC Column***.

Now the entries from the ODBC table can be connected with the relevant FileDirector index fields.

If automatic indexing using ODBC is to be used in the Windows Client the FileDirector index field needs to be configured with an ODBC link.

Connection string

In this line enter the connection string of the selected ODBC source.

Example

DSN=value;UID=value;PWD=value;Connection Timeout=600

Search column

In this column ***ODBC AND*** queries are set up.

Note that this is a trigger field, and is AND connected.

ODBC Link for Excel

To create an ODBC link in Excel you need a table (table1) which might be structured as follows:

1	Client No.	Name	Location
2	12345	Spielberg	Duisburg

Create an ODBC source, select the ODBC driver for Excel and specify an ODBC Source name. Select *.xls file in this driver, which contains ***table1***.

Create an ODBC link in Enterprise Manager as described in the section before and specify the following settings in order to link the table:

ODBC-Source = ODBC-Source name

ODBC-Table = [table1$]

After hitting ***Return*** the columns of the Excel table should appear and can then be assigned. Using Excel it is important to specify the table name with the ***$*** character in brackets.

ODBC link for a *.csv- file

A *.csv-file is in principle a text file containing index data, separated by a semicolon. A *.csv-file can be exported e.g. from an Excel table. This would be similar to the following table. The first line contains the column name and the following ones contain the index data:

1	Client No.	Name	Location
2	12345	Spielberg	Duisburg

Please generate an ODBC-Source in the System –DSN first, as described earlier in this chapter

Select the ODBC Microsoft text driver that can be used for CSV files and choose the folder which contains the CSV file. Open ***Options >>*** and remove the check before ***Default (*.*)***.

Click on ***Define text format*** and choose the required file.

Now you can define different options as, for example the separators or whether the name of a column does exist in the first line.

After finishing the configuration of the ODBC Source of the *.csv –file configure the ODBC link in FileDirector.

Assign the ODBC-Source and as a table the file name of the *.csv -file.

ODBC-Source = ODBC-Source name

ODBC-Table = odbc.csv

Confirming with ***Return***, the columns of the *.csv –file will be shown and should be assignable.

Setup ODBC source for Oracle

Install the Oracle client software (including ODBC- and Oracle driver options). Create a system database name (DSN) in ODBC control panel.

When the ODBC-driver is checked (and DSN is created, if an oracle database is present here) carry on with configuration of an ODBC link in Enterprise Manager as described above.

With an Oracle implementation make sure, that the newest Oracle ODBC drivers are installed. The default Microsoft ODBC drivers are not compatible.

In Oracle 9i select driver Oracle in Orahome 92, which is listed after installation in the ODBC drivers list.

Create a DSN in Oracle:

1. Select ***Start*** ⇨ ***Control Panel*** ⇨ ***Administrative Tools*** ⇨ ***Data Sources (ODBC)*** to open the ***ODBC Data Source Administrator*** window.
2. In ODBC Data Source Administrator select the ***System DSN*** tab.
3. Click ***Add***.
4. Select the Oracle ODBC driver in section ***Create New data Source***.
5. Specify the following settings in dialogue fields ***Oracle ODBC Driver Setup***:

Data Source Name:

Name of the DNS to be added.

TNS Service Name:

Name of the Oracle instance, normally specified in the following format: ***database name_host name***. Please refer to your Oracle database administrator for this information.

User ID and password:

A valid account for the oracle database must be entered. This account must have the rights of a database owner.

FileDirector Cabinets are stored in Oracle under ***Scheme*** using the database ID. For each database an account is created using the database name (Cabinet ID), that is the database owner. This account can be used as the default account to access the database via an ODBC driver.

As UserID, the respective user and the password must be entered.

Example

CabinetID = FD_DA15DA61
Password of user FD_DA15DA61 = password
(Setting for password in Oracle Enterprise Manager: ⇨ ***Security*** ⇨ ***User*** ⇨ ***FD_DA15DA61*** ⇨ ***Set password***)
UserID: FD_DA15DA61/password

(In this example a table was created manually within a FileDirector Cabinet database. If the table was created in a different database, the password was for this database accordingly.)

Test Connection

Test the connection and close the settings, when the connection is successfully established.

Now the ODBC link can be created in FileDirector Enterprise Manager as described above.

ODBC-Source ***= ODBC-source name***

ODBC-Table ***= Specify table name***

If the ODBC connection is installed, the fields show up, after the table name is selected. The fields can be assigned to the index fields of FileDirector.

In order to fill the index fields in the Windows Client do not forget to specify the link with the respective index fields.

Additional information for ODBC settings

3rd party ODBC driver

It is not guaranteed that FileDirector can work with every existing 3rd party ODBC driver and access the accordant data source. FileDirector uses the Microsoft standard and accesses the ODBC sources via it. FileDirector has no stake in the configuration of these ODBC drivers.

Log-in not configurable in the ODBC driver

If it is necessary to configure a log-in to access a database, it can normally be set up in the ODBC driver. If this is not the case, FileDirector provides the option of creating a separate log-in on the server in the file web.config.

Please read the section on using ODBC connections with a password in the installation guide.

Overlays

Overview



FileDirector offers an option of overlays. These overlays can be used to offer HTML templates in the Windows Client.

Security

Selecting the ***Security*** tool while displaying the list of overlays will show the window containing an overview of all overlays and their security setting.

To configure rights select the user or group and then the overlay or multiple overlays by holding the Ctrl or shift key and selecting the overlays. For each overlay, you can then allow or not allow permissions for that user or group.

New overlays

Select the ***Overylays*** icon and then choose the ***New*** tool to create a new overlay.

Filling fields in HTML templates

By making adjustments in an HTML file it is possible that entered values are filled in the HTML template and also stored automatically to FileDirector fields.

```
                ,
// ]]>
        </script>
</head>
<body>

        <div class="style1"><br />    TEST FORM<br /><br /></div>

        <div class="style2">
                <br />
                <div style="margin-left: 40px; margin-right: 40px">
                <table style="width: 100%">
                        <tr>
                        <td>
                                        <label id="Label1" >Applicant :</label><br /><input name="FD_B0D0042A"
                        </td>
```

In the example above the field Applicant is filled with the content of the field with the ID FD_B0D0042A.

FormDesigner

Overview



The FormDesigner allows to create and distribute customised forms for different applications, centrally and in a simple way.

The created forms can be distributed in PDF, HTML or HTML (Div) format.

These forms can be selected in FileDirector WinClient through ***Create page from template*** or distributed by creating a link. The link can either be created for a PDF, HTML or HTML (div) form.

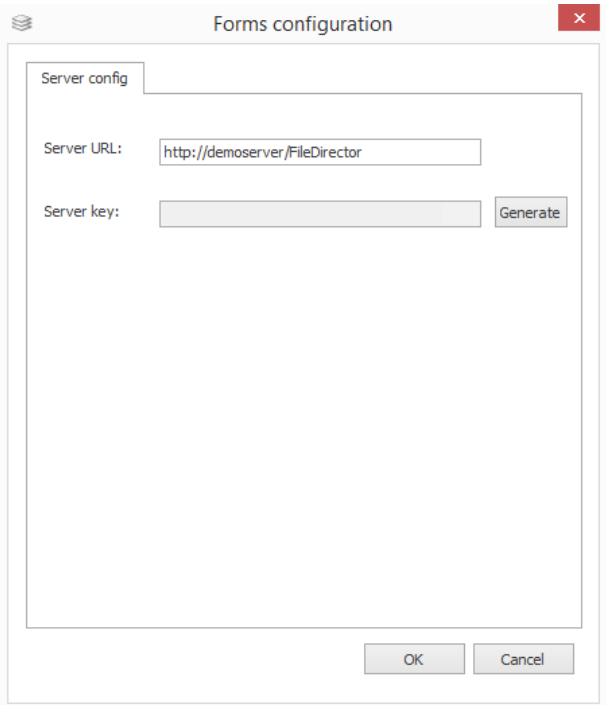
The can either be created in FileDirector Enterprise Manager or WinClient within the section, mentioned above, by selecting ***Download***.

Each form can be set up with different definitions as a one-time use or an anonymous option.

Basic settings

The basic settings for FileDirector Forms are on the node ***Forms***.

Select ***Settings*** on the node Forms. This can be done either through the context menu of the right mouse button or through the actions bar.



Setting	Description
Server URL	Enter the URL of your FileDirector system. This URL is used when forms are submitted through the ***submit*** button.
Server key	Generates a key that is embedded into the form for verification and is checked when the filled form is submitted to server. *Note:* *When the once-generated key is changed, all forms with the old key embedded are invalid and a submission is not possible.*

New Form

A new form can be created either by selecting ***New*** from the context menu of the right mouse button or from the Actions bar.

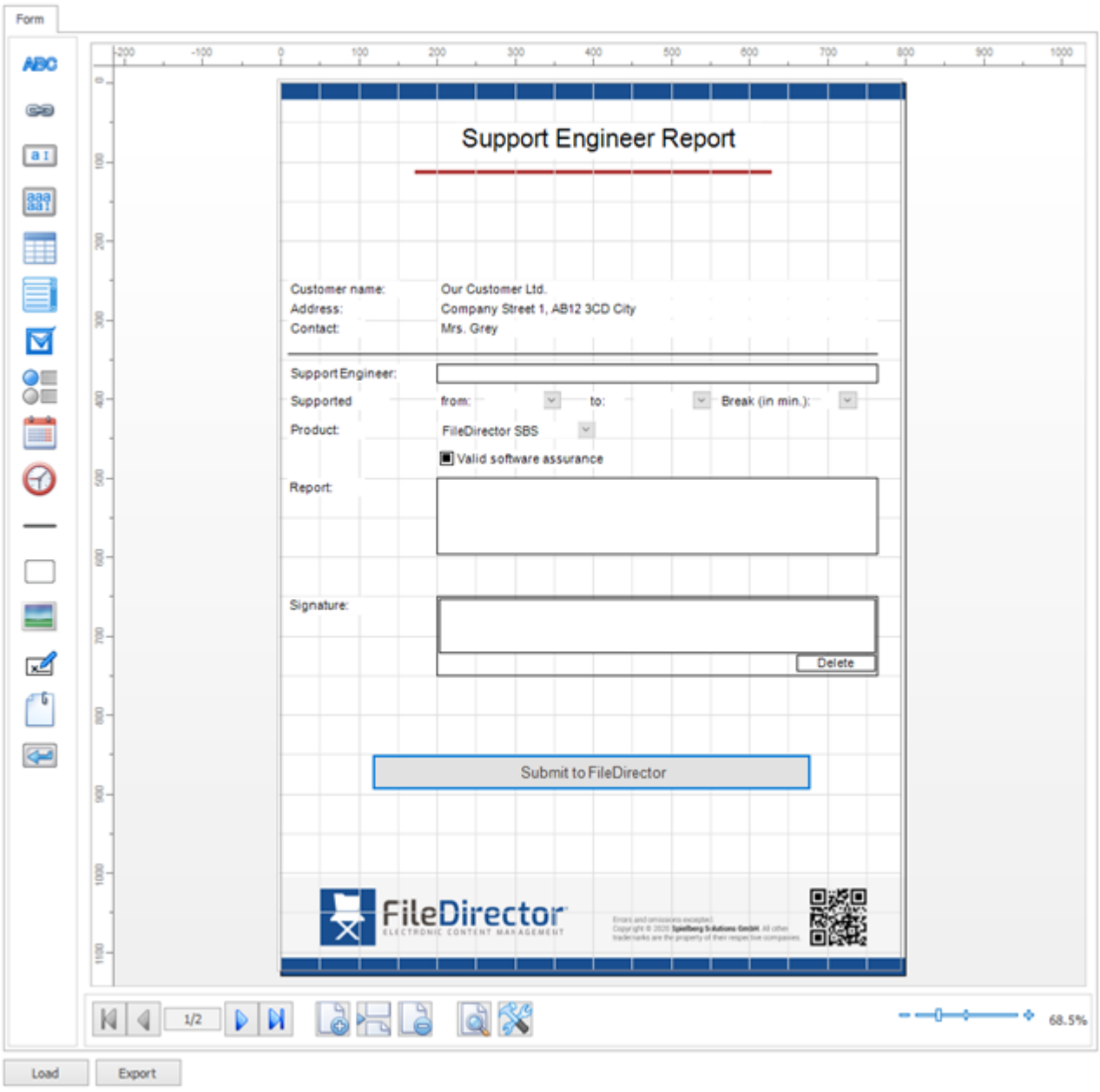
The window Form designer settings opens and shows the following settings and options for the form.

Settings

Setting	Description
Name	Name of the form. This name is shown in FileDirector WinClient, when the option Show in client is selected.
Document type	The document type, the form is connected to and checked in to, when submitted.
Size	Form size. Available sizes are A4, A5, US-Letter and US-Legal.
Orientation	Portrait or Landscape
Font	Default font of new controls.
Back colour	Background colour of the selected form.
Text colour	Default colour of new controls.
Server URL	Shows the server URL set at ***Forms configuration***. *Note:* *The server URL cannot be changed here.*
Anonymous	Allows access to the form in Web Browser without authentication.
One time use	This option sets forms to one-time use. After the form has been submitted once, it is not possible to submit it again.
Show in Client	Provides the form for use in FileDirector WinClient. Forms with this option selected are visible when selecting ***Create page from template*** in WinClient.

