Qlik Gold Client™

Qlik Q

Data Echo User Guide 8.6

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Introduction

This document serves as the user manual for copying selective master and/or transactional data using the various functions within the *Data Echo®* section of Gold Client. If a user needs to know how to copy a subset of data, this is the user guide that they should reference.

The copy process consists of three basic steps: (1) creating a Scenario, (2) performing the data export, and (3) performing the data import.

Scenarios can be created three different ways: Data Snap, Intelligent Slice, and Scenario Segment. Initiating the data export can occur two ways, Data Snap or Export Control. And initiating the data import can occur two ways, manually via Import Control or automatically via the optional auto-import feature.

Illustrated within this document are the step-by-step instructions for executing the various steps within the copy process, as well as how to use the other various (optional) features that are available. Additionally, this document covers the steps needed for deleting data.

Qlik Gold Client

Qlik Gold Client is initiated via Transaction Code /nZGOLD.

The main Gold Client Solutions screen (Fig 1.0). The upper middle portion of the screen pertains to Data Echo functionality. Data Discard is also covered in this guide.

For those programs located within the Post Process function, reference the following guides as needed: <u>Gold Client Balance Recalculations User Guide</u>, <u>Gold Client Reconcile FI Index User Guide</u>, and <u>Gold Client Number Range User Guide</u>.



About Data Types

A Data Type is a Gold Client term that is defined as representing a grouping of logically connected tables for master and transactional data objects; a few examples are customers, vendors, materials, sales documents, purchase orders, and finance documents.

Data Types follow a set nomenclature where the 2 or 3-char prefix represents the SAP module to which the data object is mostly aligned followed by a dash and then a description. Some common examples of master and transactional Data Types are:

CA - BUSINESS PARTNERS

CA - EQUIPMENT DATA

CA - VENDOR MASTER

CO - INTERNAL ORDERS

EHS - HAZARDOUS SUBSTANCE MGMT

FI - FINANCE DOCUMENTS

HR - EMP MAST WITH PAY POSTING

LE - HANDLING UNITS

MM - MATERIAL MASTER

MM - PURCHASING DOCUMENTS

PM - FUNCTIONAL LOCATIONS

PP - PRODUCTION ORDERS

OM - INSPECTION LOTS

SD - CUSTOMER MASTER

SD - SALES DOCUMENTS

TR - BANKING STATEMENTS

WM - TRANSFER ORDERS

For data types which may not fit within any one module, they are named 'CA' which stands for cross-application. The other modules for the examples above are: Controlling; Environmental, Health & Safety; Finance; Human Resources; Logistics Execution; Materials Management; Plant Maintenance; Production Planning; Quality Management; Sales and Distribution; Treasury; and Warehouse Management.

The supported Data Types are maintained within the Data Echo Framework which is the most important part of the Data Echo configuration. For more information on the Data Echo Framework, including making changes to it, refer to the <u>Gold Client Data Echo Advanced Configuration Guide</u>.

Finding a Data Type

From a user's perspective, it is possible to see which data types exist by using the available search functions on the Data Type field that is available from either the Data Snap or Scenario Segment screens. The most common search queries use either a module and wildcard, for example, FI*, MM*, SD*, etc. or by using a specific table.

A new way of querying is by using tags. A tag can be created by a team member and then assigned to one or more Data Types. In this manner, a user could create a personalized list of only those Data Types which he/she will consistently use. Whether tags are deployed by individuals and/or as part of a team effort, this can be determined by each organization.

The four available search functions are as follows:

Data Type Search: by Data Type name, kind (transactional, master, or other), or by Primary Flag (Fig 1.1); the term "primary flag" is used to identify those Data Types which represent the top level of a particular hierarchy within the Data Echo configuration (framework).

Data Type by Table: by table name and/or Data Type (Fig 1.2)

Data Type by Tags: by tag ID and/or Data Type (Fig 1.3)

Data Type by Flow: by the recipient Data Type table and/or recipient Data Type name (Fig 1.4)

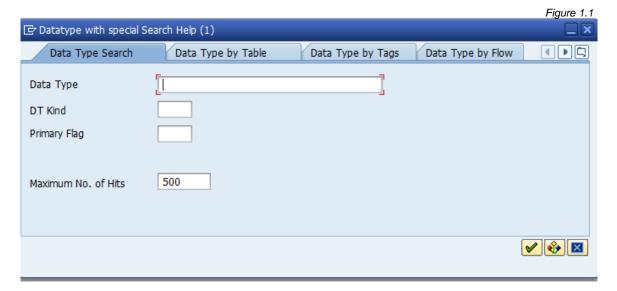


Figure 1.2

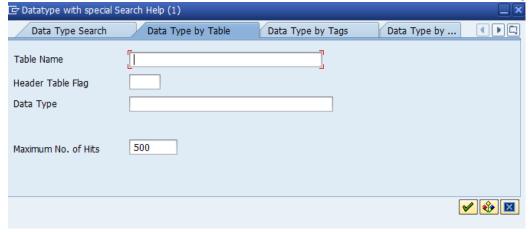


Figure 1.3

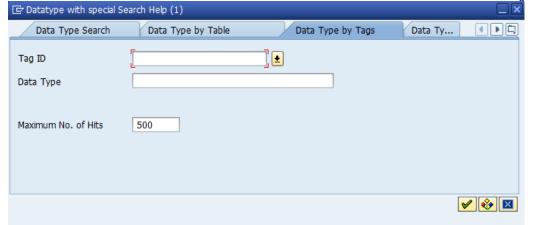
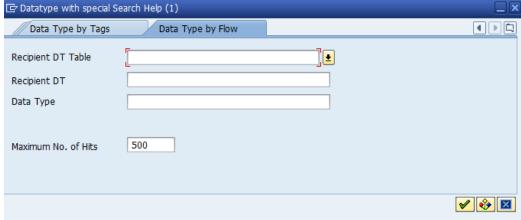


Figure 1.4



Creating Data Scenarios

Scenarios are a core component of the Data Echo. They control which data is targeted for export. The SAP equivalent of a Gold Client Scenario would be that of a program variant -- an object that can be saved and recalled for use at a later time and can be displayed and edited when needed.

This section of the user guide provides some useful insight followed by how to create Scenarios. There are three different functions that can be used to build Scenarios:

- 1. Data Snap (via Save As Scenario feature)
- 2. Intelligent Slice
- 3. Scenario Segment

Data Snap is largely used to create ad hoc Scenarios. In other words, the user is creating a temporary Scenario just so they can quickly copy the relevant data at that particular moment in time; however, it can also be used to create a long-term Scenario that is suitable for reuse. Data Snap can only be used for one Data Type at a time.

Intelligent Slice can be used to create Scenarios across multiple Data Types. This function is commonly used to build Scenarios relevant to a time slice of data, for example a 1-month slice. The user can input a date range as well as other selection criteria and can then choose from an array of Data Types in which to apply the criteria. Intelligent Slice then applies these criteria entered by the user and programmatically builds the necessary Scenarios (one per each Data Type selected).

Scenario Segment is the oldest functionality in this space and with more recent versions of Gold Client is typically used when the selection criteria is more complex than can be accommodated by Data Snap or Intelligent Slice. This function basically consists of an SQL statement but is constructed in a way that even if the user is not that familiar with basic SQL that it is still usable. Scenario Segment can only be used for one Data Type at a time.

Once a Scenario has been created, it must be associated to at least one Export ID. For Scenarios created via Data Snap and Scenario Segment, this activity is a manual process, and for Intelligent Slice it occurs automatically during the program's execution.

Best Practices

To achieve the optimal performance for the export, plan as much as possible when creating the export Scenario. Below are a few best practices to remember in order to achieve the best performance for the export:

- Whenever possible, use fields that are located on the Header table of a Data Type; for example, to create a Scenario for sales orders then fields on the VBAK table should be used
- Be as specific as possible in the data selection; for example, use specific document numbers if known
- Whenever possible, use fields that are part of the table key or are part of a secondary index. The key fields, plus those fields which are in the first position on an index are displayed when using the table query within Gold Client. In this example for table VBAK, Gold Client shows the user that VBELN is the only key field, and that ERDAT and AUDAT are the first field on their respective indices making them excellent candidates for a Scenario (Fig 2.0).
- Build Scenarios wisely and always check how many records will be exported
 after building or updating the Scenario. Upon saving the Scenario, Gold Client
 should initiate a query to determine how many records qualify for the export
 based on the selection criteria.

Tip: If it takes a while for the query to return the record count, then the export of the Scenario will likely run a while as well. You may want to consider changing your selection criteria so that it is more optimal.

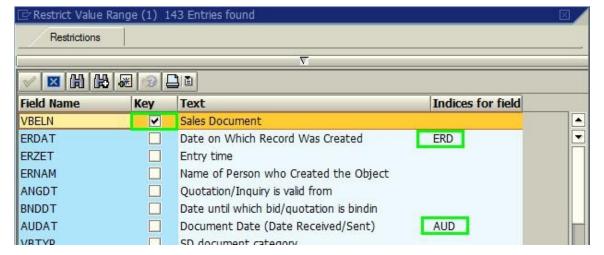


Figure 2.0

Via Data Snap

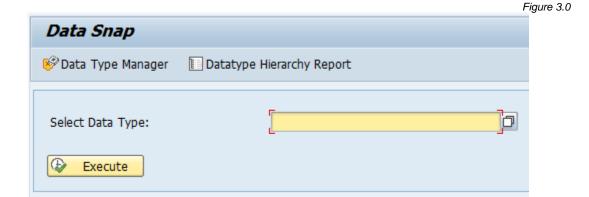
This section describes how to use Data Snap only to create a Scenario via the 'Save As Scenario' function. For details on using Data Snap for all other purposes, reference the section of this document titled *Data Snap*.

To create a Scenario via Data Snap, execute the following steps.

- 1. Go to t-code ZGOLD and select Data Snap
- 2. On the next screen, input a Data Type (Fig 3.0)

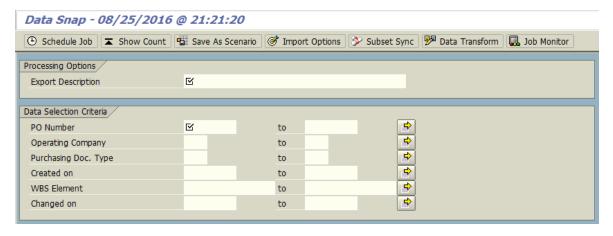
a. Tips:

- i. Use the search help functions if needed
- ii. Reference the section of this document titled *About Data Types* for additional information

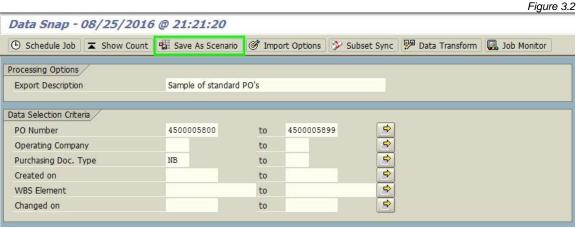


- 3. Once a Data Type has been entered in the Select Data Type field, click the Execute button
- 4. On the next screen, input the necessary selection criteria; the Export Description field is mandatory as is one or more of the selection criteria fields. All other fields are optional (Fig 3.1)
 - a. **Note:** The selection criteria fields that are visible on the Data Snap screen will vary from Data Type to Data Type since each one can be configured accordingly. This example (Fig 3.1) is for purchase orders (data type MM PURCHASING DOCUMENTS) but the config would be different for other Data Types such as SD SALES DOCUMENTS.

