caseware

SmartExporter 2024 R1

User Guide

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User Guide

The simple and fast way to extract SAP® data

Copyright

CaseWare Germany GmbH

Documentation

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Introduction

SmartExporter is the simple and fast solution if you want to extract and prepare data from SAP® systems. SmartExporter supports auditors or other persons interested in SAP® application data to get the data they require.

Using SmartExporter you do not have to be a trained SAP® user and you do not need to have thorough knowledge about SAP® table structures. SmartExporter enables you to extract exactly the data from SAP® you require for your analyses. At the same time SmartExporter prepares the data for the use in other auditing software like IDEA, SmartAnalyzer or Microsoft® Excel where they can be edited and analyzed immediately after extraction. If you are using SmartExporter in combination with SmartAnalyzer or an IDEA app, SmartExporter will automatically extract the data from SAP® required for the audit tests you have selected previously.

Once a Data Request is defined you can save it as a favorite. This favorite can be reused or modified whenever required. You only need to define an initial Data Request that might be useful for multiple data extractions.

SAP® administrators accept SmartExporter as the application is based on the SAP® authorization concept and allows just read only access for the SAP® system. However, the user has access to all transparent SAP® tables, Database Views, Pooled Tables, Cluster Tables and archived data as long as these were archived using the SAP ADK (Archive Development Kit). Besides SmartExporter provides ready to use Data Request templates which enable you to extract data from Additional Data Sources such as Human Resource Cluster Tables or to create reports. For instance, use the Additional Data Sources to get payroll data required for external wage tax audits while being compliant with all applicable privacy policies. The SmartExporter directDART Additional Data Source enables you to access DART segments from databases and to extract data in the same structure as SAP® DART without the hassle of creating an SAP® DART extract in the first place.

To protect sensitive data such as human resource information SmartExporter SAP® components come with specific transactions which enable SAP® administrators to define Data Privacy profiles using the specific transaction and assign them to users or roles. This way using pseudonymization or anonymization data are encrypted on the SAP® system even before extraction and the SAP® administrator has full control of the implementation. The Data Privacy Decrypt tool on the other hand lets you decrypt previously encrypted data again. This tool can be handed down to the person responsible who has the legitimation to decrypt data in compliance with the data privacy rules in your company. The Data Privacy Decrypt tool can be run as a standalone application and does not require SmartExporter to be installed.

SmartExporter communicates with the SAP® system using the SAP NetWeaver® protocol or the classic RFC protocol. For details regarding the supported SAP® systems or the use of the classic RFC protocol (LIBRFC32.dll) refer to the Readme file in the download package or select Start – Caseware SmartExporter – Readme.

Additionally, SmartExporter is able to use existing SAP® standard components which are already installed on the SAP® system. SmartExporter will automatically switch to the SAP® standard components and allow a data extraction in online mode if SmartExporter discovers that the specific SAP® components are not implemented or SmartExporter has no access to these components. For detailed information on using SAP® standard components please refer to the appendix on page 94.

Even if you do not have a connection to an SAP® system, the SmartExporter offline mode provides the ideal alternative to create a Data Request and for instance send it by email to the administrator in charge who can then extract the required data for you.

Auditors and other persons who do not have direct access to an SAP® system can use the SmartExporter Client Edition to run an existing Data Request. An auditor can benefit from the Client Edition by simply sending the Data Request he created with his SmartExporter Desktop version to the company. The company can run the Data Request using the SmartExporter Client version which is connected to the auditor's Desktop license and extract the required SAP® data which are provided for the auditor. For more information on the different SmartExporter editions see page 76.
This guide gives an overview of the first steps required to create a Data Request. Additionally, the guide is showing how you can use SmartExporter in combination with other products to improve your audits and make your work even more efficient.

Note:

If you are using a SmartExporter Desktop, Client or Server Edition, make sure to activate your license after you have installed SmartExporter. Refer to the "Readme.txt" in the download package for more information.

Online and offline mode

There are several scenarios for the use of SmartExporter. If you have a connection to an SAP® system, simply collect the data you need to extract. SmartExporter provides a few different options to extract those data and run the Data Request you have defined. For users having no direct access to an SAP® system, the offline mode is the suitable way to request the desired data from SAP® for auditing purposes.

Online mode

If a connection to an SAP® system exists, you are able to export the data directly. To optimize the export of data you may extract the data from SAP® either synchronously or asynchronously. Using the synchronous method, you are extracting the data immediately without placing your Data Request in a queue or scheduling the transfer. Using the asynchronous export, you are able to specify the exact time when the data transfer is to be done. This enables you to schedule the extraction of data to off-peak hours to reduce the workload of the system. Depending on your objectives and the data volume, you can select the suitable method of data extraction.

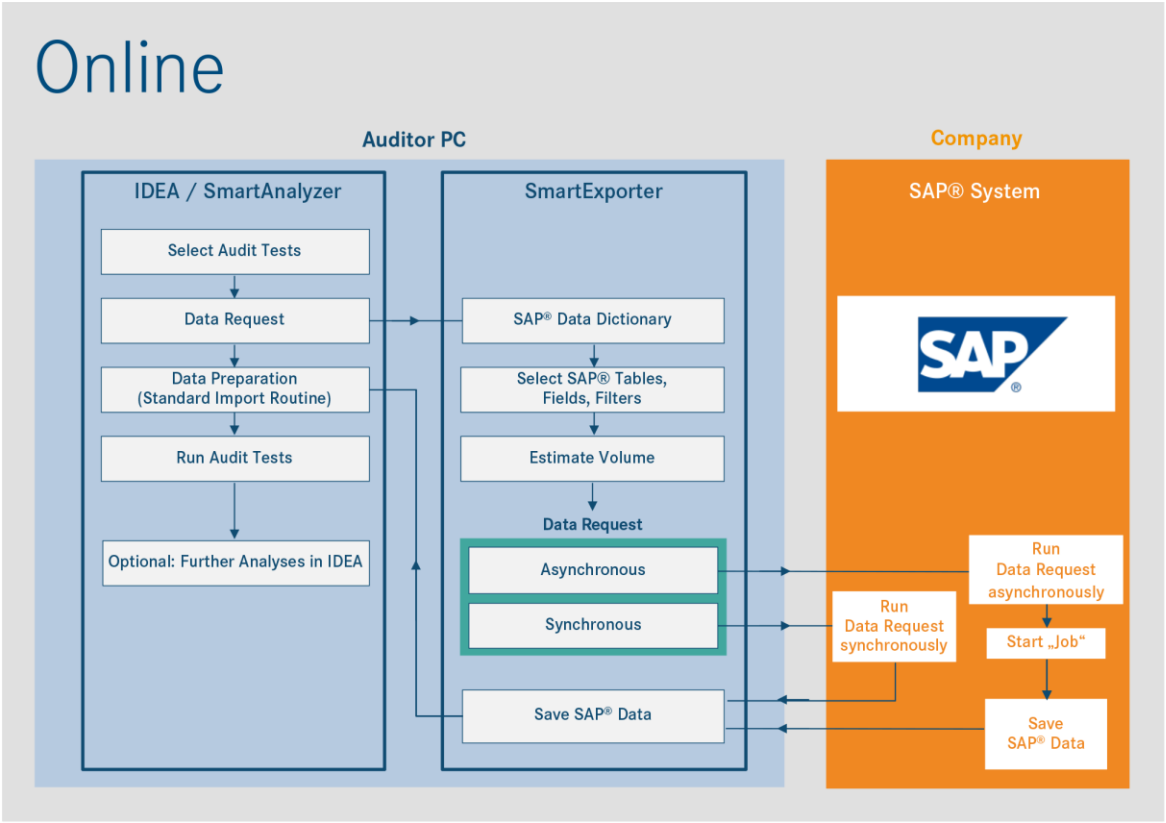

Figure 1: Interaction between the different software components and the SAP® system in online mode

Offline Mode

The offline mode provides access to the data to be analyzed for those users who do not have a connection to an SAP® system.

Particularly auditors and other users interested in SAP® data can create a Data Request and send the generated binary file to their contact in the company. This person can import the Data Request using the SmartExporter version (e.g. Client Edition) installed on a machine in the company. Using SmartExporter with connection to the company's SAP® system the data can be extracted and provided for the auditor or others.

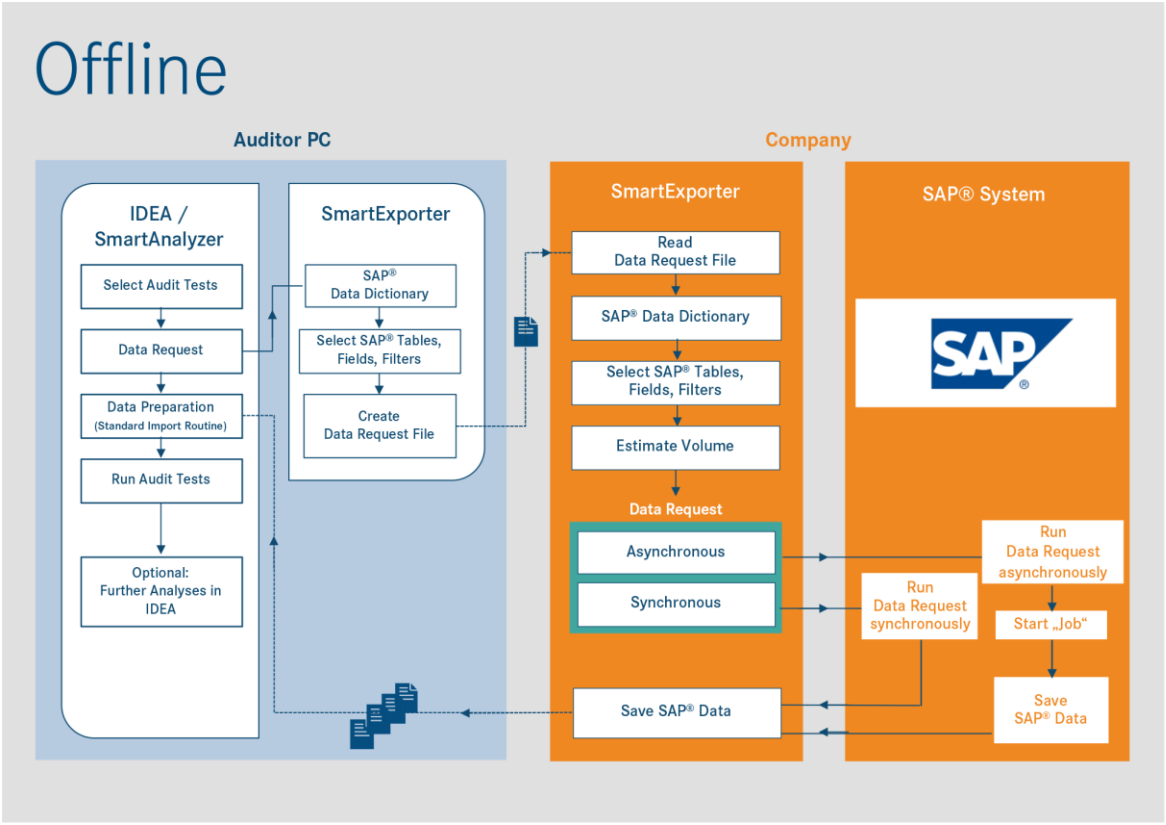

Figure 2: Workflow with Data Requests being sent to SmartExporter for data extraction by an auditor without direct connection to the SAP® system

Data Request

An SAP® system can contain more than 50,000 tables which are difficult to identify and localize using SAP® tools. Besides the fact that the process of extracting data might be tricky and inconvenient, it also requires a thorough SAP® knowledge. Usually the returned data need to be edited or formatted before they can be analyzed.

The Data Request, which is generated by SmartExporter, is the simple way to avoid this inconvenient process. Comprehensive editing or conversion of data is not required anymore.

A Data Request is a list of tables and their fields which you need for your analyses. It contains a list of the data you want to extract from the SAP® system. Using a Data Dictionary, a kind of catalogue of the tables and fields contained in the SAP® system, you can easily specify the necessary data for your request. For this selection no specific knowledge of SAP® data is required. This “list“ of data can be customized to meet your individual requirements by filtering tables and their content to get exactly the data you need for your auditing purposes. For instance, you can filter data by selecting a specific period or company code. You are also able to define joins for the tables you have selected to combine the data you require for your auditing purposes beforehand. Additionally, you can select the file type of the Data Request and you can specify the format the data from the SAP® system will be transferred in.

The Data Requests created can then be passed on to the SAP® system to extract the data required. Or the Data Request will be saved and provided for a person in charge in the company who can then extract the data using e.g. the SmartExporter Client edition.

If you are working in online mode, there are several options to extract data from the SAP® system. Depending on the data volume you have to decide which method of extraction suits you best and how to schedule the data transfer accordingly. There are options to extract data using a synchronous or asynchronous method from the SAP® system.

Synchronous Data Request

This method of data transfer is primarily suitable for smaller data packages. You choose to run a synchronous data extraction when you select the option **Run the Data Request** in the final step of the **Create Data Request Wizard**. The Data Request will be passed on to the SAP® system immediately and gets a high priority label. The actual extraction of the data is started in a timely manner and your computer has to be connected to the SAP® system during the whole process.

Asynchronous Data Request

If you are dealing with large data volumes which shall be extracted from an SAP® system, it is recommended to use the asynchronous Data Request. This data transfer is placed as a background job in the queue of the connected SAP® system and the actual data extraction can be scheduled to off-peak hours (e.g. at night or on weekends). The user selects the option **Schedule an unattended run** and defines the time when the Data Request should be run to release the tension on the productive system. Apart from defining a logical export file or a logical storage, you are also able to define storage location profiles to store files on a WebDAV server or using a Microsoft Azure File Service.

Status of the Data Request

You can monitor and manage the status of the Data Request you have placed in the SAP® queue. Use the option **Manage Data Request activity** to get a list of all Data Requests in the queue and check the current status of the processes running.

Data Request templates as part of Additional Data Sources

In addition to the extraction of tables from databases and archives, SmartExporter also supports the extraction of data using Additional Data Sources.

The Additional Data Sources include, for example, reports or data in so-called structures that are filled by means of SAP® business logic during runtime, such as payroll data. To extract data using Additional Data Sources you have to install and customize additional components on the SAP® system.

The scope of delivery of SmartExporter comprises some Data Request templates for the supported Additional Data Sources. You can use these Data Request templates to learn more about the use of the Additional Data Sources and to benefit from the predefined settings, e.g. preselected tables and filter settings. However, you can also create your own Data Requests based on the Data Dictionaries that are shipped with SmartExporter. Please refer to the SmartExporter online help on Additional Data Sources for more information.

Data Dictionary

A Data Dictionary (DDIC) is a catalogue of metadata containing the definition and the format of data. There are different Data Dictionaries available for an SAP® system. SmartExporter provides some of these Data Dictionaries. The Data Dictionaries included will be sufficient for most of the Data Requests you want to create. In case you need specific data which cannot be selected using the Data Dictionaries included, you are able to load additional Data Dictionaries and use them as a basis for your Data Request. Select the **Download Data Dictionary** option in the **Tools** category on the SmartExporter **Home** page to download your Data Dictionary.

The Data Dictionaries which come with SmartExporter will suit the needs of most users. However, if you require specific fields or you have updated to a new SAP® system, you are recommended to download your own current Data Dictionary. Particularly if updates of SAP® systems are available, the latest Data Dictionary of the new systems might be useful. Otherwise inconsistencies could occur between the tables or fields you require from the new system and the ones which might actually be contained in an older Data Dictionary.

This is also the case when you are dealing with customer specific tables. Please download the latest Data Dictionary of your SAP® system if you need to extract data from customer specific tables.

SmartExporter is not able to extract tables or fields which are not contained in the Data Dictionary you have selected when you define a Data Request. This is also important if you create a Data Request and pass it on to a third party to extract the data for you. Please make sure that both of you have the same version of the Data Dictionary when you are using SmartExporter to get the data.

To manage and specify your default Data Dictionary open the **Change application options** task. The selections you make here are automatically set as default by SmartExporter when you start to create a Data Request.

Application settings

You can define the basic and advanced settings for SmartExporter by selecting **Change application options** in the **Options** category of the **Home** page. If you always use the same settings when creating a Data Request, you can set them as default. For instance, when you decide to work in online or offline mode only or you need just one Data Dictionary to create your Data Requests or one file type as output then you can set your individual default values here. This might be useful when you are creating your Data Requests for a Data Transmission (Z3) in compliance with the GoBD Format (Default Data Structure). For delimited files you may also define the field separator and text encapsulator.

The **Data Request** section also includes options for performance settings. You can define the package size for the data transfer or the priority of your Data Request. In the **Components** tab the extraction method to be applied using either SmartExporter SAP® components or SAP® standard components can be set.

Use the **ODBC** tab to specify the settings you want to apply when using ODBC data sources. For detailed information on the ODBC setting refer to page 103.

Additionally, you can select the language of the SmartExporter user interface and the language settings for your login to the SAP® system. If you are changing the language settings, a restart of SmartExporter is required to apply the new setting.

Refer to the **About SmartExporter** section to view details on the currently installed version of SmartExporter and to access the SmartExporter log file.

Favorites

Add the Data Requests you are going to use more than once to your favorites. You do not have to define Data Requests over and over again; just use existing ones by selecting them from the list of favorites. You can use a Data Request for recurring data extractions or edit an existing Data Request if you want to change one or more parameters like filters.

Organize, collect and manage your favorite Data Requests in folder structures that suit your needs. You can also import favorites or Data Requests defined by other users or you can provide Data Requests for users in your company simply by exporting the desired favorite. For more information on using favorites with SmartExporter Client, please refer to the appendix of this guide.

Use **Run or manage Favorites** on the **Home** page of SmartExporter and you have all existing favorites available you may want to modify, import or export. Select a favorite and click **Start Data Request wizard** to open and modify your favorite.

In case your audit objectives have changed and you want to modify the Quick-Filters the Data Request is based on, there is no need to define the Data Request from scratch. Save your time and simply copy an existing Data Request to apply the desired changes. Each favorite is flagged with a coloured bullet to make it easier to distinguish between the original favorite and its copy.

SmartExporter Interface

SmartExporter is built like a wizard or like any common web browser and therefore offers optimal user guidance and an intuitive interface.

You can use the address bar as means of orientation and the functions are clearly arranged in categories to support a target-oriented workflow.

The following screen shows the opening or home page of SmartExporter with the terms used in the guide to identify certain areas:

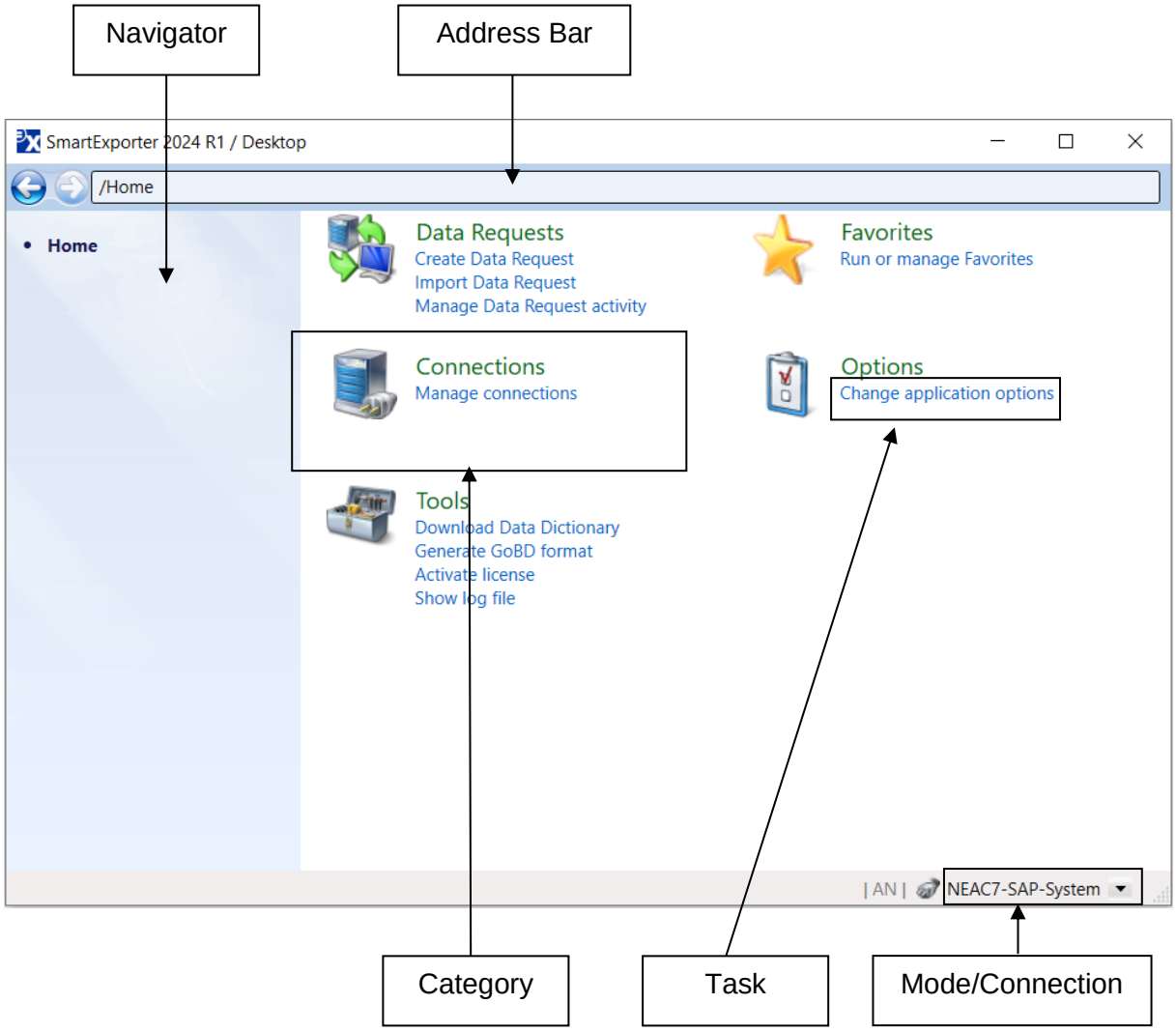

Figure 3: Home page of SmartExporter from where you can access all available features

Home

The opening or home page of SmartExporter provides access to all functionalities. Use the arrow button **Back** to jump to the previous page of the wizard.

Additionally, you can return to the **Home page** of SmartExporter from any page of the wizard.

Open the listed tasks which are collected in categories by clicking the corresponding link. The specific page of SmartExporter is opened and you can start working. Define the basic settings for SmartExporter like interface language or default output format of your Data Request in the **Options** category. Use the **Connections** and **Favorites** categories to manage, select or monitor already existing connections or Data Requests respectively.

At the bottom of the SmartExporter screen the currently selected mode or connection - if active - is displayed. Simply switch between offline and online mode or change the connection to the SAP® system by selecting the according **Mode/Connection**. Click the arrow and select the desired entry.

The wizard screen

The **Create Data Request** wizard provides a clearly arranged workspace to lead you through all steps.

Every step has a short explanation and if necessary further detailed instructions for specific and more complex entries. This makes SmartExporter an easy to use tool which you are able to handle and integrate into your daily work without having to attend time consuming trainings.

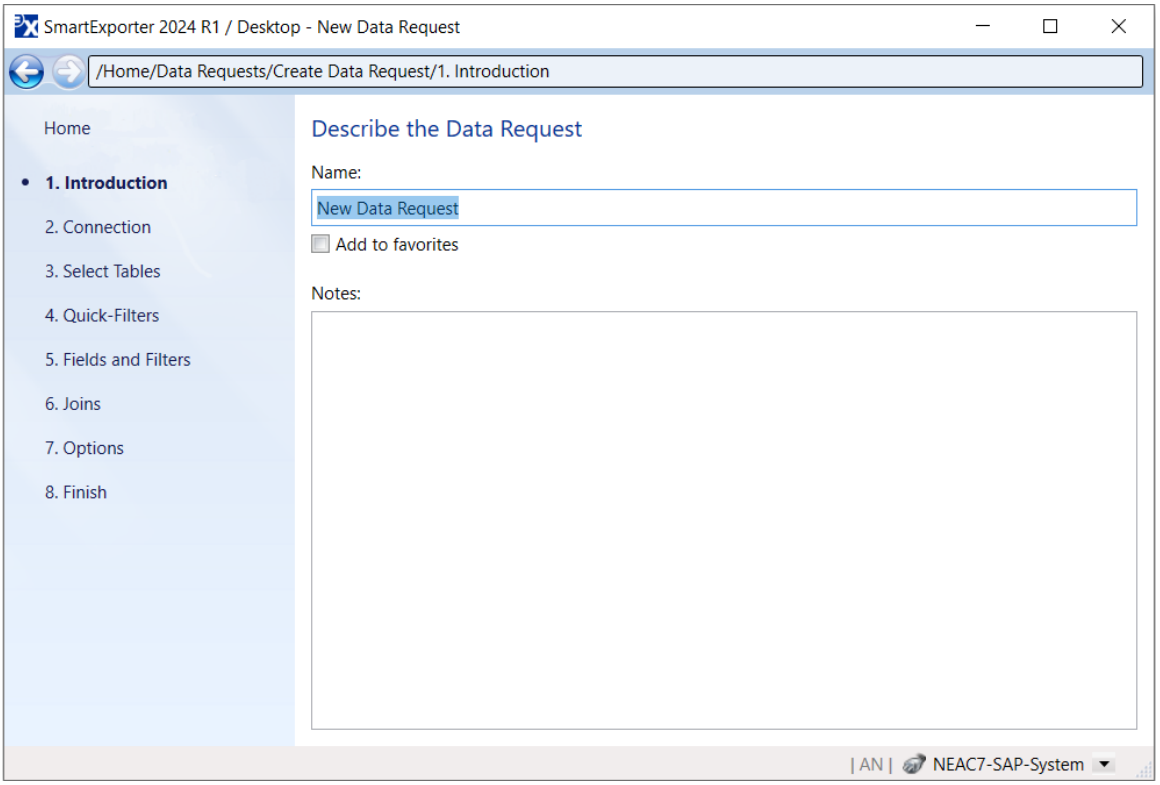

Figure 4: The first step of the Create Data Request wizard where you define the Data Request name

Create and manage connections to an SAP® system

When you open SmartExporter for the first time a message is displayed asking you to create a connection to an SAP® system. It is not essential to create an SAP® connection at that stage. The following steps can be completed at any time in SmartExporter, e.g. by clicking the **Manage connections** task on the home page or by using the **Connections** step in the Create Data Request wizard.

Create a new connection

1. Click the **Manage connections** task on the SmartExporter home page.

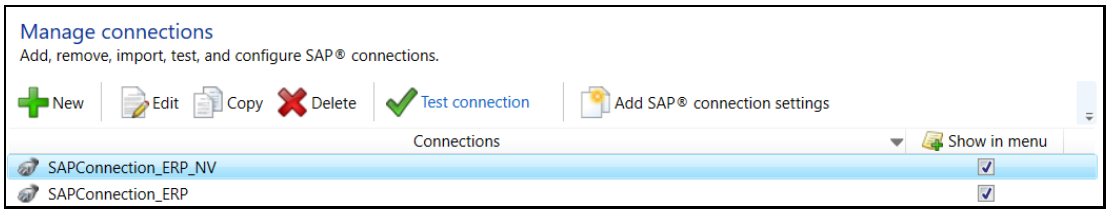

Figure 5: Manage connections screen with toolbar and some selected SAP® connections

2. Click the **New** button to create a new SAP® connection. The **Edit connection** tab is displayed.

3. Enter a connection name in the **General** area and select a connection type like custom application server or group/server selection. Note that the parameters in the **System** area are changing depending on the selected connection type.

4. If you have selected a custom application server, enter either the name of the server or the IP address in the **Application server** text box. If necessary, specify a system number.

   For **Group/server selection** you have to specify a message server, the group or server and the system ID (SID).

5. Define the client of the SAP® system you want to access and the user name and password required to connect to the SAP® system in the **Log on** area. Click Set password.

   Your existing password for this SAP® system will also be set for all further connections to this system when you click the **Set password** button. SmartExporter will save the password for this specific SAP® connection so that you do not need to enter it again when selecting a Data Request using the same connection.

Note:

If your company does not allow storing the password to an SAP® system outside of the SAP® system, see the description of the Advanced area below.

6. Select the **Language** to use when connecting to the SAP® system.

Note:

The default setting of the language to use when connecting to an SAP® system is defined in the applications options. However, you can always define the settings for each Data Request individually.