Note:
The settings **Size** *and* **Orientation** *are only available when creating a form and can't be changed in existing forms.*

Form elements



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Label



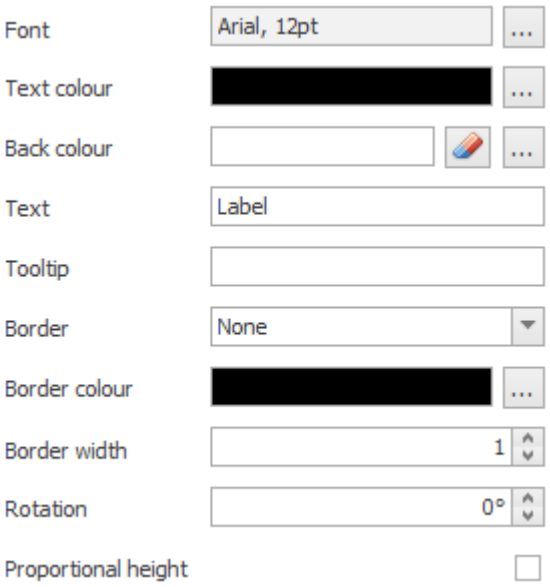
Settings



The following options are available for each element of the type ***Label***:

Setting	Description
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Text colour	The text colour can be changed. The default colour is ***black***.
Text	Within this field, the text of the label is defined.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.

Setting	Description
Border	The options here are ***None*** and ***Solid***. Default option is ***None***.
Border colour	In case the option border has been set to ***Solid***, the colour defined here, is used for the border of this element.
Border width	In case the option border has been set to ***Solid***, the width defined here, is used for the border of this element.
Rotation	The option ***Rotation*** can be used to rotate the control according to the set value. The value can either be typed in manually or set in five degree steps by using the icons .
Proportional height	This option aligns automatically the height of the control to the selected font size. *Note:* *If this option is not selected, the height of the control cannot be smaller than the height of the default font size.*



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Hyperlink



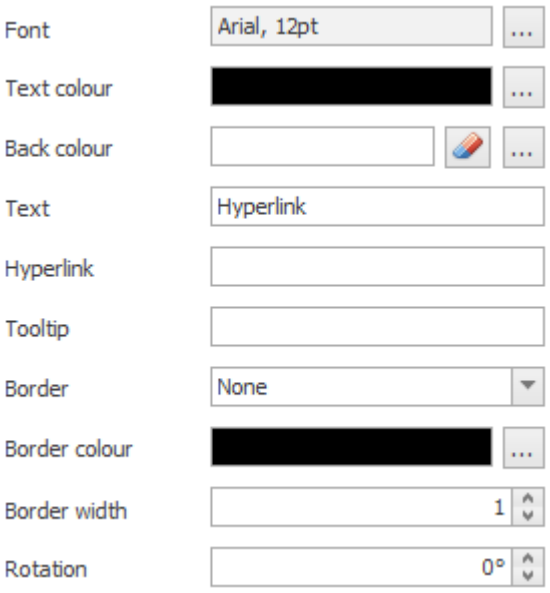
Settings



The following options are available for each element of the type ***Hyperlink***:

Setting	Description
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is ***black***.
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Text	Within this field, a descriptive text can be provided. It is used as control label, when the form is being displayed.
Hyperlink	This field is used for the corresponding URL of the hyperlink..
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Border	The options here are ***None*** and ***Solid***. Default option is ***None***.
Border colour	In case the option border has been set to ***Solid***, the colour defined here, is used for the border of this element. The default colour is ***black***.

Setting	Description
Border width	In case the option border has been set to ***Solid***, the width defined here, is used for the border of this element. The default width is ***1***.
Rotation	The option ***Rotation*** can be used to rotate the control according to the set value. The value can either be typed in manually or set in five degree steps by using the icons .



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Single-line text box



Settings

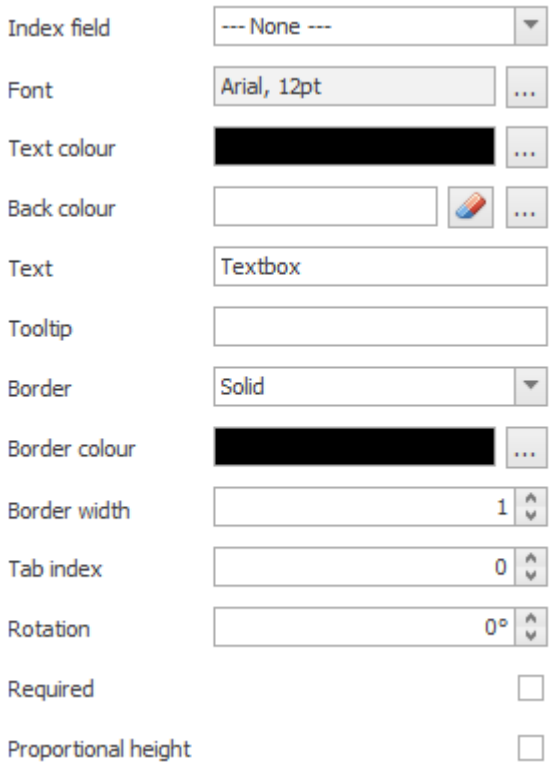


The following options are available for each element of the type ***Single-line text box***:

Setting	Description
Index field	A FileDirector index field can be selected for mapping from the drop-down menu. A selection here links this element of the form with an index field and the values transferred. The default selection is ***None***. *Note:* *The settings of the selected field must match with the content the form field is being created for – e.g. a* **Numbers** *field does not allow any other characters than digits.*

Setting	Description
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is ***black***.
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Text	Within this field, a default text can be provided. It is shown, when the form is being displayed and can be overwritten or altered by a user before storing the form in FileDirector.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Border	The options here are ***None*** and ***Solid***. Default option is ***None***.
Border colour	In case the option border has been set to ***Solid***, the colour defined here, is used for the border of this element. The default colour is ***black***.
Border width	In case the option border has been set to ***Solid***, the width defined here, is used for the border of this element. The default width is ***1***.

Setting	Description
Tab index	The option ***Tab index*** can be used to number and sort the order of the elements. Using sorted elements, allows a user to jump to the next form field in a logical order by simply using the ***Tab key*** on keyboard. The order can either be set manually by defining a unique value for Tab index for each element ***OR*** It can be done automatically by selecting ***Set tab indices*** from the context menu of the right mouse button. *Note:* *See also* Set tab indices. The default value is ***0***.
Rotation	The option ***Rotation*** can be used to rotate the control according to the set value. The value can either be typed in manually or set in five degree steps by using the icons .
Required	If ***Required*** is selected, the respective field of the form must contain a value. Otherwise, it cannot be submitted to FileDirector.
Proportional height	This option aligns automatically the height of the control to the selected font size. *Note:* *If this option is not selected, the height of the control cannot be smaller than the height of the default font size.*



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Multi-line text box



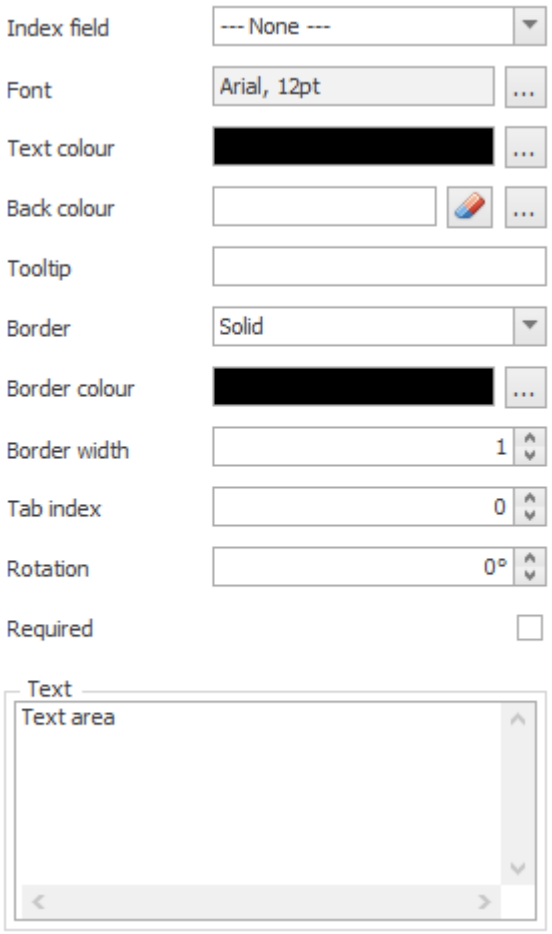
Settings



The following options are available for each element of the type ***multi-line text box***:

Setting	Description
Index field	A FileDirector index field can be selected for mapping from the drop-down menu. A selection here links this element of the form with an index field and the values transferred. The default selection is ***None***. *Note:* *The settings of the selected field must match with the content the form field is being created for – e.g. a* **Numbers** *field does not allow any other characters than digits.*
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is black.
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Border	The options here are ***None*** and ***Solid***. Default option is ***Solid***.
Border colour	In case the option border has been set to ***Solid***, the colour defined here, is used for the border of this element.

Setting	Description
Border width	In case the option border has been set to ***Solid***, the width defined here, is used for the border of this element.
Tab index	The option ***Tab index*** can be used to number and sort the order of the elements. Using sorted elements, allows a user to jump to the next form field in a logical order by simply using the ***Tab key*** on keyboard. The order can either be set manually by defining a unique value for Tab index for each element ***OR*** It can be done automatically by selecting ***Set tab indices*** from the context menu of the right mouse button. *Note:* *See also* Set tab indices. The default value is ***0***.
Rotation	The option ***Rotation*** can be used to rotate the control according to the set value. The value can either be typed in manually or set in five degree steps by using the icons .
Required	If ***Required*** is selected, the respective field of the form must contain a value. Otherwise, it can't be submitted to FileDirector.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Table



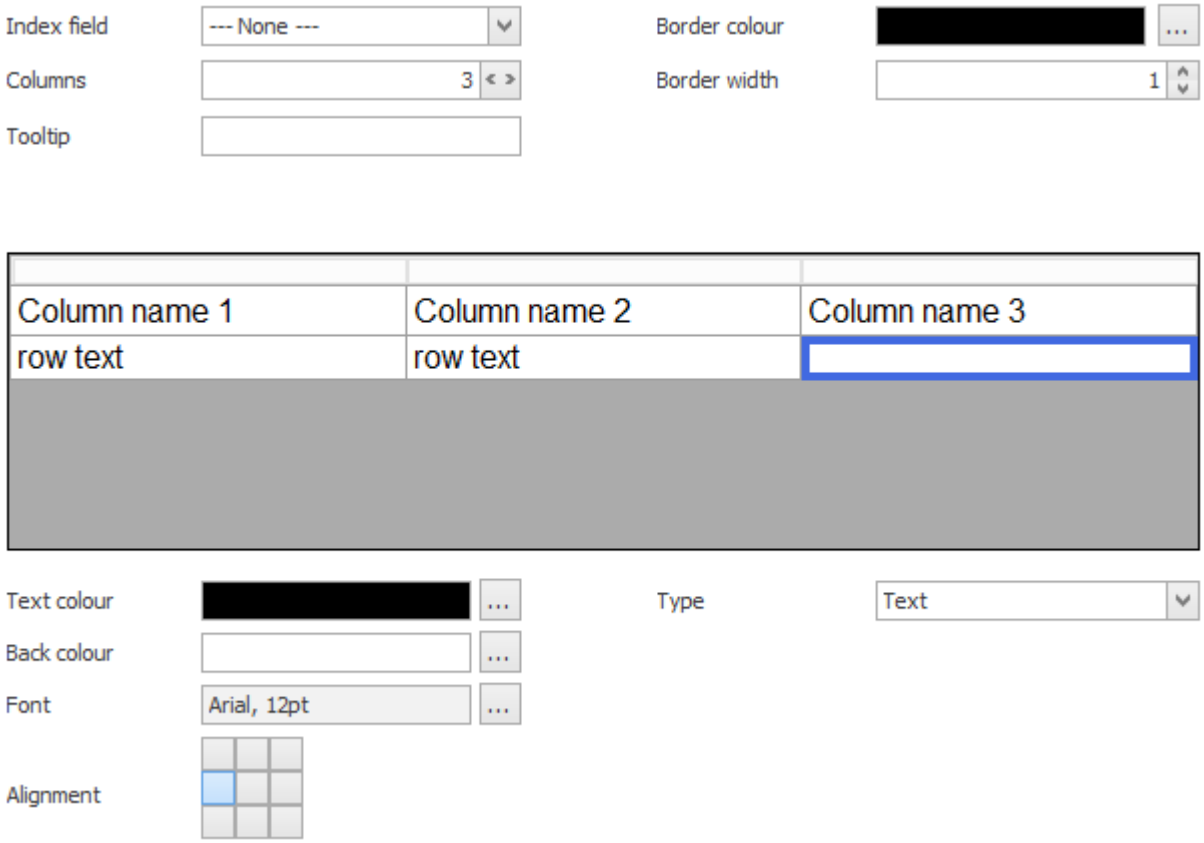
Settings



The following options are available for each element of the type ***Table***:

Setting	Description
Index field	A FileDirector index field can be selected for mapping from the drop-down menu. A selection here links this element of the form with an index field and the values transferred. The recommended type is ***Memo*** Using this type, FileDirector stores the table content in CSV format with a semicolon as separator and a line break at the end of each table row. The default selection is ***None***.
Border colour	In case the option border has been set to ***Solid***, the colour defined here, is used for the border of this element.
Columns	Defines the amount of columns of the table. The default value is ***3***.