Figure 3.1



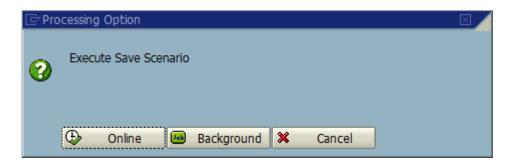
5. Select the 'Save As Scenario' button located on the toolbar (Fig 3.2)



- 6. The system will respond with a pop-up message asking how to initiate this process, Online (foreground) or Background (Fig 3.3). Unless your selection criteria is rather complex, selecting the Online option is typically suitable. A complex Scenario would be one where the selection criteria contains entries for several fields, especially if these are non-key fields, and/or it includes more than just the header table. If unsure, use the Background option just to
 - a. **Note**: If you choose the Background option, the system provides a pop-up message where a Job Name can be entered and the option to initiate the job immediately or schedule it for later. Use t-code SM37 to monitor the job status. When the job completes, open the log to see what Scenario number was created.

Figure 3.3

be safe.



7. The system will provide a pop-up message with the number of records found based on the selection criteria data that was entered (Fig 3.4). Close the message after reading.

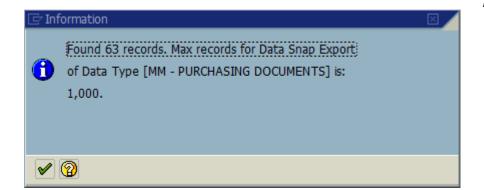


Figure 3.4

8. The system will then provide a message at the bottom of the screen indicating what Scenario number was created (Fig 3.5). You can make a mental or physical note of the Scenario number if you like.

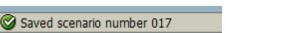


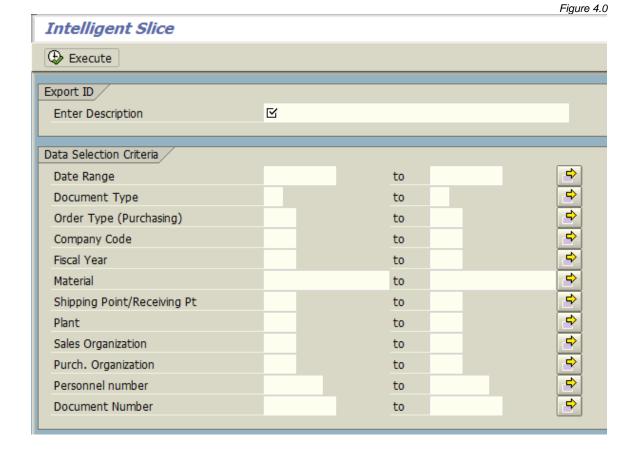
Figure 3.5

 Once the Scenario has been created, it must then be added to an Export ID in the Export Control function for it to be available for export. Reference the section of this document titled *Export Control* for those steps.

Via Intelligent Slice

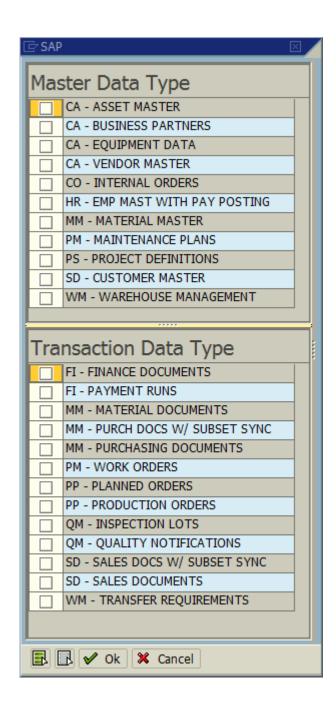
Intelligent Slice is used to create Scenarios for multiple Data Types using a common set of data selection criteria. This function is primarily intended to build Scenarios relevant to a time slice of data, for example a 1-month slice.

The fields displayed on the Intelligent Slice screen are configured out-of-the-box with date range and hierarchical objects like company code, sales organization, plant, and purchasing organization, as well as other criteria like material and document type (Fig. 4.0). This screen can be maintained to include other fields as your organization requires and can be further customized by applying a custom field description and in what order the fields appear on the screen. Reference the <u>Gold Client Configuration and Utilities Guide</u> for the details related to this configuration maintenance activity.



Intelligent Slice uses a default list of Data Types which can also be configured. The number of Data Types delivered out-of-the-box is around 20 and intentionally includes those Data Types that are the most commonly used for both master and transactional data (Fig 4.1). Reference the <u>Gold Client Data Echo Advanced</u> <u>Configuration Guide</u> for the details related to this configuration maintenance activity.

Figure 4.1



To utilize the Intelligent Slice functionality, execute the following steps.

- 1. Go to t-code ZGOLD and select Intelligent Slice
- 2. On the next screen, input a description in the mandatory Enter Description field
- 3. Input a date range as part of the data selection criteria
 - a. **Note**: This field is not mandatory but is recommended since the concept of this program is to create Scenarios that are date-based
- 4. Input any other data selection criteria that is suitable (Fig 4.2).

Figure 4.2 Intelligent Slice Execute Export ID / 1-month slice Enter Description Data Selection Criteria Date Range 05/01/2011 05/31/2011 to Document Type to Order Type (Purchasing) to Company Code to

- 5. Click the 'Execute' button
- 6. In the next window that opens select which Data Types need to have a Scenario created (based on the selection criteria) and select 'OK' (Fig 4.3)
- 7. An informational message appears stating which Export ID number has been created and with how many containers (Fig 4.4). Make a mental or physical note of the Export ID if you wish and then close the message.
- 8. The process of creating Scenarios via Intelligent Slice is now complete and you can exit out to the main Gold Client screen. To make use of the Scenarios created here, the process moves next to the Export Control function. Reference the section of this document titled *Export Control*.

Figure 4.3

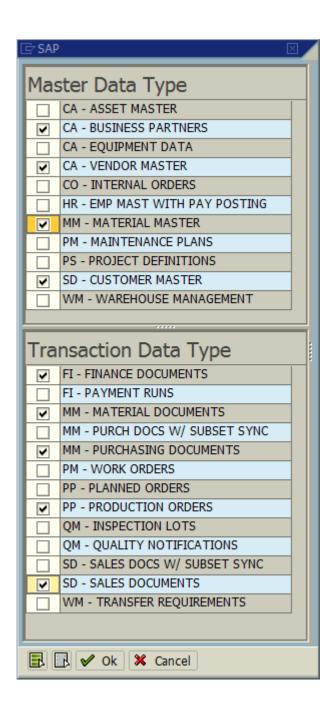
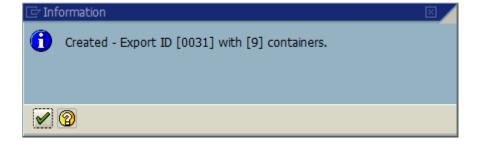


Figure 4.4



Via Scenario Segment

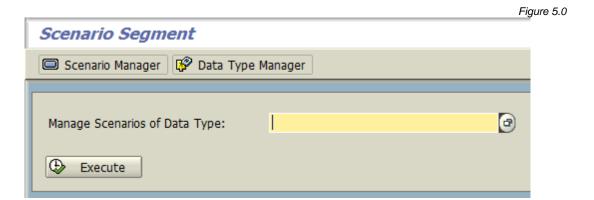
The Scenario Segment function is another way to create Scenarios in Gold Client. It is typically used when the data selection criteria is more complex than can be accommodated by the Data Snap or Intelligent Slice functions.

To create a Scenario via Scenario Segment, execute the following steps.

- 1. Go to t-code ZGOLD and select Scenario Segment
- 2. On the next screen, input a Data Type (Fig 5.0)

a. Tips:

- i. Use the search help functions if needed
- ii. Reference the section of this document titled *About Data Types* for additional information



3. Select the 'Execute' button to reach the next screen (Fig 5.1)



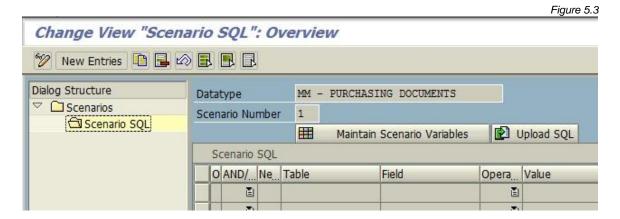
- 4. Select the 'New Entries' button to place the screen into edit mode
- 5. Input the following fields
 - a. Max Records: optional entry that can be deployed during export execution to restrict the amount of data actually exported

- i. **Tip**: 1000 is a good limit
- b. Scenario Owner: input your user/logon ID here to show who created the Scenario
- c. Scenario Description: optional entry to describe what data is being selected for this Scenario
- 6. Save changes
- 7. Select the line in which the Scenario was created and open (double-click) the 'Scenario SQL' folder (Fig 5.2)
 - a. **Note**: The 'Record Count' and 'Changed On' fields do not have values at this point for the Scenario

Figure 5.2



8. Select the 'New Entries' button to place the screen into edit mode (Fig 5.3)



9. Construct the SQL with the appropriate values that define the data selection criteria; these various functions can be used to build the SQL (Table 1.0); see the content that follows for more details about some of these SQL elements

Table 1.0

| Function | Description |
|-------------------|---|
| Open Parenthesis | ' (' Used when creating Complex SQL |
| And /Or | And / Or logic |
| Negation | Not |
| Table | Table from Data Type for selection |
| Field | Field from Table for selection |
| Operator | Equal to, Not Equal to, Greater than, Less Than, Like, Not Like |
| Value | Contains specific selection in which SQL to interrogate |
| Close Parenthesis | ') 'Used when creating Complex SQL |

a. **Table**:

- i. Scenario Segment <u>requires</u> that the header table for the given Data Type be used on at least one of the SQL lines so it is therefore recommended to add this table on the first SQL line.
- ii. When using the search help for this field, Gold Client provides an indicator as to which table is configured as the header for the respective Data Type (Fig 5.4)
- iii. You can use different tables within the SQL statement but it is more optimal to use only the header table

b. Field:

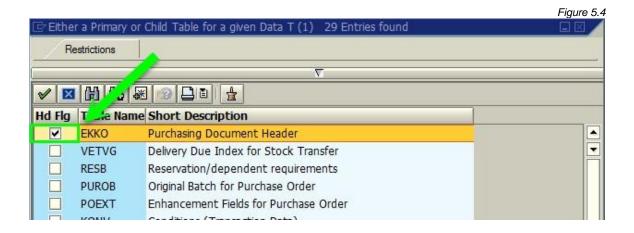
 When using the search help for this field, Gold Client provides an indicator as to which fields are part of the table key and those which are assigned as the first field of a secondary index; using these fields will lead to more optimal results when exporting data (Fig 5.5)

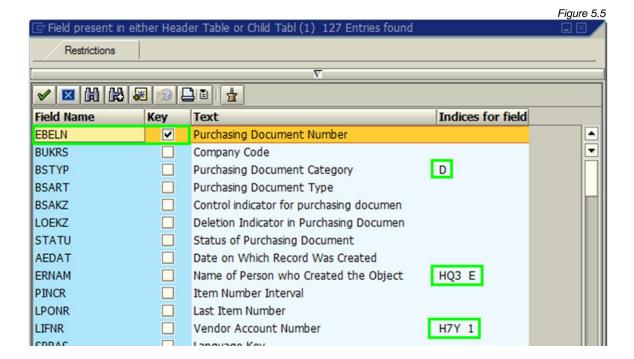
c. Value:

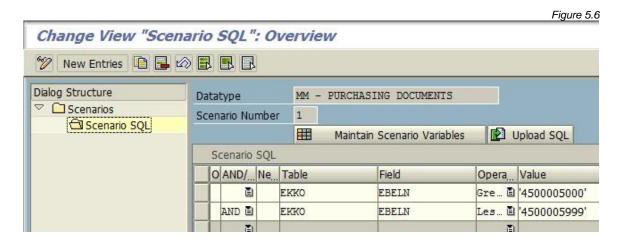
- i. When populating this field, entries require a single quote (') before and after the value entered
- ii. This field also has a variable selection which allows for selection from a list of configured variables. Reference the section of this document titled *Maintain Scenario Variables* for more details on this activity. When using a variable, the single quote requirement no longer applies.

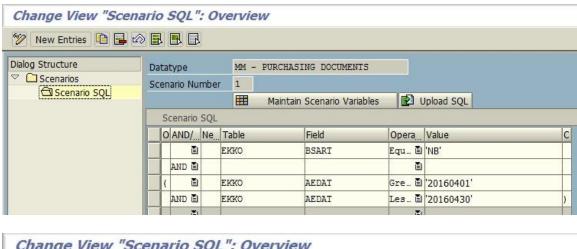
d. **Tips**:

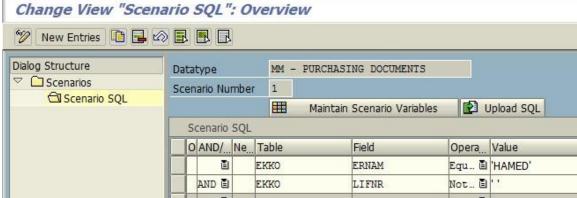
- i. Use the search help functions available on each field to avoid incorrect inputs
- ii. Work from a left to right direction when building each line in the SQL statement; the core part of the SQL statement includes the Table, Field, Operator and Value; however, any statement that contains more than one line will also require the input of AND/OR, and depending on the complexity, parenthesis (open and closed) may need to be used
- iii. Using LIKE and NOT LIKE operators are possible but could lead to performance issues so use sparingly
- iv. See reference examples (Fig 5.6)











10. Once the SQL statement is complete, save it. If the SQL is not constructed in a proper manner, a message will appear regarding some sort of syntax error (Fig 5.7). Close the message to return to the SQL statement and edit it accordingly.

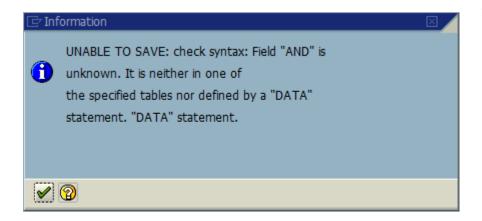


Figure 5.7

11. If the SQL statement is constructed without issue, a message will appear asking if qualification of the SQL statement should occur Online (foreground) or Background (Fig 5.8); if the statement was built in an optimal manner,

Online should be okay but if unsure, use the Background option just to be safe.

a. **Tip**: Use t-code SM37 to check the job status and the job log for the record count details

Figure 5.8

Scenario Maintenance

Execute Save Count

Online Background

- 12. If the record count is initiated Online, the data will be qualified and a message with the number of data records found (for the **Header table** used in the SQL) will be displayed (Fig 5.9).
 - a. **Tip**: If zero records are found, return to the SQL statement and edit it accordingly

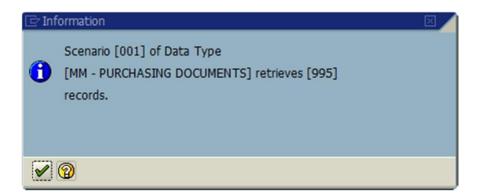


Figure 5.9

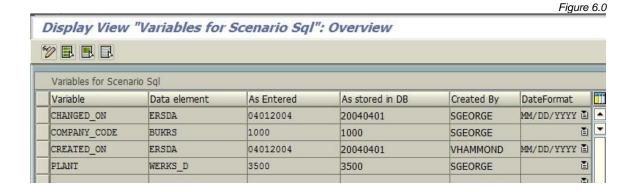
- 13. Make a mental or physical note of the Data Type and Scenario number created if you wish
- 14. The process of creating a Scenario via Scenario Segment is now complete and you can exit out to the main Gold Client screen. To make use of the Scenario created here, the process moves next to the Export Control function. Reference the section of this document titled *Export Control*.

Additional Options

There are a couple more options available in Gold Client that can be used in relation to creating data Scenarios: Global Scenario Variables, and Upload SQL. The details for these functions are documented in this section.

Global Scenario Variables

When building a Scenario using the Scenario Segment function, values added to the SQL statement could be maintained in a variables table. This feature enables dynamic change of the value for many Scenarios by changing the value in just one place. Start date and end date are a couple of good examples that could be maintained as a variable; hierarchical types of objects may work well, too. The value assigned to the variant is stored as a static value in this table; it's not possible to save dynamic values here (Fig 6.0).



To maintain this table, execute the following steps.

- 1. The table which holds these variables can be accessed from two locations:
 - a. Go to t-code ZGOLD, then select the Configuration button, and then the executable named Global Scenario Variables (Fig 6.1)
 - Go to t-code ZGOLD and select Scenario Segment; input a Data Type and 'Execute'; select a Scenario and open the 'Scenario SQL' folder (Fig 6.2)

Figure 6.1

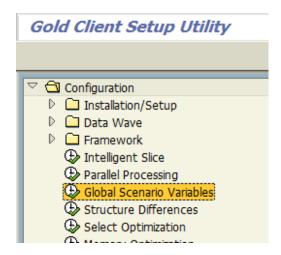
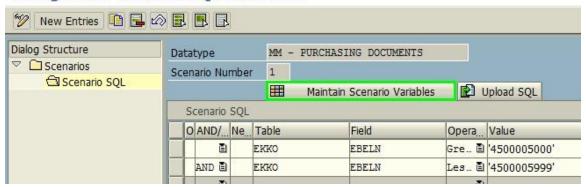


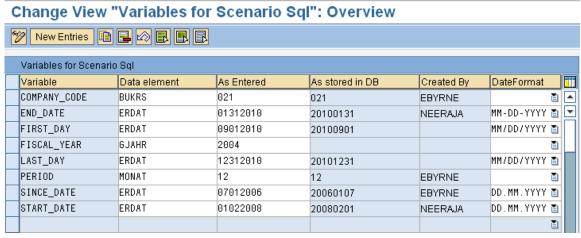
Figure 6.2

Change View "Scenario SQL": Overview

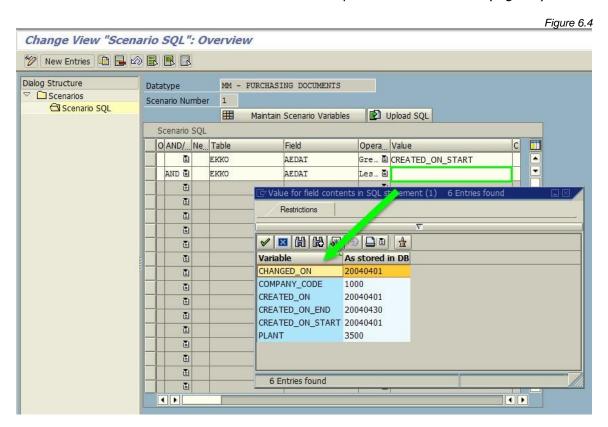


- 2. Convert the screen to edit mode and select the 'New Entries button to enable the creation of a new variable; see the fields below for more details.
- Variable: enter a variable name
- Data Element: you must use a valid data element
- As Entered: enter the value being assigned to the variable
- Date Format: if creating a variable that uses a date field, populate the appropriate date format according to your user settings
- 3. Once saved, the 'As Stored in DB' field displays the value in which it is stored in the database, and the 'Created By' column is updated with the user ID who created it.
 - a. Tips:
 - i. Data Elements of the same type (i.e. CHAR, DATS, and NUMC) can be used interchangeably. For example, all date fields can use the Data Element ERDAT.
 - ii. The following image illustrates several examples of possible variables (Fig 6.3)

Figure 6.3



- 4. Save changes and exit the table when maintenance is complete
- 5. The variants created can then be used in place of a hard value (Fig 6.4)



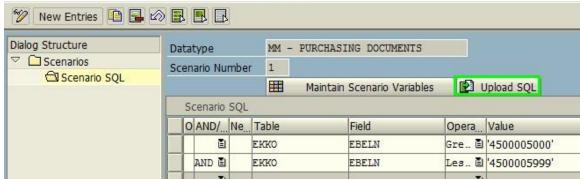
Spreadsheet Uploader

This function allows a user to upload a set of data from a spreadsheet for the purpose of creating a SQL statement within Scenario Segment. To utilize this functionality, execute the following steps.