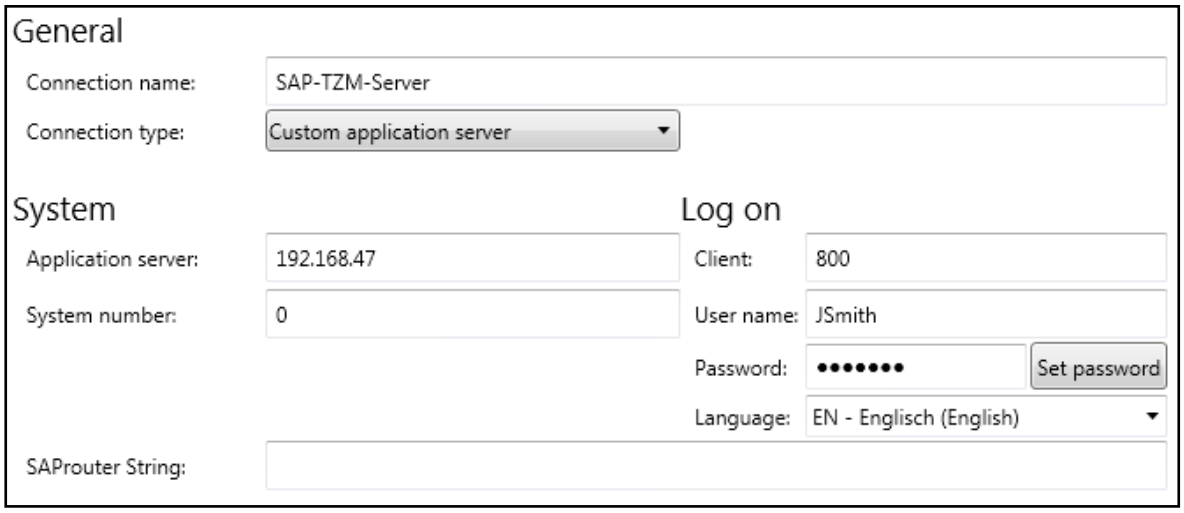

Figure 6: Settings for the SAP® connection

7. You can also enter a **SAProuter String**.

Note:

SmartExporter automatically adds “/H/“ when concatenating the router and server information. Please enter your data as in the following example.

Example:
Application Server: SampleSAP
SAProuter String: 80.250.155.19/S/2287

SmartExporter generates the connection information:
“/H/80.250.155.19/S/2287/H/SampleSAP“

8. In the **Advanced** area you can set additional network settings to use your domain user account for authentication.

   By default the **Don't use secure network connection** option is enabled. You can also specify a different setting from the drop-down list, e.g. Authentication. Depending on the secure network configuration you might have to specify a **Library file name**.

9. In case your SAP GUI supports Single Sign-On (the current logged in user credentials are used to logon to the SAP GUI) you may also enable the corresponding option in the Single Sign-On drop-down list.

   If the **Use Single Sign-On** option is selected, you have to enter an SNC Name.

10. In the pass-through options you may have to define the message server port for the group/server connection if it is not provided by the system (e.g. MSSERV=xx).

11. Click the **Go back to the connection list** link to return to the **Manage connections** screen or switch to the **Test connection** tab.

12. Click the corresponding check box in the **Show in menu** column if you want the connection to appear in the SAP® connection menu in the status line of the SmartExporter screen.

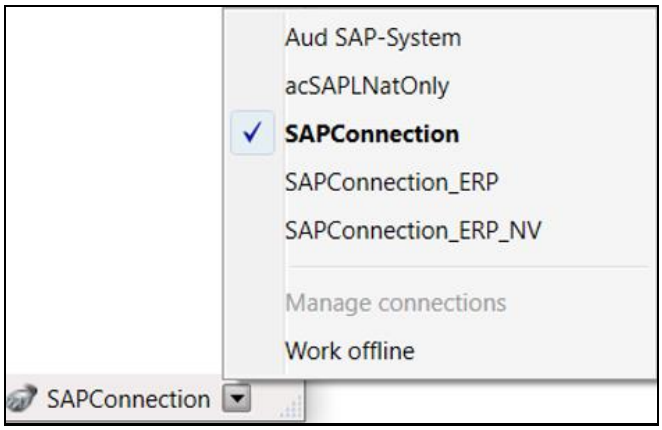

Figure 7: Available SAP® connections shown in the status bar menu

You can remove entries from the menu when you disable the option **Show in menu** again. The currently selected SAP® connection cannot be removed from the menu.

Note:

Please refer to your SAP® administrator for more information on the different settings and find out which settings you may use to connect to the corresponding SAP® system.

Test a connection

1. To check if your connections to an SAP® system are working, click the **Test connection** tab at the bottom. If you have just created a new connection, this one will be tested.

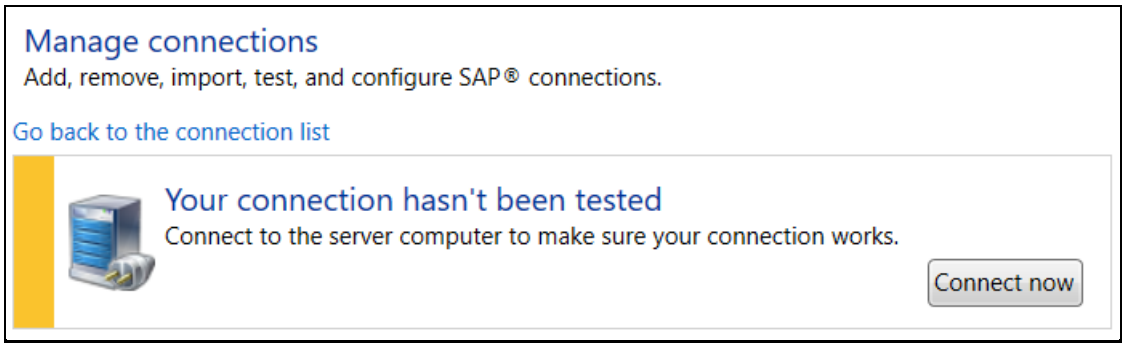

Figure 8: Manage connections screen showing a message in case the connection has not been tested

Alternatively, you can select a connection in the **Manage connections** overview screen and click the **Test connection** link.

2. Click the **Connect now** button. If your connection works, all available information concerning the current connection will be listed below.

3. In case your connection does not work or your name or password are incorrect an error message is shown.

   When you have not entered a user name or password and you did not use a Single Sign-On then an additional log in screen will be displayed. Enter the correct **SAP® User** and the corresponding **Password** here to log on.

4. Click the green arrow to log on to the SAP® system or click the red arrow to cancel the test.

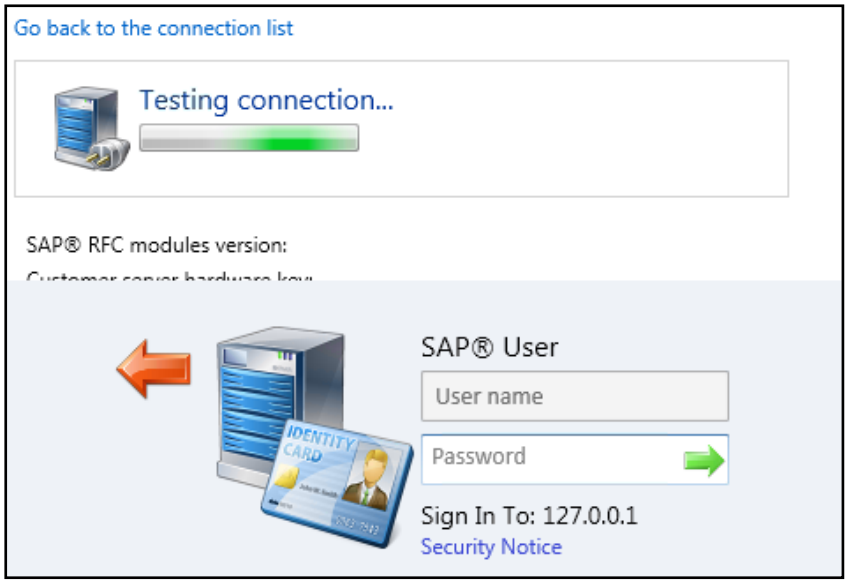

Figure 9: During the test of the connection the login to the SAP® system is launched

5. If the test has failed, you can try to edit the connection settings again by switching to the **Edit connection** tab. There might also be other issues preventing the log on to your SAP® system. Make sure you have entered the correct log on data and settings and try again later.

   In case there are other issues you cannot fix, use the **Copy to clipboard** button to copy the connection information into an email to provide this information to your support or SAP® administrator.

Add a saplogon.ini file or use an SAP® UI Landscape XML file

In case you have an existing SAP GUI installation, you can also create a new connection using the corresponding **saplogon.ini file** or an **SAP® UI landscape XML file** in the **Manage connections** screen.

1. Click the **Add SAP® connection settings** option in the **Manage connections** screen and select either **saplogon.ini file** or an **SAP® UI landscape XML file** from the context menu.

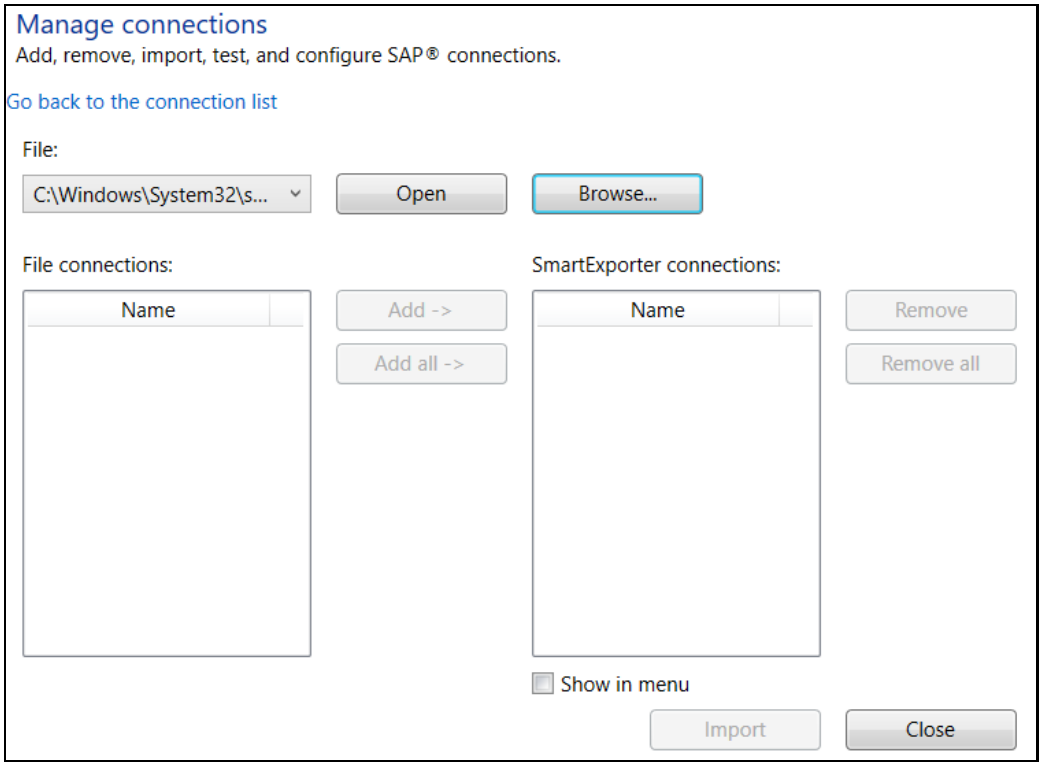

Figure 10: Dialog to select a saplogon.ini file which contains the SAP® connections

2. In the **File** drop-down list a default folder is shown where usually saplogon.ini files are stored in.

   Note that the location of your saplogon.ini files depends on your operating system and the SAP® GUI version you are working with. Use the **Browse** button to locate the directory your saplogon.ini files are stored in.

3. Click the **Open** button to load all available saplogon.ini files located in the selected folder.

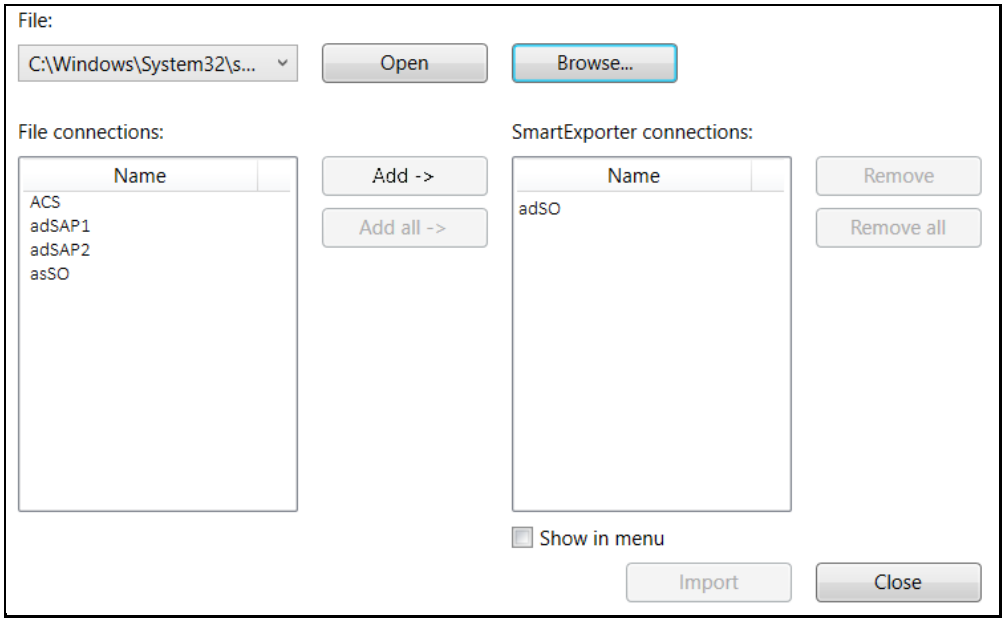

Figure 11: Selected saplogon.ini file with the connections displayed

4. Select the entry in the **File connections** area and click the **Add** button to add this connection to the SAP® connections available in SmartExporter. Optionally, you can also use the **Add all** button to add all available connections.

   To remove an entry from the **SmartExporter connections** list, select the connection you want to delete and click the **Remove** button.

5. Enable the **Show in menu** option if you want the connection to be shown in the status bar menu of SmartExporter. Note that you can set this property also later on in the **Manage connections** screen.

6. Select the connection in the **SmartExporter connections** list and click the **Import** button.

   The connection is added to the connections list.

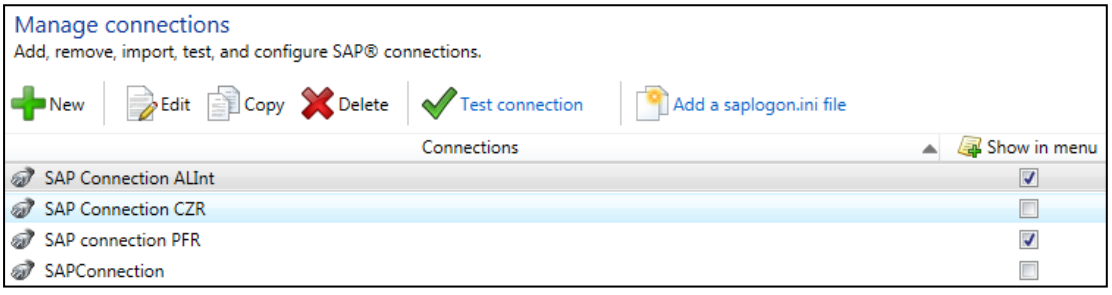

Figure 12: Added connection displayed in the list of connections

Create Data Request

Apart from the final step the process of creating a Data Request is the same for offline and online mode.

Note:

Once you have started the Data Request wizard you cannot change the selected Data Dictionary or modify the ODBC settings you have previously defined in the application options. If you return to the Change application options page, all your entries will be lost.

Create a Data Request and run it immediately

Select the **Create Data Request** task on the SmartExporter home page. The **Create Data Request** wizard is started. In the Navigator pane all the steps are listed which are required to create a Data Request. The sample Data Request to be created will contain data for a journal entry test.

Step: Introduction

1. In the first step you have to define a new Data Request by entering its name, e.g. “JournalData“.

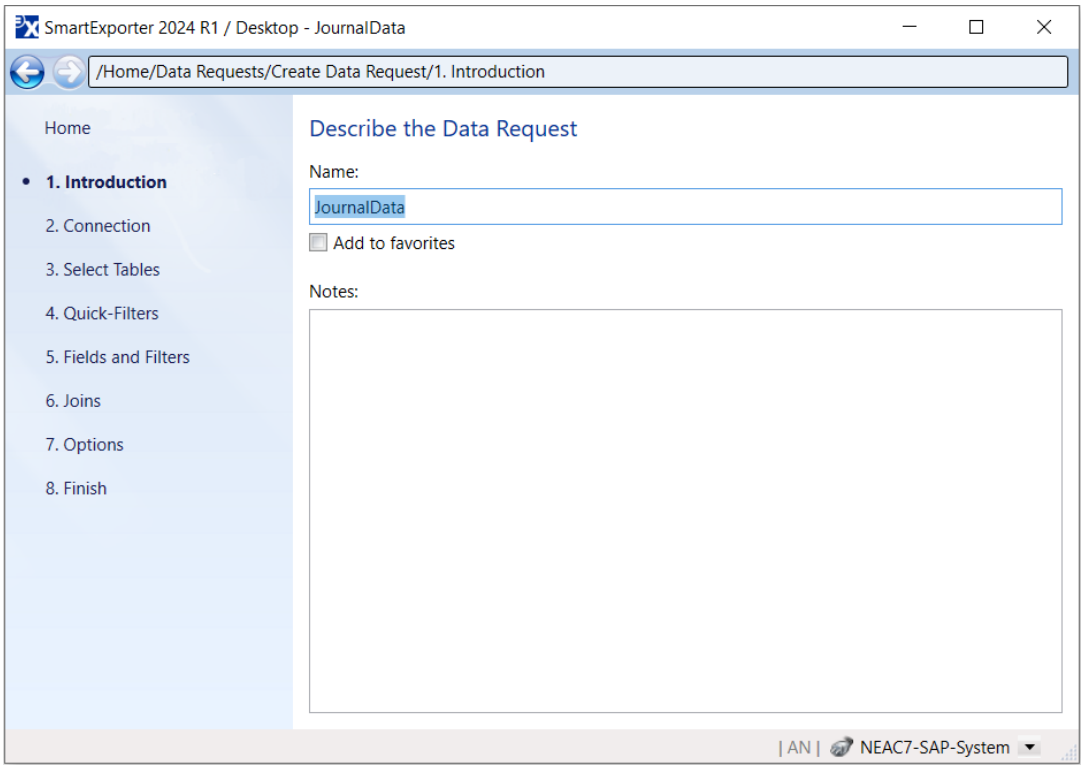

Figure 13: The first step of the Create Data Request wizard

2. Optionally, you can enter a description of the Data Request in the **Notes** area. This is recommended if you are planning to provide this Data Request also for other users. Use this area to enter information on the purpose or the analyses objective this Data Request was generated for.
3. In case you want to save the Data Request for later re-use or to edit and complete it at a later time, you have to make sure that the **Add to favorites** option is checked.

4. Continue with the next step by clicking **Connection** in the Navigator.

Step: Select the SAP® connection

5. Select the required SAP® connection in the **Connections** area. Alternatively, open the **Mode/Connections** drop-down menu and select one of the connections available in the menu.

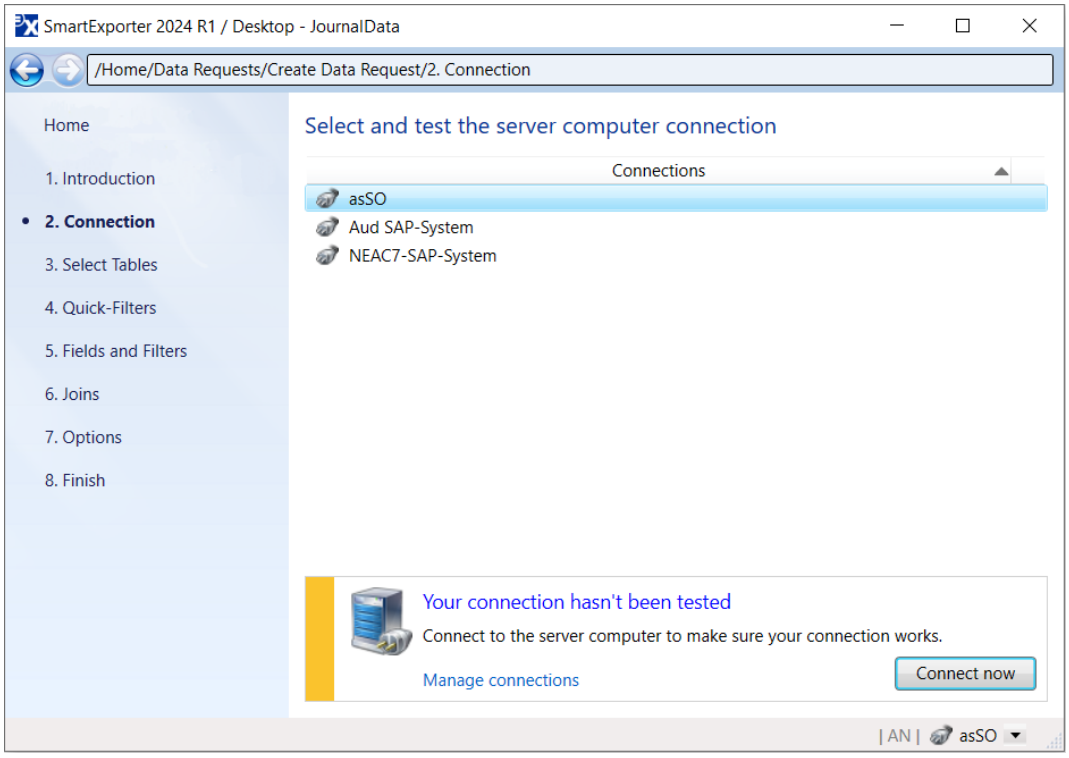

Figure 14: Connection step of the Create Data Request wizard

If you have not previously tested whether the selected connection works, it will be indicated. Click the **Connect now** button to check if the selected connection works.

If you have not created a connection yet, click the **Manage connections** link at the bottom of the screen to jump to the **Manage connections** screen (see page 17 for more information on how to create a new connection to an SAP® system).

6. Switch to **Select Tables** in the Navigator.

Step: Select Tables

7. Select the tables which contain the data to be analyzed.

> **Note:**
>
> The tables listed here are taken from the Data Dictionary which you have selected as default in the application options. Please change your selection if you need to have other tables from a different Data Dictionary. Go to the **Options** category on the home page of SmartExporter to select the **Change application options** task and then switch to the **Data Dictionaries** area in the Navigator. For more information on Data Dictionaries refer to page 12.

If you change the Data Dictionary before saving the Data Request you are currently working on, all your entries will be lost.

8. Choose the required tables by clicking the check box in front of the table. If you want to select all tables listed, use a right mouse click to open the context menu and click **Select All**.
9. Use the **Search** field to find a specific table. If you do not know the exact name of the table, enter a part of the name or a key word contained in the description of the table like “Company Code“.

   SmartExporter will show all tables containing “Company Code“ in their description. Or, if you know the table name, e.g. “BKPF”, enter it in the **Search** field.

   Click the **Aa** (**Match case)** button to specify this search criterion.

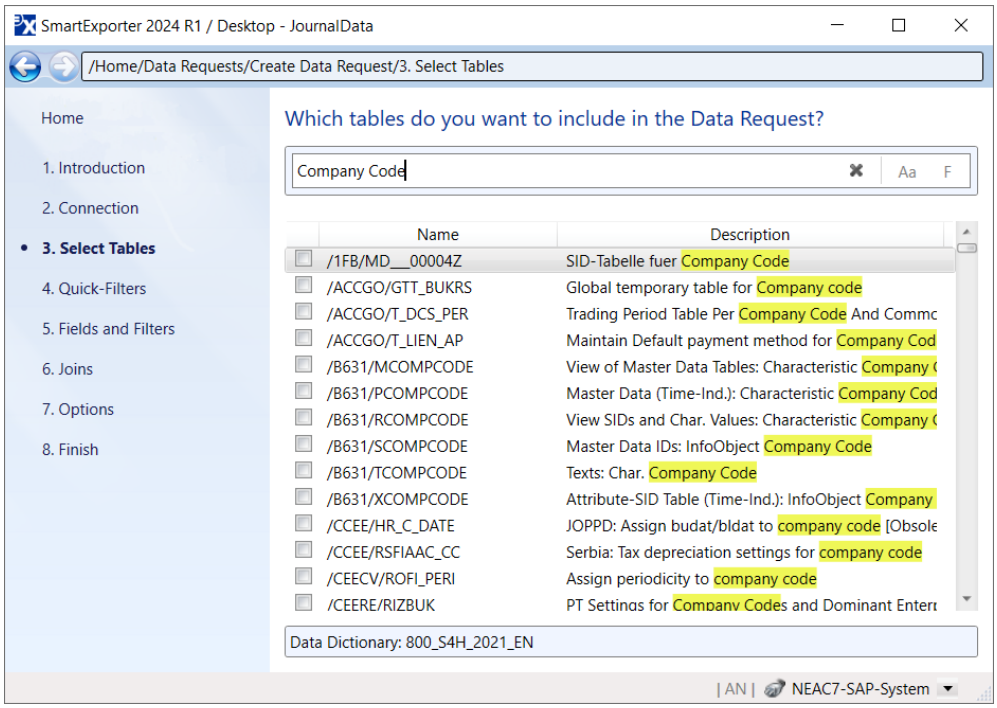

Figure 15: Select Tables step with the filter value “Company Code”

In case the descriptions of the tables are not shown in the desired language, please check your application settings and select the correct Data Dictionary with the suitable language. The currently active Data Dictionary is shown underneath the list of tables.

You can also extend your search to the fields contained in the tables listed. Click the **F (Search in tables and fields)** button and SmartExporter will also look for the specified term in the field names and field descriptions.

The results will be highlighted. Place the cursor over a table name marked with the information icon to see which field in that particular table contains the search text.

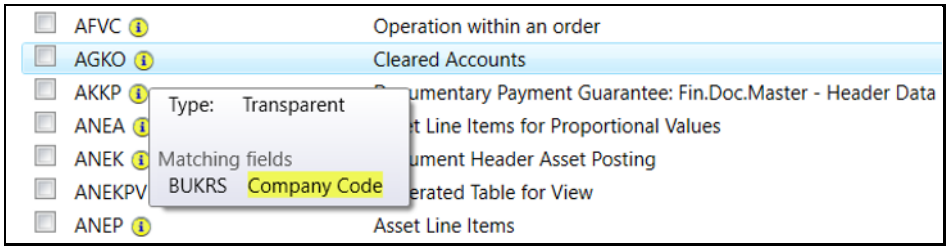

Figure 16: List of fields which are contained in the tables listed

Delete the search text to remove the highlighting.

10. For a journal entry test select the following tables “BKPF“ (Accounting Document Header), “BSEG“ (Accounting Document Segment) and “T003T“ (Document Type Texts) by selecting the check box in front of the tables.
11. In the Navigator switch to the **Quick-Filters** step.

Step: Quick-Filters

12. In this step you are going to create general filters for all selected tables to extract exactly the data you require for your audit and to keep the data volume as small as possible.

    SmartExporter provides a pre-selection of some filters like Fiscal Year, Billing Date or Company Code which you can define.

    Refer to the **Format** column to see which formats you have to use when entering your filter conditions. Either a date mask or a value is displayed. For example, the company code requires the format “???? / 4“. This means that the company code can consist of 4 characters and the maximum number of characters allowed is shown behind the slash.

    For the selected tables enter the following values: Company Code “1000“, Fiscal Year “2024“ and select “EN – English (English)“ as language in the drop-down list.