Setting	Description
Border width	In case the option border has been set to ***Solid***, the width defined here, is used for the border of this element.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Text colour	The text colour can be changed. The default colour is black.
Type	***Text***, ***Dropdown box***, ***Check box***, ***Increment***
Back colour	The background colour can be changed. The default colour is ***white***.
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Alignment	A column's alignment can be set.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Drop-down Box



Settings

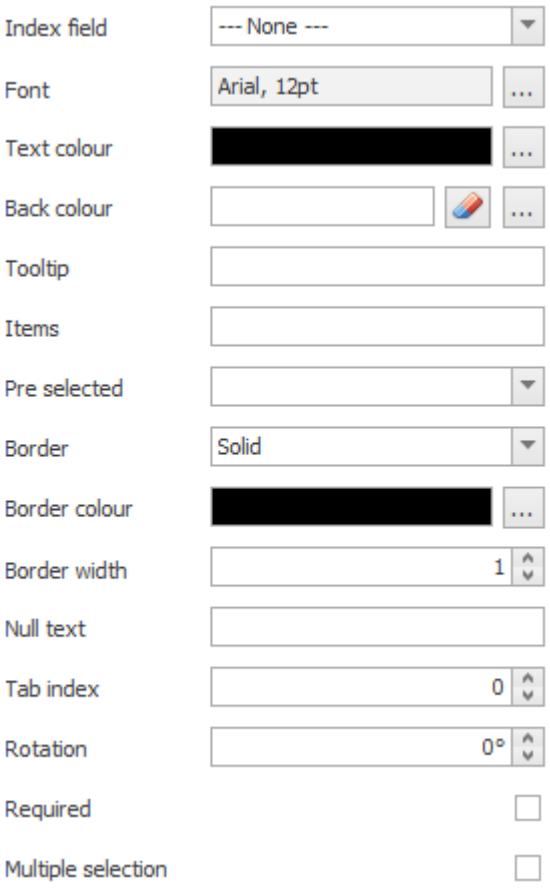


The following options are available for each element of the type ***Drop-down box***:

Setting	Description
Index field	A FileDirector index field can be selected for mapping from the drop-down menu. A selection here links this element of the form with an index field and the values transferred. The default selection is ***None***. *Note:* *The settings of the selected field must match with the content the form field is being created for – e.g. a* **Numbers** *field does not allow any other characters than digits.*
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is black.

Setting	Description
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Items	Within this field, the items of the drop-down-box are defined. The entered values must be separated by "**;**". *Note:* *If the drop-down box is mapped to a keyword list field, the form will show the content of the corresponding keyword list.*
Pre selected	The possible options are ***None*** or a value from the area ***Items***, entered before. *Note:* *If the drop-down box is mapped to a keyword list, the value used for preselection must entered manually in the area* **Items***, above.*
Null text	The value, entered here, will be displayed if ***None*** is selected above at ***Pre-selection***.
Tab index	The option ***Tab index*** can be used to number and sort the order of the elements. Using sorted elements, allows a user to jump to the next form field in a logical order by simply using the ***Tab key*** on keyboard. The order can either be set manually by defining a unique value for Tab index for each element ***OR*** It can be done automatically by selecting ***Set tab indices*** from the context menu of the right mouse button. *Note:* *See also* Set tab indices. The default value is ***0***.

Setting	Description
Rotation	The option ***Rotation*** can be used to rotate the control according to the set value. The value can either be typed in manually or set in five degree steps by using the icons .
Required	If ***Required*** is selected, the respective field of the form must contain a value. Otherwise, it can't be submitted to FileDirector.
Multiple selection	Allows the selection of multiple values of the drop-down list.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Check box



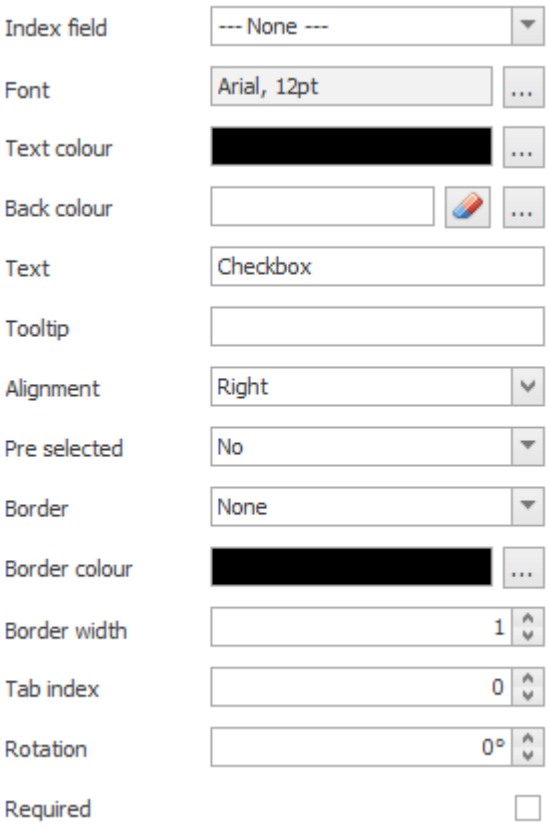
Settings



The following options are available for each element of the type ***Check box***:

Setting	Description
Index field	A FileDirector index field can be selected for mapping from the drop-down menu. A selection here links this element of the form with an index field and the values transferred. The default selection is ***None***. *Note:* *The settings of the selected field must match with the content the form field is being created for – e.g. a* **Numbers** *field does not allow any other characters than digits.*
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is black.
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Text	The ***Value*** entered here, is shown, either on the right or the left of the corresponding check box. This alignment can be set below. If this ***Check box*** control is selected, the given ***Value*** will also be filled into the mapped field.

Setting	Description
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Alignment	The possible options are ***Right*** and ***Left***. The default alignment is ***Right***.
Pre selected	The possible options are ***No*** and ***Yes***. The default is ***No***.
Tab index	The option ***Tab index*** can be used to number and sort the order of the elements. Using sorted elements, allows a user to jump to the next form field in a logical order by simply using the ***Tab key*** on keyboard. The order can either be set manually by defining a unique value for Tab index for each element ***OR*** It can be done automatically by selecting ***Set tab indices*** from the context menu of the right mouse button. *Note:* *See also* Set tab indices. The default value is ***0***.
Rotation	The option ***Rotation*** can be used to rotate the control according to the set value. The value can either be typed in manually or set in five degree steps by using the icons .
Required	If ***Required*** is selected, the respective field of the form must contain a value. Otherwise, it can't be submitted to FileDirector.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Radio Button



Through this button, one or several ***Radio buttons*** can be added to a form and assigned to different ***Radio groups***.

Settings

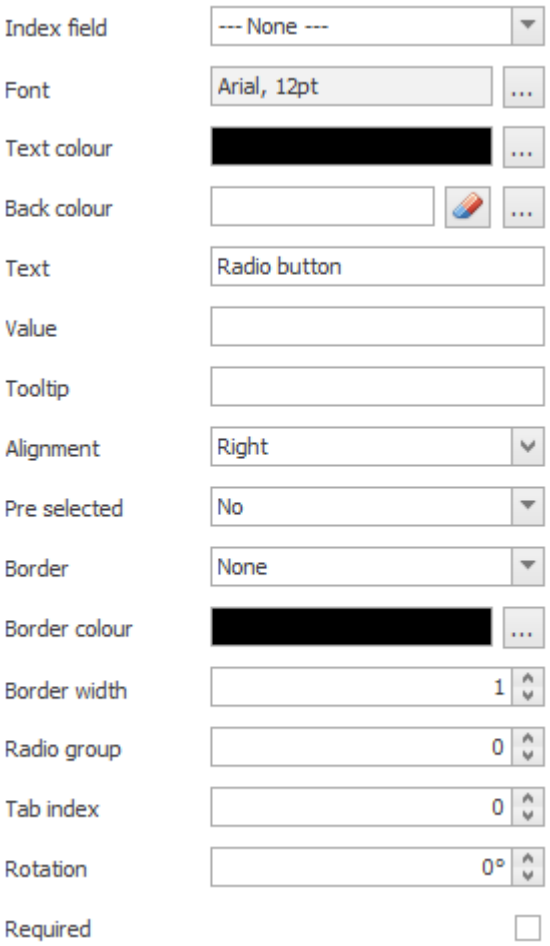


The following options are available for each element of the type ***Radio button***:

Setting	Description
Index field	A FileDirector index field can be selected for mapping from the drop-down menu. A selection here links this element of the form with an index field and the values transferred. The default selection is ***None***. *Note:* *The settings of the selected field must match with the content the form field is being created for – e.g. a* **Numbers** *field does not allow any other characters than digits.*
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is black.

Setting	Description
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Text	Within this field, a text should be provided. It is shown, either on the right or the left of the corresponding check box. This alignment can be set below.
Value	If the Radio button is selected, the given ***Value*** will be filled into the mapped field. If the Radio button is not selected, no ***Value*** will be filled into the mapped field.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Alignment	The possible options are ***Right*** and ***Left***. The default alignment is ***Right***.
Pre selected	The possible options are ***No*** and ***Yes***. The default is ***No***.
Radio group	Multiple radio buttons can be defined as ***Radio group***. It prevents inconsistent selections on a form.

Setting	Description
Tab index	The option ***Tab index*** can be used to number and sort the order of the elements. Using sorted elements, allows a user to jump to the next form field in a logical order by simply using the ***Tab key*** on keyboard. The order can either be set manually by defining a unique value for Tab index for each element ***OR*** It can be done automatically by selecting ***Set tab indices*** from the context menu of the right mouse button. *Note:* *See also* Set tab indices. The default value is ***0***.
Rotation	The option ***Rotation*** can be used to rotate the control according to the set value. The value can either be typed in manually or set in five degree steps by using the icons .
Required	If ***Required*** is selected, the respective field of the form must contain a value. Otherwise, it can't be submitted to FileDirector.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Date



Through this button, a ***Date*** control can be embedded into the form.

Settings

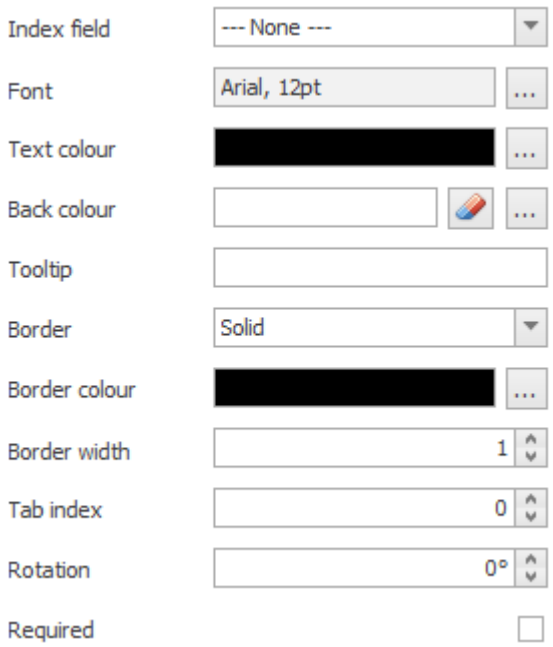


The following options are available for each element of the type ***Date***:

Setting	Description
Index field	A FileDirector date field can be selected for mapping from the drop-down menu. A selection here links this element of the form with a date field and the values transferred. The default selection is ***None***.
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is black.

Setting	Description
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Border	The options here are ***None*** and ***Solid*** and ***Dashed***. Default option is ***Solid***.
Border Colour	The border colour can be changed. The default colour is ***black***.
Border width	The width defined here, is used for the border of this element. The default value is ***1***.
Tab index	The option ***Tab index*** can be used to number and sort the order of the elements. Using sorted elements, allows a user to jump to the next form field in a logical order by simply using the ***Tab key*** on keyboard. The order can either be set manually by defining a unique value for Tab index for each element ***OR*** It can be done automatically by selecting ***Set tab indices*** from the context menu of the right mouse button. *Note:* *See also* Set tab indices. The default value is ***0***.
Rotation	The option ***Rotation*** can be used to rotate the control according to the set value. The value can either be typed in manually or set in five degree steps by using the icons .

Setting	Description
Required	If ***Required*** is selected, the respective field of the form must contain a value. Otherwise, it can't be submitted to FileDirector.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Time



Through this button, a ***Time*** control can be embedded into the form.

Settings

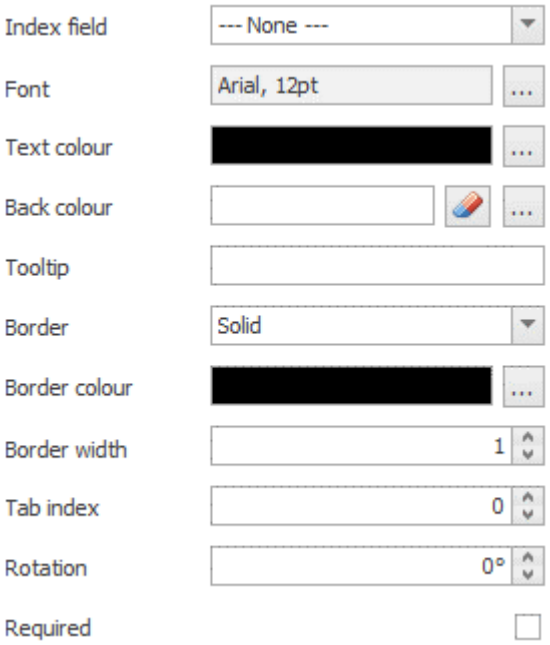


The following options are available for each element of the type ***Date***:

Setting	Description
Index field	A FileDirector time field can be selected for mapping from the drop-down menu. A selection here links this element of the form with a date field and the values transferred. The default selection is ***None***.

Setting	Description
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is black.
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Border	The options here are ***None*** and ***Solid*** and ***Dashed***. Default option is ***Solid***.
Border Colour	The border colour can be changed. The default colour is ***black***.
Border width	The width defined here, is used for the border of this element. The default value is ***1***.
Tab index	The option ***Tab index*** can be used to number and sort the order of the elements. Using sorted elements, allows a user to jump to the next form field in a logical order by simply using the ***Tab key*** on keyboard. The order can either be set manually by defining a unique value for Tab index for each element ***OR*** It can be done automatically by selecting ***Set tab indices*** from the context menu of the right mouse button. *Note:* *See also* Set tab indices. The default value is ***0***.