- 1. Go to t-code ZGOLD and select Scenario Segment; input a Data Type and 'Execute'
- 2. Create and save a new Scenario
 - a. **Tip**: Reference the section of this document titled *Creating Data Scenarios Scenario Segment* for detailed instructions on creating Scenarios in this area of Gold Client
- 3. Select the Scenario and open (double-click) the 'Scenario SQL' folder
- 4. Click the 'Upload SQL' button (Fig 6.5)

Figure 6.5

Change View "Scenario SQL": Overview



- 5. On the SQL Uploader Utility screen, populate the following fields (Fig 6.6)
 - Data type: Select the relevant Data Type to which the data should be uploaded (entry is defaulted from the Scenario SQL screen)
 - Scenario Number: Enter the relevant number (entry is defaulted from the Scenario SQL screen)
 - File name: add the relevant file

Important: The file <u>must</u> be in tab delimited format (Fig 6.7)

• Ignore first row (header): There is a check mark used for ignoring the first line in the SQL Builder. If selected, the uploaded spreadsheet ignores the first line in the spreadsheet and imports from lines two onwards. This might be necessary if the file has a header in line one to identify the columns being imported.

Figure 6.6

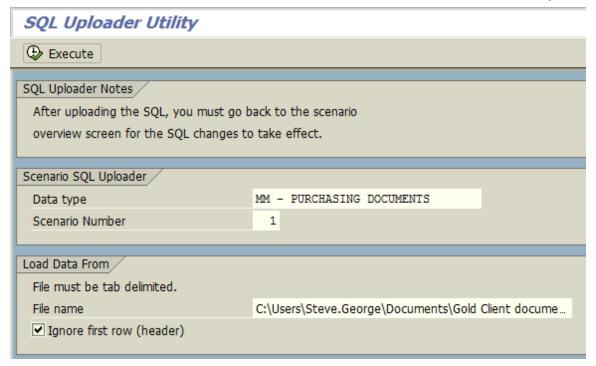


Figure 6.7

| | Α | В | С | D | Е | F | G | Н |
|---|------|--------|-----|-------|------------|----------|--------------|-------|
| 1 | open | and/or | neg | table | field | operator | value | close |
| 2 | | | | ADRC | ADDRNUMBER | = | '0000022449' | |
| 3 | | OR | | ADRC | ADDRNMBER | = | '0000022776' | |

- 6. Select the 'Execute' button to initiate the upload
- 7. It is required to exit the all the way out of the Scenario after the file has been uploaded; then re-enter the Scenario SQL to see the results of the upload

Data Snap

The Data Snap function enables the completion of the export in a one-step process. For this reason, and due to its intuitiveness, it's the most commonly used method for exporting data. Simply input the data selection criteria to be exported and execute. This eliminates the need to create a Scenario, add it to an Export ID, and then run the export.

Data Snap has its own configuration which basically consists of what tables and fields are available to the user for inputting their data selection criteria. Each Data Type has its own configuration and can therefore be customized accordingly.

Here is an example of how Data Snap is configured for MM - PURCHASING DOCUMENTS (Fig 7.0). What this means to the user is that these five fields (PO number, Company Code, PO type, Created On date, and WBS Element) are the fields the user will have available to input their data selection criteria (Fig 7.2). For instructions on customizing the Data Snap configuration, refer to the <u>Gold Client Data Echo Advanced Configuration Guide</u>.

MM - PURCHASING DOCUMENTS DT Kind File ID Primary Date Field Data Wave Transactional MM_PD V **AEDAT** V (3) A 〒 (6) D (6) E (7) Data Snap Config [Change Mode] Source | Source Field Active Req'd Sel. Long Field Label User Description EKKN PS_PSP_PNR WBS Element ~ EKKO AEDAT Created on 4 **EKKO BSART** Purchasing Doc. Type ~ **EKKO** BUKRS * Company Code Operating Company EKKO **EBELN** Purchasing Document PO Number V V

Figure 7.0

Initiating an Export

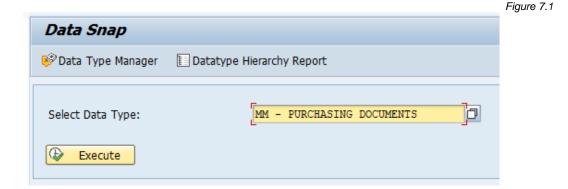
This section provides the details for performing the standard (typical) process for initiating a data export. Data Snap has many other optional features that can be used when needed; those details are listed in the section of this document titled *Data Snap - Optional Features*.

To utilize Data Snap for the purposes of initiating an export, execute the following steps.

- 1. Go to t-code ZGOLD and select Data Snap
- 2. On the next screen, input a Data Type and select 'Execute' (Fig 7.1)

a. Tips:

- i. Use the search help functions if needed
- ii. Reference the section of this document titled *About Data Types* for additional information



The tables and fields defined within the Data Snap configuration are displayed on the screen within the Data Selection Criteria. The required fields are identified with a small check mark; all other fields are optional (Fig. 7.2).

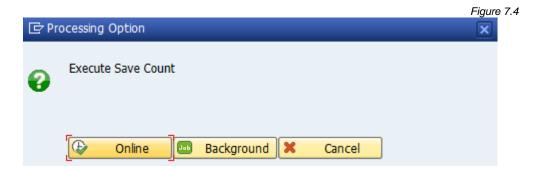
Data Snap - 03/10/2020 @ 14:38:59 Job Monitor Schedule Job **Processing Options Export Description** \square Data Selection Criteria PO Number M to Operating Company to Purchasing Doc. Type to Created on to WBS Element to Changed on to

Figure 7.2

- 3. Input an Export Description and the data selection criteria accordingly (Fig 7.3)
 - a. **Tip**: It is possible to use SAP's multiple selection options in those cases where multiple values or ranges need to be entered

Figure 7.3 Data Snap - 03/10/2020 @ 14:38:59 Schedule Job ▼ Show Count Save As Scenario Import Options Subset Sync Data Transform Job Monitor Processing Options PO's for unit testing in DEV Export Description Data Selection Criteria PO Number 4500006789 to 4500006790 →→→ Operating Company to Purchasing Doc. Type to Created on to WBS Element to 4 Changed on to

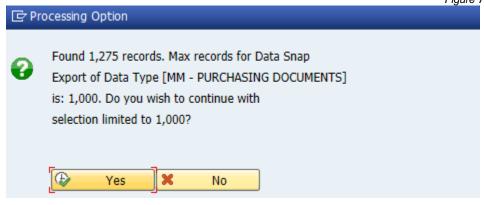
- 4. It is recommended, but not required, to select the 'Show Count' button
 - a. This function will qualify the selection criteria and return a message with the number of records found. This provides the user some visibility to the amount of data that is about to be exported. This serves as a sort of sanity check prior to initiating the export.
- 5. A pop-up window will appear providing the user the ability to run the record count Online (foreground) or Background (Fig 7.4). In most cases, using the Online process is typically okay but if you think the count may take longer than a couple of minutes or you are just not sure, use the Background option to avoid having the process time out.
 - a. When using the Background option, a new window appears. Input a job name and select 'Accept'. Use t-code SM37 to check the job status and when finished, open the job log to see the record count details.



b. When using the Online option, the system returns a message with the record count details (7.5). This message also includes details regarding the Data Snap limit for the given Data Type.

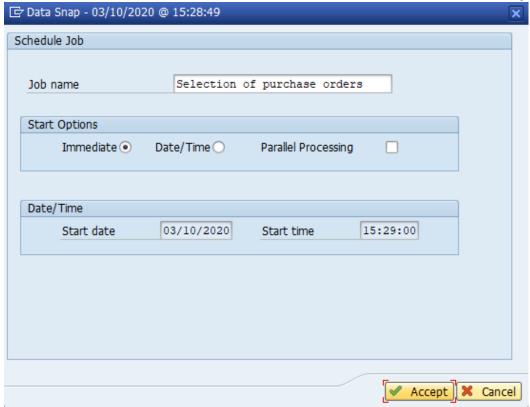


- i. Here is some useful information regarding the Data Snap maximum limit parameter:
 - The default setting is 1,000 for all Data Types
 - It is a configurable parameter that is maintained at the Data Type level so that different Data Types can be assigned different values accordingly
 - The purpose behind this setting is to restrict the amount of data that a user can export in a single execution to a practical amount, and to avoid unwanted overhead in a sensitive system like Production.
 - This limit is applied to the header table of the given Data Type and is not relevant to any subsequent (child) Data Types. For example, if a user is exporting 900 sales orders which have 1,500 related billing documents, all 1,500 billing documents will still be part of the export.
 - In those cases when the user's selection criteria find an amount of data that exceeds the limit, a message is displayed informing the user of this occurrence but provides them the option to proceed with the export anyhow while still respecting the maximum number allowed (Fig 7.6). The alternative is for the user to return to the Data Snap screen and use different inputs.
 - An enhancement was deployed in version 8.6.1 that allows a user to proceed with their export. In previous versions, the only courses of action were for the user to change the selection criteria so that this limit is not exceeded, or to increase the parameter that defines this limit.
- For how-to content on changing the maximum limit, refer to the user guide titled <u>Data Echo Advanced Configuration User</u> <u>Guide</u>



- 6. Close the informational message (Fig 7.5) to return to the Data Snap screen
- 7. Click on the 'Schedule Job' button to initiate the export process
- 8. A new pop-up window appears (Fig 7.8). The 'Job name' field is populated with the same value that was entered in the 'Export Description' field but can be changed if needed.
 - a. The default start option is always 'Immediate' but can be scheduled for the future using the 'Date/Time' option
 - b. If copying a large volume of data, you may want to consider selecting the 'Parallel Processing' option. This will trigger Gold Client to use multiple background jobs to export all of the data instead of just a single job. The number of jobs consumed will depend on the settings defined within Gold Client. For more information regarding the Parallel Processing settings, reference the <u>Gold Client Configuration and Utilities</u> guide.

Figure 7.8



9. Click 'Accept' when ready to initiate the export. The informational message appears to indicate that the background job has been initiated (Fig 7.9).



Figure 7.9

10. Close the informational message to return to the Data Snap screen

At this point the export is running and when complete can be imported into the Target Client once done. Reference the section of this document titled *Import Control* for details. It's not necessary to monitor the export process but you may choose to do so when needed. The steps involved with monitoring the process are explained below.

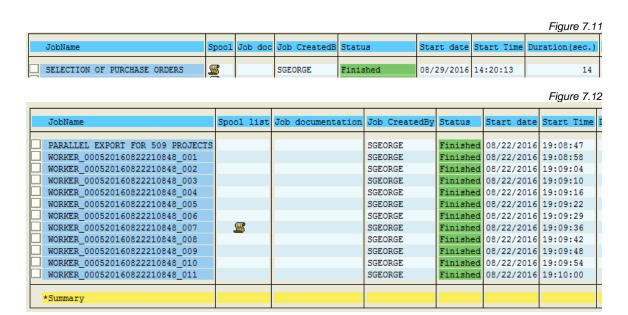
 To monitor the export it is necessary to use t-code SM37. You can either reach this t-code using standard SAP navigation or use the button named 'Job Monitor' (Fig 7.10). Using this function will open SM37 (Job Overview) in a new GUI session.