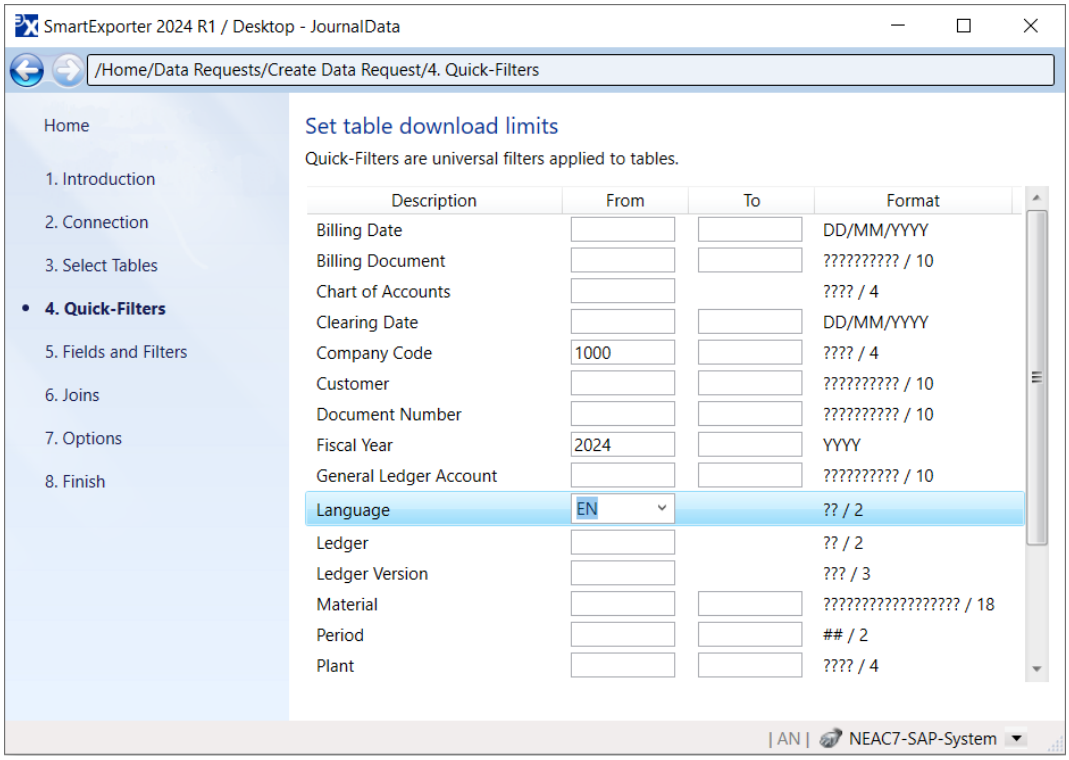

Figure 17: Quick-Filters step with the corresponding entries

In case you want to add more than one Quick-Filter of a certain type, e.g. another company code, you can copy the desired filter by right-clicking the Quick-Filter row and selecting the **Copy** entry in the context menu.

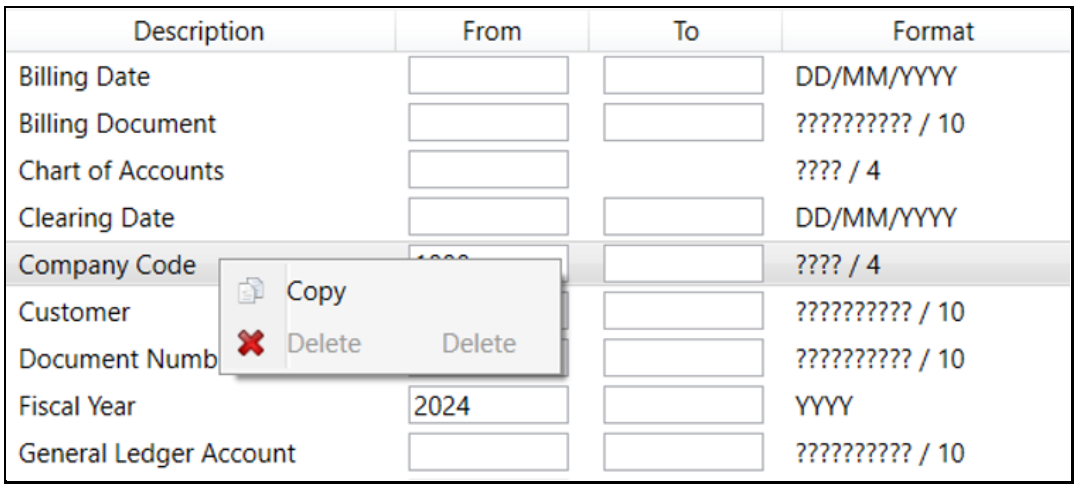

Figure 18: Copying a Quick-Filter row

Another row is added to the Quick-Filter list where you can enter an additional filter.

Figure 19: Additional row for the Company Code Quick-Filter

To delete the additional Quick-Filter right-click the filter row and select **Delete** from the context menu.

13. When you have defined all filters required for the tables switch to **Fields and Filters** in the Navigator.

Step: Fields and Filters

14. Use this step to choose the fields of the tables you have selected in the previous step. Additionally, you can specify more detailed filters to determine the content of the fields and define the exact range of data you require for your purposes.

    In the upper area select the table you want to specify the fields for. In the **Fields** tab all fields contained in the selected table are shown.

15. Select the following fields for the “BKPF” table by clicking the check box in front of the fields: BELNR, GJAHR, BLART, BUDAT, MONAT, CPUDT, USNAM, BKTXT and WAERS.

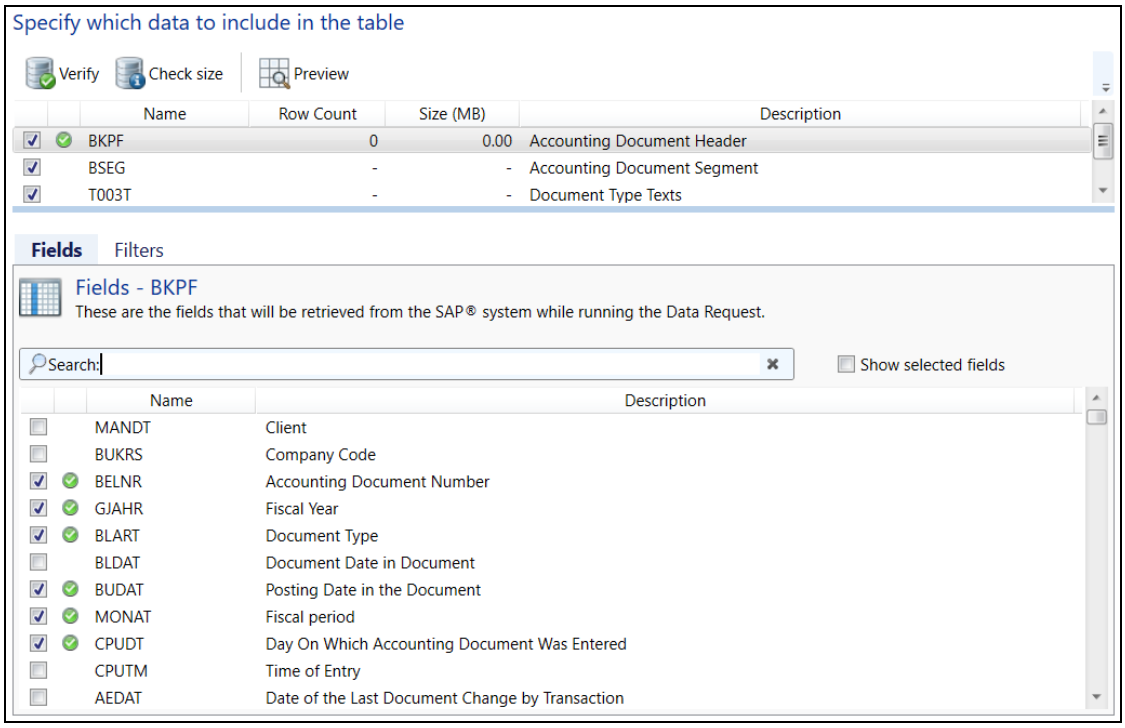

Figure 20: The BKPF table with the selected fields

Enter the field name or a keyword of the field description in the **Search** area in order to identify the desired field. The fields matching your entries will be listed below.

Click the **Show selected fields** option to reduce the list of fields and to view only the ones you have already selected.

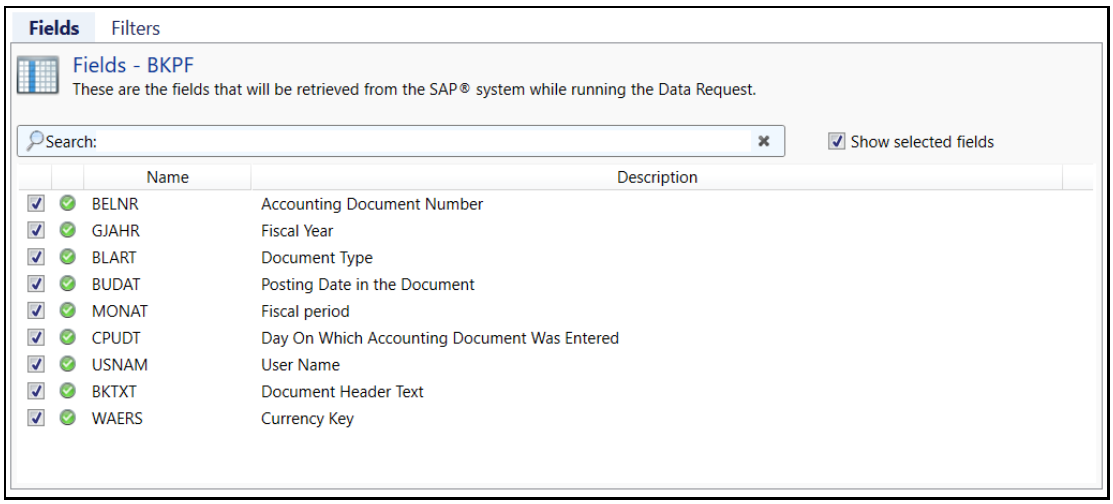

Figure 21: Only the selected fields of the BKPF table are shown with the Show selected fields option active

16. Select the fields for the other tables accordingly: For the “BSEG“ table select the fields: BUKRS, BELNR, UMSKZ, DMBTR, WRBTR, SGTXT, KOSTL, HKONT, KUNNR, LIFNR and PRCTR.

    And for table “T003T“ select the BLART and LTEXT fields.

17. Switch to the Filters tab to enter filter conditions for any of the chosen fields. Already defined Quick-Filters for the tables will also be displayed here. These particular Quick-Filters will be marked with an asterisk (*).

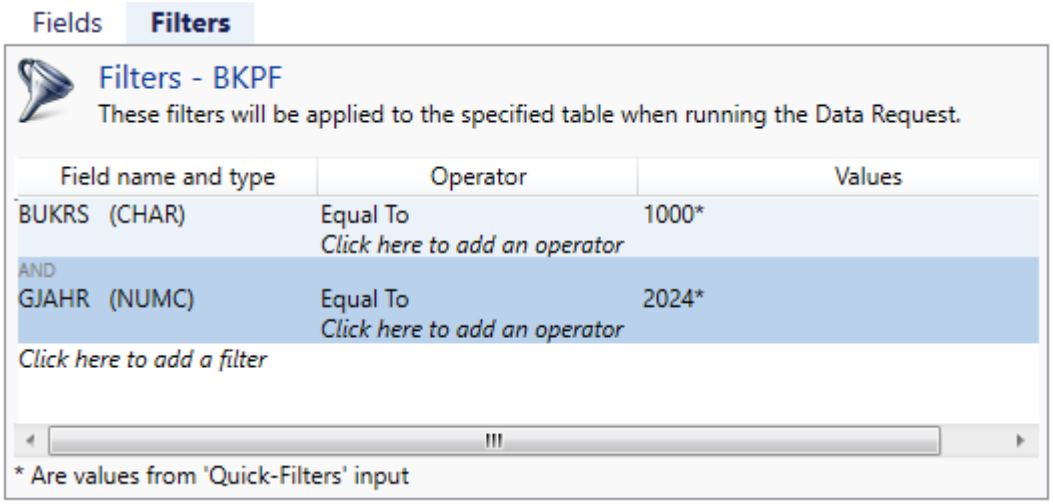

Figure 22: Filters tab showing the selected Quick-Filters

18. Define new filters for the selected fields or add specific conditions to already existing Quick-Filters.

    To add a new filter, click the corresponding instruction in the **Field name and type** column. A drop-down list opens containing the fields of the table. Select the desired field, e.g. BUDAT (Posting date in the document). The list shows the name and type of the field:

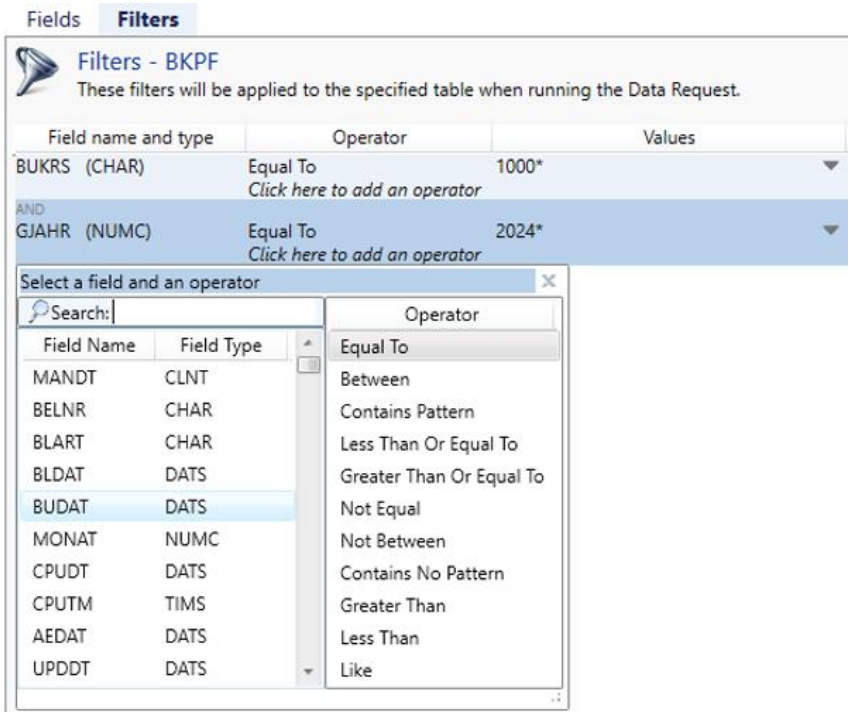

Figure 23: Filters tab with additional filter for the BUDAT field

19. Select the entry “Between“ in the **Operator** column. The following line will be shown:

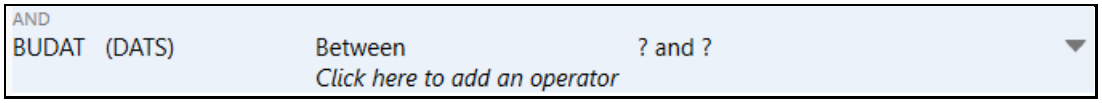

Figure 24: The operator “Between” is selected for the BUDAT field

If you need more than one operator, use the **Click here to add an operator** option to add another operator from the list.

20. Click "**? and ?**", to define the desired date range. Enter the date values in the fields and click outside the area to confirm your entries and close it.

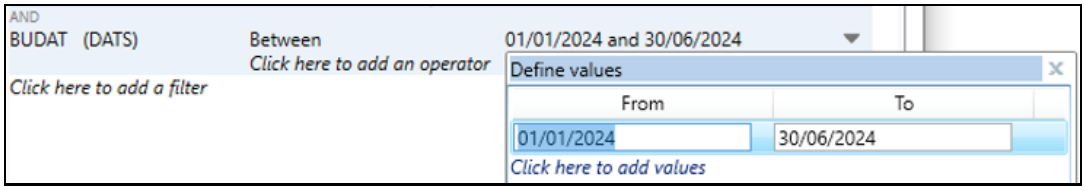

Figure 25: The date values for the BUDAT field are selected

In case the value you have entered is invalid the corresponding value will be flagged.

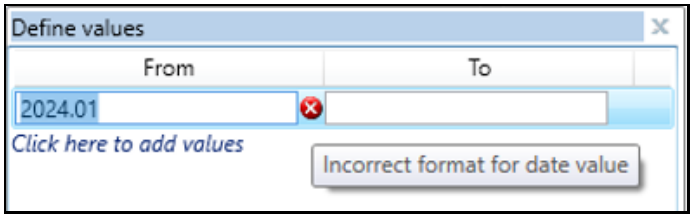

Figure 26: Warning icon and message displayed if a wrong value has been entered

Additionally, an exclamation mark will flag invalid values. A tooltip will indicate which value has to be changed.

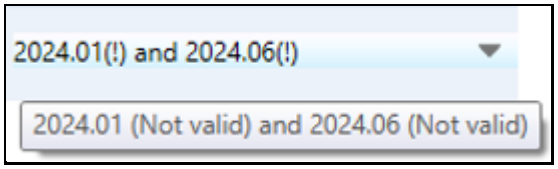

Figure 27: Tooltip shown if incorrect values have been entered

If you want to add more than one date range or depending on the selected filter add more than one value, select the **Click here to add values** option below the fields and another line will be displayed.

You may also add values to an already existing Quick-Filter. Click the arrow in the **Values** column to enter the new values.

In order to remove values for filters or the whole filter condition, please right click the value or the filter row you want to remove and select **Delete filter(s)** in the context menu.

Note:

You are not allowed to delete existing Quick-Filters here. If you want to remove Quick-Filters, you have to switch to the Quick-Filters step in the Navigator.

21. Define the filters you need for the other fields of the tables selected. You can add for instance a filter for the T003T table to get only the records where the document types start with an A.

    To do so, select the T003T table and enter the following filter for the **BLART** (document types) field. Select **Like** as operator and enter the value **A%**:

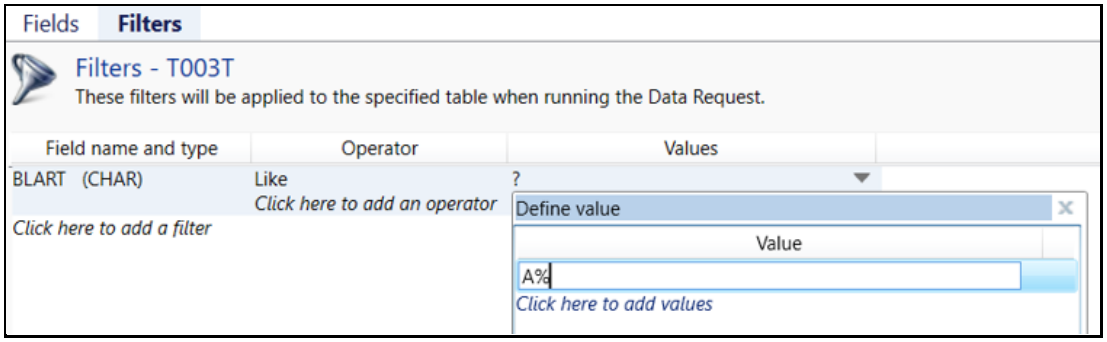

Figure 28: Filter for the T003T table

Note:

If you want to use the Like operator in combination with a wildcard, please make sure to enter % as wildcard character.

Use the specific value INITIAL if the fields of the type character, date or time are containing some records with empty values but you don't want the records with the empty values to be extracted from the SAP® database. This might be the case for a field like BSTAT which contains the document status. Here the document status might be empty. To get all the records where the field BSTAT is not "empty" enter the value INITIAL (see below):

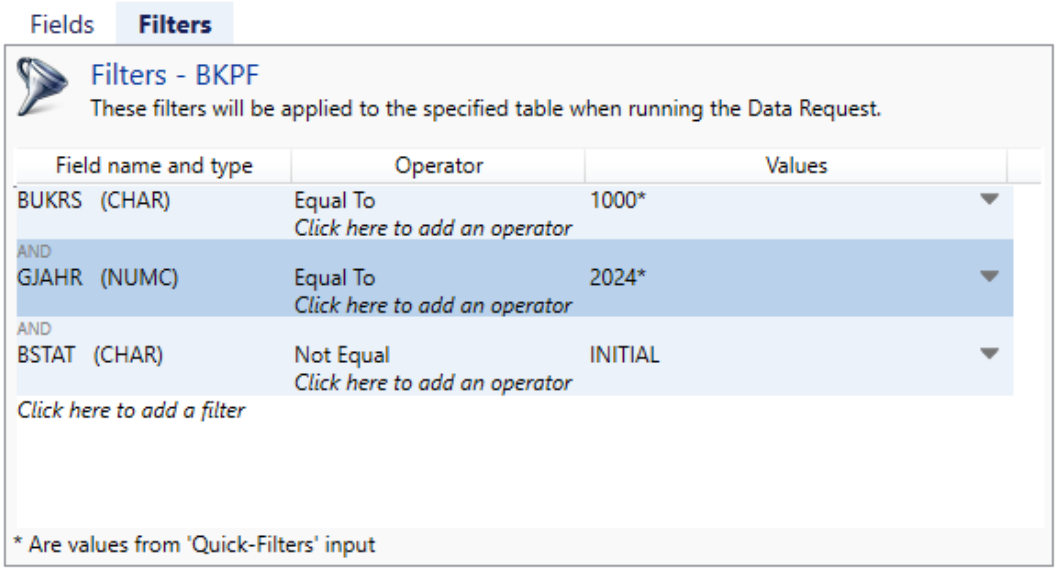

Figure 29: Specific value INITIAL if the fields of the filter contain empty values

Note:

To delete a filter right click the filter row you want to remove and select Delete filter(s) in the context menu.

22. If you have completed your entries, check whether the selected tables and fields are available and let SmartExporter determine the data volume you are about to extract. Select the corresponding table in the list and click one of the icons below:

Verify	Use this option to check if the selected tables and fields are available in the SAP® system you are connected to. It also determines whether you have the appropriate authorization for these data.
Check size	Click this icon to determine the size of the tables and fields selected. (The filters you have defined will be considered.) The number of rows and the size (megabytes) are shown in the table underneath. Note that depending on the data volume you have selected this might take some time.
Check size	If you are using the SAP® standard components, the icon will be disabled as the size cannot be determined by the SAP® standard components.
Preview	Use this icon to get a preview of the selected tables and fields.

Please note that you need a connection to an SAP® system for these functionalities to work. If you are operating SmartExporter in offline mode, these features are not available.

23. If you want to define a join for your Data Request, you can now open the **Join** step in the Navigator. For a comprehensive instruction on how to define a join refer to the corresponding section on page 42.

24. Switch to **Options** in the Navigator.

Step: Define options for the Data Request

25. Besides the general definition of application settings which you have set in the **Options** category on the SmartExporter home page, you can also define individual options for each Data Request.

> **Note:**
>
> Depending on your SmartExporter Edition the options you are able to modify and the available file formats might differ (see appendix on page 76 for more information).
>
> If you are in the process of creating a Data Request, you cannot change the selected Data Dictionary or modify the ODBC settings you have previously defined in the application options. Otherwise, all your entries will be lost.

26. Determine the location which the SAP® data shall be extracted to when your Data Request is run. Click the **Browse** button to select the directory or folder. For the IDEA files see page 73.

27. Select the file type you want your Data Request to be created in. The data extracted from the SAP® system will have this format. Select one of the following: CSV with header, CSV – variable length, TXT – fixed length, AIS - SAP® AIS Format, IDEA, Microsoft Access (obsolete), CSV – GoBD Format, TXT – GoBD Format and ODBC.

Note:

In case you want to create your Data Request in the ODBC format, note that the settings on how to handle tables for ODBC are defined in the application options task on the Home page. You have to define these options before you start to create your Data Request.

When you switch to the application settings now, make sure that you have saved your Data Request as an offline request or click the Finish button in the final step of the wizard to save it as a favorite.

If you have selected AIS - SAP® AIS Format as file format for your Data Request, you might as well create a file in the GoBD format at a later time. Use the Generate GoBD format task from the Tools category to generate a GoBD format.

To generate IDEA (.imd or .idm) files as output format, you have to make sure that the integration of IDEA exists. Please refer to the “Readme.txt” file on the DVD, in the download package or select Start – Programs – Caseware SmartExporter – Readme. For a detailed instruction on how to use IDEA files as output format see page 73.

As of SmartExporter 2024 R1 the output in Microsoft Access databases is not supported anymore.

28. For delimited file types you can specify the desired field separator. If applicable, select a text encapsulator from the drop-down list.

29. Additionally you have the option to compress the extracted files. By default the extracted files are not compressed. If you want to compress the files, select **Compress files if possible**. Each of the files will be compressed as a ZIP file during the process of the data extraction.

    As of SmartExporter SAP® Components version 8 you are able to compress the data directly on the SAP® system when you are using an asynchronous extraction. You can also define a password to protect the compressed file.

Note:

If the SmartExporter SAP® Components version 8 are not implemented on the SAP® system, the files will be compressed on the Windows client.

For some of the file types, e.g. IDEA files, which can be selected as format for the data to be extracted this option is not available.

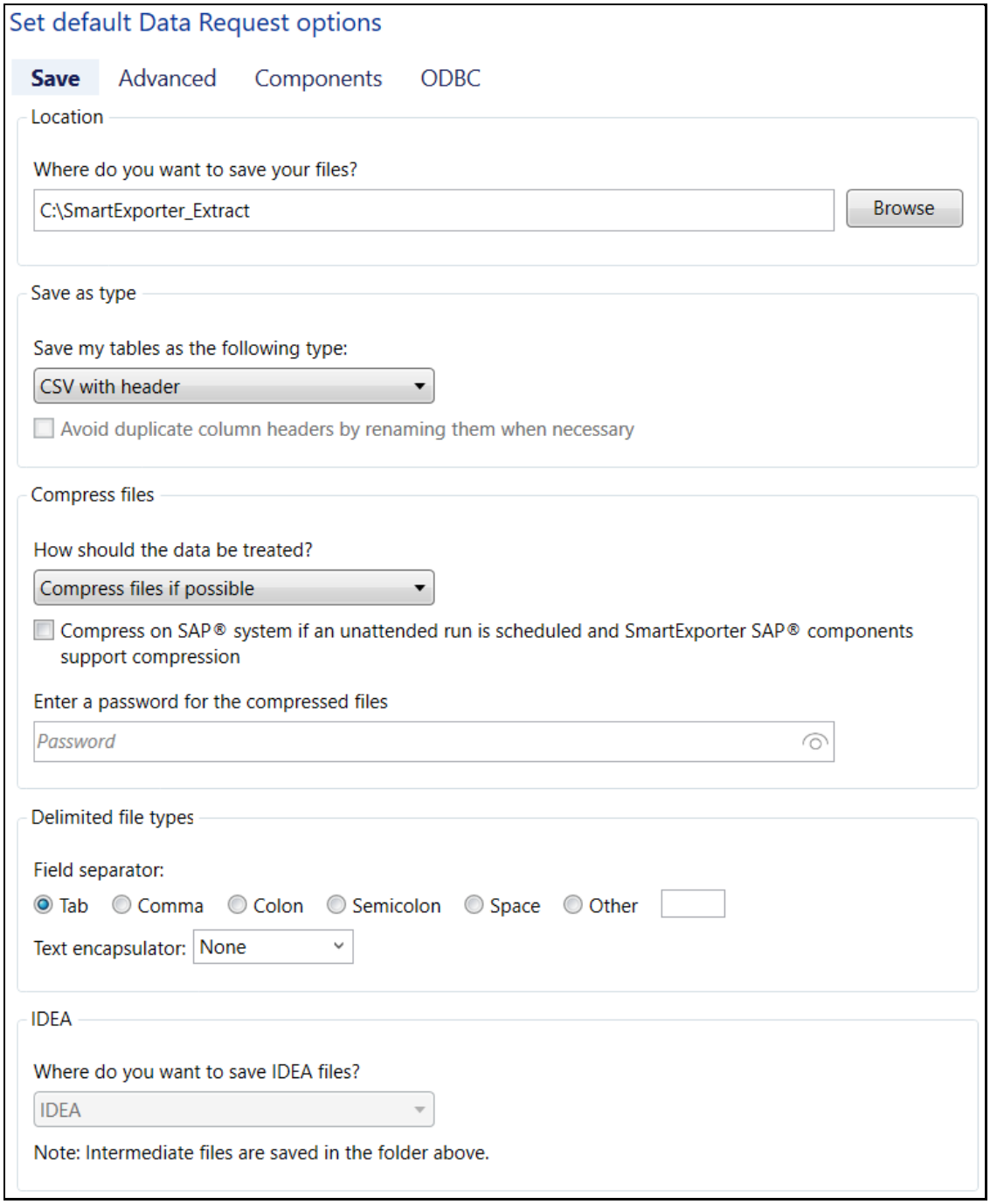

Figure 30: Define if the data shall be compressed in the Save tab of the Data Requests settings screen

Enter a password for the compressed file.

Note:

The password should have at least 10 characters and should contain characters, digits and at least one capitalized letter.

Do **not use any special characters** as compression tools might interpret these characters differently and you might not be able to unpack the compressed data.

This password cannot be changed in the SmartExporter Client Edition.