Setting	Description
Rotation	The option ***Rotation*** can be used to rotate the control according to the set value. The value can either be typed in manually or set in five degree steps by using the icons .
Required	If ***Required*** is selected, the respective field of the form must contain a value. Otherwise, it can't be submitted to FileDirector.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Horizontal/Vertical Line

Control settings



The following options are available for each element of the type ***Horizontal/Vertical Line***:

Setting	Description
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Border	The options here are ***Solid*** and ***Dashed***. Default option is ***Solid***.
Border width	The width defined here, is used for the border of this element. The default value is ***1***.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Rectangle



Settings

The following options are available for each element of the type ***Rectangle***:

Setting	Description
Index field	A FileDirector index field can be selected for mapping from the drop-down menu. A selection here links this element of the form with an index field and the values transferred. The default selection is ***None***. *Note:* *The settings of the selected field must match with the content the form field is being created for – e.g. a* **Numbers** *field does not allow any other characters than digits.*
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is black.
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Text	This text is displayed within the control.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Border	The options here are ***None*** and ***Solid*** and ***Dashed***. Default option is ***Solid***.
Border Colour	The border colour can be changed. The default colour is ***black***.

Setting	Description
Border width	The width defined here, is used for the border of this element. The default value is *1*.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Image



Through this button, image files can be embedded into the form.

> *Note:*
> *The control must be selected on the form before the function* **Allow drawing**, *if enabled in the settings, can be used.*

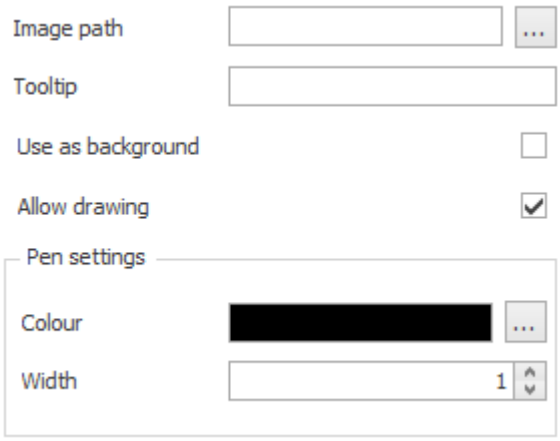
Settings

Elements of the type ***Image*** can be either used in foreground or as background. The uploaded image is scalable.

The following options are available for each element of the type ***Image***:

Setting	Description
Image path	Using **…**, an image file can be selected.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Use as background	The selected image can be used as background, either for the whole page or for a part of it. If this option is enabled, the image will always be pinned to the top left of the corresponding FileDirector Forms page.
Allow drawing	The area of the image is unlocked and a pen can be used for drawing.

Setting	Description
Pen settings: Colour	It defines pen colour, which is used for the drawing. The default value is ***Black***.
Pen settings: Width	It defines pen width, which is used for the drawing. The default value is ***1***.



Signature



Through this button, a signature can be embedded into the form.

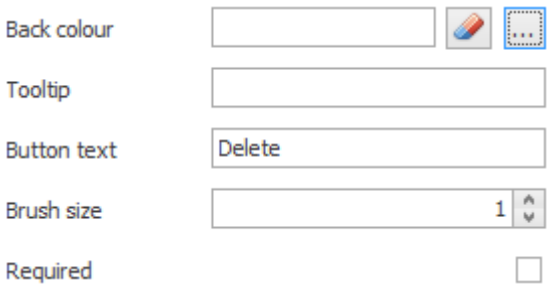
Note:
The control must be selected on the form before a signature can be applied.

Settings

The following options are available for each element of the type ***Signature***:

Setting	Description
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.

Setting	Description
Button text	This button allows the signature field to be cleared and then the signature to be re-entered if necessary. The text entered here, is used as a descriptive text for this button. The default value is ***delete***.
Brush size	It defines line width which is used for the signature. The default value is ***10***.
Required	If ***Required*** is selected, the respective field of the form must contain a value. Otherwise, it can't be submitted to FileDirector.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Attachment Upload

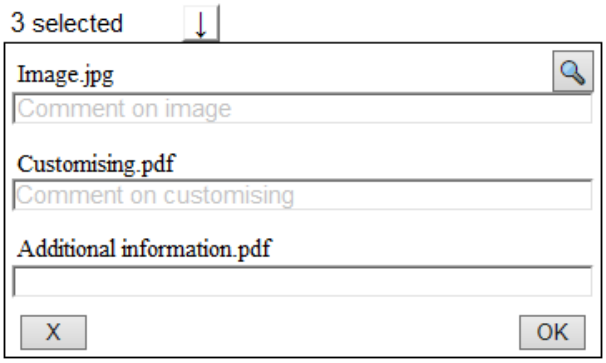


After selecting ***File Upload***, a new button is added to the currently displayed page of the form. The control is added to the upper left corner and can be placed afterward by drag and drop.

The control can be used to upload multiple attachments to a form.

In case that a memo field is mapped to the control, additional comments on the uploaded fields can be entered in a drop-down menu, using ↓.

Example

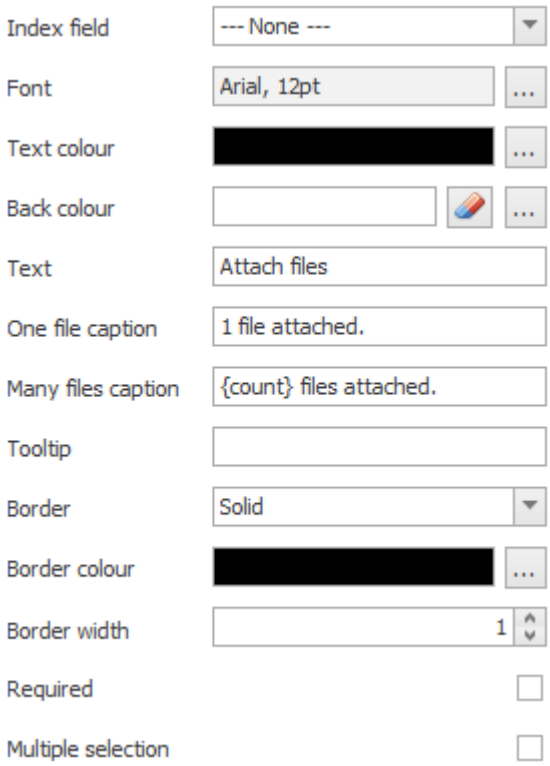


Setting

The following options are available for each element of the type ***Attachment upload***:

Setting	Description
Index field	A FileDirector index field can be selected for mapping from the drop-down menu. The index field definition must be ***Contains: Memo***. A selection here links this element of the form with an index field and the values transferred. The default selection is ***None***. *Note:* *The drop-down list will only show fields set-up as* **Contains: Memo**. *If no field of this type is connected to the mapped document type of the corresponding form, the list will only show* **None**.
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is ***black***.
Back colour	The background colour can be changed. The default colour is ***white***.
Text	The text entered here, is used as a descriptive text for the ***Attachment upload*** button.
One file caption	The text entered here, is shown after a single file has been uploaded.
Many files caption	The text entered here, is shown after multiple files have been uploaded. *Note:* *The option* **Allow multiple selection** *must be selected.*

Setting	Description
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.
Border	The options here are ***None*** and ***Solid*** and ***Dashed***. Default option is ***Solid***.
Border Colour	The border colour can be changed. The default colour is ***black***.
Border width	The width defined here, is used for the border of this element. The default value is ***1***.
Required	If ***Required*** is selected, the control must contain a value. Otherwise, it can't be submitted to FileDirector.
Allow multiple selection	This option is needed to enable the multi-file-caption and it is also similar to a replace or append functionality. ***Not selected*** If this option is not selected and the ***Attachment Upload*** is used more than once, all previously uploaded attachments are replaced by the last ***Attachment upload***. ***Selected*** If this option is selected and the ***Attachment Upload*** is used more than once, the additionally uploaded attachments are appended to previously uploaded the attachments.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Submit

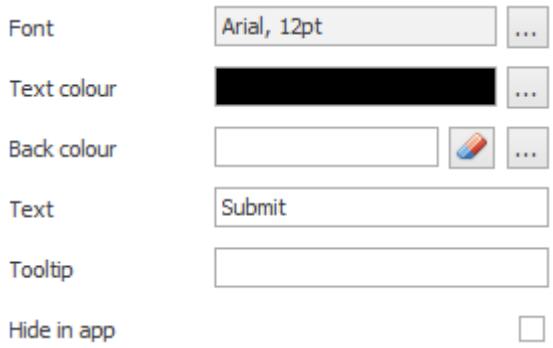


Setting

The following options are available for each element of the type ***Submit***:

Setting	Description
Font	A font can be selected from the installed Windows fonts. *Note:* *The selected font must also be installed on the FileDirector server.*
Text colour	The text colour can be changed. The default colour is ***black***.
Back colour	The background colour can be changed. The default colour is ***white***. Using , will set the background to ***transparent***.
Text	The text entered here, is used as a descriptive text for the ***Submit*** button.
Tooltip	A descriptive tooltip can be entered here. It will be shown, when a user selects the corresponding control.

Setting	Description
Hide in app	This option will hide the submit button. If FileDirector forms are used with the ***iOS*** or ***Android forms apps***, it will be necessary to ***hide the submit button*** and use the in-app submit functionality.



Remove control



A selected form element can be removed by selecting Remove control from the context menu of the right mouse button.

The context menu is shown after a right mouse click on the corresponding form element.

Send to back



Places the control on the bottom level of all existing controls.

Bring to front



Places the control on the top level of all existing controls.

Copy control



Copies the selected control.

Paste control



Pastes the previously copied or cut control on the form.

Cut control



Cuts the selected control.

Tool bar: Pages



The buttons in this toolbar allow to browse through the form and to add or delete pages.

First Page



Through the button ***First Page*** the FormDesigner displays the first page of a multi-page form.

The button is inactive when either the first page of a multi-page form is already displayed or the current form is a single-page form.

Previous Page



Through the button ***Previous Page***, the FormDesigner browses to the previous page of the current form.

The button is inactive when either the first page of a multi-page form is displayed or the current form is a single-page form.

Next Page



Through the button ***Next Page*** the FormDesigner browses to the next page of the current form.

The button is inactive when either the last page of a multi-page form is displayed or the current form is a single-page form.

Last Page



Through the button ***Last Page*** the FormDesigner displays the last page of a multi-page form.

The button is inactive when either the last page of a multi-page form is already displayed or the current form is a single-page form.

Add Page



Through the button ***Add Page*** a new, blank page is added at the end of the form.

Insert Page



Through the button ***Insert Page*** a new, blank page is added after the page that is currently displayed.

Delete Page



Through the button ***Delete Page*** the currently displayed is irretrievable deleted.

In case, a page was accidentially deleted, the FormDesigner window can be closed using Cancel. All changes are discarded.

Zoom control



Through the button ***Zoom control*** the currently displayed page can be zoomed-in and out.

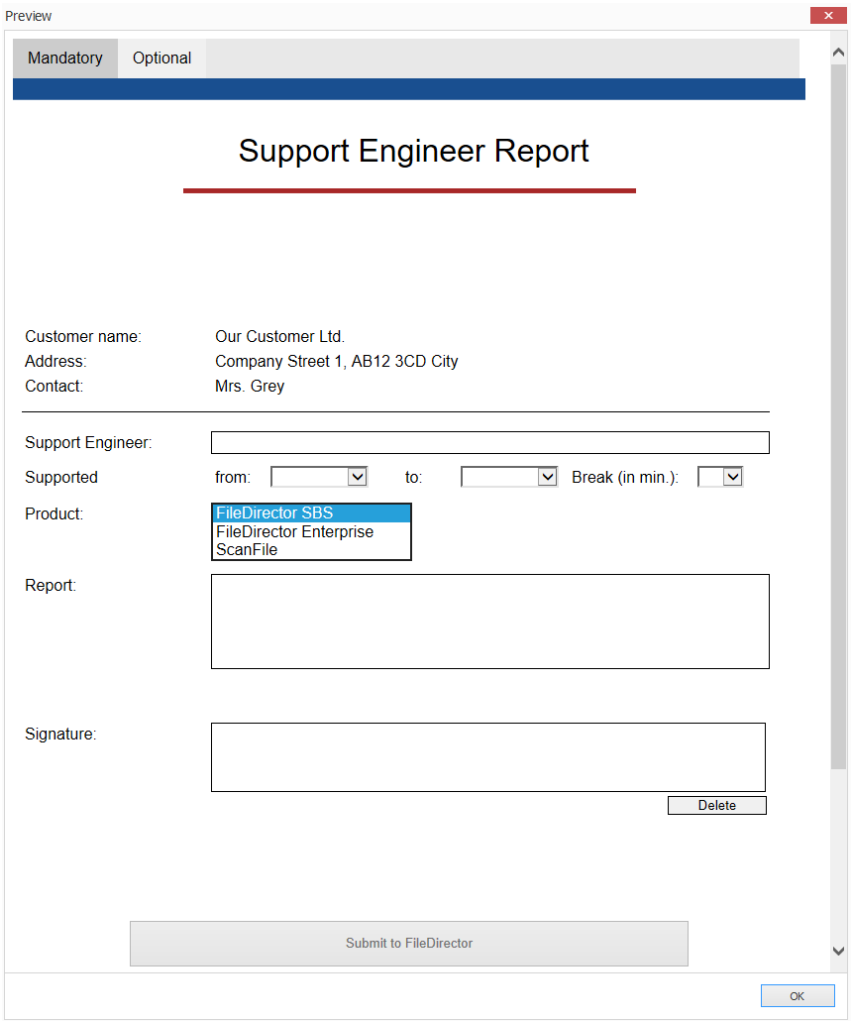
Preview



The Preview option opens the created form in a separate window to check the result before it is distributed.