Data Snap - 08/29/2016 @ 12:00:19

Figure 7.10 ⊕ Schedule Job 🛣 Show Count 🖫 Save As Scenario 🧳 Import Options 👺 Subset Sync 💖 Data Transform

2. Example of a Gold Client export using a single background job (Fig 7.11) and another example using the 'Parallel Processing' option where a total of 12 jobs were created (Fig 7.12). Job 'PARALLEL EXPORT FOR 509 PROJECTS' was the name provided by the user at the time of initiating the export, and then the other 11 jobs were programmatically triggered by the Gold Client program.

Note: Starting from the 8.5 version, no longer uses the same logic that was used in previous versions to determine the number of parallel background jobs.



3. Once the background job is complete, it's possible to select the spool to see what files were specifically generated for the given export (Fig 7.13). The spool will display the Export ID, Export GUID, and Passport and Status files in the output's header. The Data Type, Table, Data File and Path, and Record Count for each data file are also visible. The data file naming convention is a concatenation of the elements listed below.

> **Gold Client directory** in which the files are stored **q-c-** = indicator that the file was generated via Gold Client **Exxxx** = Export ID number **Date and Timestamp** (formatted as YYYYMMDDHHMMSS) **Tablename** (the first 8 characters only) **5 digit number** = a counter that helps provide file uniqueness System ID and client number from which the export was executed

Figure 7.13

Export ID 0005
Export GUID 000520160822155120
Passport File Name : /usr/sap/trans/goldclient/g-c-PASS_E000520160822155120_ESD_100
Status file Name : /usr/sap/trans/goldclient/g-c-STAT_E000520160822155120_ESD_100

| Data Type | Table | File and Path | Count |
|---------------------------------|---------|--|-------|
| | | | |
| CA - TEXT | STXH | /usr/sap/trans/goldclient/g-c-E000520160822155120_STXH00029_ESD_100 | 3 |
| CA - TEXT | STXL | /usr/sap/trans/goldclient/g-c-E000520160822155120_STXL00027_ESD_100 | 3 |
| CA - TEXT 2 | STXH | /usr/sap/trans/goldclient/g-c-E000520160822155120_STXH00222_ESD_100 | 4 |
| CA - TEXT 2 | STXL | /usr/sap/trans/goldclient/g-c-E000520160822155120_STXL00220_ESD_100 | 4 |
| LINK - PO TO GOODS RECEIPT | EKBE | /usr/sap/trans/goldclient/g-c-E000520160822155120_EKBE00033_ESD_100 | 23 |
| LINK - PO TO INVOICE RECEIPT | EKBE | /usr/sap/trans/goldclient/g-c-E000520160822155120_EKBE00034_ESD_100 | 23 |
| LINK - PO TO PUR REQ | EKET | /usr/sap/trans/goldclient/g-c-E000520160822155120_EKET00035_ESD_100 | 23 |
| LINK - PUR ORDER TO MASTER DATA | EKPO | /usr/sap/trans/goldclient/g-c-E000520160822155120_EKP000038_ESD_100 | 23 |
| MM - MATERIAL FORECASTING | MAPR | /usr/sap/trans/goldclient/g-c-E000520160822155120_MAPR 00228_ESD_100 | 43 |
| MM - MATERIAL FORECASTING | PRON | /usr/sap/trans/goldclient/g-c-E000520160822155120_PRON00232_ESD_100 | 17 |
| MM - MATERIAL FORECASTING | PROP | /usr/sap/trans/goldclient/g-c-E000520160822155120_PROP00233_ESD_100 | 45 |
| MM - MATERIAL MASTER | DBVM | /usr/sap/trans/goldclient/g-c-E000520160822155120_DBVM 00191_ESD_100 | 62 |
| MM - MATERIAL MASTER | EORD | /usr/sap/trans/goldclient/g-c-E000520160822155120_EORD00189_ESD_100 | 6 |
| MM - MATERIAL MASTER | MAKT | /usr/sap/trans/goldclient/g-c-E000520160822155120 MAKT 00177 ESD 100 | 307 |
| MM - MATERIAL MASTER | MAPR | /usr/sap/trans/goldclient/g-c-E000520160822155120 MAPR 00217 ESD 100 | 43 |
| MM - MATERIAL MASTER | MARA | /usr/sap/trans/goldclient/g-c-E000520160822155120 MARA 00123 ESD 100 | 23 |
| MM - MATERIAL MASTER | MARC | /usr/sap/trans/goldclient/g-c-E000520160822155120 MARC 00124 ESD 100 | 81 |
| IN MARRIET MARRIE | LOS DON | | - 00 |

Optional Features

When using Data Snap to initiate data exports, multiple features are available for use when relevant and when desired. Several of these options must be used <u>prior</u> to initiating the export because they are either relevant to the export and/or import process. Below is a summary of the available options with more details in the following pages.

Save As Scenario: Provides the user the ability to save the data selection criteria to a permanent and reusable Scenario. See the section of this document titled *Creating Data Scenarios - Data Snap* for details and instructions.

Import Options - Trigger Import: Allows users to choose a system-client with which to automatically import the data into once the export is complete. This autoimport process is performed via RFC. The system-clients available to the user are configured in the Gold Client utility 'Configure Auto Import RFC'; reference the <u>Gold Client Configuration and Utilities</u> guide for maintenance instructions.

The user also has the ability to select these available settings when using the Trigger Import option:

Parallel Processing on Import: This option initiates multiple background jobs which is useful when importing large volumes of data

Replace Conflicting Data: Records that exist in the target client which match the data to be imported will first be deleted and then the data from the export files will be imported. This leads to a replacing or refreshing of the data that was in the target client originally. This option is set by default since customers typically want the latest and greatest data copied to the target client. If the user does not want to overlay existing (conflicting) data, then this setting should be deselected.

Skip Conflicting Data Check: Setting this option informs the Gold Client import program to skip the check that it typically performs to determine if data is in conflict or not. It is primarily useful when importing large volumes of data, and particularly when the data set needs to be imported as quickly as possible.

Import Options - Restrict Import: Allows users to choose one system and client that sets a restriction on where this data can be imported. This could be useful in situations where you have sensitive data that should only be imported into a particular client or, if you have data that could cause issues if imported into particular clients. If a user tries to import the data into a system and client that is different than the one specified, it will not allow the import to occur and will provide a message indicating as such.

Subset Sync: This option is used when the user needs to trigger an export of data that is connected across multiple systems. An example of this would be a Customer in an ECC system that is a Business Partner in a CRM system. The user would be able to trigger the export in one of these systems and use Subset Sync to automatically initiate the export of the same data in the connected system.

Subset Sync requires the use of RFC's and also the setup of some configuration within Gold Client. If Subset Sync is configured accordingly, the user may not need to take any specific actions at the time of initiating the export as the export in the connected system-client may occur automatically; however the user can select the Subset Sync function and override (activate or inactivate) the default settings for their particular export (it does not change the actual config settings). For more details on using Subset Sync and defining the necessary configuration, see the <u>Gold Client Subset Sync User Guide</u>.

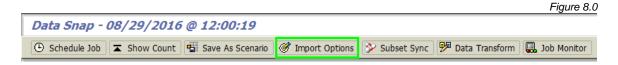
Data Transform: If the Data Type selected for the Data Snap execution is assigned a transformation rule then it will execute this data transformation automatically during the export. To see if the Data Type being executed has a transformation rule assigned to it, select the 'Data Transform' button. Reference the <u>Gold Client Transformation User Guide</u> for more details about configuring Gold Client to use data transformation functionality. **Note**: When a data type is configured to use a transformation rule by default, it cannot be overwritten at run time.

Job Monitor: Selecting this button opens a new GUI session to the Job Monitor screen (t-code SM37). The display of jobs is filtered to those initiated in the week, by this user, and by only Gold Client jobs (program name = /HTG/*).

Export Dashboard: This function provides users another reporting tool in which they can monitor their in-flight exports; this is particularly useful for those exports involving large volumes of data. For more information regarding this functionality, see the section titled 'Export Dashboard' located within the <u>Gold Client</u> Configuration and Utilities User Guide.

Import Options

When selecting 'Import Options' (Fig 8.0) a pop-up window will display (Fig 8.1). This window allows inputs for both the Trigger Import and Restrict Import functions. Be aware that these functions are <u>independent</u> of one another so freely use one or the other, or both, as required.

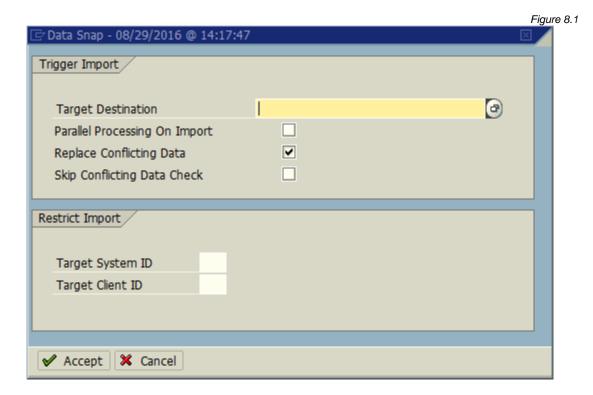


Use the search help function on the 'Target Destination' field to select from the available (and allowed) values. If you require destinations that are not listed, discuss with your Gold Client administrator.

Tick the 'Parallel Processing On Import' and 'Skip Conflicting Data Check' settings as needed.

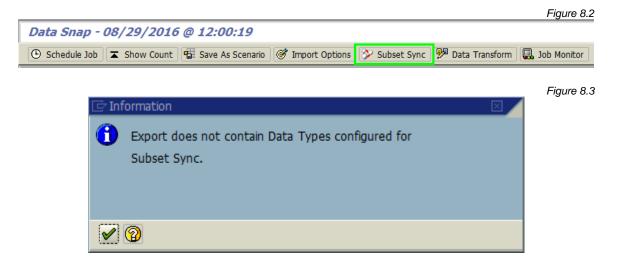
Input 'Target System ID' and 'Target Client ID' values as needed. **Note**: There is no search help function available for these fields so be sure to input the correct values.

When all inputs are complete, select the 'Accept' button.