Note that the compressed files can be opened with tools like 7-Zip, WinZip or WinRar.

30. Switch to the **Advanced** tab to select how you want the data to be extracted. Note that the available options depend on the SmartExporter Edition you have.

Database only	The data to be extracted is kept in the productive system.
Archive only	The data to be extracted is available as archived data only. Select this option if all the data you want to extract is kept in an archive.
Database before archive	Define the order of the extraction. Select this option if you want to extract the data from the productive system first.
Archive before database	Define the order of the extraction. Select this option if you want to extract the data from the archive first.

Table 1: List of available options in the Advanced tab

31. Define the SmartExporter SAP® components performance settings. Change the package size by overwriting the value.

32. Set the desired priority for your Data Request by selecting **High**, **Medium** or **Low** from the drop-down list.

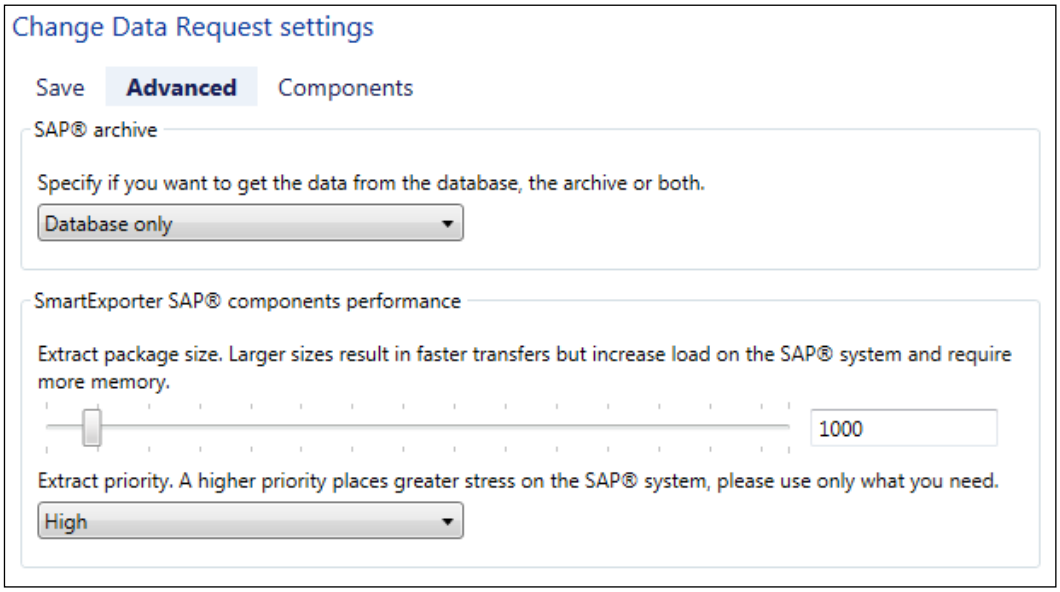

Figure 31: Define the advanced settings for the Data Request like the performance

Note:

The priority has an impact on the time the extraction is started. This depends on the number of available work processes and the jobs waiting on the SAP® application servers. Due to the packaging of the data, the impact on SAP® application servers regarding the storage use and CPU use is reduced to a minimum.

For larger data volumes, it is recommended to place the Data Request in the SAP® queue and to schedule the transfer to off-peak hours.

33. Check the **Use a more limited Client Edition** option if you want to generate a Data Request which when being run with a SmartExporter Client Edition allows the user even less modifications to the original Data Request definition than the SmartExporter Client Edition usually does. Please see the page 81 for more information.

34. In the **Components** tab you can define the further settings for the use of the SmartExporter SAP® components and how to deal with issues occurring when using SAP® standard components available in your SAP® system instead.

Note:

It is recommended to use the default settings. You need a detailed knowledge of the data to be able to change these settings.

35. In the Navigator switch to the **Finish** step.

Step: Finish

36. This step provides several options on how to proceed with your Data Request. You can display a list of all defined tables and fields to check your selection again by clicking the **View the summary** option.

Note:

If you do not want to run your Data Request immediately, you can save it by clicking the **Finish** button. This way you can run or edit the requests at a later time. Please make sure that you have checked the option **Add to favorites** in the **Introduction** step.

37. In our current example the Data Request shall be run immediately. Click the **Run the Data Request** option to start the process. Note that your computer has to be connected to an SAP® system during the whole process.

38. The **Data Request progress** screen is displayed. Define how problems which might occur during the extraction shall be handled by selecting the suitable option in the **How to handle problems** drop-down list.

    Click the **Start download** button to run the Data Request.

    The **Data Request progress** screen shows which tables have already been downloaded and which download is still running.

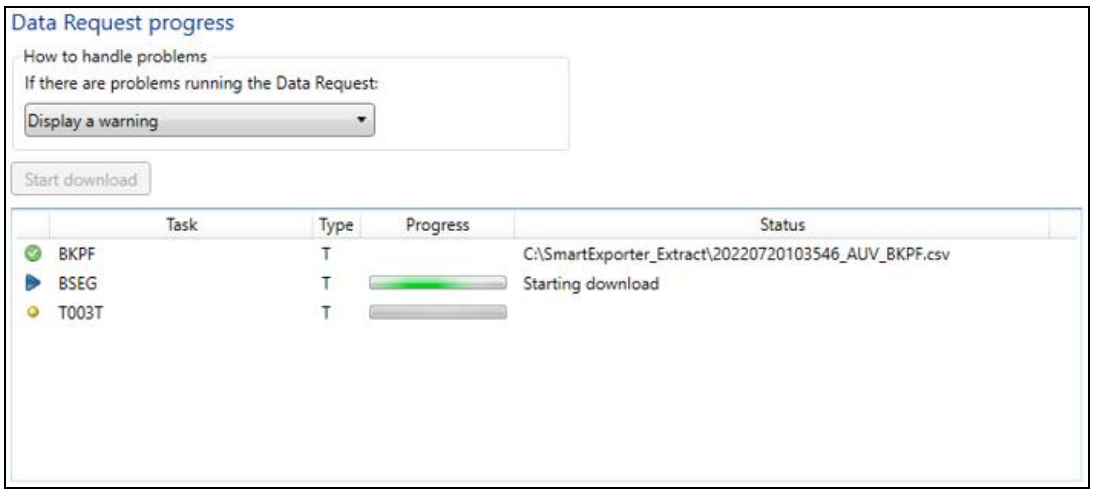

Figure 32: The Data Request progress screen showing a download in progress

In the **Task** column the selected tables are listed and the **Details** area shows which action is currently performed. A green icon is displayed in front of the tables which have already been downloaded successfully. If a Data Request fails, the table will be flagged with a red icon and in the **Details** area below additional information regarding the process and the errors which occurred during the download will be listed.

To get more details on the downloaded data click the **Show log file** button to view the log files which were generated while extracting the data. You can also copy the log files to the clipboard or save them as a CSV file.

39. In case you want to stop a running Data Request, select the **Cancel** button.

40. If the Data Request was completed successfully, exit the dialog by clicking the **Close** button.

Define joins

SmartExporter provides an additional step in the **Create Data Request** wizard to define joins for the tables selected. Thus the size of the data package required can be reduced to the minimum as a necessary join has already been defined by the Data Request and only the join result table is extracted. SmartExporter offers either an **Inner Join** or a **Left Outer Join**. Using SmartExporter you can also define joins for Pool and Cluster tables like the BSEG table.

Note that the joins in SmartExporter have the functionality of SQL joins. At least a basic knowledge in defining SQL joins is highly recommended in order to avoid extracting useless data.

Please refer to the section **About joins in SmartExporter** in the Appendix on page 99 for an overview of the different join types available.

Step: Joins

To provide a useful sample on how to define a join, a new Data Request will be created using Accounts Payable. Information on the vendor is kept in different master tables. These master tables will be joined. Please refer to the steps in the **Create a Data Request** section on page 23 and following for detailed instructions.

1. Click the **Create Data Request** task on the **Home** page of SmartExporter. Use the **Introduction** step to create a new Data Request named “AccountsPayable” and select the **Add to favorites** option.

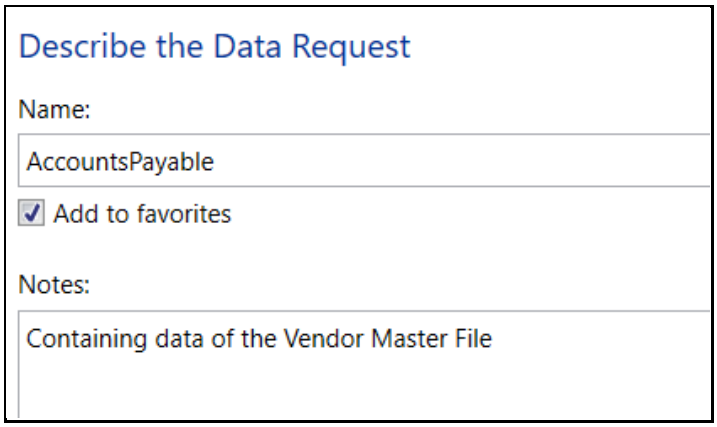

Figure 33: Introduction step with the name of the Data Request and a description

2. Continue with the next step by clicking **Connection** in the Navigator and select the corresponding connection to your SAP® system.

3. Switch to the **Select Tables** step in the Navigator. Please select the tables LFA1 (Supplier Master (General Section)) and LFB1 (Vendor Master (Company Code)).

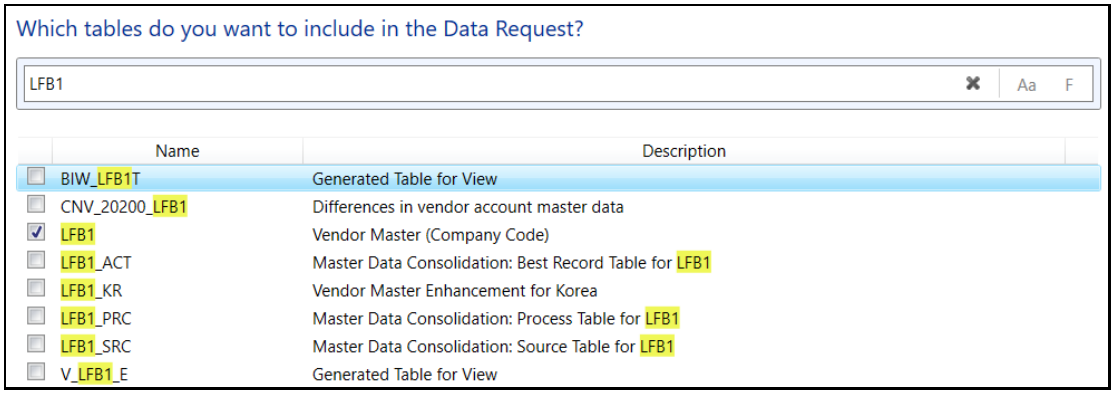

Figure 34: Selected LFB1 table

4. There are no Quick-Filters to define. Please go to the **Fields and Filters** step.

5. In the **Fields and Filters** page open the **Fields** tab and select the following fields for the LFA1 table:
LIFNR (Account Number of Vendor or Creditor),
LAND1 (Country/Region Key),
NAME1 (Name 1),
ORT01 (City),
PSTLZ (Postal Code),
STRAS (Street and House number),
ERDAT (Date on which the Record Was Created),
ERNAM (Name of Person who Created the Object),
KUNNR (Customer Number),
LNRZA (Account Number of the Alternative Payee),
SPERR (Central posting block),
SPERM (Centrally imposed purchasing block),
SPRAS (Language Key) and
SPERZ (Payment Block).

   To check if you have selected all required fields click the **Show selected fields** option.

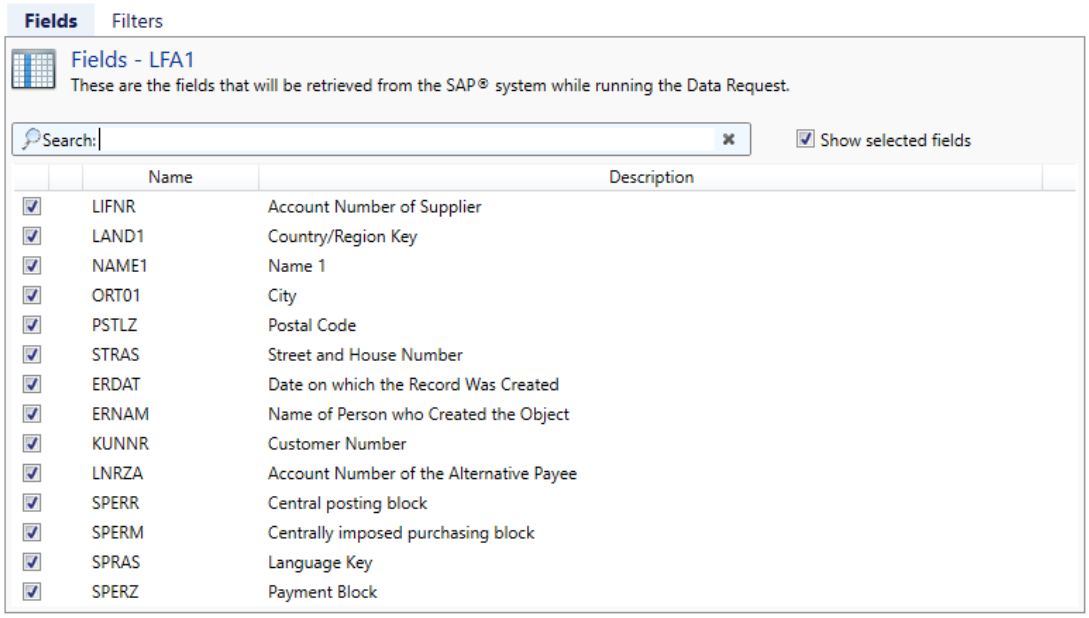

Figure 35: Selected fields for the LFA1 table

6. Select the following fields for the LFB1 table:
   LIFNR (Account Number of Vendor or Creditor),
   BUKRS (Company Code),
   AKONT (Reconciliation Account in General Ledger),
   ZTERM (Terms of Payment Key),
   ZSABE (Clerk at vendor)

7. Switch to the **Filters** tab and add a filter for the LFB1 table. Select the **LFB1** table in the list of tables and use the **Click here to add a filter** option. Choose the **BUKRS** field in the **Field name and type** drop-down list and select **Equal to** as operator. Enter **1000** as value.

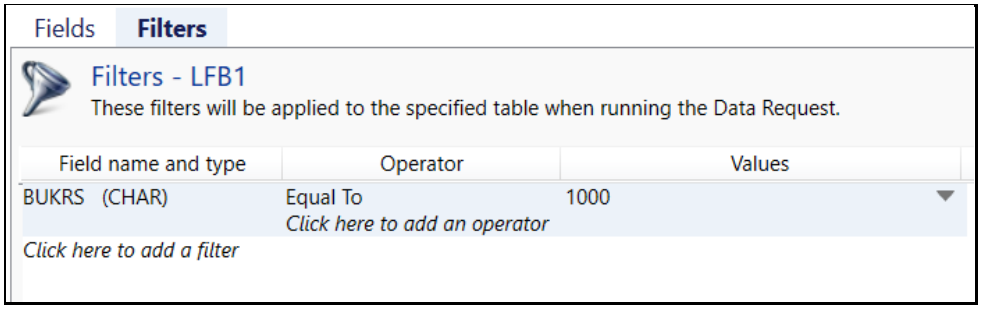

Figure 36: Filter which was added to the BUKRS field

8. Continue with the **Joins** step in the Navigator.

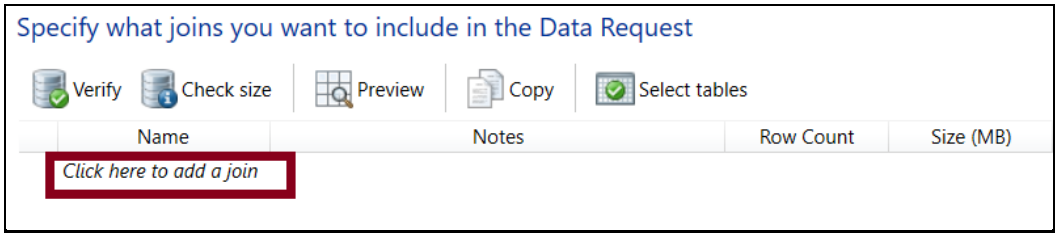

Figure 37: Join screen with the toolbar and the option to add a join condition

9. Use the **Click here to add a join** option to create a new join. Enter a name for the join and some notes to describe what this join is about.

10. The **Join Expression** area is displayed. Use the **Click here to add a join expression** option to enter a join expression.

11. You have to select the left or primary table for the join. All tables you have included in your current Data Request will be listed here.

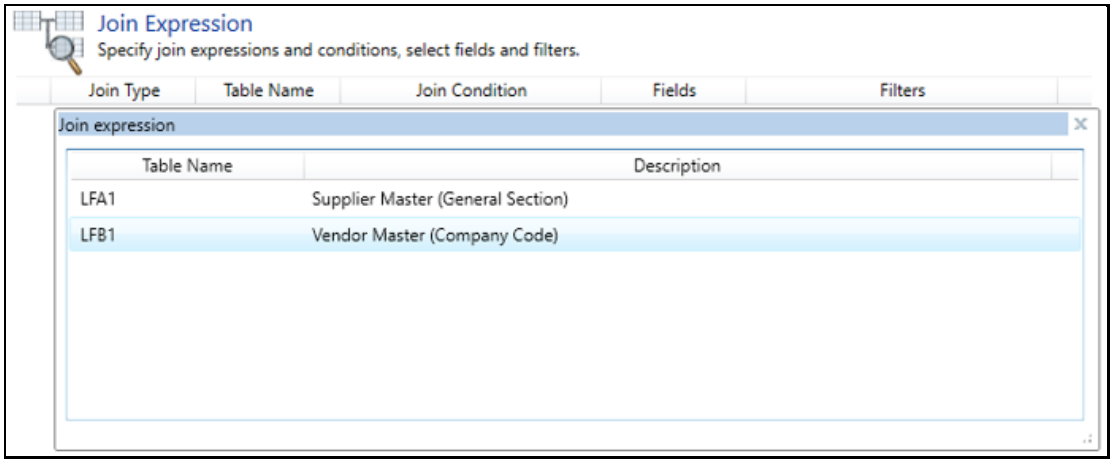

Figure 38: Define which table will be the primary table for the join

12. Select the **LFB1** table as left or primary table. The Join Expression area will display the table and all information available like fields selected for this table or filters defined.

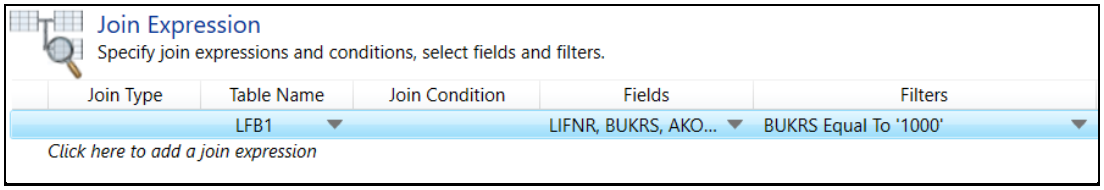

Figure 39: The LFB1 table has been selected as primary table

The fields shown for the table are those you have chosen in the **Fields and Filters** step. The selected fields will be used for the table in the join. However, you may select or clear fields of the joined tables (see point 15 below).

13. Use the **Click here to add a join expression** option again to select the join type and the right or secondary table.

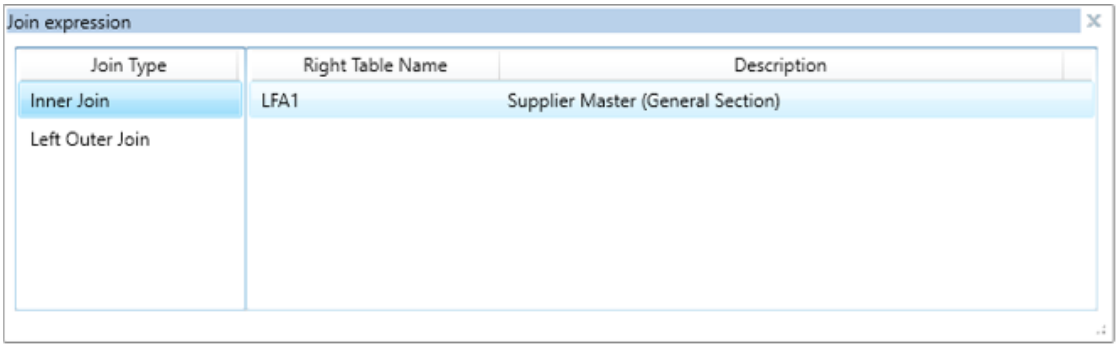

Figure 40: The join expression screen where you select the join type and the secondary table.

Select **Inner Join** as **Join Type** and the **LFA1** table as secondary or right table.

Please refer to the section **About joins in SmartExporter** on page 99 for more information on the available join types.

14. The right table and the join type are shown in the **Join Expression** area. The question mark indicates that you still have to define a join condition.

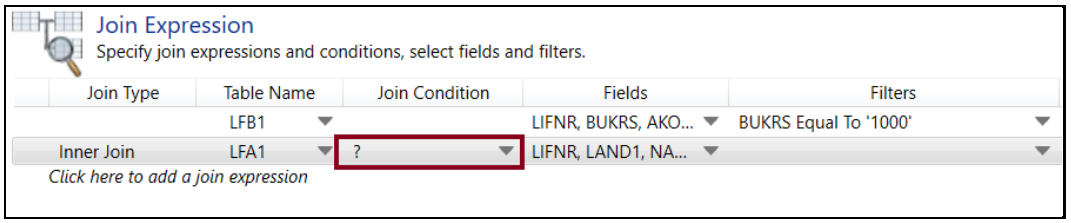

Figure 41: The Join Condition column

Please click the arrow in the **Join Condition** column.

15. Use the **Click here to add a join condition** option to enter the join condition you need. Several columns will be shown which contain all information available, e.g. the fields selected for the tables and their data types.

    Select **LIFNR** as key field for the left table **LFB1**. As **Operator** specify **Equal to** and for the right table **LFA1** please select the corresponding **LIFNR** field.

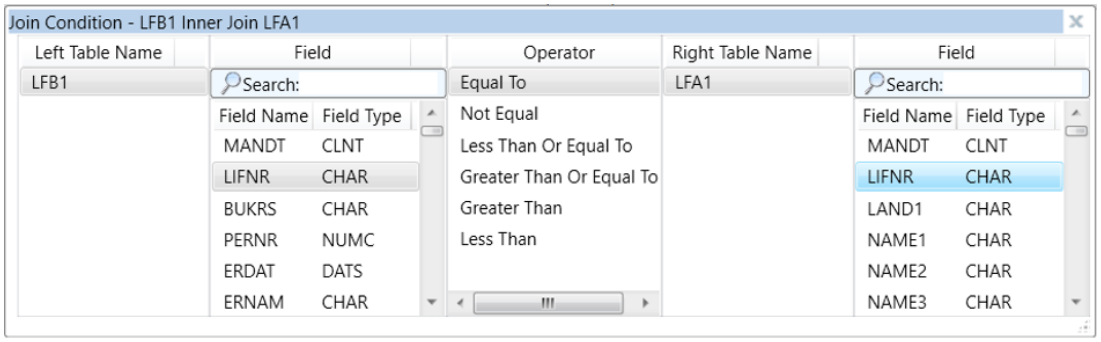

Figure 42: Definition of the join condition

To add additional join conditions simply use the **Click here to add a join condition** option.

Figure 43: Option to add more join conditions

Note:

The sample above is quite simple. Defining a complex join with more tables and 1 to n relations requires an elaborate definition of join conditions and the corresponding key fields.

As a rule of thumb it is recommended to define as many join conditions or different key fields and information as possible to get an exact join. Please have a look at the key fields in your SAP® system and select the ones suitable for your audit purposes. For instance, if you use a field containing a document number as key field, you have to know that the document numbers are reset at the beginning of each fiscal year. Therefore it is essential to define the fiscal year as a filter to get a proper result. Additionally, a join condition for the fiscal year should be added to obtain the correct document numbers of the corresponding year from the second table.

16. In the **Join Expression** area you can modify your selection of tables as well as the fields selected for a table or the filters defined by clicking the corresponding arrow in the columns of the **Join Expression** area. For example, if you would like to add fields for the **LFA1** table, click the arrow in the corresponding **Fields** column.

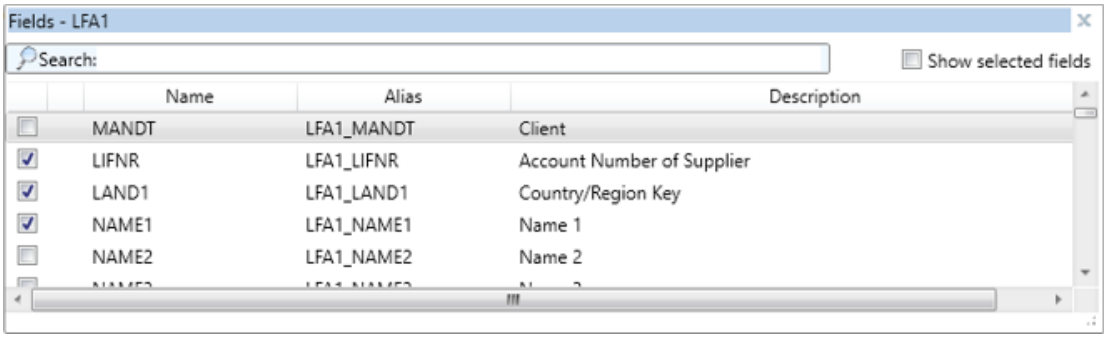

Figure 44: You can modify the fields for any table in the join condition

To get an overview of the fields which are currently selected for this particular table, click the **Show selected fields** option.

Default alias names of the field in the joined output created by SmartExporter are shown in the **Alias** column.

17. If you want to modify the default alias names for the fields in the joined output, click the row of the particular field you want to specify a different alias name for. In the **Alias** column simply overwrite the default name.

> **Note:**
>
> Characters like **/, \, ?, %, *, :, |, “, <, >** are not supported for alias names. Please consider that for an IDEA file output format the length of the field names may not exceed **40 characters**.

18. The whole join expression is shown in the grid.

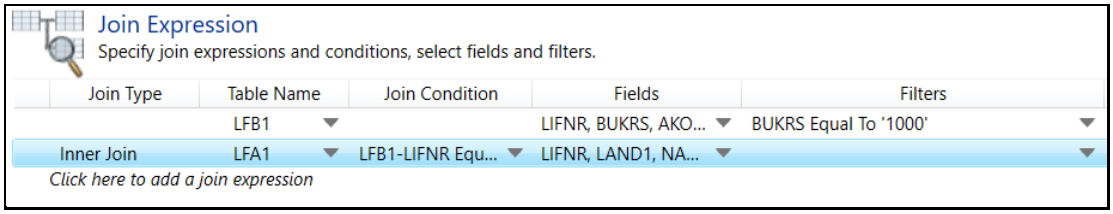

Figure 45: The complete join expression displayed in the Join Expression area

To add additional join expressions use the **Click here to add a join expression** option.

To delete a join condition right-click the join condition you want to delete in the **Join Condition** dialog and select the **Delete join condition** entry in the context menu. Please note that all subsequent conditions depending on the one you are going to delete have to be removed as well.

To delete a join expression right-click the join expression you want to delete and select the **Delete join expression** entry in the context menu. Please note that all subsequent expressions are removed as well.

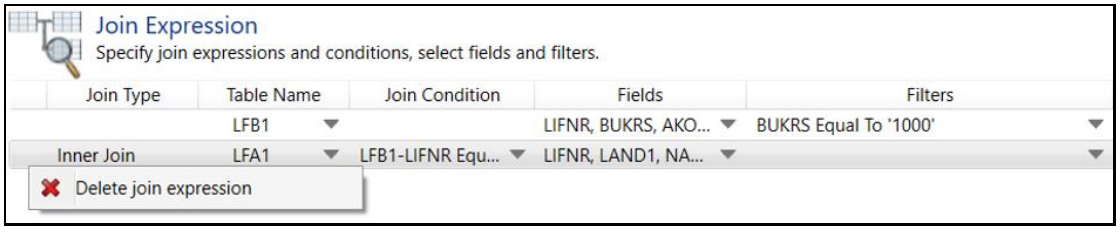

Figure 46: Context menu with the option to delete the join expression

If you want to select a different table for a join than you did in the first place, all subsequent join expressions, join conditions and selected fields and filters will also be removed.