Example

The example, given below, shows the result of the form used for the screenshot at the beginning of the chapter ***Forms***.



Form settings



Through the button ***Form settings***, the basic settings of the form can be set, using the settings tab.

The second tab ***Expressions*** is used for the configuration of calculations based on values entered into form fields, e.g. a table.

The third tab ***Responses*** is used for the configuration of either single pre-defined URL a user is redirected to after submitting a specific form or a selection of up to three URLs a user can choose from after submitting a form.

See also:
Settings

Context menu: Right mouse button

Using a right click on an empty area of the form opens a context menu with the following settings:

Activate/Deactivate snap grid



Toggles the snap grid on and off. If the option is activated, the controls will automatically snap to the grip, when created or moved. This allows an easy and accurate form design.

Clear form



This option allows it deleting all content of the displayed form, after a confirming this within the message window.

Form settings



This option opens the form settings. This section is divided into three tabs:

Settings

Expressions

Response

Settings tab provides general options. ***Expressions*** tab is used when values, entered into fields of form, are used for calculations the ***Response*** tab provides an optional redirection to either a single predefined ***Redirection URL*** or up to three user-selectable ***Response page links***.

Note:
As soon as a **Redirection URL** *is given, the* **Response page links** *are deactivated.*

Settings

Form

Setting	Description
Name	Name of the form. This name is shown in FileDirector WinClient, when the option Show in client is selected.
Document type	The document type, the form is connected to and checked in to, when submitted.
Description	This description is shown in the list of available forms in FileDirector Enterprise Manager.
Server URL	Shows the server URL set at ***Forms configuration***. *Note:* *The server URL cannot be changed here.*
File Format	Sets the format a form will be stored in FileDirector after a submitting it via app or browser.
Anonymous	Allows access to the form in Web Browser without authentication.
One time use	This option sets forms to one-time use. After the form has been submitted once, it is not possible to submit it again.
Show in Client	Provides the form for use in FileDirector WinClient. Forms with this option selected are visible when selecting ***Create page from template*** in WinClient.

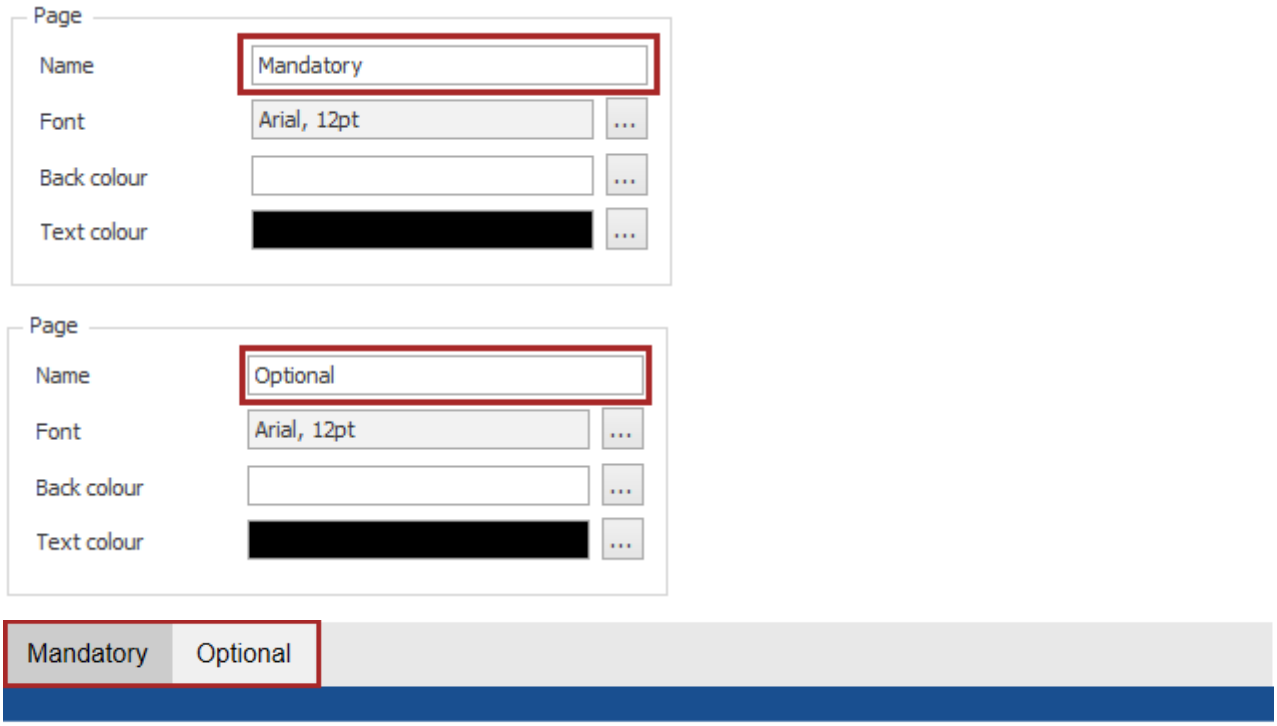
Page

Setting	Description
Name	A multi-page form is shown in tabs. Each tabs represents a page of a form. The descriptive name, entered here, is used for the tab label. *Note:* *See the* example *below.*
Font	Default font of new controls.

Setting	Description
Back colour	Background colour of the selected form.
Text colour	Default colour of new controls.

Example

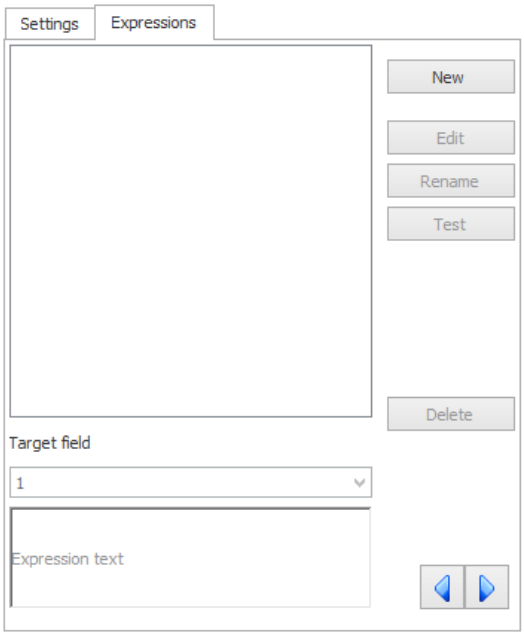
In this example, the descriptive name entered for page one is ***Mandatory*** and for page two ***Optional***.



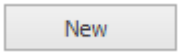
Expressions

The tab ***Expressions*** allows the use of ***Single-line Textbox*** controls for basic calculations. The following operators are available:

- **+**
- **-**
- *****
- **/**



The upper-right buttons allow creating, editing rename or testing ***Expressions***.



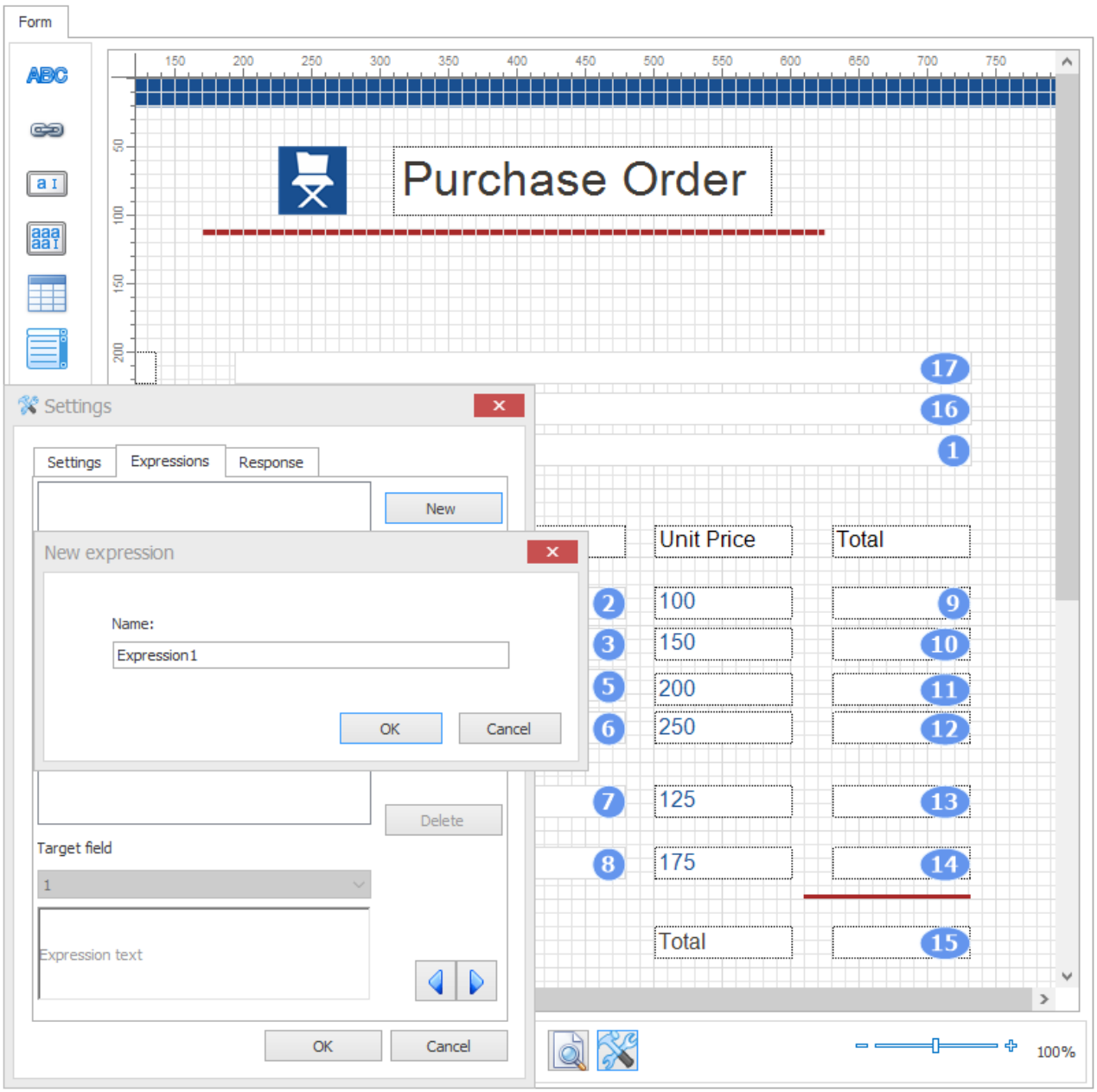
After selecting ***New***, an Expression can be set-up, after the corresponding controls had been configured.

Each expression requires a unique name. After that, it can be created in modular design by using the editor.

Numbering of available fields

After selecting the tab ***Expressions***, all fields available for the use with ***Expressions*** are displayed with a numbering.

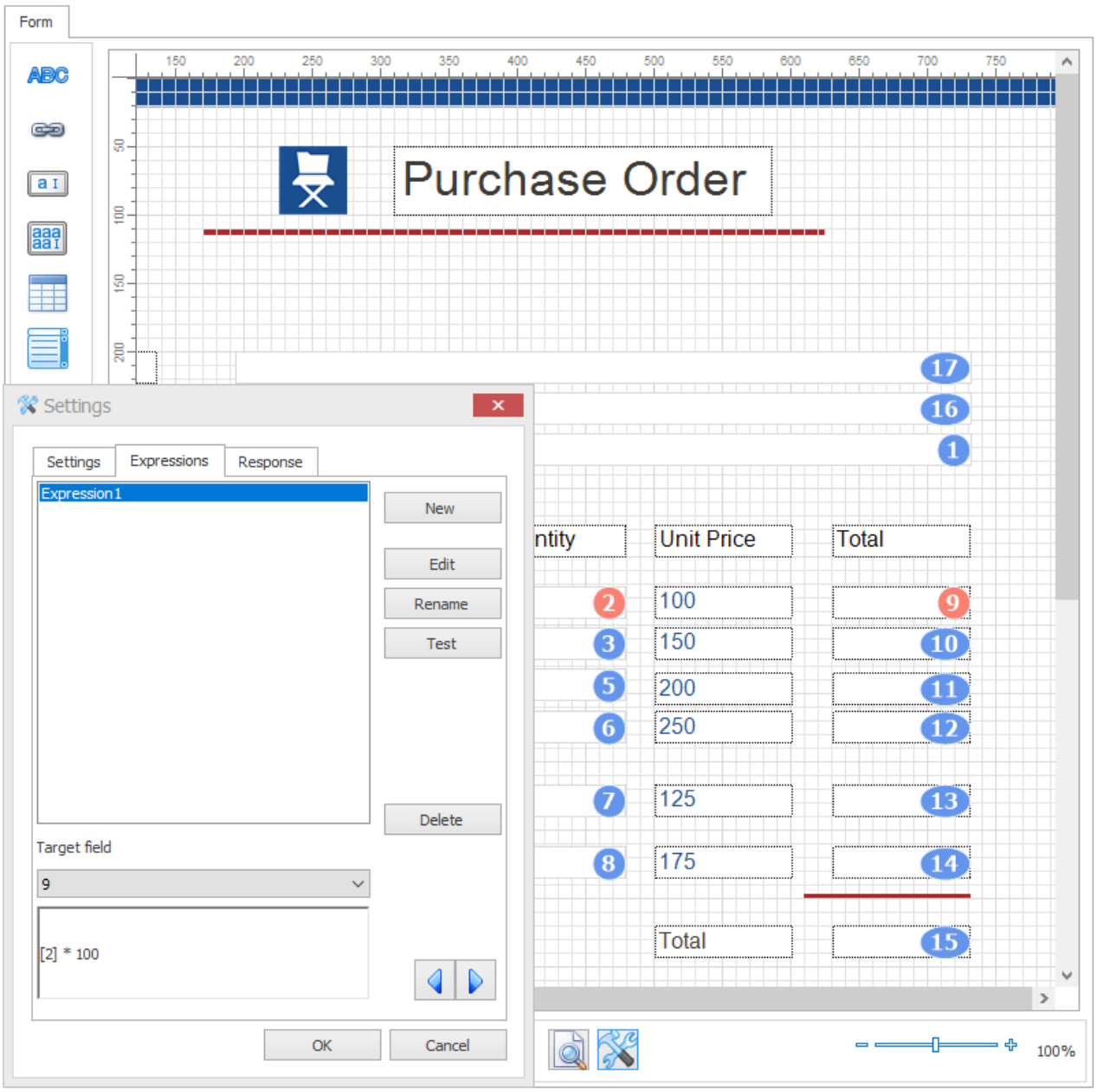
> *Note:*
> *The numbering is based on the order the fields were created.*



The available controls are marked blue.