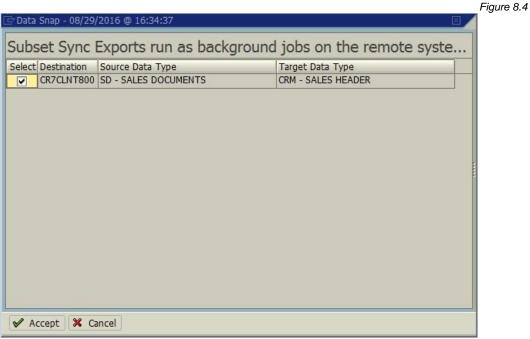


Subset Sync

When selecting the 'Subset Sync' button (Fig 8.2) the system will respond in one of two ways depending on whether Subset Sync is configured for the selected Data Type or not. If the Data Type is not configured, an informational message is displayed indicated as such (Fig 8.3).

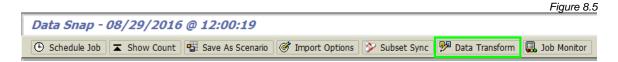


If the selected Data Type is configured, the window shows the details including the connected system destination and which Data Types are mapped from the source system-client to the target system-client (Fig 8.4). The 'Select' indicator is set or not based on how it is configured in the Data Echo framework, but the user is permitted to select or deselect the entries that appear in this window as needed. If selected, Subset Sync will initiate an export in the connected system, and if deselected the connected export will not be initiated. Click the 'Accept' button if changes have been made or 'Cancel' if no changes were made and the default settings are acceptable.



Data Transform

If the Data Type selected for the Data Snap execution is assigned a transformation rule, then it will execute this data transformation automatically during the export. To see if the Data Type being executed has a transformation rule assigned to it, select the 'Data Transform' button (Fig 8.5).



When the button is selected the system will respond in one of two ways depending on whether or not the Data Type is assigned to a transformation rule. If the Data Type is not configured, an informational message is displayed indicated as such (Fig. 8.6), and if it is configured, a window shows the Data Type to Transformation Rule assignment (Fig 8.7). If the user has appropriate access, they may be permitted to override the rule assignment (for the execution of this one export).

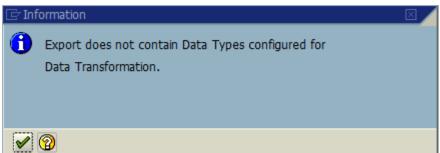
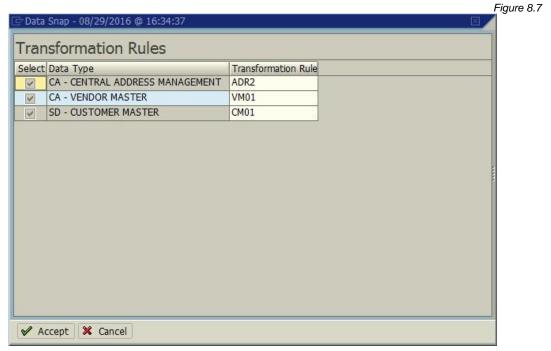


Figure 8.6



Job Monitor

When selecting the 'Job Monitor' button (Fig 8.8) the system will respond with opening the Job Overview screen (t-code SM37) in a new GUI session.

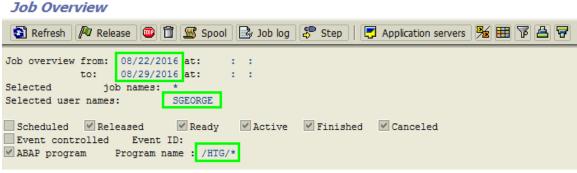
Figure 8.8



The SM37 session will programmatically apply filters as follows (Fig 8.9):

- **From date**: 'today' minus 7 days
- To date: 'today'
- User name: the user's IDProgram name: /HTG/*

Figure 8.9



Export Control

There are two ways to initiate exports in Gold Client, one way is to use Data Snap, and the other is Export Control. The key differentiator between these two functions is that Data Snap is largely used for 1-time (ad hoc) exports whereas Export Control is used to manage and initiate exports as part of a repeatable process.

If a user has created Scenarios via the Intelligent Slice and/or Scenario Segment functions, then the only way to initiate the export of these Scenarios is by using Export Control.

The following sections of this document lead off with an overview of the hierarchical elements relevant to Export Control, followed by a section that covers the detailed steps for performing the typical export process, then another section for additional (optional) features that are available to the user, and finally one that discusses various maintenance activities that are relevant to Export Control.

Hierarchical Elements

There are basically three elements that define the hierarchy within Export Control: Export ID, Container, and Scenario.

Export ID: This is the highest-level object within the hierarchy and is used to organize and manage various Scenarios based on a common need or requirement. It may help to think of these objects as folders or binders used to organize your Scenarios.

Container: This is the child object to an Export ID. There can be up to 9999 containers assigned to a single Export ID although pragmatically speaking, this is unlikely. Most users will have anywhere from one to maybe 50 assigned to a given Export ID.

Scenario: This object represents the user's data selection criteria. For more information on Scenarios, see the section of this document titled *Creating Data Scenarios*. Scenarios are assigned to each Container so that they have a 1:1 relationship.

Structuring the hierarchy in this manner means that one Scenario can be assigned to multiple Export ID's / Containers. Updating the data selection criteria for a given Scenario would then impact all Export ID's / Containers to which it is assigned.

Export ID's can be organized in a number of ways but the more common ways are simply by user (each user has his or her Scenarios organized together) and by activity; for example, the team determines that it's time to refresh the unit test client and representatives from each module create one or more Scenarios to copy data that need to be included in this refresh process. Those various Scenarios could be organized under a single Export ID which leads to a de facto worklist.

Initiating an Export

This section provides the details for performing the standard (typical) process for initiating a data export. Export Control has many other optional features that can be used when needed; those details are listed in the section of this document titled *Export Control - Optional Features*. **Note**: The term "standard" is used here to indicate that no additional (optional) features are included in this process. Any optional features must be utilized <u>prior</u> to initiating the export.

The main Export Control screen provides a list of the existing Export ID's, their owner, description, number of Containers, and Created On and Changed On dates. Clicking on an Export ID number takes the user to a details screen that displays the following details: Container number, Data Type, Scenario number, Type of Scenario, Status, Record count, Changed On, Last Run Date, Job Status, Run Time Estimate (in minutes), and status indicators for Data Transformation and Subset Sync. The light bulb indicators for Data Transformation and Subset Sync are 'on' when the relevant configuration details are set as 'active' and are 'off' when configuration details are either set as 'inactive' or do not exist. To perform various maintenance types of functions within Export Control, reference the section of this document titled *Export Control - Maintenance Activities*.

To initiate a standard export, follow these steps:

- 1. Go to t-code ZGOLD and select Export Control
- 2. If you want to add the Scenario to a new Export ID, follow the sub-steps below. If you want to use an existing Export ID, then skip to step 3.
 - a. Select the 'Create' button; Gold Client will create the record using the next available Export ID and a message will display (Fig. 9.0)
 - b. **Note**: if you want to change the default description, click the 'Change' button to convert the screen to edit mode; make changes and save them when done

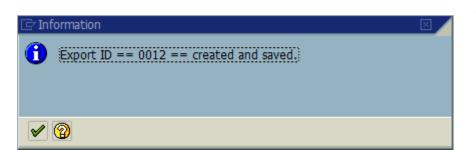
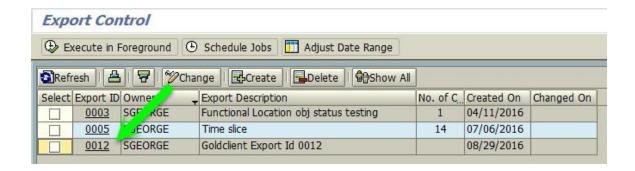


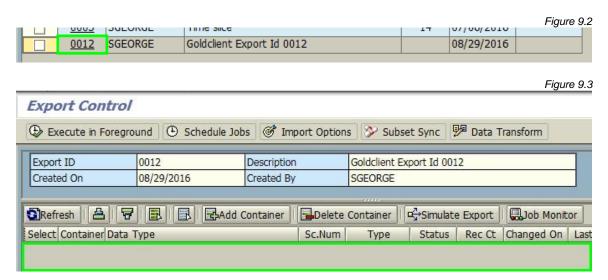
Figure 9.0

c. Close the informational message and locate the Export ID (Fig 9.1)

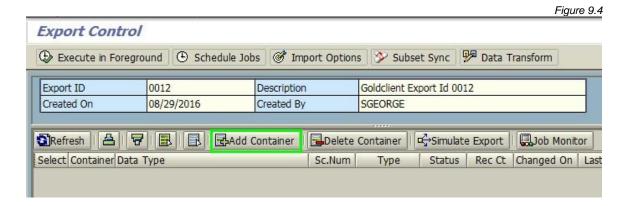
Figure 9.1



3. Click on the Export ID to which you want to add one or more Scenarios (Fig 9.2). If your Export ID is brand new, the screen should appear empty, otherwise you likely added Scenarios previously (Fig 9.3)

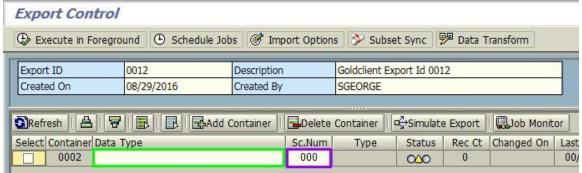


4. To add a new Container, click the 'Add Container' button (Fig 9.4)

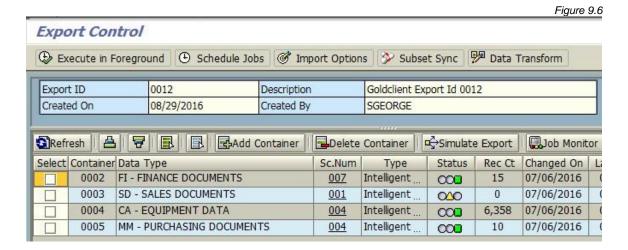


- 5. Input the relevant Data Type first followed by the Scenario number (Fig 9.5)
 - a. **Tip**: Use the search help functions for these two fields to ensure that the correct values are inserted

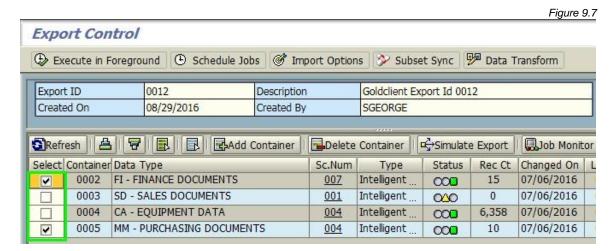
Figure 9.5



6. Repeat steps 4 and 5 as needed to add more Containers; save changes when finished; the results should look similar to this example (Fig 9.6)