19. If you have complex joins and need to modify only parts of the join conditions, you can simply copy an existing join to reuse it. Select the join you want to copy in the list. Click the **Copy** icon or right-click the join and select the **Copy join** entry from the context menu.

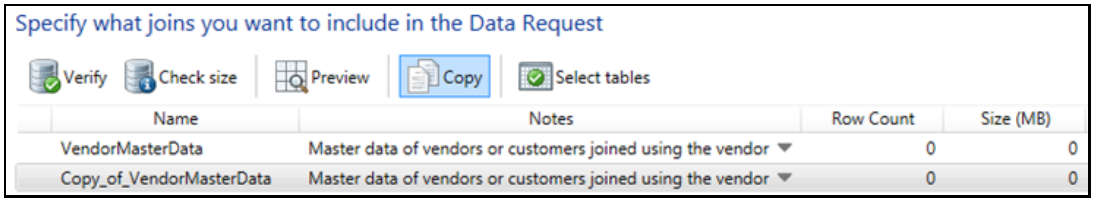

Figure 47: Use the Copy button to make a copy of existing joins

A copy of the selected join is added to the list. Click the copy of the join to open its properties and modify them.

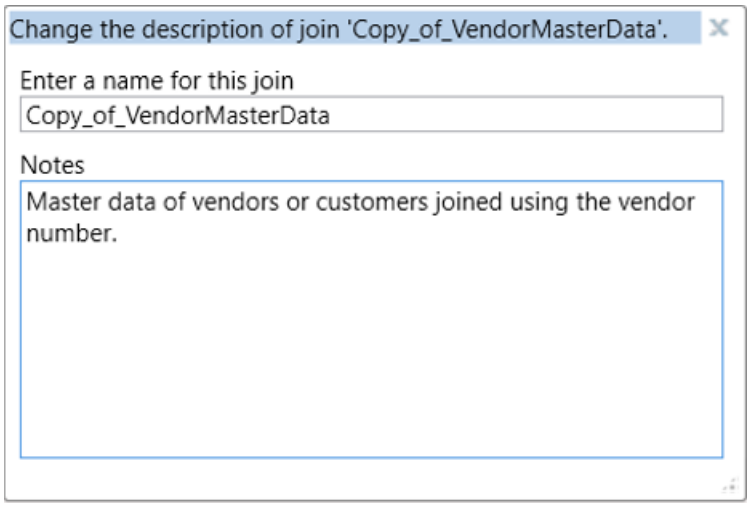

Figure 48: Overwrite the description of the join copy

Continue to change the join conditions of the copy to suit your needs.

20. Depending on your auditing objectives it might be necessary to have not just the joined data available but also some of the source tables. SmartExporter does not automatically include the tables a join is based on in order to avoid an overload of unnecessary data volume to be extracted. You have to deliberately select the tables you want to include in the Data Request.

Click the **Select joined tables to download** icon.

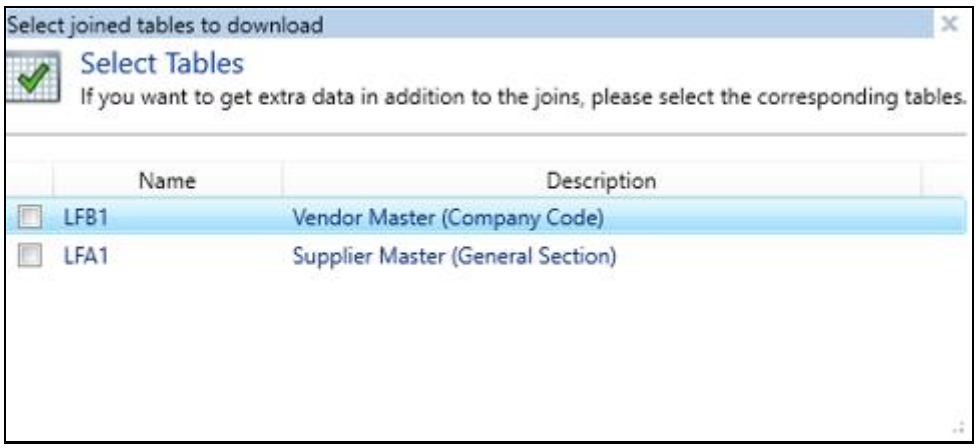

Figure 49: Additional data which will also be downloaded when running the join

21. If you have completed your entries, check whether the data for the join result table are available and let SmartExporter determine the data volume you are about to extract. Select the according table in the list and click one of the icons below.

Verify	Use this option to check if the data for the join result table are available in the SAP® system you are connected to. It also determines whether you have the appropriate authorization for these data.
Check size	Click this icon to determine the size of the tables and fields selected. (The filters you have defined will be considered.) The number of rows and the size (in megabytes) are shown in the table underneath. Note that depending on the data volume you have selected this might take some time.
Check size	If you are using the SAP® standard components, the icon will be disabled as the size cannot be determined by the SAP® standard components.
Preview	Use this icon to get a preview of the join result table.
Select tables	Select the tables the join is based on to be downloaded in addition to the actual joined data.

22. Switch to the **Options** step in the Navigator. Define the output format, the performance options and the priority of your Data Request.

23. Proceed with the **Finish** step and select one of the options offered here to e.g. run your Data Request right away or schedule it etc.

Note:

If you have selected e.g. some of the source tables to be downloaded in addition to the joined data, please make sure that you have checked the size of the data volume to be extracted. You can use the **Schedule an unattended run** option to run your Data Request at off-peak hours.

Create a Data Request and place it in a queue

Particularly if you are planning to extract large data volumes, it is highly recommended to run your Data Request at off-peak hours. SmartExporter allows you to schedule the date and time your Data Request will be processed.

1. Please repeat the steps previously described in the **Create Data Request** section on page 23 and create a new Data Request.

   Or you can open and run a Data Request you have saved previously. Select the task **Run or manage Favorites** in the **Favorites** category.

   You can select the Data Request “JournalData“, for instance, and click the **Start Data Request wizard**.
2. In the **Create Data Request** wizard switch to the **Finish** step in the Navigator and select the **Schedule an unattended run** option.
3. The **Schedule Data Request** dialog is displayed. Specify the date and the time for your Data Request to be processed.
4. Check the **Place job in SAP® system at** option and enter the desired start date using the date picker to open a calendar.
5. Then you can specify the time. Please enter the time value according to the regional settings of your computer (e.g. HH:MM:SS).

> **Note:**
>
> Note that the time and date you scheduled the Data Request to run refers to the date and time on the SAP® system. This might be different from the one of your local machine.

6. Specify how problems which might occur while running the Data Request are handled. Select the action to take from the drop-down list in the **How to handle problems** area.
7. Click the **Place Data Request in Queue** button.

   In the area below, information on the selected SAP® connection, the selected Data Request, and the Request ID are displayed.

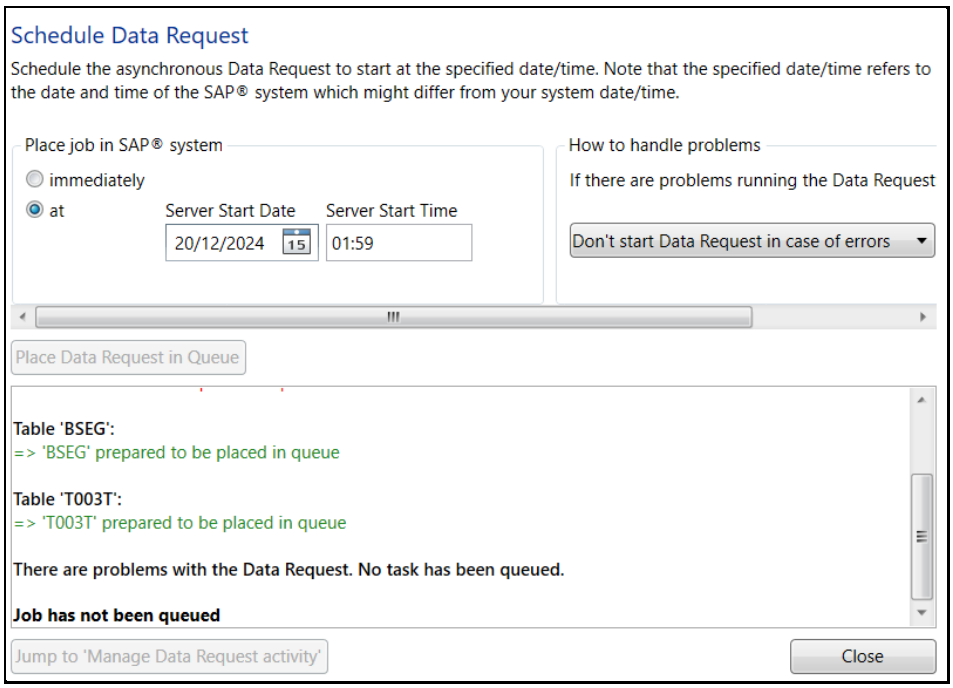

Figure 50: Schedule a Data Request screen with a queued Data Request

8. If required, click the **Jump to 'Manage Data Request activity'** button. It will take you to the **Manage Data Request activity** page. Here you get an overview of all Data Requests you have placed in the queue (see page 62).
9. Click the **Close** button in the Schedule Data Request screen if you want to exit.

Note:

If you are using the SAP® standard components in combination with SmartExporter, the **Schedule an unattended run** option is not available. The feature is disabled accordingly and a corresponding message is displayed.

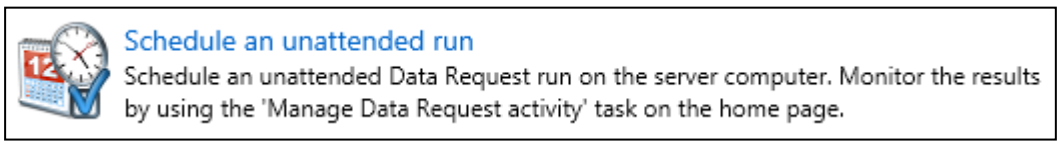

Figure 51: Option to schedule a Data Request on the Finish page

Save a Data Request as offline Data Request

If you do not have a connection to an SAP® system, SmartExporter offers the simple and easy alternative of creating a Data Request which you can pass on to your SAP® system administrator or your contact in the according company who will then provide the data for you.

Create and save your Data Request as an offline Data Request which you can send to other users who can import and run the Data Request accordingly.

1. Please repeat the steps previously described in the **Create Data Request** section on page 23 and create a Data Request.

   Or you can open and run a Data Request you have saved previously. Select the task **Run or manage Favorites** in the **Favorites** category.

   For example, select the Data Request “JournalData“ and click the **Start Data Request wizard**.

2. Select the **Finish** step in the **Create Data Request wizard** and click the **Use the Data Request elsewhere** option.

3. The **SmartExporter - Save Files** dialog appears. Enter a unique and speaking file name.

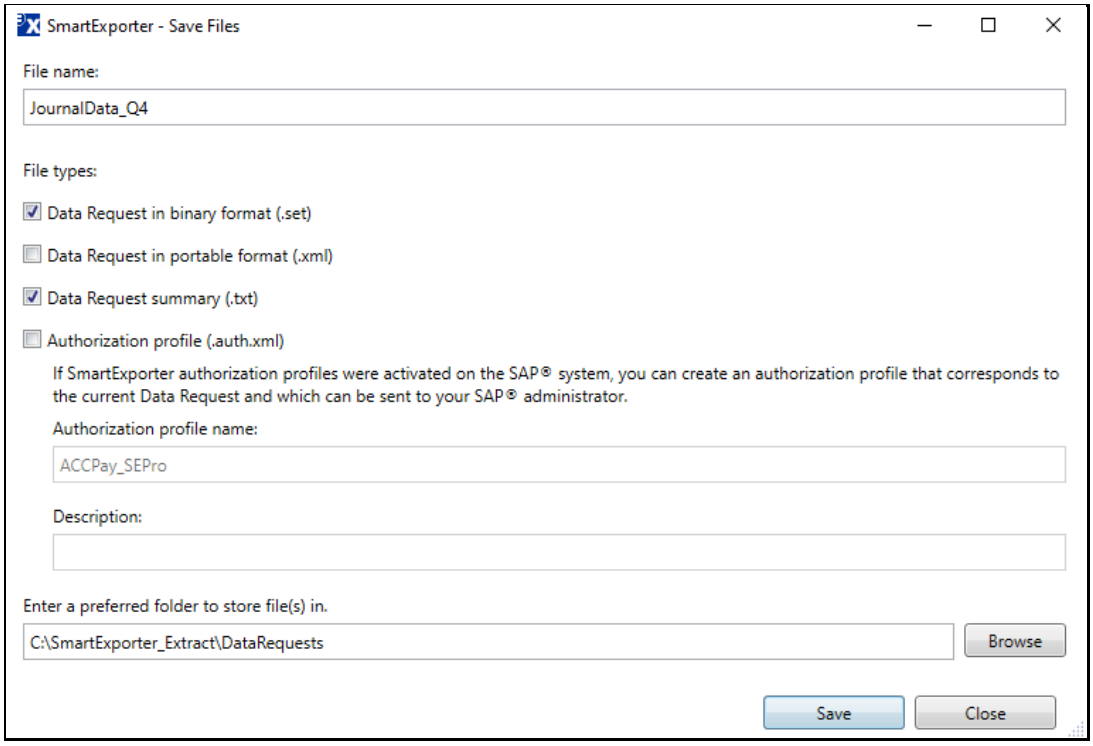

Figure 52: The Save Files dialog to define the file format for the Data Request to be saved

4. Select the required **File Type** the offline Data Request will be saved in.

   If the file is saved in a Portable format, the file will have the file extension .xml.

   You can also generate a TXT file containing a summary which lists all tables and fields contained in your Data Request. You can use this file for documentation purposes and to check if your Data Request contains all required data.

   If the Binary format is selected, the file will have the file extension .set.

   To streamline the workflow for your SAP® administrator use the Authorization profile option. Note that this file requires the SmartExporter authorization profiles to be active on the SAP® system in question. Your SAP® administrator can import the authorization profile file (.auth.xml) to quickly implement your SmartExporter profile and put you in the position to extract the data yourself. If necessary, the administrator can add more information to the profile and check the authorizations easily.

5. Specify the folder to store the files in by clicking the **Browse** button.

6. Click **Save**.

Manage, import or export Data Requests

Favorites

Add the Data Requests you are going to use more than once to your favorites. You do not have to define Data Requests over and over again; just use existing ones by selecting them from the list of favorites. You can use a Data Request for recurring data extractions or edit an existing Data Request if you want to change one or more parameters like filters.

Organize, collect and manage your favorite Data Requests in the Favorites Folders structure that suits your needs.

On the home page of SmartExporter select the **Run or manage Favorites** task in the **Favorites** category.

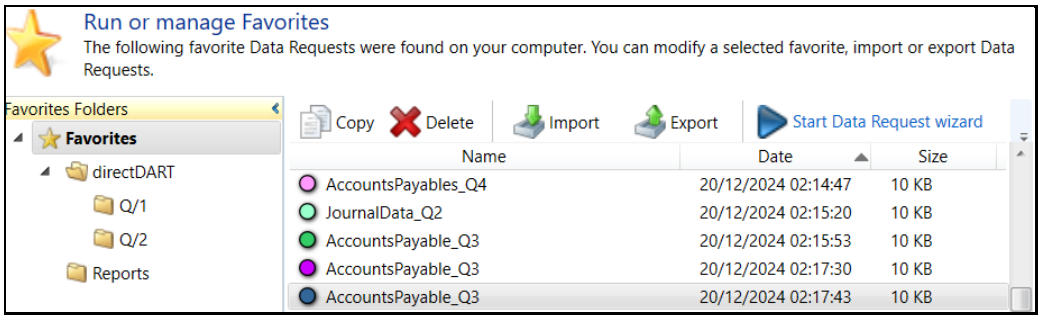

Figure 53: In the Run or manage Favorites screen the list of Data Requests is displayed

You can expand and collapse the Favorites Folders area. All available Data Requests are still shown in the list on the right.

Add a new folder

1. If you want to add a new folder, right-click the parent entry **Favorites** in the **Favorites Folders** area.
2. Then select **New Folder** from the context menu. A new folder is added.
3. You can overwrite the default name.
4. Simply drag and drop the Data Requests into the folder.

Note:

If you drag a Data Request into a folder, this will be a link to the original Data Request in question.
The folder icon stays white unless you have added Data Requests to the folder.

Delete a folder

1. If you want to delete a folder, right-click the folder you want to delete.
2. Then select **Delete Folder** from the context menu.
3. The Favorites folder will be deleted. For the Data Requests which were contained in the folder the original Data Requests are still present in the root folder.

Remove a Data Request from a folder

1. To remove a Data Request from a Favorites folder, select the Data Request you want to remove from the folder.
2. Select the **Remove from folder** entry in the context menu.

Note:

If you only want to remove the Data Request from a folder, do not use the Delete button. This will not only delete the Data Request in this folder but also every other link and the original Data Request in the root folder.

Export a single Data Request

If you have saved a Data Request as an offline Data Request or added a Data Request to your favorites, you can provide these for other users which also have a SmartExporter version available. Simply export the Data Request and pass it on to the other users.

Note:

Before you can export a Data Request, it has to be added to your favorites. Depending on the SmartExporter edition you are using the export feature might not be available.

1. On the home page of SmartExporter select the **Run or manage Favorites** task in the **Favorites** category.
2. Select the Data Request you want to export from the list and click the **Export** option.

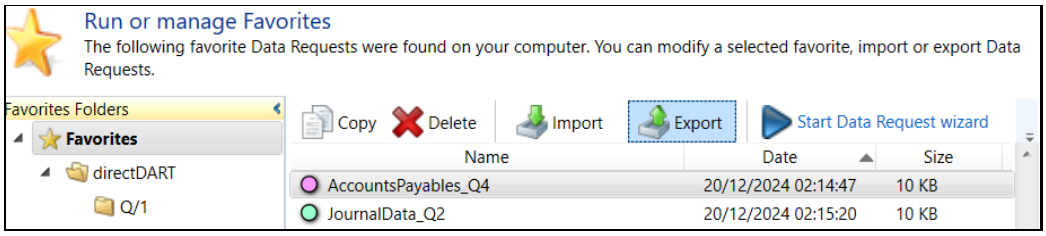

Figure 54: Run or manage Favorites screen with Export button selected

3. The **SmartExporter – Save Files** dialog opens.
4. Enter a name for the Data Request you want to export.
5. Select the file type the Data Request will be exported to (for the different file types see page 55).
6. Specify the folder to store the files in by clicking the **Browse** button.
7. Click the **Save** button to save your Data Request in the selected file format. You can now pass the files on to other users.

Note:

The Export button will only enable you to export the currently selected Data Request.

Export a Favorites folder

1. If you want to export a Favorites folder including all sub folders and their structure and all the Data Requests contained therein, right-click the folder and select **Export Favorites** from the context menu.
2. The **Export favorites** dialog is launched. The favorites folder is by default exported as a ZIP file.
3. Specify the directory you want the file to be stored in and change the name of the ZIP file if necessary. By default the ZIP file gets the name of the folder to be exported.
4. Click **Save**.

Import Data Requests

You can import either a single Data Request or multiple Data Requests.

1. Select the **Import Data Request** task in the **Data Requests** category on the home page of SmartExporter.

   Alternatively, you can select the **Run or manage Favorites** task in the **Favorites** category and click the **Import** option.
2. The **Import Favorites** dialog is displayed. Locate the directory where the Data Request files you want to import are stored.
3. Select the Data Request you want to import and click **Open**.

   If you want to import more than one Data Request, press the CTRL key and click the Data Requests to be imported. Click the **Open** button.
4. The Data Request will be displayed in the list of the **Run or manage Favorites** screen. Note that the Data Request will get the current date. In case you share Data Requests with users in a different date zone, the Data Request you have exported and the one your contact will import might show different date stamps in the **Run or manage Favorites** page.

> **Note:**
>
> Each favorite is flagged with a colored bullet to make it easier to distinguish them. This colored flag will stay the same even if the favorite is exported and imported by other users into their SmartExporter applications. Thus Data Requests being exchanged can still be identified easily.

5. Information on the Data Request imported is shown below the list with the available Data Requests.

   You can now modify the name of the Data Request or the notes if necessary.

6. Click **Start Data Request wizard** to modify any other property of the Data Request or to run the Data Request.

Note:

Each favorite is flagged with a colored bullet to make it easier to distinguish them. This colored flag will stay the same even if the favorite is exported and imported by other users into their SmartExporter applications. Thus Data Requests being exchanged can still be identified easily.

Import a Favorites folder

1. If you want to import a Favorites folder which you had previously exported, right-click the folder in the **Favorites** area you want to import it to.
2. Select **Import Favorites** from the context menu.
3. The **Import favorites** dialog is launched. Browse to the ZIP file you want to import.
4. Click **Open**.
5. The complete Favorites folder including all subfolders and Data Requests will be imported.

Delete a Data Request

1. Select the Data Request you want to delete in the list.
2. Select either the **Delete** button in the toolbar or right-click the Data Request and select **Delete** from the context menu.
3. Confirm the message which is prompted by clicking **Yes** to delete the Data Request.

Note:

Each favorite is flagged with a colored bullet to make it easier to distinguish them. This colored flag will stay the same even if the favorite is exported and imported by other users into their SmartExporter applications. Thus Data Requests being exchanged can still be identified easily.

4. Or select **No** to stop the operation.

Edit or modify a Data Request and monitor its status

In SmartExporter you can also edit any of your existing Data Requests providing you have added those to your favorites. In case you have placed several Data Requests in a queue you can also check their current status.

Edit a Data Request

1. To edit an existing Data Request, open the **Run or manage Favorites** task in the **Favorites** category.
2. Select the Data Request in the list.
3. Click **Start Data Request wizard**. The **Create Data Request** wizard is started and you can modify all settings for the Data Request selected.
4. In the **Finish** step you can decide which of the options you want to use for the modified Data Request.

Manage Data Requests activity

The Manage Data Request activity feature provides a detailed overview of the Data Request status and offers the option to download the generated data at any time convenient. The activity list shows jobs which have been queued on an SAP® system.

1. If you want to check the status of a Data Request you have placed in an SAP® queue and to get a quick overview of the pending Data Requests, open the **Manage Data Request activity** task in the **Data Request** category on the SmartExporter home page.

> **Note:**
>
> This feature is not available when you are using the SAP® standard components.

2. The **Manage Data Request activity** page will be displayed.

3. All the Data Requests you have placed in the queue are listed here. In the **Last Status** column a short comment indicates the last known status of this Data Request. Note that the Last Status does not necessarily show the actual status of the Data Request. The status might have changed in the meantime. The **Last Update** column shows when the status of this Data Request was checked or updated the last time.

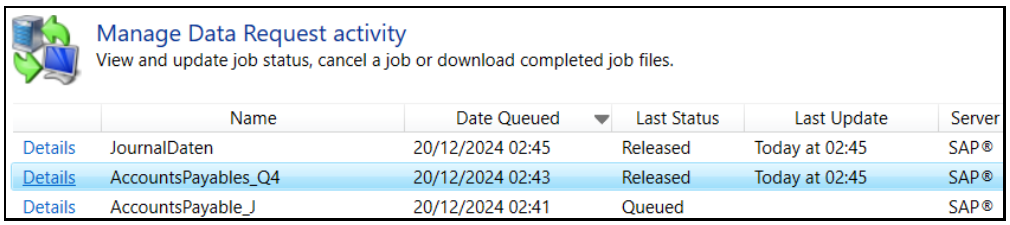

Figure 55: List of Data Requests and their job status

Name	Name of the Data Request
Date Queued	Local computer date and time when the SAP® job was queued or the IDEA Server task was initiated.
Last Status	The last known status of the job (for more details on the entries see list below).
Last Update	Date and time when the Data Request activity was updated the last time.
Server	Indicates whether it is an SAP® server or an IDEA Server

Table 2: Columns in the Manage Data Request activity screen

Entries in the **Last Status** column:

Queued	Job is defined and is placed in the queue
Refresh	Job is defined but not ready to be processed
Aborted	Job has been cancelled by the user or by an error which occurred during the process
Active	Job is running
Active (Not Running)	Job is ready and is set to “Active“ but is not yet running
Released	All prerequisites to run the job are met
Error	Unknown error
Finished	Job was completed successfully
Planned	Job has been defined but is not ready to be executed even though all prerequisites are met
Ready	Job is active and is waiting to be processed

Table 3: Entries in the Last Status column and their meaning

4. Click the **Details** link to view the current status of the corresponding Data Request or select the Data Request in the list and open the context menu via right click and select the **Show details and handle queued Data Request** entry.

5. The status of the Data Request is shown including the name, connection, the Data Request ID, the date when the Data Request is planned to be run etc.

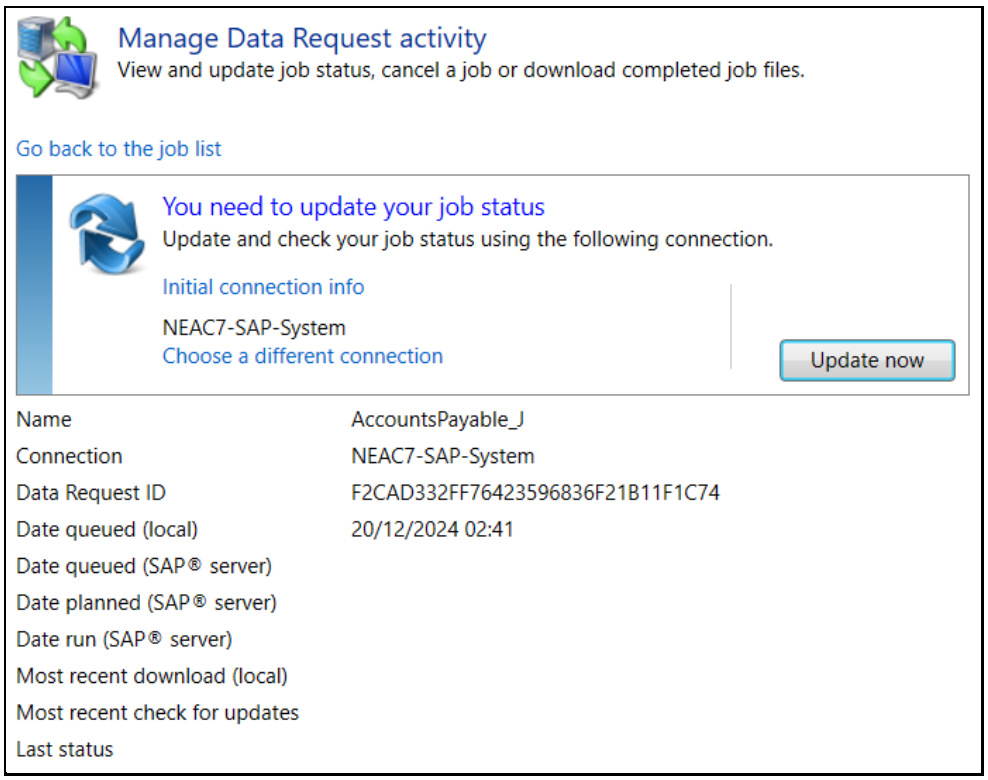

Figure 56: Details of the Data Request which has been queued

6. If you have not updated the status of the corresponding Data Request, you will be notified that you should update the job status. You can check whether the correct connection to an SAP® system was specified by clicking the **Initial connection info** link showing an overview of the connection details.

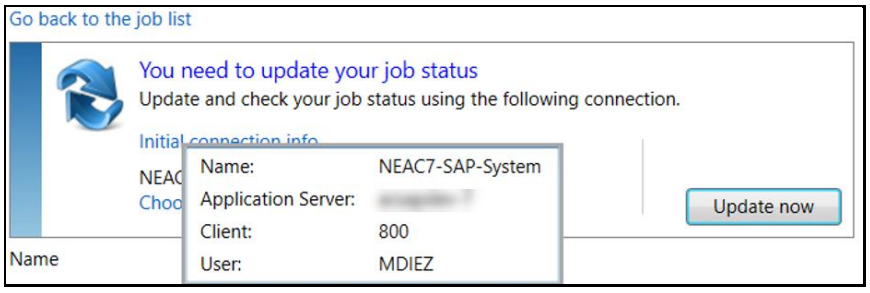

Figure 57: Tooltip for Initial connection info showing the connection name and user

If you want to change the connection, click the **Choose a different connection** link and select the desired connection from a list of the currently existing SAP® connections.