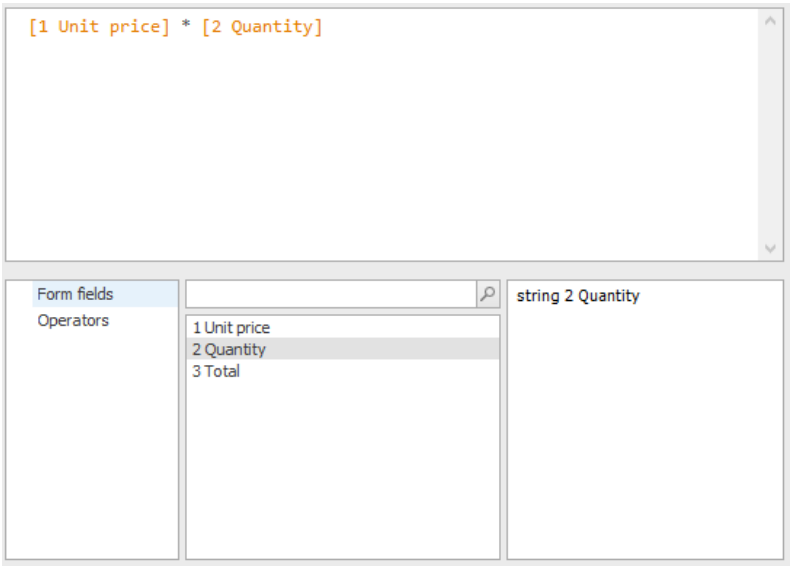
If they are used for a selected expression, the used fields are marked red.

Enterprise Manager

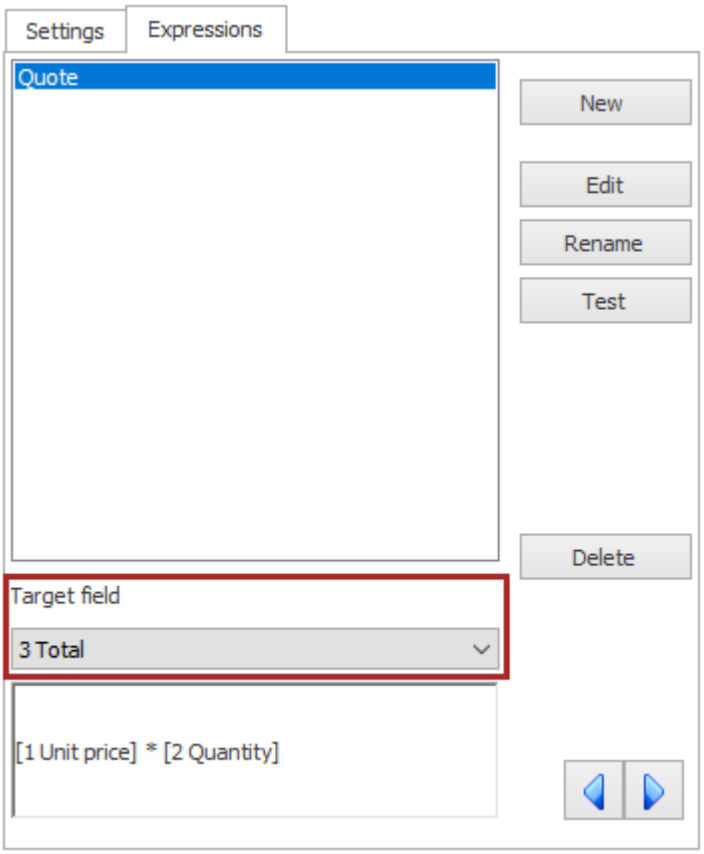


Example

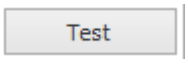
For a calculation of the total price due to the quantity of an item, the expression would be creaded as shown below.



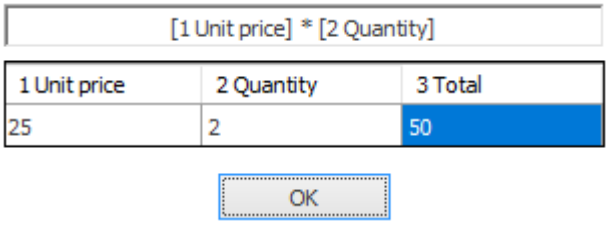
In this example, the ***Target field*** is ***3 Total*** and can be selected on the tab ***Expressions***.



The created expression can now be tested by selecting ***Test***.



Example



Responses

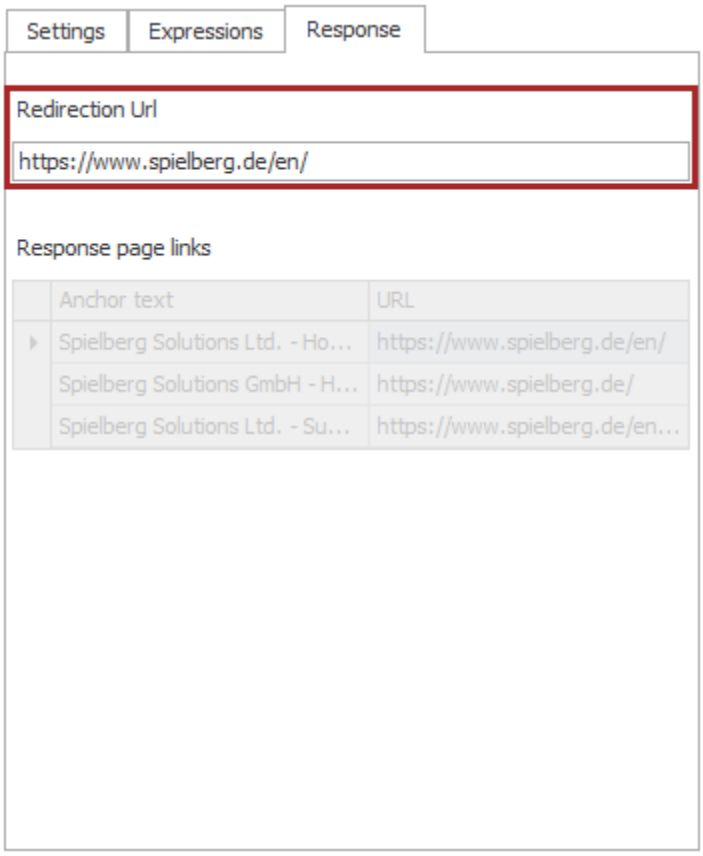
The ***Response*** tab provides an optional redirection to either a single predefined ***Redirection URL*** or up to three user-selectable ***Response page links***.

> *Note:*
> *As soon as a* **Redirection URL** *is given, the* **Response page links** *are deactivated.*

Example – Redirection URL

In the example, shown below, the Redirection URL option is configured.

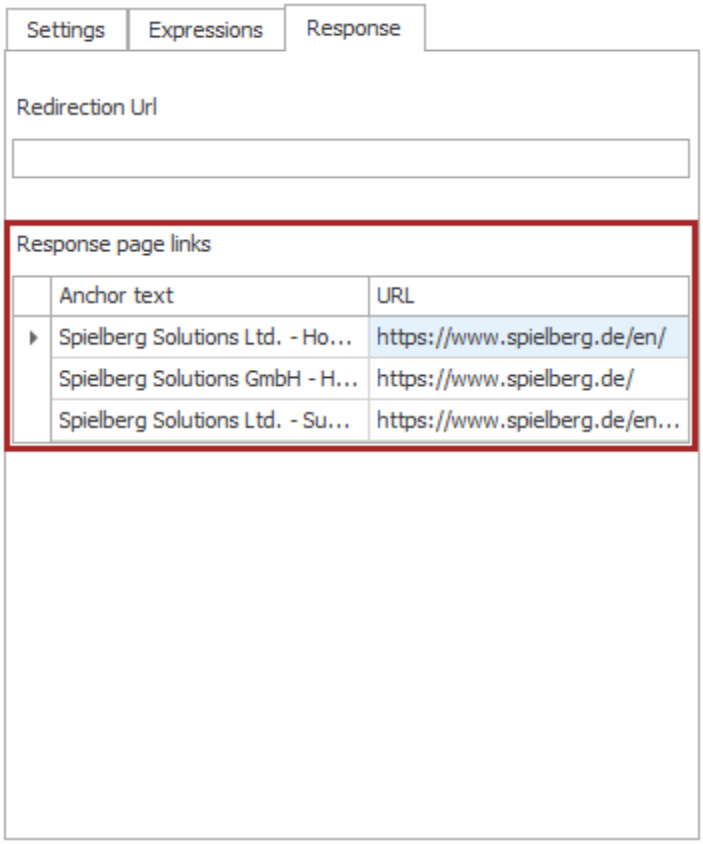
In this case, all users are redirected automatically to the given URL, after this form was successfully submitted.



In case the ***Response page links*** option is used, users see the provided ***Anchor text*** after they submitted a form successfully.

Example – Response page links

In the example, shown below, the ***Response page links*** option is configured. The column ***Anchor text*** provides a descriptive text for each option. These texts are shown after a successful submission.



Anchor text	URL
Spielberg Solutions Ltd. – Homepage	https://www.spielberg.de/en/
Spielberg Solutions GmbH - Homepage	https://www.spielberg.de/
Spielberg Solutions Ltd. – Support	https://www.spielberg.de/en/support/remote-support

Result



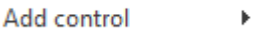
Set tab indices



This option numbers all existing controls of the following types from left to right and top to bottom. It allows using the ***Tab key*** to jump from field to field when filling the form.

- ***Single-line text box***
- ***Multi-line text box***
- ***Dropdown box***
- ***Check box***
- ***Radio button***
- ***Date***

Add controls



This option displays all available control for a quick selection.

Submit Form Response

Global

After a FileDirector form has been successfully submitted, FileDirector provides a positive response.

This response page can be customised.

The corresponding template ***SubmitFormResponseTemplate.htm*** file is located in the FileDirector Server installation folder:

> *Note:*
> *This template is used for all successfully submitted forms.*

Default location:

> ***C:\Program Files\Spielberg Solutions GmbH\FileDirector Server***

Customised Submit Form Response

The template file is in htm file format and can be adapted.

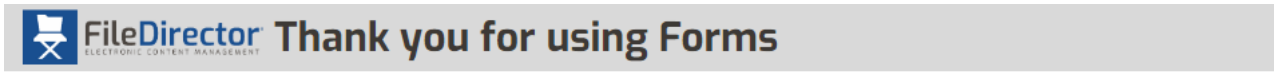
Example

Default Submit Form Response Template



Your form was successfully submitted.

Edited Submit Form Response Template



Your form was successfully submitted.

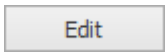
Note:
All fonts and other individual elements must be installed and available on the FileDirector Server system.

Per Form (HTML Format)



FileDirector Forms does also support a response per form.

The configuration is done within the ***Response*** tab of ***Settings*** of the respective form.



The **Edit** *button opens a HTML Editor. In default, the editor contains already the html code of the* **Default Submit Form Response Template***.*

Designing a form

The available types of elements are shown in a toolbar on the left side of the form area. Multiple element of the same type can be added to a single form. The elements are aligned to a grid. This makes it simple aligning the needed elements.

When selecting an element, it is placed on a free zone in the form and sorted from left to right and top to bottom.

Each element can be set-up separately.

See:
Form elements

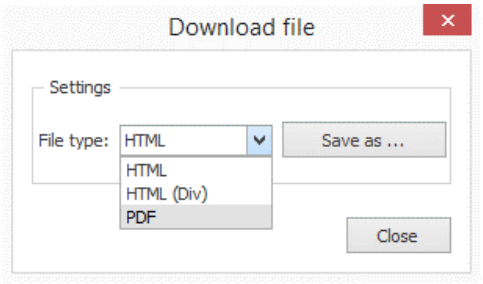
Extended Actions

Download

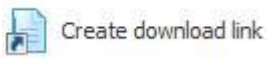


The created forms can either be used in FileDirector WinClient, saved as file or provided as download link. Only in FileDirector Enterprise Manager, the created forms can be saved as file, directly through ***Download*** in the ***Extended*** section of the ***Actions*** bar on the right hand side. The form can either be saved as file in ***HTML***, ***HTML (Div)*** or ***PDF*** format.

Save as… stores the form in the selected file type to the file system.