7. Tick the 'Select' box next to each Container that needs to be included in the export (Fig 9.7)



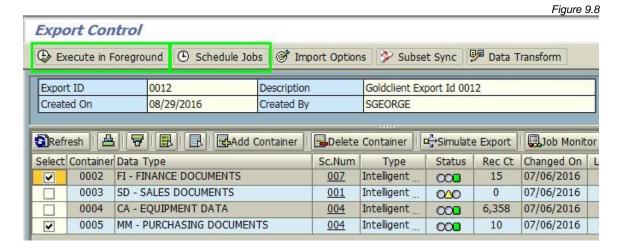
8. To initiate the export, select either the 'Execute in Foreground' button or the 'Schedule Jobs' button; see the following for more details regarding these two options (Fig 9.8)

Execute in Foreground

- Using this option means that the export will run in foreground (dialog) mode and will consume your GUI session until the process completes
- Due to the potential runtime this option should be used conservatively; may be suitable for very small amounts of data
- If this option is chosen and results in a TIME_OUT shortdump, run the export again using the Schedule Jobs option instead

Schedule Jobs

- Using this option means that the export will run in background mode (a.k.a. as a background job)
- This is the recommended option for all exports except for those where the data amounts are very small



Important note: if the Miscellaneous Config setting X_IF_ALLOW_LEGACY_OPTION is active in this system, a pop-up window will appear providing the user the choice of using the 'New' export engine that was released in the 8.5 version of Gold Client or the 'Legacy' engine from previous versions. If the setting

X_IF_ALLOW_LEGACY_OPTION is not active in this system, then this message is skipped and the 'New' engine is used by default. It is highly recommended that you click on 'New' to take full advantage of the latest export engine (Fig 9.9)

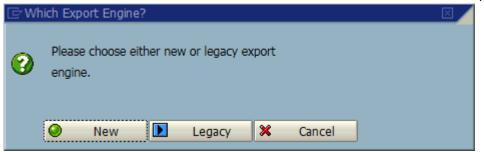
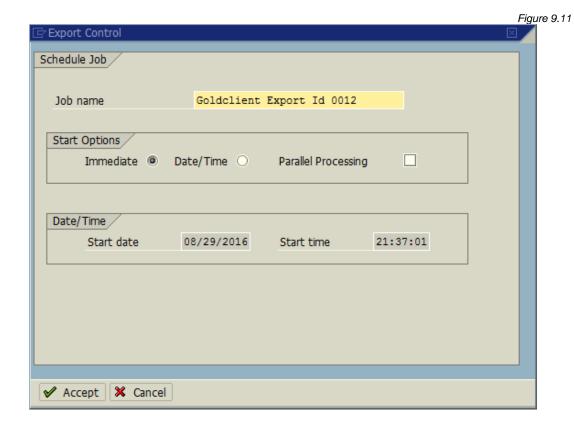


Figure 9.9

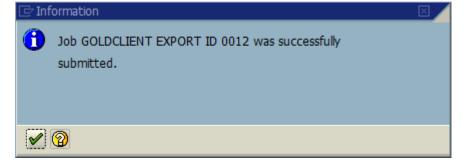
- 9. If the export was initiated using the...
 - a. Execute in Foreground option
 - i. Then this output is an example of the expected outcome and an indicator that the export process has completed (Fig 9.10)
 - ii. The user can now move on to the import process; see the section of this document titled *Import Control*
 - b. Schedule Jobs option
 - i. Then a new pop-up window appears (Fig 9.11)
 - ii. The 'Job name' field is populated with the same value that was entered in the 'Export Description' field but can be changed if needed
 - iii. The default start option is always 'Immediate' but can be scheduled for the future using the 'Date/Time' option
 - iv. If copying a large volume of data, you may want to consider selecting the 'Parallel Processing' option. This will trigger Gold Client to use multiple background jobs to export all of the data instead of just a single job. The number of jobs consumed will depend on the settings defined within Gold Client. For more information regarding the Parallel Processing settings, reference the Gold Client Configuration and Utilities quide.
 - v. Click the 'Accept' button to initiate the background export; the system responds with an informational message (Fig 9.12)

Figure 9.10

| Gold Client Export Work | er Pro | gram | | |
|---------------------------------|------------|--|----------------|-------|
| | 1 | | | |
| | /goldclien | t/g-c-PASS_E000520160822161721_ESD_100 t/g-c-STAT_E000520160822161721_ESD_100 | | |
| Data Type | Table | File and Path | | Count |
| CA - TEXT | STXH | /usr/sap/trans/goldclient/g-c-E000520160822161721_STXH | 00029_ESD_100 | 3 |
| CA - TEXT | STXL | /usr/sap/trans/goldclient/g-c-E000520160822161721_STXL | _00027_ESD_100 | 3 |
| CA - TEXT 2 | STXH | /usr/sap/trans/goldclient/g-c-E000520160822161721_STXH | _00222_ESD_100 | 4 |
| CA - TEXT 2 | STXL | /usr/sap/trans/goldclient/g-c-E000520160822161721_STXL | _00220_ESD_100 | 4 |
| LINK - PO TO GOODS RECEIPT | EKBE | /usr/sap/trans/goldclient/g-c-E000520160822161721_EKBE | _00033_ESD_100 | 23 |
| LINK - PO TO INVOICE RECEIPT | EKBE | /usr/sap/trans/goldclient/g-c-E000520160822161721_EKBE | _00034_ESD_100 | 23 |
| LINK - PO TO PUR REQ | EKET | /usr/sap/trans/goldclient/g-c-E000520160822161721_EKET | _00035_ESD_100 | 23 |
| LINK - PUR ORDER TO MASTER DATA | ЕКРО | /usr/sap/trans/goldclient/g-c-E000520160822161721_EKPO | _00038_ESD_100 | 23 |
| MM - MATERIAL FORECASTING | MAPR | /usr/sap/trans/goldclient/g-c-E000520160822161721_MAPR | 00228_ESD_100 | 43 |
| MM - MATERIAL FORECASTING | PRON | /usr/sap/trans/goldclient/g-c-E000520160822161721_PRON | 00232_ESD_100 | 17 |
| MM - MATERIAL FORECASTING | PROP | /usr/sap/trans/goldclient/g-c-E000520160822161721_PROP | _00233_ESD_100 | 45 |
| MM - MATERIAL MASTER | DBVM | /usr/sap/trans/goldclient/g-c-E000520160822161721_DBVM | 00191_ESD_100 | 62 |
| MM - MATERIAL MASTER | EORD | /usr/sap/trans/goldclient/g-c-E000520160822161721_EORD | 00189_ESD_100 | 6 |
| MM - MATERIAL MASTER | MAKT | /usr/sap/trans/goldclient/g-c-E000520160822161721_MAKT | 00177_ESD_100 | 307 |
| MM - MATERIAL MASTER | MAPR | /usr/sap/trans/goldclient/g-c-E000520160822161721_MAPR | 00217_ESD_100 | 43 |
| MM - MATERIAL MASTER | MARA | /usr/sap/trans/goldclient/g-c-E000520160822161721_MARA | 00123_ESD_100 | 23 |
| MM - MATERIAL MASTER | MARC | /usr/sap/trans/goldclient/g-c-E000520160822161721_MARC | 00124_ESD_100 | 81 |
| MM MATEDIAL MACTED | MARCH | /usr/con/trans/goldslight/g c E000520160922161721 MAPCH | 00216 ECD 100 | 72 |





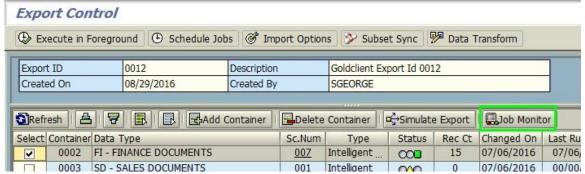


10. Close the informational message to return to the Export Control screen

At this point the export is running and when complete can be imported into the Target Client once done. Reference the section of this document titled *Import Control* for details. It's not necessary to monitor the export process but you may choose to do so when needed. The steps involved with monitoring the process are explained below.

1. To monitor the export it is necessary to use t-code SM37. You can either reach this t-code using standard SAP navigation or use the button named 'Job Monitor' (Fig 9.13). Using this function will open SM37 (Job Overview) in a new GUI session.

Figure 9.13



2. Example of a Gold Client export using a single background job (Fig 9.14) and another example using the 'Parallel Processing' option where a total of 12 jobs were created (Fig 9.15). Job 'PARALLEL EXPORT FOR 509 PROJECTS' was the name provided by the user at the time of initiating the export, and then the other 11 jobs were programmatically triggered by the Gold Client program.

Figure 9.14

| JobName | Spool | Job doc | Job CreatedB | Status | Start date | Start Time | Duration(sec.) |
|------------------------------|----------|---------|--------------|----------|------------|------------|----------------|
| SELECTION OF PURCHASE ORDERS | <u>s</u> | | SGEORGE | Finished | 08/29/2016 | 14:20:13 | 14 |

Figure 9.15

| JobName | Spool list | Job documentation | Job CreatedBy | Status | Start date | Start Time I |
|--|------------|-------------------|--|----------------------|--|----------------------|
| PARALLEL EXPORT FOR 509 PROJECTS WORKER_000520160822210848_001 WORKER_000520160822210848_002 | | | SGEORGE SGEORGE SGEORGE | Finished Finished | 08/22/2016 08/22/2016 08/22/2016 | 19:08:58 19:09:04 |
| WORKER_000520160822210848_003 WORKER_000520160822210848_004 WORKER_000520160822210848_005 | | | SGEORGE SGEORGE | Finished Finished | 08/22/2016 08/22/2016 08/22/2016 | 19:09:16 19:09:22 |
| WORKER_000520160822210848_006 WORKER_000520160822210848_007 WORKER_000520160822210848_008 WORKER_000520160822210848_009 | <u></u> | | SGEORGE SGEORGE SGEORGE SGEORGE | Finished Finished | 08/22/2016 08/22/2016 08/22/2016 08/22/2016 | 19:09:36 19:09:42 |
| WORKER_000520160822210848_009 WORKER_000520160822210848_010 WORKER_000520160822210848_011 | | | SGEORGE SGEORGE | Finished | 08/22/2016 08/22/2016 08/22/2016 | 19:09:54 |
| *Summary | | | | | | |

3. Once the background job is complete, it's possible to select the spool to see what files were specifically generated for the given export (Fig 9.16). The spool will display the Export ID, Export GUID, and Passport and Status files in the output's header. The Data Type, Table, Data File and Path, and Record Count for each data file are also visible. The data file naming convention is a concatenation of the elements listed below.