7. Click the **Update now** button.

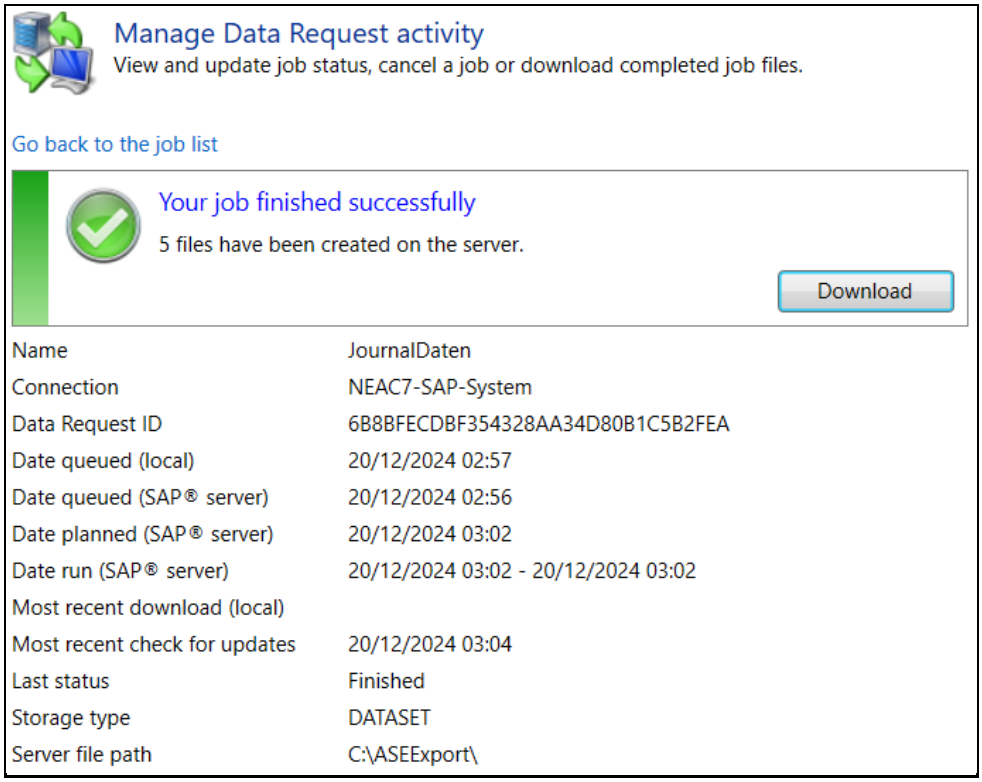

Figure 58: Manage Data Request activity screen when the job finished successfully

The list is updated and shows if the job has been finished, when it was run and if files were generated which can be downloaded now.

8. All files that have been generated on the SAP® file server are listed. If you want to download the generated files right away, click the **Download** button. However, you can also download the data to your local machine at a later time.

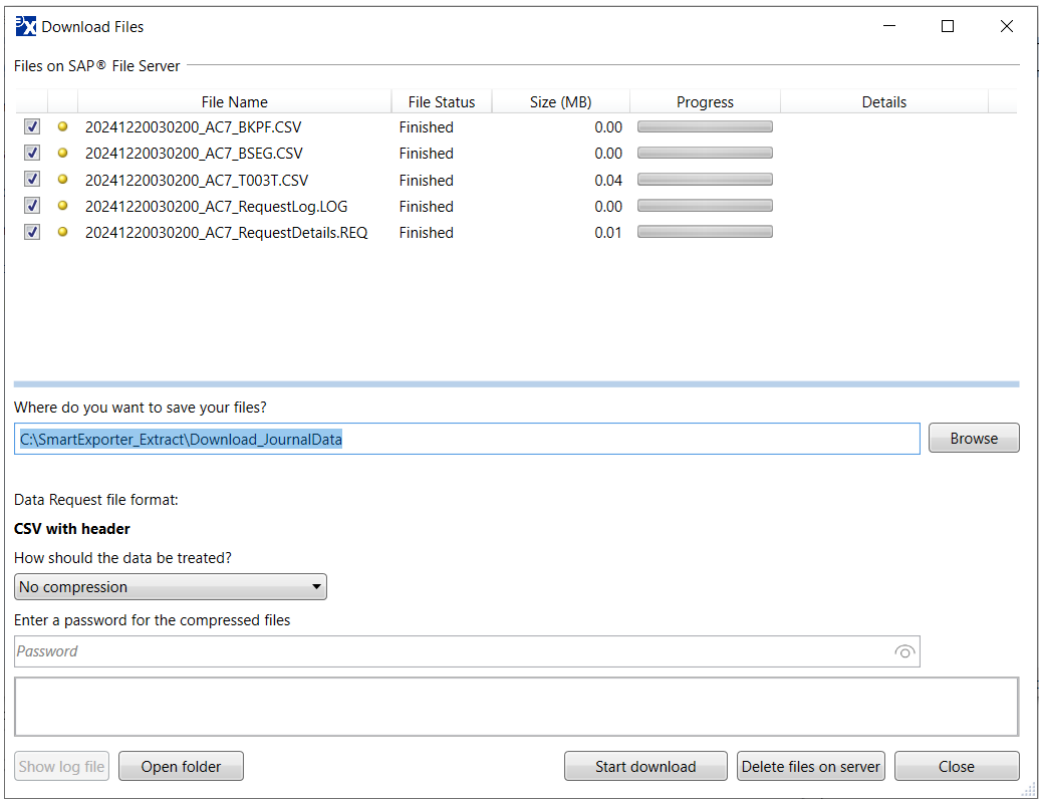

Figure 59: Download the extracted files to a local folder

9. Select the files you want to download by clicking the corresponding check box in front of the file name and specify the folder where you want to store the file or click the **Browse** button to navigate to the folder.

   Depending on the Data Request file format you may also have the option to compress the data and enter a password for the compressed files.

10. Click the **Start download** button to transfer the files to the specified folder. If you want to download the files at a later time, click **Close** to exit the dialog.

    The download details are shown in the list of files and a comment is displayed.

    To get more details on the downloaded data click the **Show log file** button to view the log files which were generated while extracting the data. You can also copy the log files to the clipboard or save them as a CSV file.

11. Additionally, you have the option to click the **Delete files on server** button, if you are sure that you do not need to download the files again.

    In case you might want to download these data again at a later time, just leave the dialog by clicking the **Close** button and the files will be kept on the server.

    Note that if you have downloaded the files, the Data Request activity list will also be updated and the values for **Most recent download (local)** will be shown.

Most recent download (local)	20/12/2024 03:12
Most recent check for updates	20/12/2024 03:04
Last status	Finished

Figure 60: Dates for some of the activities like most recent download have been updated

12. Use the **Go back to the job list** link to check on other queued Data Requests.

    In case the Data Request you want to display the status for is in progress you will be notified accordingly.

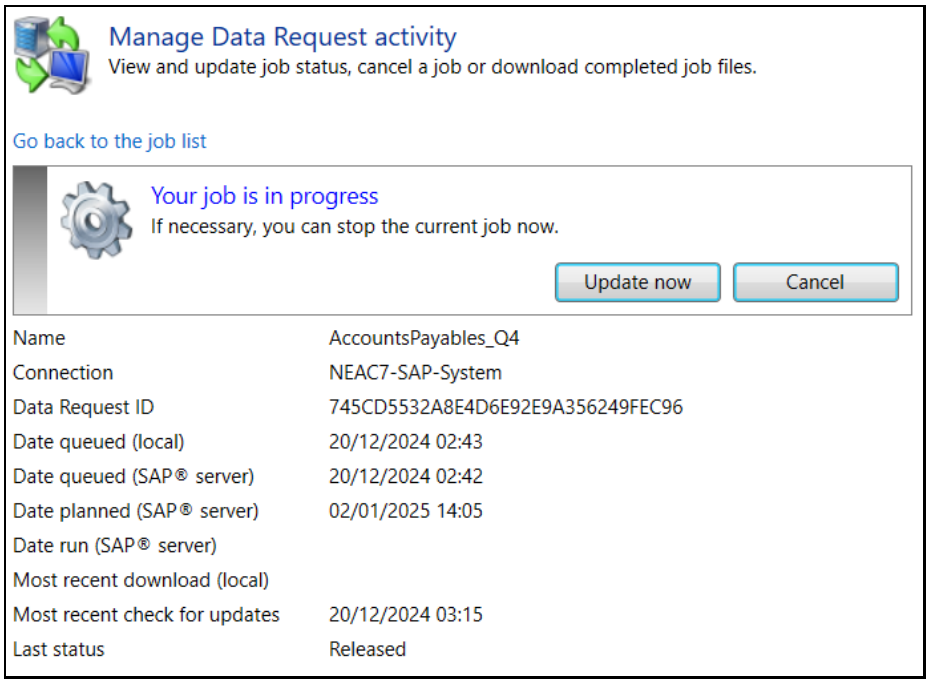

Figure 61: Manage Data Request activity screen with job in progress message

You can either use the **Update now** button to update the status or the **Cancel** button to stop the job in progress.

Note:

If you have cancelled or deleted a job, you cannot update the job status anymore and you will be notified accordingly.

Using GoBD file format

In case you have to provide your data for an external auditor (German fiscal administration) a specific file format is required. This format is called GoBD (the former name which is still commonly used is GDPdU) and it is based on the default data structure (Beschreibungsstandard). To provide the data you are extracting from an SAP® system in the suitable GoBD compliant format, SmartExporter offers several options described below.

Generate a Data Request in the GoBD format

To create a Data Request in the GoBD format (e.g. to provide Z3 data access via a data carrier cession) simply select **CSV – GoBD Format** or **TXT – GoBD Format** from the **Save as type** drop-down list in the **Options** step of the wizard.

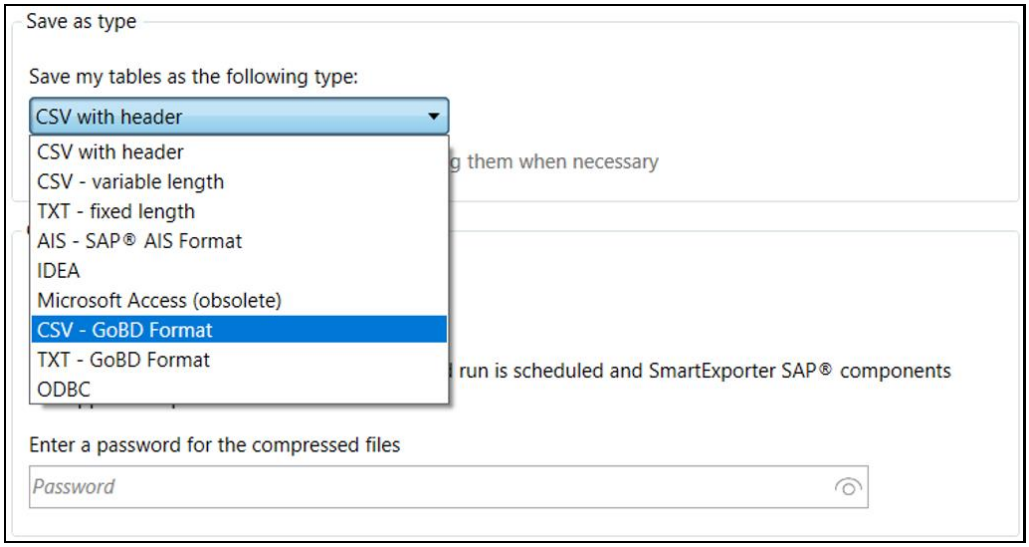

Figure 62: Drop-down list in the Save as type area of the Options step

Check the **Avoid duplicate column headers by renaming them when necessary** option to make sure that unique column names for all tables are generated. This can be the case when different tables have columns with identical names.

However, if you want to generate a Data Request in the GoBD format and use it in combination with the software SmartAnalyzer, it is not recommended to enable this option.

1. Switch to the home page of SmartExporter and open the **Create Data Request** task in the **Data Request** category.

   Alternatively, you can open an already existing Data Request and save this one in the GoBD format. To open an existing Data Request select **Run or manage Favorites** in the **Favorites** category. Select a Data Request (e.g. JournalData) in the list and click **Copy** to create a copy of the “JournalData“ request.

   Rename it to “JournalData_GoBD-Format” by overwriting the old name in the **Name** text box and click **Start Data Request wizard**. In case you do not want to modify the existing Data Request you can continue with step 3 below.

2. If you are going to create a new Data Request or you are modifying an existing one, follow the steps in the “Create Data Request” section, page 23.

3. Switch to the **Options** step in the Navigator.

4. Select **CSV – GoBD Format** or **TXT – GoBD Format** as the file format from the **Save as type** drop-down list.

5. Depending on your purposes, you can enable the **Avoid duplicate column headers by renaming them when necessary** setting.

> **Note:**
>
> If you want to generate a Data Request in the GoBD format and use it in combination with SmartAnalyzer or e.g. the IDEA app TAP, it is not recommended to enable the **Avoid duplicate column headers by renaming them when necessary** option.

6. Continue with step 27 (section “Create Data Request“ on page 23).

7. In the **Finish** step SmartExporter offers several options on how to save or process your Data Request. Select the one suitable for your purposes.

8. For instance, you can run the Data Request immediately by selecting the **Run the Data Request** option.

   Specify how problems running the Data Request shall be handled by selecting the appropriate action from the drop-down list and then click the **Start download** button.

Task	Type	Progress	Status
BKPF	T		C:\SmartExporter_Extract\20241220032455_AC7_BKPF.csv
BSEG	T		C:\SmartExporter_Extract\20241220032455_AC7_BSEG.csv
T003T	T		C:\SmartExporter_Extract\20241220032455_AC7_T003T.csv
index.xml			Created XML file 20241220032455_AC7_index.xml

Figure 63: Downloaded files in GoBD format

You can now provide the extracted data in the CSV file format and the corresponding XML file in combination with the DTD file necessary for the GoBD format for your auditor.

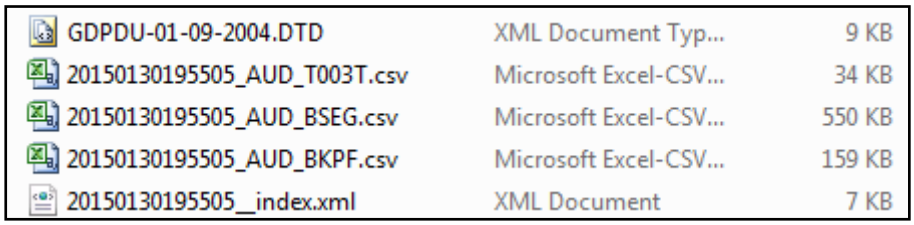

Figure 64: Downloaded files with the DTD file ready for an external auditor

Create a GoBD format file from SAP® AIS files

In case the data you have extracted from the SAP® system are SAP® AIS files and you require the data in a GoBD compliant format for an auditor, SmartExporter provides an option to generate a corresponding format.

1. On the SmartExporter **Home** page select the **Generate GoBD format** task in the **Tools** category.
2. The **GoBD Format for SAP® AIS files** application is launched.
3. Locate the directory your SAP® AIS files are stored in by clicking the **Browse** button in the **Source folder containing SAP® AIS files** area.
4. Define whether you want to apply the same encoding for all files. You can select the encoding from the drop-down list. If the encoding is valid for all files listed, click the **Apply** button.

   You can also select a specific encoding for each file separately by selecting the corresponding encoding from the drop-down list in the **Encoding** column.
5. Click the check box in front of the files you want to generate a GoBD format from.

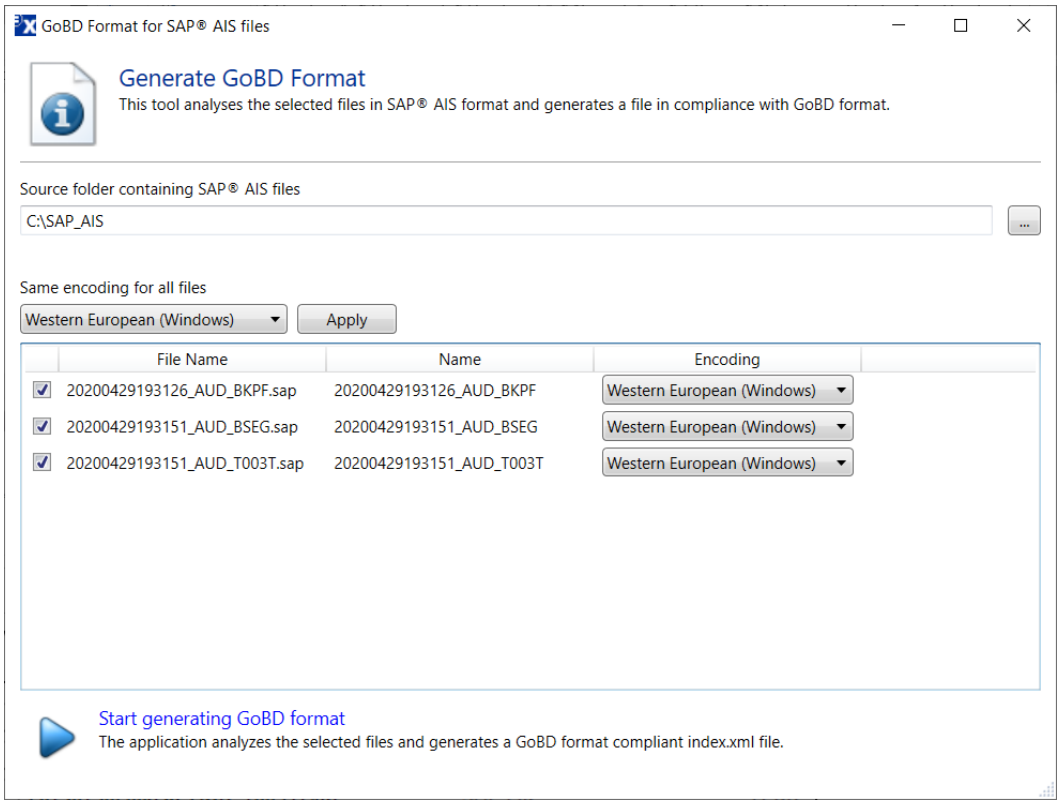

Figure 65: Generate GoBD Format from SAP® AIS files screen

6. Click **Start generating GoBD format**.
7. The **Select index.xml destination folder** dialog appears. Locate the directory for the index.xml. Click **Save**.
8. In the **Report** tab the process of generating the files is shown.

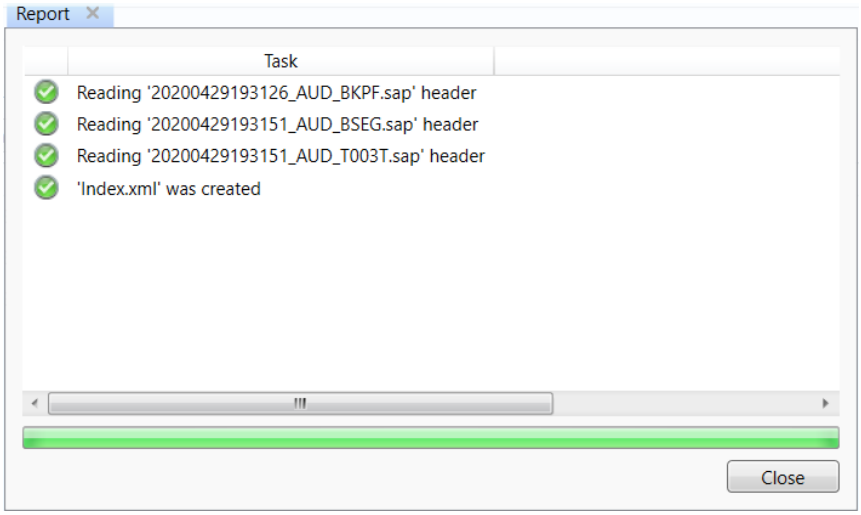

Figure 66: The Report tab with the list of generated files

9. Exit the **Report** tab by clicking **Close**.

10. An index.xml file will be created corresponding to the existing SAP® AIS files and the file will be stored in the directory selected.

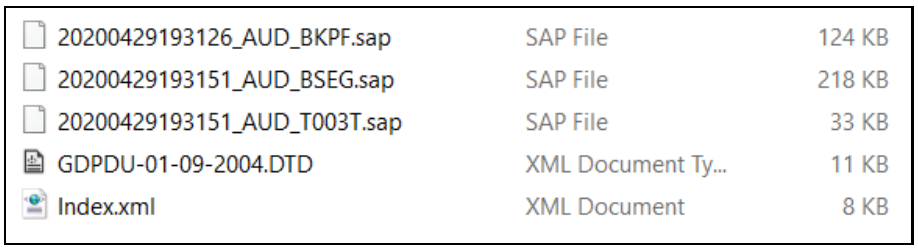

Figure 67: SAP® AIS files and the corresponding DTD and index.xml files

11. Close the application **GoBD Format for SAP® AIS files**.

Using IDEA file format

In case you want to use the IDEA file format as output format for the data you are extracting, some settings, which are different from those for other output formats, have to be considered.

Note:

SmartExporter supports the IDEA default file format (.imd) as well as the IDEA Unicode format (.idm).

1. To extract files in the IDEA file format, go to the **Options** step of the **Create Data Request** wizard to select the location where you want the intermediate files to be stored.

   The intermediate files will be saved in the folder you have specified in the **Location** area of the **Options** screen. This folder will be used to store the temporary files only. Note that the actual files extracted are written to the selected IDEA project folder.

2. In the **Save as type** area select **IDEA** in the drop-down list.

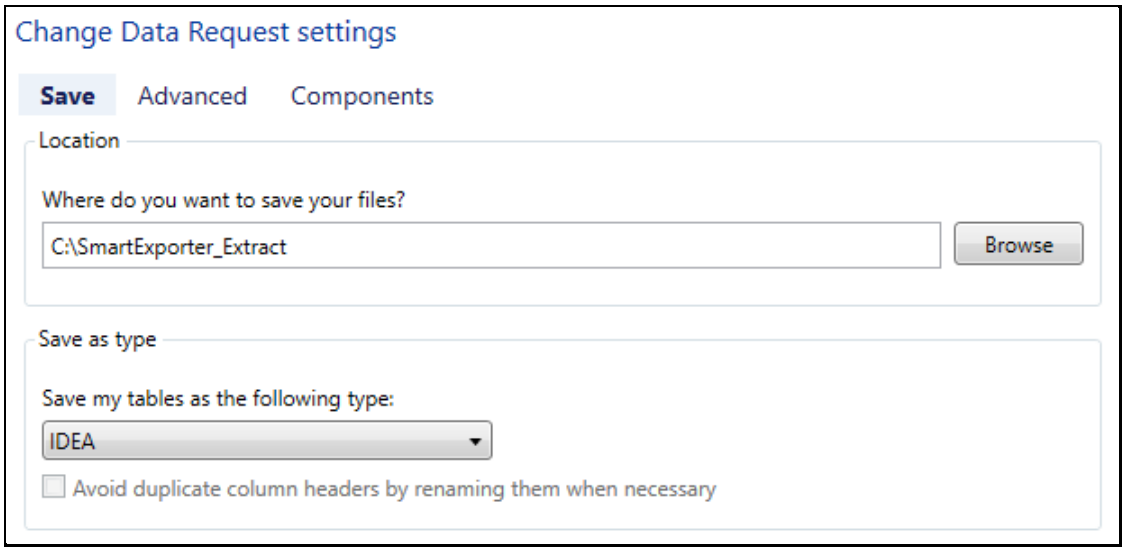

Figure 68: Save as type section with the entry IDEA

3. In the **IDEA** section choose the IDEA project where you want to save the files to. Click the **Scan** button and SmartExporter will retrieve all available managed and external IDEA projects available. Underneath the button, the number of available projects is shown.

   If you want to cancel the scan process, click the **Scan** button again.

Figure 69: List of IDEA project directories once the scan has been run

Select the project from the **Where do you want to save IDEA files** drop-down list. The following options are available:

Default	Select the **Current IDEA project** entry if you want the files to be extracted into your current IDEA project. Make sure that the current IDEA project is the correct directory you want the files to be written to. Open **IDEA** to check the current project and if necessary select a different one. In IDEA go to the **Home** tab and click the **Open** task to specify the desired project.
Managed	In this area all available **managed IDEA projects** are listed. Click the one you want the files to be extracted to.
External	In this area all available **external IDEA projects** are listed. Click the one you want the files to be extracted to.

Table 4: The entries in the Project directory drop-down list in the IDEA section

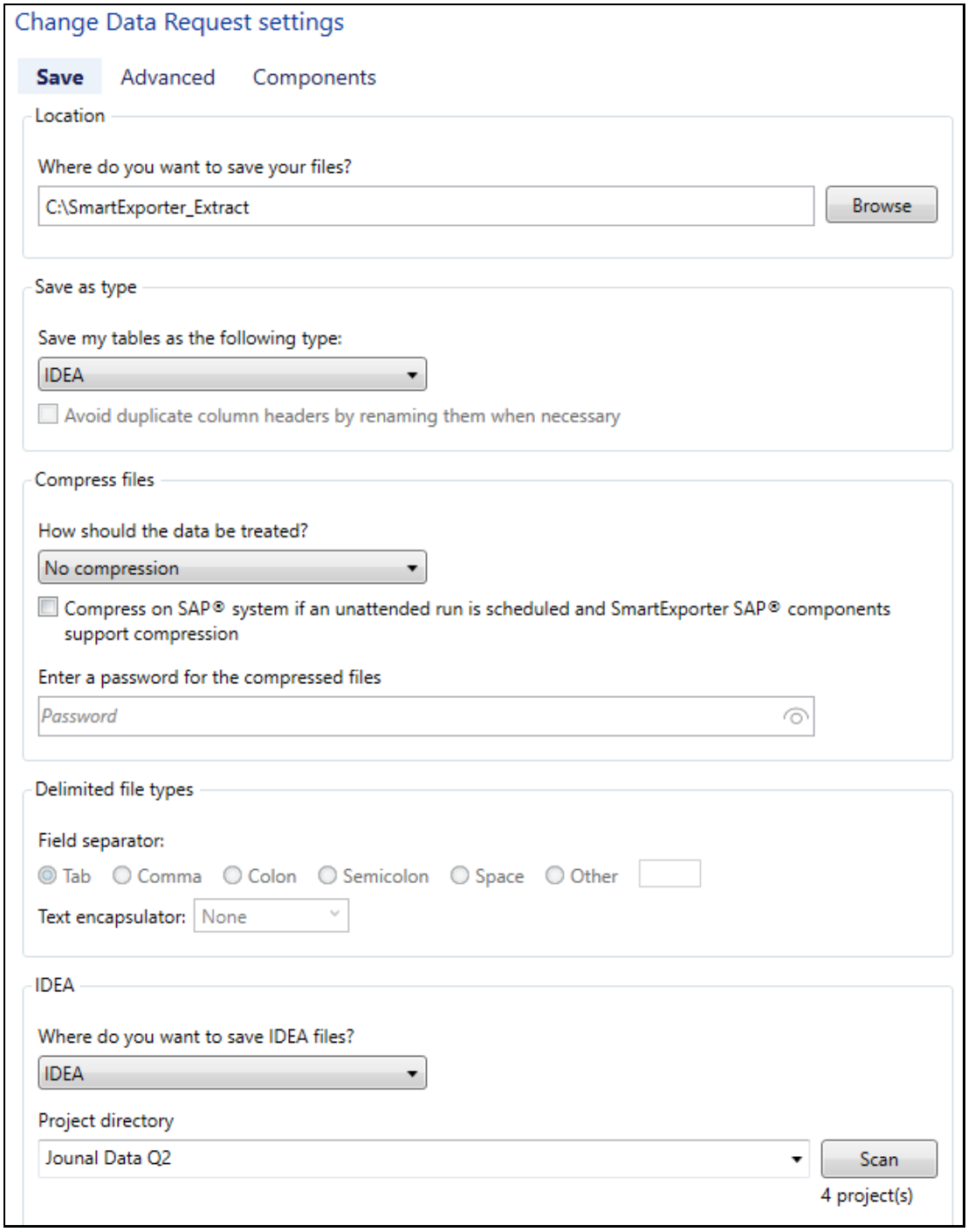

Figure 70: Data Request settings to extract data in IDEA file format

4. Continue with the **Finish** step and if you have specified an IDEA project you can decide what you want to do with the Data Request, e.g. run the Data Request immediately.

Appendix

SmartExporter Editions

SmartExporter comes with a variety of editions and licensing models tailored to suit the needs of your company or auditing firm. Find below an overview of the different editions available.

SmartExporter Desktop Edition

The Desktop Edition is the full version of SmartExporter. Using the Desktop Edition you have access to all available features. You can for instance create and use Data Requests, you are able to import and export favorites, etc.

Note:

Some features or components like downloading archived data or using directDART require a specific license.