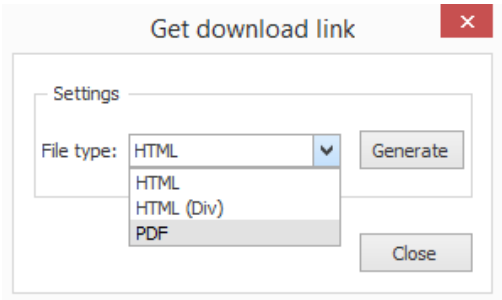


Create download link



The created forms can either be used in FileDirector WinClient, saved as file or provided as download link. In FileDirector Enterprise Manager, the links are created and copied to Clipboard through ***Create download link*** in the ***Extended*** section of the ***Actions*** bar on the right hand side. The link can either be created for a download link to a form in ***HTML***, ***HTML (Div)*** or ***PDF*** format.

Generate copies the selected link type to Windows clipboard.



Scan Profiles

Overview



FileDirector uses scan profiles for predefined scanner settings, which can be configured for Document Types and OCR processes to suit specific scanning tasks.

FileDirector allows an unlimited number of scan profiles to be created in a Cabinet. Scan profiles can be amended, changed or deleted anytime.

Scan profiles in FileDirector are used to ensure that documents are always scanned using specific profiles, thus fixed scanner settings and quality. A single scan profile can be used to scan and store documents in multiple Document Types of a Cabinet.

FileDirector also supports local scan profiles. If no server-side scan profiles are configured, you can search for locally attached scanners. These are then offered to users as a local scan profile. The setting of the scan profiles is via the scanner setting in the Windows Client.

If server scan profiles exist, local scan profiles cannot be used.

New Scan Profile

Select the ***Scan Profiles*** icon and then choose the ***New*** tool to create a new Scan Profile.

Duplicate Scan profile

Existing scan profiles in a Cabinet can be duplicated. Select the scan profile to be duplicated and click on the ***Duplicate*** tool. A new scan profile appears with the same name but starting with ***Copy of***. This scan profile carries the same properties as the original one. Change the properties of the new scan profile as required by selecting the ***Settings*** tool.

General Settings

In the General tab a name and a descriptive text for the scan profile is entered.

Select Document Type

If the option ***Allow to change manually*** is not set, this scan profile can only be used to scan to one specific Document Type. If ***Allow to change manually*** is set, documents can be scanned to all Document Types using this scan profile.

Select source

Direct SCSI and USB connection

When using Direct SCSI connection, either a specified directory can be searched for stored documents (directory scan) or a direct connection to a document scanner can be used. The following document scanners can be connected to FileDirector, as the drivers used are already implemented.

Canon Scanners

CR-180 (Scheck Scanner)	DR-6010C	DR-C240
DR-2010C	DR-6030C	DR-G1100
DR-2050C	DR-6050C	DR-G1130
DR-2080C	DR-6080	DR-M1060
DR-2510C	DR-7080C	DR-M140
DR-2580C	DR-7090C	DR-M160
DR-3010C	DR-7550C	DR-M160II
DR-3020	DR-7580	DR-X10C
DR-3060	DR-9050C	MEAP
DR-3080C	DR-9080C	MS 300
DR-3080CII	DR-C120	MS 350
DR-4010C	DR-C125	
DR-5010C	DR-C130	

Canon Scanners

DR-5020
DR-5060F
DR-5080C
DR-C225
DR-C225W
DR-C230

Epson Scanner

DS-510
DS-520
DS-560
DS-760
DS-5500
DS-6500
DS-7500
DS-50000
DS-60000
DS-70000

Panasonic Scanner

KV-S1015C
KV-S1026C
KV-S1027C
KV-S7077
KV-S1046C
KV-S1057C
KV-S1065C
KV-S2087
KV-S5046H
KV-S5076H

Plustek Scanner

PS3180U
PS406U
PS456U

Samsung Scanner

K7600
M4580
X4300
X7600

Note:
A test scan is only possible for a specific scanner if it is recognised correctly. An ASPI driver is necessary to use a SCSI scanner.
*You must install the correct driver for a USB scanner. This *.inf file is provided by the scanner manufacturer.*

High-speed Scanner Support

Scanners can also be connected using high-speed scanner drivers. The driver needed can be installed via the FileDirector installation page. The scanner settings are configured in the appearing high-speed driver window. The usage of high-speed drivers requires a licence.

TWAIN

If a TWAIN driver is installed for the scanner, it can be configured via TWAIN.

TWAIN drivers are used for scanners that are not directly supported by FileDirector.

> *Note:*
> *Since TWAIN device drivers are not supplied with FileDirector and are usually supplied with the scanner from the manufacturer, we have no influence on the performance and scanning facilities offered by such drivers.*
> *In most cases scanning with a TWAIN device driver will be slower than scanning with an included or high-speed scanner driver.*

Setup source

After selecting the relevant source, a scanner configuration window opens. For example a DR2080C is displayed. When changing a scanner configuration, this window appears when selecting Setup source.

Generally all options offered depend on the source selected and the connection used. These settings can be different for each scanner used, depending on the capabilities of the scanners and the drivers. If TWAIN scanners are configured, the configuration window of the driver is displayed.

Settings Tab

In the ***Settings*** tab, configuration parameters are specified for the image scanned. Depending on the scanner used the following settings can be configured:

Colour mode

Black and white, Greyscale, Colour.

Graphics mode:

When black and white is selected, graphics mode can be selected between text mode and photo mode.

Resolution:

The standard resolution of the various scanners can be different. The higher the resolution is set, the better the quality will be but the resulting files will be larger.

> *Note:*
> *When using OCR recognition, a resolution of 300 x 300 dpi is recommended. Any resolution smaller will deteriorate recognition rate, higher resolutions do not necessary improve recognition.*

Rotation

An automatic rotation of the page scanned is possible after scanning in directions 0°, 90°, 180°, 270°.

Side:

Some scanners scan double sided pages. You can specify whether front page, back page or both sides should be scanned.

Compression:

When scanning in black and white mode, the resulting pages are stored in TIFF G4 format. If grayscale or colour is scanned, JPEG files are created and the compression rate can be set. The smaller the compression rate is specified, the better the image quality, the bigger the file size will be.

> *Note:*
> *The settings for the scan profile are stored on the server.*
> *Temporary adjustment is possible in the Windows Client.*

Brightness

The brightness of the scan can be set on a scale of 1 to 255. This can be done by using the sliding bar, or by entering a value in the brightness field. For some scanners, an ***Auto*** setting is available which can set the brightness for each page as it is scanned.

> *Note:*
> *This setting may not be available for all scanners.*

Contrast

The scan contrast can be configured. The range of the settings can vary from scanner to scanner, and can be set using the sliding bar, or by entering a value in the ***Contrast*** field.

> *Note:*
> *This setting is not available for all scanners.*

Page Tab

Page size

The page size can be predefined, depending on the size of the scanner.

Automatic page suppression

Using automatic page suppression the percentage of black pixels on a page is calculated. If the actual value is below the specified threshold, the page is classified as empty and not stored. With this variable option it is possible to leave out pages which only contain a defined logo (empty letter).

The actual value is displayed in test scan mode.

Group pages by

The scanned images can be grouped using a ***Page count***. New documents will be created, each of which will have the number of pages specified..

Deskew

This option corrects the orientation of scanned pages. Using this option improves OCR recognition. The deskewing is derived from the black border which is created, when a page is skewed.

Save as PDF/A

The scan driver included in the Directory scanner is able to save TIFF, JPEG and PDF/A1b in version 1.5.1 or later.

The viewer can load these PDF documents directly and display them without the Document Viewer. PDF-documents that are not saved via the scanner driver in FileDirector and PDF/A-checkbox are displayed the Viewer.

Filter Tab

Filters can be applied to pages as they are scanned to improve the image quality. Up to 6 filters can be set, from those described below..

Filter	Description
Noise Removal	Background ‘noise’ can be removed. Three levels of noise removal can be applied
Horizontal line removal	Horizontal lines can be removed from the scanned image.
Vertical line removal	Vertical lines can be removed from the scanned image
Brighten	The scanned image can be made lighter. Two level of brightness can be applied
Darken	The scanned image can be made darker. Two level of darkness can be applied

Info Tab

In the Info tab all scanner information is displayed. Using a SCSI scanner, the scanner name, version number, SCSI ID and used host adapter.

> *Note:*
> *This Tab is only displayed when a scanner is attached to the workstation, and can be detected by FileDirector.*

Test Scan

The settings can be checked by inserting a page into the scanner and clicking Test scan. The scanned page is displayed in the left part of the scanner configuration window. Use the Zoom buttons to display the page according to your needs. By dragging the mouse, a defined part can be zoomed and viewed.

When using double sided scanning you can switch between front and back page with the respective setting.

Adjust the scan result by changing parameters according to your needs and click ***OK***.

The parameters can be reset to manufacturer default settings by clicking ***Standard***.

Directory Scan

With a directory scan, pages already scanned or other formats can be imported. After scanning they appear on the local list of the relevant Windows Client and can then be indexed and checked in.

Directory Setup

In ***Directory*** the path to the files to be imported is specified. Paths can either be specified using drive letters or UNC paths. Clicking the ... button enables this to be done in a selection window. After selecting the relevant path, the files contained in this directory are displayed in field Files. When double clicking on an entry, it is displayed in the left part of the window. By clicking ***Testscan*** the image of the first file is displayed.

The directory is predefined here, but it can be changed by a user in the Windows Client manually.

Rotation

An automatic rotation of the page scanned is possible after scanning in directions 0°, 90°, 180°, 270°.

Side

Some documents may have pages marked as ***Front*** and ***Back***. You can specify whether front page, back page or both sides should be imported.

Compression

When grayscale or colour images are imported, JPEG files are created and the compression rate can be set. The smaller the compression rate is specified, the better the image quality, the bigger the file size will be.

Delete after scanning

If Delete after scanning is selected, the directory will be emptied after scanning.

Include subdirectory

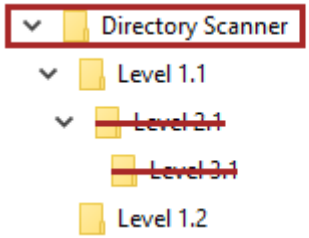
With this option, all files in subdirectories are scanned.

Note:
Only files located in the first level below the defined directory are imported.

Example

Files located in the set start directory ***Directory Scanner*** and in the subdirectories ***Level 1.1*** and ***Level 1.2*** are imported.

However, no files located in directories further below this level, e.g. ***Level 2.1*** and ***Level 3.1***, will be imported.



Page Tab

On the ***Page*** tab several additional settings can be made. The ***Page size*** cannot be specified, as the files already exist.

Automatic page suppression

Using automatic page suppression the percentage of black pixels on a page is calculated. If the actual value is below the specified threshold, the page is classified as empty and not stored. With this option it is possible to leave out pages which are effectively blank.

The actual value is displayed in test scan mode.

Group pages by

The imported images can be separated into documents using the settings specified in ***Group pages by***.

Selecting ***None,*** each page is stored as a single document. Multipage TIFF files being imported are also stored as single pages.

Using ***Fixed page count*** a new document is created after the specified number of pages. Multipage TIFF separation results in single pages being grouped. TIFF files already stored are imported as separate documents.

Selecting ***Multipage TIFF*** will create a new document for each TIFF file imported, irrespective of the number of pages in the TIFF file.

Selecting ***Subdirectory*** will create a new document and import all files in a subdirectory to that document. When combined with the ***Include subdirectory*** setting, multiple documents can be created from files imported from several subdirectories.

Selecting ***File*** will create a new document for each file imported.

Deskew

This option corrects the orientation of scanned pages. Using this option improves OCR recognition. The deskewing is derived from the black border which is created, when a page is skewed.

Test Scan in Scan Profile

Scan

To perform a test scan, click the ***Scan*** button. Since this is a test scan, the documents are not stored.

Stop scanning

Scanning is stopped by clicking ***Stop scanning***.

Viewing Tools

Fit page

Using ***Fit page*** the actual displayed image is fitted to the display window.

Fit width

The displayed image is automatically fitted to the width of the display window by clicking ***Fit width***.

Original size

The image is displayed in original size by clicking ***Original size***.

Zoom area

Zoom area switches zoom mode on. The mouse cursor changes to crosshair. If left mouse button is pressed, a zoom area can be defined by dragging the mouse over the area to be zoomed for viewing.

Zoom +

Zoom + increases the displayed image by a fixed factor.

Zoom -

Zoom - decreases the displayed image by a fixed factor.

Security

Make Scan Profiles Visible/Invisible

Scan profiles are set for the scanners present in a company. If several scanning stations are used, a number of scan profiles must be specified for the different scanning PCs. Not all of the scan profiles are relevant for each scanning station.

In order to improve simplicity they can be made available only for the relevant user which uses the scan profile.

When displaying the list of Scan profiles choose the ***Security*** tool.

Assign users and groups

Selecting Add users and groups can be added to the list. For those specific users and groups the available scan profiles can either be allowed or denied.

Use OCR and forms recognition

In order to use OCR and forms recognition in a scan profile, one or more OCR forms need to be created.

If OCR recognition is activated in scan profile; the OCR engine must be installed on the client PC which should use that scan profile.

Allow to switch off manually

This enables the user to switch forms recognition on and off for this scan profile in the Windows Client.

Full form recognition

This setting allows scanning an unsorted batch of documents and indexing them automatically.

If this option is selected, it is not possible to select a target Document Type manually. The Document Type specified in the relevant form is used automatically.

If a document was scanned with this scan profile, all identification fields of the forms are tested. If one of these forms yields a result above the recognition threshold, the relevant index field zones are read and the document is indexed. The document itself is stored in the Document Type, for which the form was specified.

If a document could not be recognised, it is automatically stored to the fall back Document Type specified for not recognised documents.

Document Type limited forms recognition

This option is useful if several Document Types are assigned to a single Document Type. This can for example be several types of invoices, which should all be filed as a single Document Type. Only the forms used for recognition were defined for the relevant Document Type.

With this selection, performance and scanning speed are enhanced, as not all available forms need to be checked.

No forms recognition

Always use this form

If no form recognition is configured then the form shown above will be used for the zone recognition to fill the index fields.

OCR Parameter

The setting of the OCR parameter for the predefined forms is used for recognition enhancement.

The options ***Full form recognition*** and ***Document Type limited form recognition*** use the properties of the document identification attribute, taken in the properties of the OCR node. By using the option ***Always use this form*** all OCR parameters will be used which are set up in form initially.

Extended Settings

In the Extended tab stamps can be set, fields set to pre-defined values and users for post-indexing can be entered.

Stamps

With this setting predefined stamps can be placed automatically while scanning a document. For how to define a stamp please refer to the *Stamps* chapter.

A stamp which is automatically set cannot be moved, as it will be directly embedded in the TIFF file. A stamp which is manually set is attached as an annotation and can be hidden, moved or changed.

Place stamp

If you select a defined stamp it must be placed to set it automatically during the scanning process.

To place a stamp, a template of the page must be loaded in the preview of the scan profile configuration. After loading a template, the stamp button is active in the menu. With this option the stamp is placed at a location on the page. Using the mouse wheel, the stamp can be scaled before it is placed.

Only on first page

When Only on first page is selected, the first page of a batch scan gets stamped. When the option is not selected, every page is stamped.

Set field... to value

When documents are scanned, an index field can be pre-set with a fixed value automatically. If multiple pages are scanned, each new document is pre-set with the relevant value.

When the scanner type is set to ***Directory Scan***, index fields can be set to parts of the file path, filename, extension, or the creation, modification or last accessed time.

For files which have the index data as the filename, the name can be split and imported. The precondition is to have field separators in the filename between the index data.

Example:

In the import path are tiff files with the following names:

0001_Schneider.tif
0002_Schmitz.tif

The underscore should be configured as the ***Additional path and filename separator***. The ***To value:*** field should be set to ***Part of filename***.

Value 1 is mapped to the field, which will be filled with the content 0001, e.g. customer number. Value 2 is mapped to the name field. The ***Index*** setting controls which part of the filename is used for each field.

When ***Part of path*** or ***Part of path and filename*** is used, the path will be taken into consideration. Each drive letter/storage location, folder and subfolder within the path should be counted as a Value setting.

When ***Numbered index (&I1….&I2…)*** setting is selected, the &Ix is used as the field separator.

Note:
When using this setting, ensure that the pre-set fields are used in the relevant Document Type where scanning is carried out. It is recommended to either use a fixed Document Type or not to select **Allow to change manually,** *or choose index fields which are used in all Document Types that are used for scanning.*

Post-indexing

The post-indexing offers the option to use a single scan station and provide the scanned documents to several users to index them.

A user can only index the batch provided by the server. Retrieving a batch is done by using the ***Post-indexing*** icon in the ***Edit*** tab in the Windows Client.

Through Add and Remove the post-index users can be added to the list.

Note:
The post-index option requires batch scan.

Stamps

Overview



Annotations can be made on a document in FileDirector. A stamp is a special type of annotation. Stamps can be individually configured. A stamp can either be a barcode, which is created out of an existing value, taken from a field, or a user-defined template.

User defined templates for stamps can be configured using any TIFF file as a template.

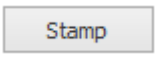
Barcode is only available in the ***Index capture window*** of FileDirector WinClient. It is neither visible nor accessible in the list of stamps in FileDirector WinClient.

New stamp

A new stamp can be created by selecting the ***Stamps*** icon and choosing the ***New*** tool.

After this, it can be chosen between creating a ***Stamp*** or a ***Barcode***.

Setup Stamp



When the option ***Stamp*** was chosen, the corresponding configuration window opens.

In the ***Stamp*** tab, a name and descriptive text for a stamp are entered.

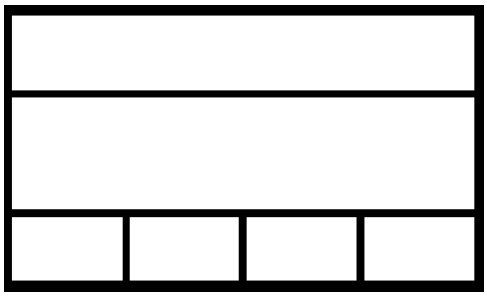
Hotkey

To enable the quick application of a stamp in the Windows Client, hotkey settings can be used. This should be unique for each stamp. Any combination of CTRL, Alt, Shift and then A-Z, 0-9, number pad 0-9 or the functions keys F1 to F12 can be set for the stamp.

Open image file / load template

Using ***Open image file*** a template for a stamp can be loaded. The stamp displayed here is the default template for stamp creation. You can specify any stamp using an own TIFF file as template or by scanning an existing stamp.

Default template



Note:
If coloured areas are used in a template, they are displayed in transparent mode in the stamp itself.

Display and Zoom

Using the tools ***Original size*** , ***Zoom +*** ***and Zoom -*** the display can be configured according to your needs.

Create text fields

Text fields are created for the stamp. Five text fields can be specified, which either contain a defined fixed text or automatically generated information. During creation, a text field is displayed with a red frame. A text can be entered in Text, which is automatically displayed each time a stamp is used.

Note:
A maximum of 5 zones per stamp are possible.

For each field Font, font size and orientation (left aligned, right aligned or centred) can be configured individually. For automatic entry several values from the workstation can be entered automatically using parameters beginning with a $ sign. The name must be entered in upper case letters.

Expression	Description	Example
$USERF	Full user name	Name, Surname
$USERL	User account	[Domain name \ user name]
$USERS	Short user names	User names
$DATEL	Date (Long format)	e.g. Friday, 10th December 2004
$DATES	Date (Short format)	e.g. 10.12.2004
$TIMEL	Time (Long format)	e.g. 16:53:37
$TIMES	Time (Short format)	e.g. 16:53

Expression	Description	Example
$STATION	Computer	Computer name
$FD_xxxxxx	Field Value	The value of a specific field

Note:
The display of date and time formats are dependent on the settings specified the regional settings of Windows.

Assign Fields



An existing Field can be selected from the drop-down menu Index fields and mapped to the selected zone by the corresponding button.

The FileDirector field ID is automatically put into the field ***Text*** and the prefix ***$*** is added.

Setup Barcode



When the option ***Barcode*** was chosen, the corresponding configuration window opens.

In the ***Barcode*** tab, a name and descriptive text for a barcode stamp are entered.

Setting	Description
Field	A field must be selected from the drop-down menu. The menu lists all fields of a cabinet in alphabetic order.
Barcode type	A barcode type must be selected from the corresponding drop-down menu. Available barcode types: ***Alpha 39*** ***DataMatrix*** ***QR*** ***PDF 417*** ***Code 128*** ***Codabar***

Setting	Description
Value	A test value can be entered here.

Note:
It must be verified that the specifications of the selected barcode are corresponding to the content of the selected field.

Preview area

Open image file



A document can be loaded into the preview area.

Zoom +



Increases the zoom factor of the displayed document.

Zoom –



Decreases the zoom factor of the displayed document.

Original size



Displays the document in original size.

Fit all



Adjusts the document's size to the size of the preview area.

Height:

A value for the height of the barcode must be defined here.

Note:
Very small values can deteriorate the readability of a barcode.

Width:

A value for the width of the barcode must be defined here.

Note:
Very small values can deteriorate the readability of a barcode.

Automatic search:

A preferred location can be selected from the drop-down menu, e.g. top left, top right, bottom left or bottom right.

Show value

When this option is selected, the value used for the barcode is implemented into the stamp and displayed below the barcode itself.

Rotate

When this option is selected, the barcode is rotated 90 degrees clockwise.

Create Barcode



This option creates a barcode corresponding the definitions set above on the document template in the preview window.

Stamp Security

In the Stamp security, access to the stamps can be configured for users and/or groups.

Duplicate stamp

Existing stamps can be duplicated in a Cabinet. Select the stamp to be duplicated and click ***Duplicate item*** in the toolbar.

A new stamp is created carrying the same name plus additional numbering appended. This new stamp has identical properties compared to the original one. The ***Settings*** of the new stamp can be changed and edited according to the requirements of the application.

Connector

Overview



The Connector section allows you to create a connection to the ***Documents location of a Microsoft Teams site in Microsoft SharePoint***.

Documents can be exported within the FileDirector BusinessProcessManagement selecting this connection in the drop-down menu ***Connector*** of an ***Auto action: Export documents*** step.

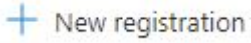
Microsoft Azure Control Center

For the use of the FileDirector OneDrive Connector, some configuration steps are necessary in advance within Microsoft Azure Control Center.

Azure services (App registrations)

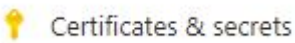


New apps must be registered with in the ***Microsoft Azure Control Center*** ⇨ ***Azure services*** ⇨ ***App registration***.



After selecting ***New registration***, a Display name must be provided. The Azure Center creates the corresponding, unique elements to identify the App, such as ***Application (client) ID*** and ***Directory (tenant) ID***.

Created FileDirector App



Within the section ***Certificates & secrets*** the FileDirector Connector needs valid ***Client secrets***. The ***Value*** must be entered in the field ***Client Secret*** of the ***OneDrive Connector configuration*** window.

Important:
This **Value** *is only fully displayed during the initial setup.*

Configuration

Name

The name given here, is shown in the list of connectors in FileDirector Enterprise Manager.

Description

The description given here, is shown in the list of connectors in FileDirector Enterprise Manager.

Client ID

The information that must be entered here is the ***Application (client) ID***, generated by Microsoft Azure during the ***App registration***.

This ID is listed in ***Overview*** ⇨ ***Essentials*** of the corresponding App in the Microsoft Azure Center.

Tenant ID

The information that must be entered here is the ***Directory (tenant) ID***, generated by Microsoft Azure during the ***App registration***.

This ID is also listed in ***Overview*** ⇨ ***Essentials*** of the corresponding App in the Microsoft Azure Center.

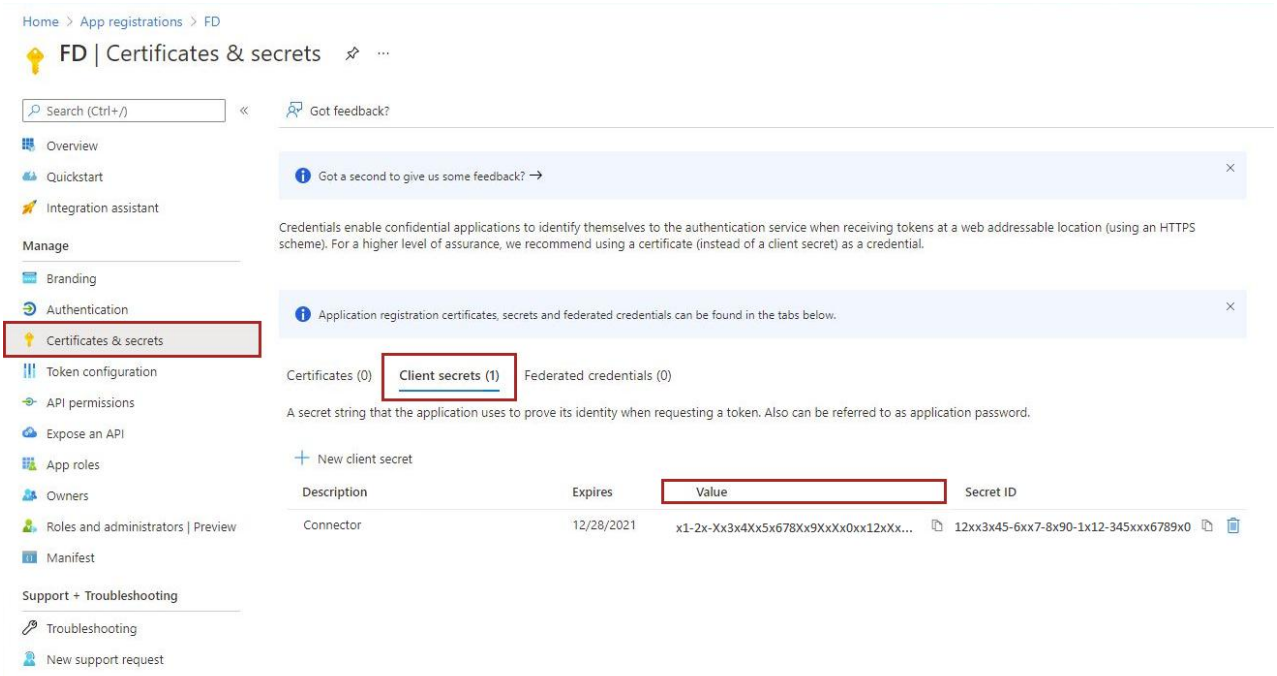
Client Secret

The information that must be entered here is the ***Value***, generated by Microsoft Azure during the initial ***App registration***.

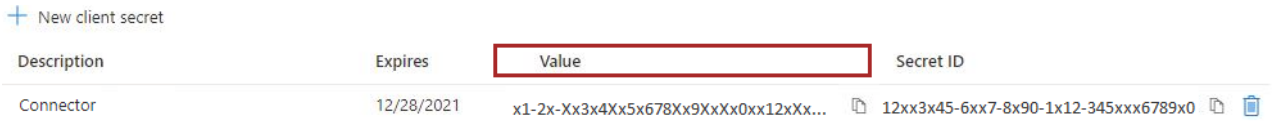
This value must be noted or copied directly when registering the application within the ***Microsoft Azure Control Center***. This value is no longer visible after completion of the registration process.

Example:

The corresponding ***Value*** is shown right after initial creation and can be copied into clipboard.



After the initial creation, this ***Value*** is hidden and cannot be copied into clipboard.



Test connection

The button ***Test connection*** establishes test connection, using the provided credentials.