SmartExporter Client Edition

The Client Edition was designed to provide a smooth and optimized workflow between auditor and client. The Client Edition offers the option to extract data from an SAP® system in a synchronous and asynchronous way. This guarantees a maximum of flexibility because the client is able to decide when and how the data requested by the auditor is extracted.

Note:

The licenses of the Desktop and the Client Edition are connected and the Client Edition can only import Data Requests or favorites created by the corresponding Desktop Edition. Both licenses (Desktop and Client) have to be activated before they can be run together.

Auditors and other persons who do not have direct access to an SAP® system can use the SmartExporter Client Edition to run an existing Data Request. An auditor can benefit from the Client Edition by simply sending the Data Request he created with his SmartExporter Desktop version to the company using a Client Edition. The company can run the Data Request using the SmartExporter Client version which is connected to the Desktop license of the auditor and extract the required SAP® data which are provided for the auditor.

SmartExporter Client limitations

Number of favorites and SAP® connections

SmartExporter Client cannot maintain and manage more than 25 favorites at a time. You can only import 25 favorites in SmartExporter Client. If 25 favorites already exist, you will be notified and you have to delete an existing one before you can import the new one.

The SmartExporter Client edition is also limited to 3 SAP® connections.

Default file format for Data Requests

The output file format of an imported Data Request cannot be modified in the Client Edition.

Note:

Every Data Request which you import into your SmartExporter Client can be run with the output file format defined in this Data Request.

This means that for instance an auditor can create a Data Request using his SmartExporter Desktop version and defining **AIS - SAP® AIS Format** as output file format. This Data Request which is passed on to the company can be imported into the SmartExporter Client version installed. The administrator of the SAP® system is then able to run this Data Request and he will get an output file in the SAP® AIS format.

Defining or editing joins

Using a SmartExporter Client Edition you are not able to define new joins. But you can delete joins existing in the Data Requests you have imported or you may select joined tables to download.

SmartExporter Server Edition

This is a SmartExporter edition which can be integrated into other processes, e.g. Alessa, and provides a high potential for automation.

SmartExporter Starter Edition

The SmartExporter Starter Edition is the edition you have during the first 10 day grace period in case you have not yet activated your license. The version has very limited functionalities. If you want to use the version e.g. for testing purposes and as a means of evaluation of the features and functions of SmartExporter Desktop, you have to register. Click the **Register** option in the **License Status** dialog.

You require a license key to activate the SmartExporter Desktop or Client Edition. This license key is provided in the email you receive after you have registered (please refer to section “Register and activate the license” on page 85).

SmartExporter user interface of an edition with limited functionality

For example, the SmartExporter Client edition has the same user interface as the Desktop version. However, some features are not available or their parameters or settings cannot be modified.

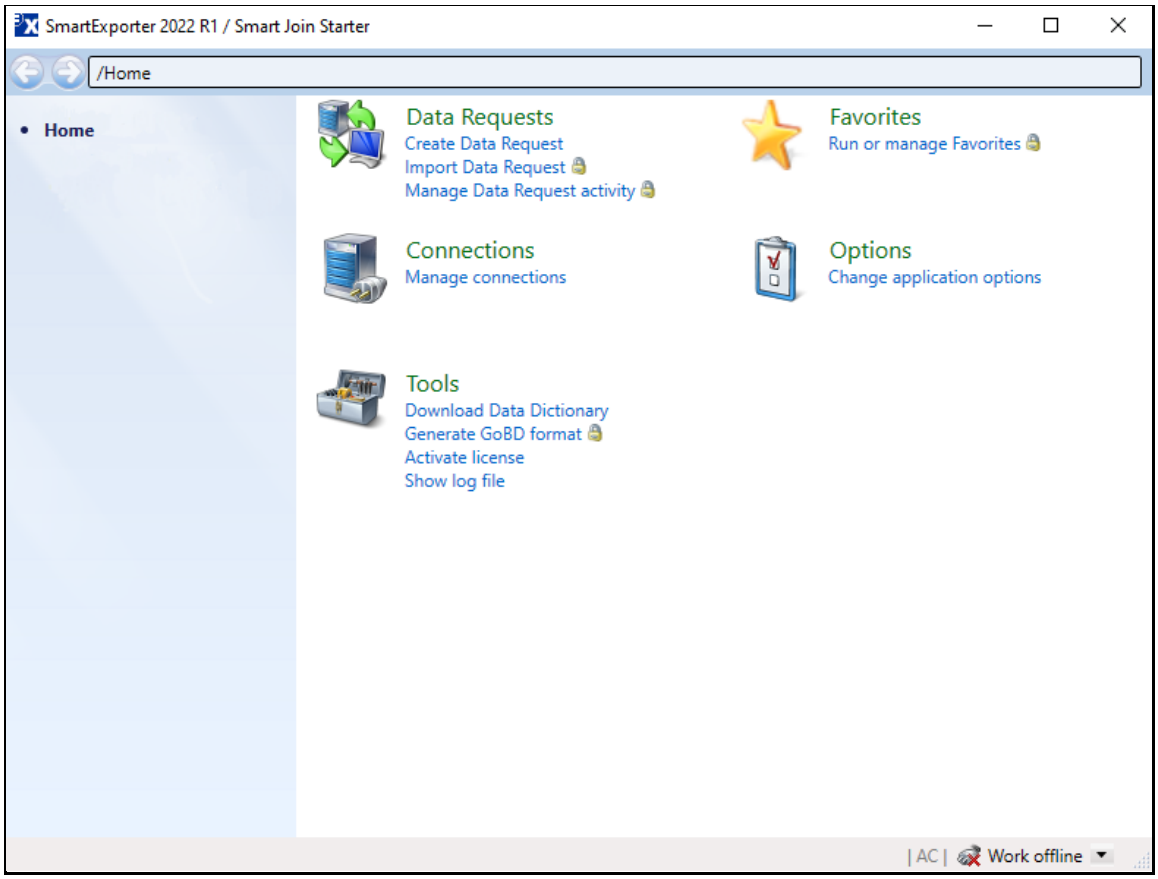

Figure 71: SmartExporter user interface with features marked as not available

Features which are not available in SmartExporter Client are marked (see Generate GoBD/GDPdU format).

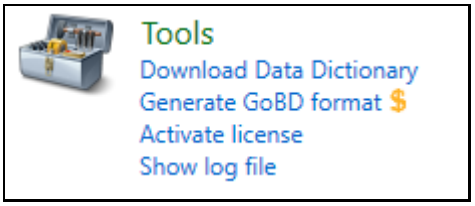

Figure 72: The Tools menu on the SmartExporter Homepage with a locked feature

Comparison of the functions

SmartExporter Client has limited functionalities, e.g. the number of connections to an SAP® system.

The following tables show the different editions and the features they support.

Function	SmartExporter Desktop	SmartExporter Client
Create Data Request	✓	✗
Number of connections to SAP® systems	Unlimited [1]	3
Selecting tables	✓	✗
Discarding tables	✓	✓
Edit Quick-Filters	✓	✓
Copy Quick-Filters	✓	✓
Select fields for tables (in Fields and Filters)	✓	✗
Discard fields for tables (in Fields and Filters)	✓	✓
Add/delete filters (in Fields and Filters)	✓	✓
Preview of data with filters applied	✓	✓
Add joins	✓	✗
Copy joins	✓	✓
Delete joins	✓	✓
Select fields in joins	✓	✗
Discard fields in joins	✓	✓
Select joined tables to download	✓	✓
Add Data Request to favorites	✓	✓ [2]
Copy favorites	✓	✓ [2]

Function	SmartExporter Desktop	SmartExporter Client
Import favorites folders	✔	✔
Export favorites folders	✔	✔
Create, delete, rename favorites folders	✔	✔
Download Data Dictionaries	✔	✔
Choose different Data Dictionaries	✔	✔

Table 5: Comparison of functions between SmartExporter Desktop and SmartExporter Client edition

[1] subject to the licensing terms

[2] a maximum number of 25 favorites is allowed

If you have selected the **Use a more limited Client Edition** option on the **Advanced** tab of the **Change Data Request settings** page, some of the commonly available features in the SmartExporter Client Edition will be handled more restrictively or are not available at all.

Use this option to prevent the user of a Client Edition to:

- Unselect tables in a Data Request
- Unselect fields in a Data Request
- Enter filter values
- Add or delete filters

Function	SmartExporter Desktop	SmartExporter Client
Create Data Request	✓	✗
Number of connections to SAP® systems	Unlimited [1]	3
Selecting tables	✓	✗
Discarding tables	✓	✓
Edit Quick-Filters	✓	✓
Select fields for tables (in Fields and Filters)	✓	✗
Discard fields for tables (in Fields and Filters)	✓	✓

Table 6: Comparison of functions between SmartExporter Desktop and SmartExporter Client edition

Online Data Request	SmartExporter Desktop	SmartExporter Client
Extract SAP® data online	✓	✓
Select data source (database or archive)	✓ 1	✓ 1
Modify performance settings	✓	✓
Place Data Request in queue	✓	✓
Methods of synchronous data transfer from SAP®		
Filter calculation method using ordering the records	✓	✓
Filter calculation method without ordering the records regarding primary key fields	✓	✓
Buffer table method	✓	✓

Table 7: Availability of online Data Requests and methods of synchronous data transfer in SmartExporter Desktop and SmartExporter Client edition

[1] access to archived data depends on license key

Offline Data Request	SmartExporter Desktop	SmartExporter Client
Save an offline Data Request	✓	✗
Import a Data Request (favorite)	✓	✓ [1]
Export a Data Request	✓	✗

Table 8: Availability of offline Data Requests in SmartExporter Desktop and SmartExporter Client edition

[1] a maximum number of 25 favorites can be imported

Default file format (output)	SmartExporter Desktop	SmartExporter Client
CSV files	✓	✗ [1]
CSV files with header	✓	✗ [1]
TXT files	✓	✗ [1]
AIS SAP®	✓	✗ [1]
Microsoft® Access files	✗	✗ [1]
IMD / IDM files (IDEA ASCII or Unicode)	✓	✗ [1]
ODBC	✓	✗ [1]
GoBD Format (according to default data structure)	✓	✗ [1]
Field separator and text encapsulator for delimited file types	✓	✗ [1]
Change the language settings	✓	✓

Table 9: Availability of default file formats in SmartExporter Desktop and SmartExporter Client edition

[1] only file formats specified by the imported Data Request can be used

Integration in	SmartExporter Desktop	SmartExporter Client
IDEA	✔	✔
SmartAnalyzer	✔	✔

Table 10: Integration in IDEA and SmartAnalyzer in SmartExporter Desktop and SmartExporter Client edition

Register and activate the license

You can use SmartExporter up to 10 days after installation.

If you are using a SmartExporter Starter Edition for testing purposes, you have to register. Click the **Register** option in the **License Status** dialog.

If you are using a full version of SmartExporter, please select the **Enter your License Key** option. The license key is provided in the delivery note you have received with your software package.

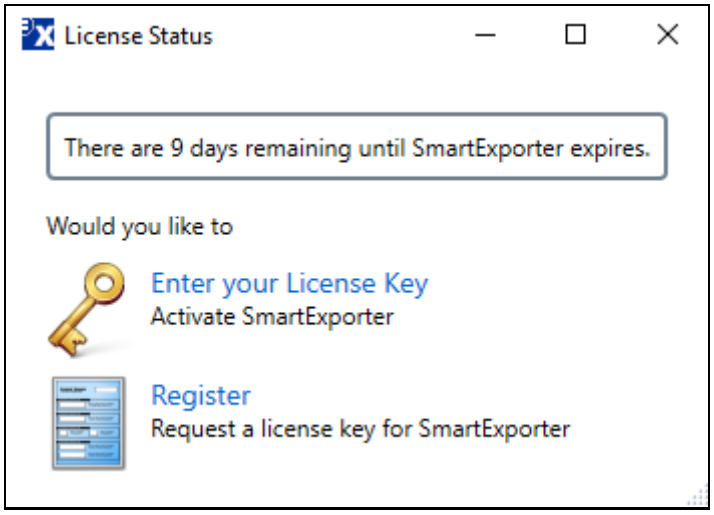

Figure 73: License Status dialog with the expiry message

The License Status dialog is always displayed after launching SmartExporter if you have not activated your license or your current license is about to expire. In case your SmartExporter license is expiring, you will be notified 30 days beforehand.

Please refer to the “Readme.txt” in the download package or via Start – Programs – Caseware SmartExporter – Readme for a detailed description.

Note:

Even if your 10 days grace period has expired, you are still able to activate your license.

If you have received your license key, you can activate your SmartExporter license. Select the **Activate license** option in the **Tools** category on the SmartExporter **Home** page.

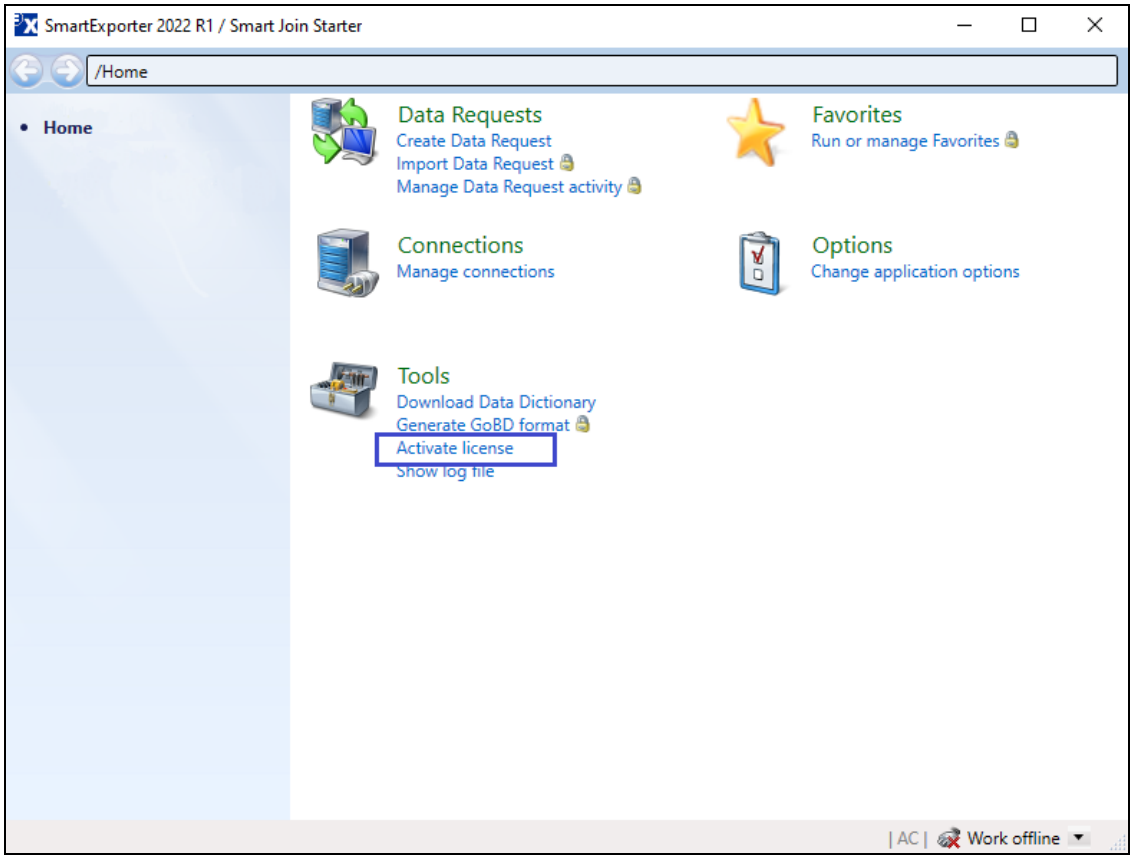

Figure 74: SmartExporter Home page with the Activate license task

You can activate your license either online or offline for any edition of SmartExporter.

The following options are available in the License Activation wizard:

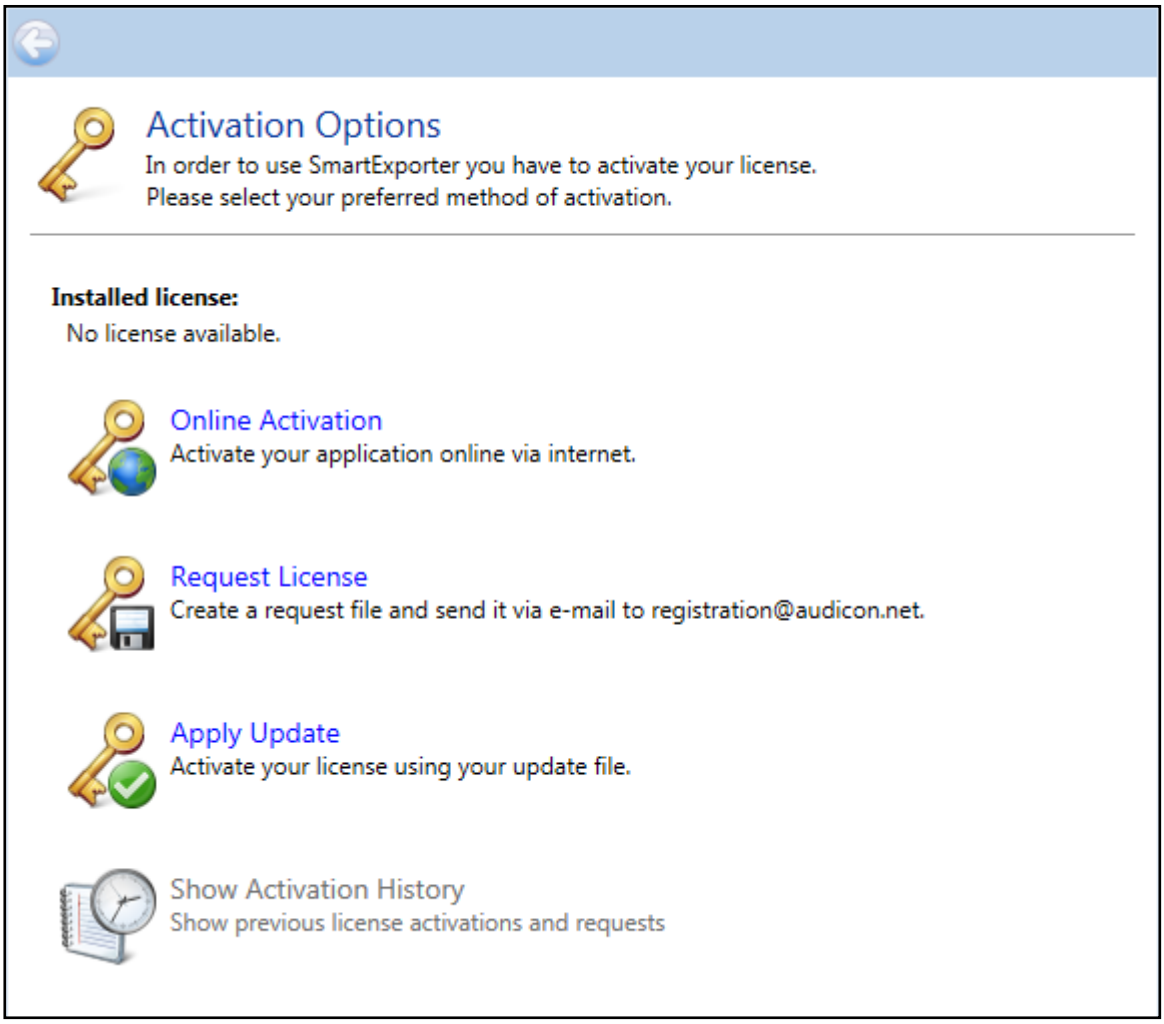

Figure 75: Activation options available in the Activate license tool

Online Activation

1. Select the **Online Activation** option if there is an Internet connection available. You have received your license key either having registered your SmartExporter Starter edition or in the delivery note with your SmartExporter Desktop, Client or Server Edition.
2. Enter your license key and click the **Activate** button.
3. Exit the dialog by clicking **Close**.

You may return to the first page of the wizard at any time by clicking the icon.

Please note that each license key can only be activated once. If you would like to use SmartExporter on another machine, an additional license key is required.

Using a proxy server

In case your firewall is blocking the online licensing you can also use a proxy server to do an online licensing.

1. Use the **Online Activation** option and enter your SmartExporter license key.
2. Expand the **Proxy Settings** entry. Check the **Use proxy server** option.
3. Please specify the IP address of the proxy server and the port which should be used.
4. Then you have to enter a user name and the corresponding password for a user account which has the necessary access rights for this particular server.
5. Click the **Activate** button.

Offline Activation

Note:

It is recommended to use the Offline Activation via Sentinel EMS Customer Portal, see page 89.

1. If there is no Internet connection available, please select the **Request License** option.
2. Click the ... button and locate the directory you want to store the activation request file (.c2v) in.
3. Enter a meaningful name like “MyCompany.c2v“.
4. Click the **Save** button.
5. Please send this file by email to registration.de@caseware.com. Make sure that you also add your license key information which you have received with your software package.

   You are also able to generate the v2c file required for activation yourself. Please see the following section on page 89.
6. You will then receive your update file (.v2c) by email. Save the file to e.g. a temporary folder or the desktop.
7. Launch the License Activation dialog by clicking the **Enter your License Key** option in the **License Status** dialog or by selecting **Start** – **Programs** – **Caseware SmartExporter** – **Activate license**.
8. Please click the **Apply Update** option in the **License Activation** wizard.
9. Use the ... button to locate your update file and click **Open**.

10. Now click the **Apply** button. Your SmartExporter license will be activated.

> **Note:**
>
> Use only the computer you have created your Activation request file on to apply the update file. This update file is not valid for a different machine.

11. Exit the wizard by clicking the **Close** button.

You may return to the first page of the wizard any time by clicking the icon.

Please note that each license key can only be activated once. If you would like to use SmartExporter on another machine, an additional license key is required.

Offline Activation via Sentinel EMS Customer Portal

You are able to generate a v2c file on your own providing that you have your license key and your c2v file at hand.

> **Note:**
>
> The registration.de@caseware.com address is still valid and available. Continue to send your c2v files to this address and your request will be processed as quickly as possible. However, due to different time zones a response might take some time und you may want to use the alternative described below.
>
> If you want to generate a v2c file on your own, please do not send the previously created c2v file to registration.de@caseware.com to avoid any clashes during the activation process. A license can only be activated once.

1. Make sure you have your SmartExporter license key ready and that you have already generated a c2v file as described in the section above.
2. Open an Internet browser and go to https://activation.audicon.net/ems/customerLogin.html.
3. This will open a website where you have to enter your SmartExporter license key. Please enter the key you have received together with the SmartExporter version in the **Product Key** field.

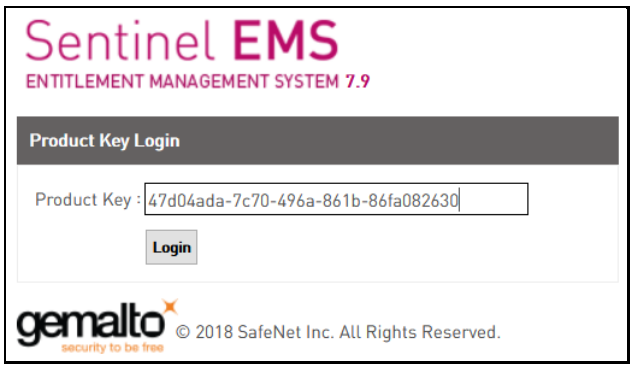

Figure 76: Sentinel EMS dialog where you have to enter your product key

4. Click the **Login** button.

5. An overview page is shown where your license key and the corresponding information and products are listed.

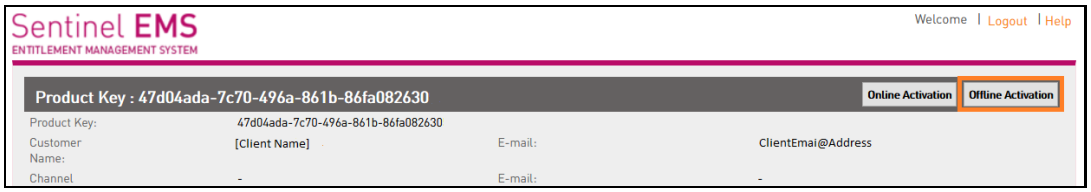

Figure 77: Sentinel EMS with the Offline Activation button

6. Click the **Offline Activation** button.

7. The **Generate License** dialog is displayed. Click the **Browse** button ... in the **Upload C2V** section and locate the c2v file you have previously generated.

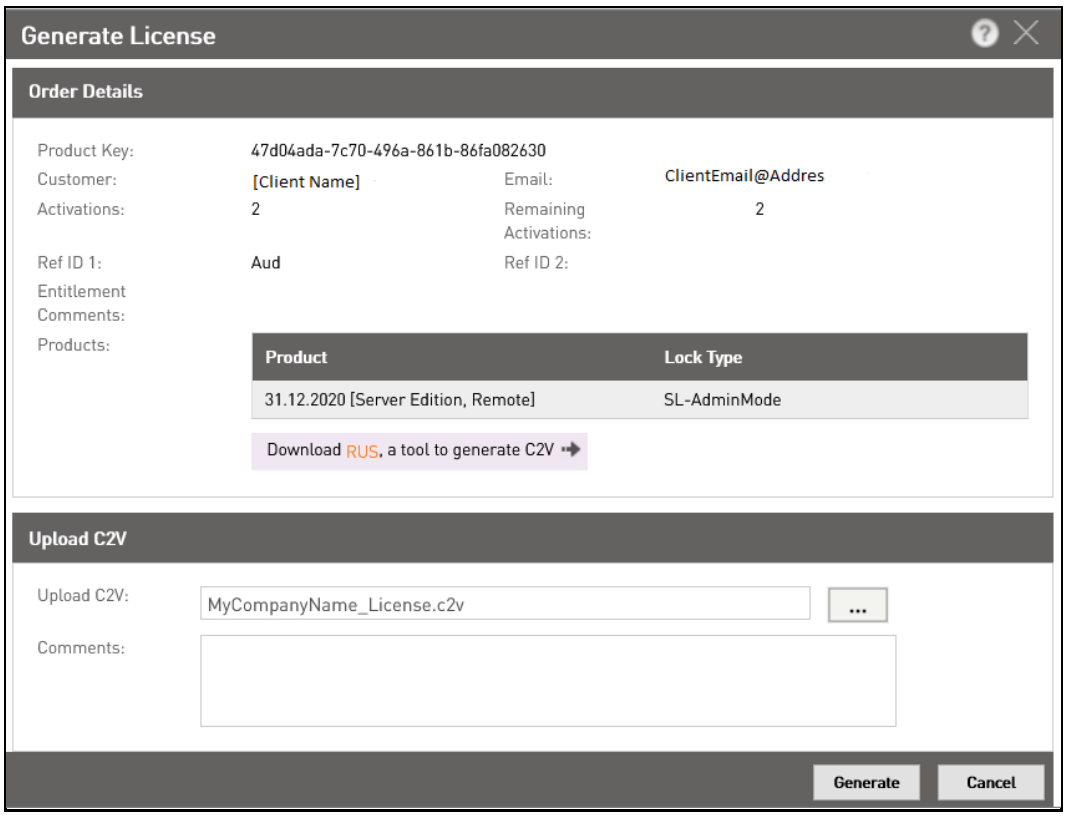

Figure 78: Generate License screen where you can upload the C2V file

8. Click the **Generate** button to generate a v2c file.
9. If the v2c file has been successfully generated, you can download the v2c activation file by clicking **Download V2C File** in the **Activation Details** area.

Figure 79: Activation Details area where you can download the V2C file

10. Save the v2c file.
11. Click the **Close** button to exit the dialog.
12. You return to the Sentinel EMS page. Click **Logout** in the right upper corner of the page.
13. Launch the License Activation dialog by clicking the **Enter your License Key** option in the **License Status** dialog or by selecting **Start** – **Programs** – **Caseware SmartExporter** – **Activate license**.
14. Please click the **Apply Update** option in the **License Activation** wizard.
15. Use the **Browse** button to locate the v2c file you have generated and click **Open**.

16. Now click the **Apply** button. Your SmartExporter license will be activated.

> **Note:**
>
> Use only the computer you have created your Activation request file on to apply the update file. This update file is not valid for a different machine.

17. Exit the wizard by clicking the **Close** button.

As soon as you have activated your SmartExporter license the license information including the expiry date will be displayed in the License Activation wizard:

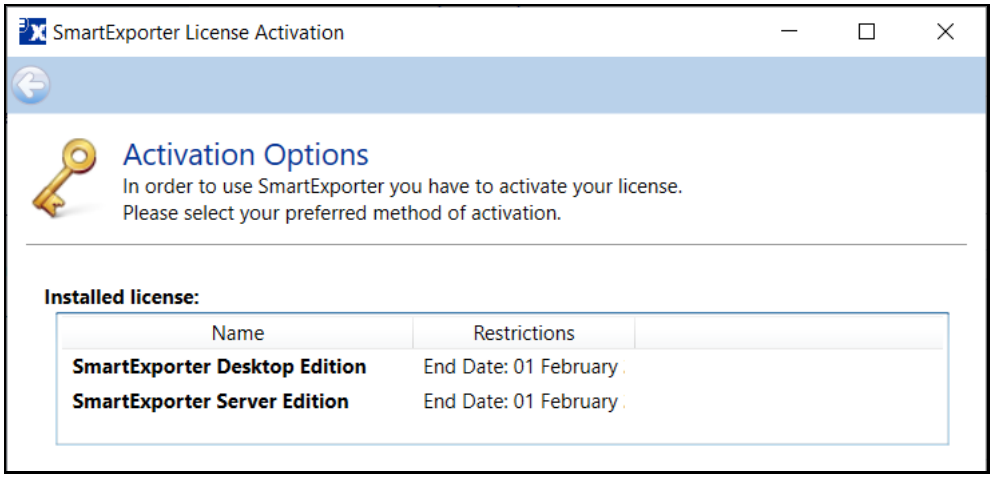

Figure 80: SmartExporter License Activation dialog with the currently valid license displayed

Every activation is recorded in an activation history which you can display if you click the **Show Activation History** option. Here the date of the activation and the license key used are listed together with the type of the activation like license update and the status (whether the activation was successful or not).

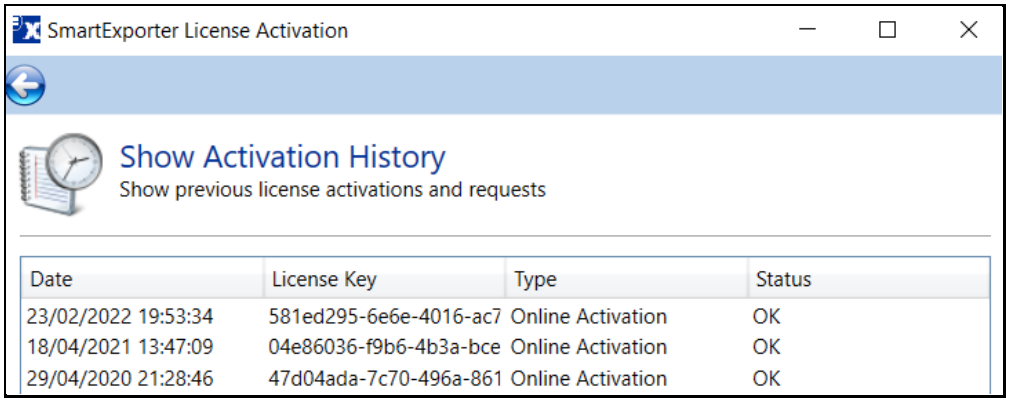

Figure 81: Show Activation History with the list of activated licenses

Transfer a SmartExporter license to another computer

In general, a SmartExporter license is activated for one specific computer and it can be activated only once. However, it could be that you have got a new computer or you might have to switch to a different machine. In this case you have to transfer your license from one machine to another.

1. Write an e-mail to registration.de@caseware.com and request a cleaning license for your SmartExporter license key. Please provide your name, company and (if at hand) your currently activated SmartExporter license key.
2. A cleaning license will be returned to you.
3. Please go to **Start** – **All Programs** – **Caseware SmartExporter** and select the **Activate license** option or open the **Activate license** task on the **Home** page in the **Tools** category.
4. In the **Activation Options** dialog click the **Online Activation** option.
5. Enter the cleaning license key you have received in the **License Key** field.
6. Click the **Activate** button.
7. When the cleaning is completed successfully, please create a screenshot of the success message and send it by e-mail to registration.de@caseware.com.
8. If the cleaning is validated by your screenshot and it is confirmed by the license server, you will receive an e-mail confirming that the deletion of the license was done. The e-mail will also contain a new license key you can use for the other computer. Please activate this license on your other machine.

Using a remote license manager

To run SmartExporter you have to activate the corresponding license key. When starting SmartExporter, the application checks the license key to determine which SmartExporter Edition can be used. So far, the license manager had to be installed locally. As of SmartExporter 2020 R1, you can use a license manager that is installed on a different computer, e.g. a central license server. You have to set an environment variable to define whether to search for a license manager server on the network, or you can directly specify the host name or IP address of the computer running the license manage. For a detailed description on how to set up a remote license manager, see the SmartExporter online help.

Limitations when using SAP® standard components

SmartExporter is able to use existing SAP® standard components which are already installed on an SAP® system.

To use the SAP® standard components in combination with SmartExporter some configurations and authorizations have to be set and defined for the existing RFC modules in the SAP® system which are outlined in the SmartExporter online help, please see Configuring existing SAP® standard components for the use with SmartExporter.

Note:

If you want to use the whole scope of functionalities SmartExporter offers and you are eager to avoid incorrect values in the data extracted or you do not accept the limited availability of data, it is highly recommended to use SmartExporter with the specific SmartExporter SAP® components.

As of SmartExporter 2022 R1 only SmartExporter specific SAP® components version 3.0.0001 and higher are supported. Previous SmartExporter SAP® components are not supported anymore.

SmartExporter will automatically switch to the SAP® standard components and allow a data extraction in online mode if SmartExporter discovers that the specific SmartExporter SAP® components are not implemented or SmartExporter has no access to these components. If a specific feature requires the use of the SmartExporter SAP® components, SmartExporter will display a message in the status bar, indicating that the default SAP® standard components are not sufficient to support this feature.

Figure 82: Message shown in the status bar of the SmartExporter window indicating that the SmartExporter SAP® components are not available

Note:

Some SmartExporter features are not available when you are using the SAP® standard components. You will be notified by specific icons in the SmartExporter user interface that certain features are not accessible. Besides, there are some limitations regarding the data to be extracted if you are using the SAP® standard components.

Limited functionality

The following features are not available when SmartExporter is used in combination with the SAP® standard components:

- SAP® standard components can only be used to run synchronous Data Requests. You are not able to queue a Data Request in the SAP® system.
- Besides, you cannot view or check the Data Request activity.
- Using SAP® standard components it is not possible to check the size of a Data Request in the Fields and Filters step.
- Joins with more than one table are not supported when using SAP® standard components.

  To download a Data Dictionary while using SAP® standard components may take several hours.

Note:

You cannot pause the download once you have started it and you may not resume with the download at a later time.

The SmartExporter user interface uses special icons to mark the features which are not available.

Limitations when extracting data

The use of existing SAP® standard components is subject to the following restrictions regarding the data to be extracted:

- You are limited to a total length for all fields of 512 bytes. Please make sure that the fields selected per table do not exceed this limit.
- Certain numeric data types like DEC (virtual or amount fields with decimal separators, thousands separators and signs) return false data for some values when the extraction is run. This may also be the case when large values of data type QUAN (Quantity) are extracted.

  Example: When you are using the SAP® standard components and you select the TNRO (Definition of Number Range Objects) table with the PERCENTAGE field which has the DEC data type, the data extraction will return the value *.0, whereas the correct value is actually 10.0. (The correct value is extracted if you are using the SmartExporter specific SAP® components).

  If SmartExporter detects incorrect data while exporting numeric data types, these bad data will be written to a separate file. This way you can quickly review and check whether the data extracted are correct.

Corresponding to the example above the data of the TNRO table would be written to a file named “201104208022055_AUD_TNRO.csv“, whereas the bad or incorrect numeric data would be extracted by SmartExporter to an additional file called “201104208022055_AUD_TNRO_BadData.txt“.

Note:

Please note that a corresponding message will be displayed in the Data Request progress dialog and you will be notified of the location of the file with the bad data.

The following example shows a data extraction with the TNRO (Definition of Number Range Objects) table with the PERCENTAGE field selected, which has generated bad data:

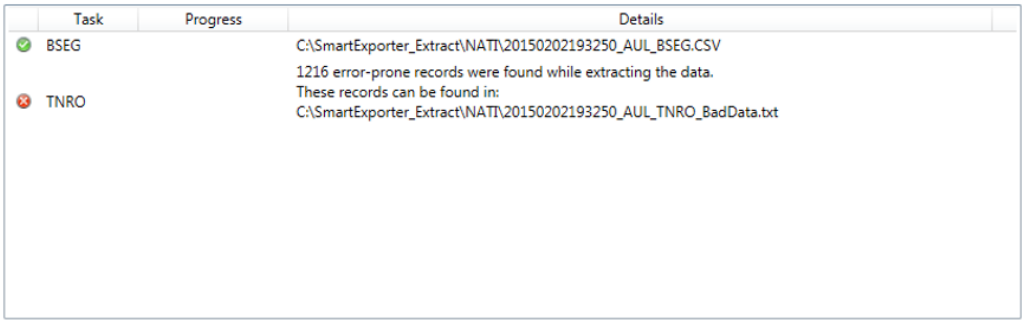

Figure 83: Errors which were found during the extraction are displayed

- Field values in the BSEG table exceeding a value of 9.999.999.999 will be marked with an asterisk * and will not be exported with the correct values.
- In SAP® 4.7 the extraction of Unicode strings is not working properly when using the SAP® standard component (RFC_READ_TABLE).

  Please refer to the SAP® note 758278 describing how to fix this behaviour. The note was set to “Internal use” or “In Progress” by SAP SE and is currently not available.

Note:

If you modify the SAP® module RFC_READ_TABLE to run it in combination with SmartExporter, please make sure that you implement your changes in the original function module as SmartExporter will only use the original one.
Using the RFC_READ_TABLE module for the export of data is not officially supported by SAP®. Erroneous adjustment or customizing of the module might lead to an incorrect data extraction.

- If you are using SAP® version 4.7 or 5.0, incorrect values might occur when you are selecting fields of data type FLTP (Floating Point). In this case the RFC module generates an exception error.

  For more information refer to SAP® note 758278 describing how this behaviour can be fixed.

- Due to the limitations of the RFC_READ_TABLE module Data Requests containing a filter that exceeds the length of 72 characters cannot be run. The maximum length of the parameter SmartExporter is allowed to pass on to the RFC module is 72 characters. If the filter exceeds this length, no data will be transferred.

- The implementation of the RFC_READ_TABLE module by SAP® is not ideal. By default the filter calculation method is not set when SmartExporter is forced to use SAP® standard components. However, when extracting large data volumes using SAP® standard components without the filter calculation method now and then time outs might occur. Therefore you can activate the **Use SAP® standard components with filter calculation method** option in the **Components** tab of the **Data Requests** page of the **Change application options** task or in the **Options** step of the wizard if you are using the SAP® standard components. This might improve the performance when SmartExporter is forced to use SAP® standard components.

Note:

The **Use SAP® standard components with filter calculation method** option requires that the database provides the records in a sorted order. Please refer to your SAP® administrator to get the necessary information.

So far limitations regarding the performance using the SAP® standard components with filter calculation method have only been observed for the database systems DB2® and Oracle version 10, where not all records have been extracted.

You can check the structure of your database by following the steps below:

- Create a Data Request in SmartExporter and select all key fields.
- Extract the data in a CSV or TXT file.
- Then check the file to see whether the data in the rows of the key fields are displayed in ascending order. If this is not the case, it is highly recommended to install and use the SmartExporter specific SAP® components.

About joins in SmartExporter

Joins are used to combine fields from two or more tables. To join the tables common values or fields which exist in each table are required.

SmartExporter provides two join types: Inner Join and Left Outer Join.

Note that the joins in SmartExporter have the functionality of SQL joins. At least a basic knowledge in defining SQL joins is highly recommended in order to avoid extracting useless data.

Inner Join

The Inner Join processes every record in the left or primary table and checks based on the join condition if a match exists in the right or secondary table. If this is the case the record will be included in the join result table.

SmartExporter can create joins with a 1 to n relationship. This means that for each match in the right table a record is included in the result table.

If you are an IDEA user, you might be acquainted with the IDEA feature **Join Databases**. Using this IDEA feature you are also able to create an Inner Join when you are using the **Matches only** option in the IDEA **Join Databases** dialog. However, this IDEA join feature is limited to a 1 to 1 relationship. In IDEA only the first match from the secondary file will be extracted to the result file, while in SmartExporter the Inner Join feature has a 1 to n relationship and gets all matches in the right (or secondary) table comparable to the IDEA Visual Connector.

Note that for an Inner Join the following operators are available to define a join condition:

- Equal To
- Less Than or Equal To
- Greater Than or Equal To
- Greater Than
- Less Than

Left Outer Join

A Left Outer Join will extract all records from the left or primary table to the result table regardless of the join condition specified and whether or not a match is found in the right or secondary table. A Left Outer Join result will contain all records from the left table and the matches found in the right table. In case there is no match for a record of the left table to be found in the right table the column in this row will be empty. If there is more than one match in the right table for a single record of the left table, the record of the left table will be repeated with the corresponding matches of the right table in the join result table.

SmartExporter creates a Left Outer Join with a 1 to n relationship.

Note that for a Left Outer Join only one operator is available to define a join condition:

- Equal To

Using joins when running SAP® standard components

As of SmartExporter 2020 R1 extractions of joins are now also possible when you are using SAP® standard components.

Additional Data Sources

As of SmartExporter 2015 R1 you are able to use the so called Additional Data Sources to extract data from different sources. Additional Data Sources in an SAP® system such as reports or payroll data which are populated during run time by the SAP® business logic might be extracted using one of the pre-defined Data Request templates shipped by default with SmartExporter. Use the Data Requests for instance to get data from Human Capital Management or extract SAP® default report data. You can tailor the templates to meet your specific needs.

Note:

To use the Additional Data Sources feature the specific SmartExporter SAP® components version 5.0.0001 or higher covering the Additional Data Sources functionality have to be implemented. Apart from the installation of transports you also have to install the corresponding package to use directDART or the reports.

SmartExporter comes by default with Data Dictionaries supporting the use of the pre-defined Data Requests templates.

For more information, refer to the SmartExporter online help on Additonal Data Sources.

Import and modify the Data Request template

1. Go to the **Run or manage Favorites** task on the SmartExporter **Home** page.
2. Click the **Import** button.
3. Locate the folder where the Data Request file, e.g. 'SmartExporter - Reports - Compact Document Journal – Field list.xml', is stored (either on the SmartExporter SAP® components CD or in the corresponding folder in your download package). If necessary, select **Portable format (*.xml)** in the file type drop-down list.
4. Click the **Open** button.
5. The imported Data Request will be shown in the **Run or manage Favorites** list.

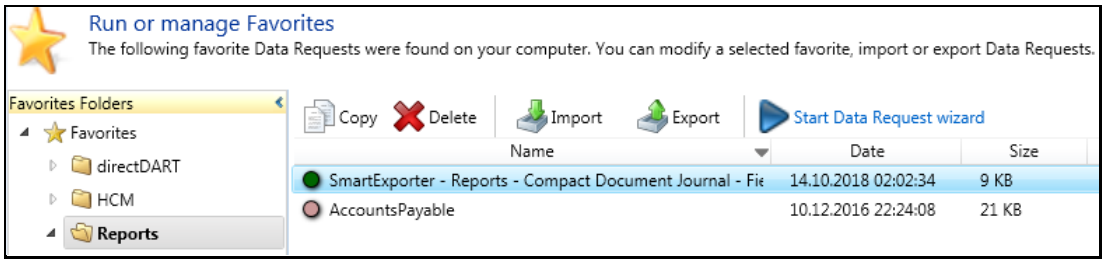

Figure 84: Imported Data Request listed in the Run or manage Favorites screen

6. Read the description of the Data Request in the Notes area. It is an instruction on how to use the Data Request and which Quick-Filters have to be set before you can run the Data Request.

7. Click the **Start Data Request wizard** button and modify it accordingly.

Note:

No matter what tables and fields are pre-defined for this Data Request template, SmartExporter will only show or extract the data of your SAP® system you have the corresponding SAP® authorizations for.

ODBC

If you want to extract data from an SAP® system to an ODBC data source, note that only a synchronous extraction is supported.

Creating an ODBC data source

Please consider the following prerequisites when you create a data source:

- If you are using an already existing ODBC data source, make sure that you have the required log in information to connect to the ODBC data source.
- When you are connecting to a Microsoft SQL Server it is required that the property “Multiple Active Result Sets” (MARS) is set to “Yes”. Otherwise, SmartExporter will show the error “One or more errors occurred.” when you try to connect to the database.

  If you are using an already existing ODBC data source, you can select the property “Multiple Active Result Sets” (MARS) in the registry when you use the ODBC data source definition for the SQL Server. The registry key MARS_Connection must have the value "Yes":
  [HKEY_CURRENT_USER\Software\ODBC\ODBC.INI\]
  "MARS_Connection"="Yes"

  Additionally, you may also specify this property in the Connection string used to connect to the ODBC data source like in the example below:

  ```
  Driver={ODBC Driver 17 for SQL
  Server};server=<COMPUTERNAME>\<INSTANCENAME>;database=<DATABASENAME>;
  trusted_connection=Yes;;MARS_Connection=Yes;
  ```

- However, if you do not have the required authorization to modify registry keys, it is recommended that you create a specific ODBC data source for the use with SmartExporter.

Define ODBC settings

You have to define how the data in your ODBC data source is handled before you run a Data Request.

Note:

Once you have started the Data Request wizard you cannot change the selected Data Dictionary or modify the ODBC settings you have previously defined in the application options. If you return to the Change application options page, all your entries will be lost.

1. Go to the **Change application options** task on the SmartExporter **Home** page and select the **Data Requests** entry in the Navigator.
2. Switch to the **ODBC** tab.

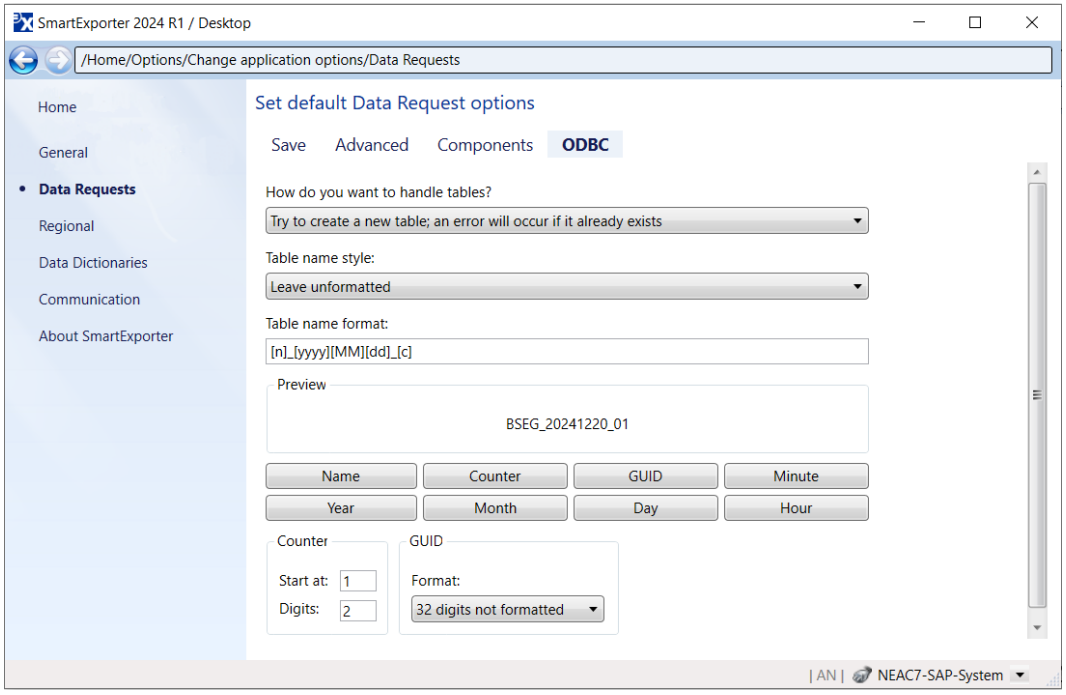

Figure 85: Set default Data Request options in the ODBC tab

3. Define how the tables are handled by selecting the appropriate option in the drop-down list.
    - Append to an existing table; create the table if it does not exist

      The data will be attached to an existing table. Note that the second table has to have the same number of fields or fewer fields than the table it is attached to. And the fields must have the same name and the same data types as the ones in the first table.
    - Always create a new table; replace it if it already exists

      There will always be a newly created table. If a table with the same name already exists, it will be replaced by the new one.
    - Try to create a new table; an error will occur if it already exists
    - Truncate and then append to an existing table; an error will occur if it does not exist

      All content of the existing table will be replaced by the new content.
    - Append to an existing table; an error will occur if it does not exist

      The data will be attached to an existing table. Note that the second table has to have the same number of fields or fewer fields than the table it is attached to. And the fields must have the same name and the same data types as the ones in the first table.

4. In the **Table name style** drop-down list you can also specify the format of the table names.
    - Select **Leave unformatted** in the drop-down list to keep the original table names.
    - Use the option **Format only conflicting names** to modify the table name if it already exists. The specified table name format defined in the section below will be used to generate the table names.
    - Select **Format all names** to use the specified table name format defined in the section below to generate the table names.

5. If you have decided to rename the tables, you must specify the **Table name format**.

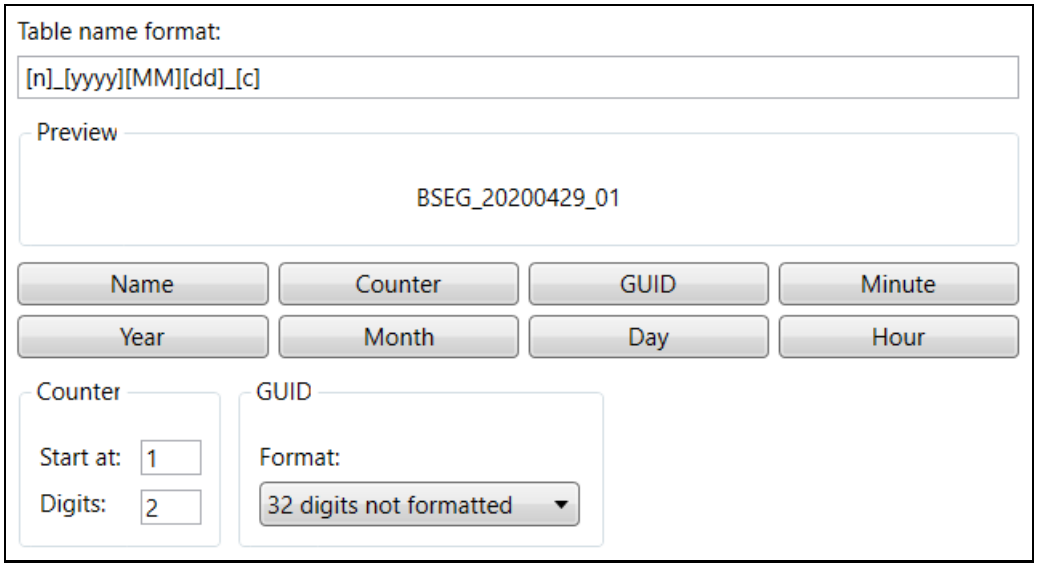

Figure 86: Define the Table name format and check the Preview area

Use the buttons below the **Preview** section to format the table name. Note that you have to set the counter manually. It does not increment automatically. In the **Digits** field specify how many digits the counter will have. Check the name you have defined in the **Preview** section above. You can also use a **GUID** for your table name.

6. If you have defined all required ODBC settings, you can either create a new Data Request or open an existing Data Request using the **Run or manage Favorites** task on the SmartExporter **Home** page.

   Please refer to the Create Data Request section on page 23 and follow the steps 1 to 24 described there.

7. Switch to the **Options** step in the Navigator.
8. Set the location where you want to save the extracted files.
9. In the **Save as type** drop-down list select **ODBC**.
10. Go to the **Finish** step in the Navigator and click **Run the Data Request**.

Note:

ODBC only supports synchronous extraction.

11. The **Connect to ODBC data source** screen is shown.

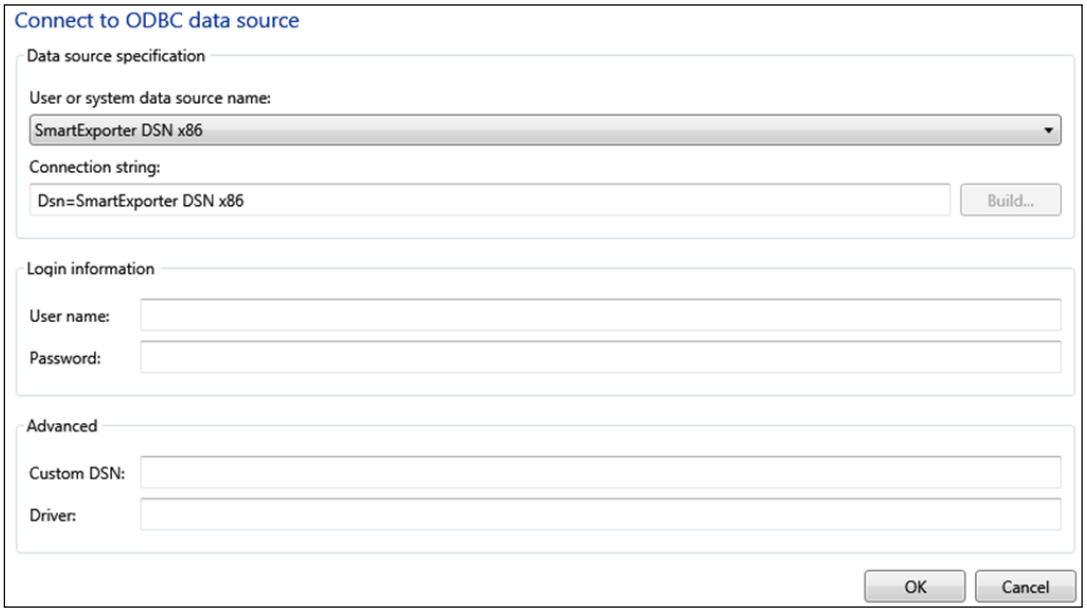

Figure 87: Connect to ODBC data source screen

12. Specify the data source by selecting the corresponding entry in the **User or system data source name** drop-down list.

    Note that the **Connection string** field is populated automatically corresponding to your entries.

13. Enter the **Login information** required for the selected data source or use the **Advanced** section to enter a **Custom DSN**.

14. Click **OK** to run the Data Request.

Note:

When you leave the **Connect to ODBC data source** screen all login information entered will be deleted.

IDEA and SmartAnalyzer

IDEA provides the next integration step of the two applications SmartExporter and IDEA.

SmartExporter is integrated in **IDEA**, so you can launch SmartExporter from within the IDEA **Import Assistant**. You also have the opportunity here to download SmartExporter in case you do not have a SmartExporter version installed. If you have selected the IDEA files as output format for the data extracted by SmartExporter, the generated files will be stored in the project you have selected in the **IDEA** section of the **Options** step in the **Create Data request** wizard.

Additionally, you will benefit from the **SmartAnalyzer** module available in IDEA. It is an easy to use application providing a comprehensive pool of pre-defined audit tests covering the main parts of analyses required. SmartAnalyzer comes with every IDEA version and includes by default 5 sample audit tests. SmartAnalyzer is the basic application for numerous **IDEA apps** like TAP, Process Mining P2P/O2C, GoBD or Analytics P2P. These IDEA apps offer numerous audit tests covering a wide scope of auditing areas. Besides, these apps provide Standard Import Routines for numerous ERP systems to simplify the import of data from complex systems by letting SmartAnalyzer do the work of getting exactly the data required for the audit tests.

This is particularly useful when dealing with SAP® systems. Firstly, you select the audit tests in SmartAnalyzer which you want to run. Then you create an **SAP® - SmartExporter Data Request** and pass it on to SmartExporter immediately. SmartExporter extracts exactly the data required from the SAP® system and SmartAnalyzer imports it into IDEA. The data imported are ready to use. You are able to run the audit tests without taking any further steps or actions. Besides, there is also the option to create an **SAP® - Data Request document** and pass it on to third parties in case you do not have direct access to the SAP® system.

Note:

To use the complete scope of functionality in combination with IDEA, the IDEA apps and SmartAnalyzer the SmartExporter Desktop version is recommended.

SmartAnalyzer comes with 5 sample audit tests including the so called Sample Payments app. This app is specifically designed to work with SmartExporter and can be used to test or demonstrate the features.

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