Gold Client directory in which the files are stored
g-c- = indicator that the file was generated via Gold Client
Exxxx = Export ID number
Date and Timestamp (formatted as YYYYMMDDHHMMSS)
Tablename (the first 8 characters only)
5-digit number = a counter that helps provide file uniqueness
System ID and client number from which the export was executed

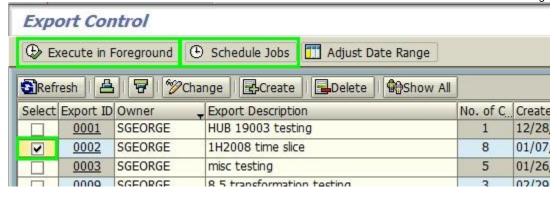
Figure 9.16 Export ID Export GUID 000520160822155120 Passport File Name : /usr/sap/trans/goldclient/g-c-PASS_E000520160822155120_ESD_100 Status file Name: /usr/sap/trans/goldclient/g-c-STAT_E000520160822155120_ESD_100 Data Type File and Path Count CA - TEXT /usr/sap/trans/goldclient/g-c-E000520160822155120 STXH 00029 ESD 100 CA - TEXT STXL /usr/sap/trans/goldclient/g-c-E000520160822155120_STXL_ 00027 ESD 100 CA - TEXT 2 STXH /usr/sap/trans/goldclient/g-c-E000520160822155120_STXH 00222 ESD 100 CA - TEXT 2 STXL /usr/sap/trans/goldclient/g-c-E000520160822155120 STXL 00220 ESD 100 LINK - PO TO GOODS RECEIPT /usr/sap/trans/goldclient/g-c-E000520160822155120 EKBE 00033 ESD 100 23 EKBE LINK - PO TO INVOICE RECEIPT EKBE /usr/sap/trans/goldclient/g-c-E000520160822155120_EKBE_ 00034 ESD 100 23 LINK - PO TO PUR REQ EKET /usr/sap/trans/goldclient/g-c-E000520160822155120_EKET 00035 ESD 100 23 LINK - PUR ORDER TO MASTER DATA EKPO /usr/sap/trans/goldclient/g-c-E000520160822155120_EKPO 00038_ESD_100 23 MM - MATERIAL FORECASTING 43 MAPR /usr/sap/trans/goldclient/g-c-E000520160822155120 MAPR 00228 ESD 100 MM - MATERIAL FORECASTING PRON /usr/sap/trans/goldclient/g-c-E000520160822155120_PRON_ 00232 ESD 100 MM - MATERIAL FORECASTING PROP /usr/sap/trans/goldclient/g-c-E000520160822155120_PROP 00233 ESD 100 45 MM - MATERIAL MASTER 00191_ESD_100 DBVM /usr/sap/trans/goldclient/g-c-E000520160822155120 DBVM 62 00189_ESD_100 MM - MATERIAL MASTER EORD /usr/sap/trans/goldclient/g-c-E000520160822155120 EORD MAKT 00177 ESD 100 MM - MATERIAL MASTER /usr/sap/trans/goldclient/g-c-E000520160822155120 MAKT 307 MM - MATERIAL MASTER MAPR /usr/sap/trans/goldclient/g-c-E000520160822155120_MAPR_ 00217_ESD_100 43 MARA MM - MATERIAL MASTER /usr/sap/trans/goldclient/g-c-E000520160822155120_MARA_ 00123 ESD 100 23 MM - MATERIAL MASTER MARC /usr/sap/trans/goldclient/g-c-E000520160822155120_MARC 00124_ESD_100

Alternative Process

It is also possible to initiate exports from the initial Export Control screen. The key difference with this process when compared to the typical process (described above) is that **all** Containers assigned to the given Export ID are included in the export. Knowing this important detail, this method should be used with some caution to help ensure that only the desired and expected data is included in the export.

Tick the 'Select' checkbox next to an Export ID and then select the 'Execute in Foreground' or 'Schedule Jobs' button (Fig 9.17). **Note**: only one Export ID can be selected when initiating the export from this screen.

Figure 9.17



Optional Features

When using Export Control to initiate data exports, multiple features are available for use when relevant and when desired. Several of these options must be used <u>prior</u> to initiating the export because they are either relevant to the export and/or import process. Below is a summary of the available options with more details in the following pages.

Import Options - Trigger Import: Allows users to choose a system-client with which to automatically import the data into once the export is complete. This autoimport process is performed via RFC. The system-clients available to the user are configured in the Gold Client utility 'Configure Auto Import RFC'; reference the <u>Gold Client Configuration and Utilities</u> guide for maintenance instructions.

The user also has the ability to select these available settings:

Parallel Processing on Import: This option initiates multiple background jobs which is useful when importing large volumes of data

Replace Conflicting Data: Records that exist in the target client which match the data to be imported will first be deleted and then the data from the export files will be imported. This leads to a replacing or refreshing of the data that was in the target client originally. This option is set by default since customers typically want the latest and greatest data copied to the target client. If the user does not want to overlay existing (conflicting) data, then this setting should be deselected.

Skip Conflicting Data Check: Setting this option informs the Gold Client import program to skip the check that it typically performs to determine if data is in conflict or not. It is primarily useful when importing large volumes of data, and particularly when the data set needs to be imported as quickly as possible.

Import Options - Restrict Import: Allows users to choose one system and client that sets a restriction on where this data can be imported. This could be useful in situations where you have sensitive data that should only be imported into a particular client or, if you have data that could cause issues if imported into particular clients. If a user tries to import the data into a system and client that is different than the one specified, it will not allow the import to occur and will provide a message indicating as such.

Subset Sync: This option is used when the user needs to trigger an export of data that is connected across multiple systems. An example of this would be a Customer in an ECC system that is a Business Partner in a CRM system. The user would be able to trigger the export in one of these systems and use Subset Sync to automatically initiate the export in the connected system.

Subset Sync requires the use of RFC's and also the setup of some configuration within Gold Client. If Subset Sync is configured accordingly, the user may not need to take any specific actions at the time of initiating the export as the export in the connected system-client may occur automatically; however the user can select the Subset Sync function and override (activate or inactivate) the default settings for

their particular export (it does not change the actual config settings). For more details on using Subset Sync and defining the necessary configuration, see the <u>Gold Client Subset Sync User Guide</u>.

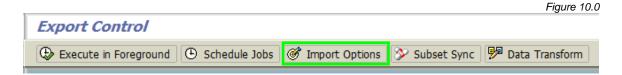
Data Transform: If the Data Type selected for the Data Snap execution is assigned a transformation rule then it will execute this data transformation automatically during the export. To see if the Data Type being executed has a transformation rule assigned to it, select the 'Data Transform' button. Reference the <u>Gold Client Transformation User Guide</u> for more details about configuring Gold Client to use data transformation functionality. **Note**: When a data type is configured to use a transformation rule by default, it cannot be overwritten at run time.

Job Monitor: Selecting this button opens a new GUI session to the Job Monitor screen (t-code SM37). The display of jobs is filtered to those initiated in the week, by this user, and by only Gold Client jobs (program name = /HTG/*).

Export Dashboard: This function provides users another reporting tool in which they can monitor their in-flight exports; this is particularly useful for those exports involving large volumes of data. For more information regarding this functionality, see the section titled 'Export Dashboard' located within the <u>Gold Client</u> <u>Configuration and Utilities User Guide</u>.

Import Options

When selecting 'Import Options' (Fig 10.0) a pop-up window will display (Fig 10.1). This window allows inputs for both the Trigger Import and Restrict Import functions. Be aware that these functions are <u>independent</u> of one another so freely use one or the other, or both, as required.

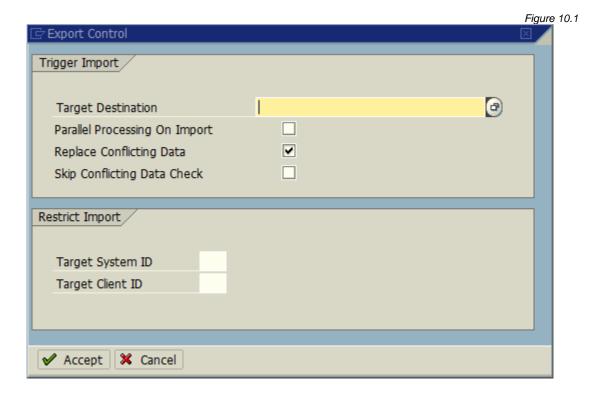


Use the search help function on the 'Target Destination' field to select from the available (and allowed) values. If you require destinations that are not listed, discuss with your Gold Client administrator.

Tick the 'Parallel Processing On Import' and 'Skip Conflicting Data Check' settings as needed.

Input 'Target System ID' and 'Target Client ID' values as needed. **Note**: There is no search help function available for these fields so be sure to input the correct values.

When all inputs are complete, select the 'Accept' button.



Subset Sync

When selecting the 'Subset Sync' button (Fig 10.2) the system will respond in one of two ways depending on whether Subset Sync is configured for the selected Data Type or not. If the Data Type is not configured, an informational message is displayed indicated as such (Fig 10.3).

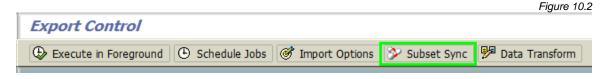
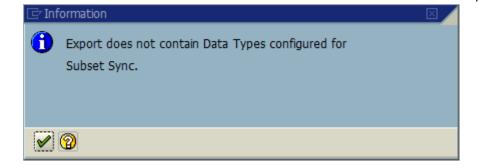
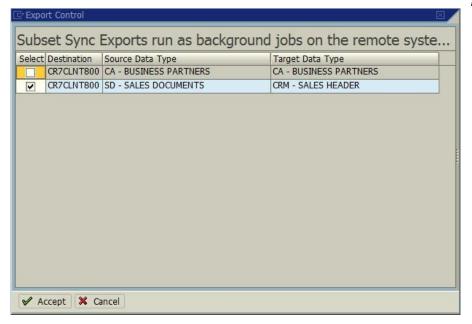


Figure 10.3



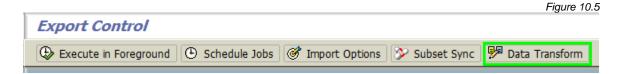
If the selected Data Type is configured, the window shows the details including the connected system destination and which Data Types are mapped from the source system-client to the target system-client (Fig 10.4). The 'Select' indicator is set or not based on how it is configured in the Data Echo framework, but the user is permitted to select or deselect the entries that appear in this window as needed. If selected, Subset Sync will initiate an export in the connected system, and if deselected the connected export will not be initiated. Click the 'Accept' button if changes have been made or 'Cancel' if no changes were made and the default settings are acceptable.

Figure 10.4

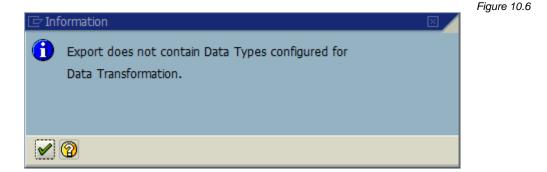


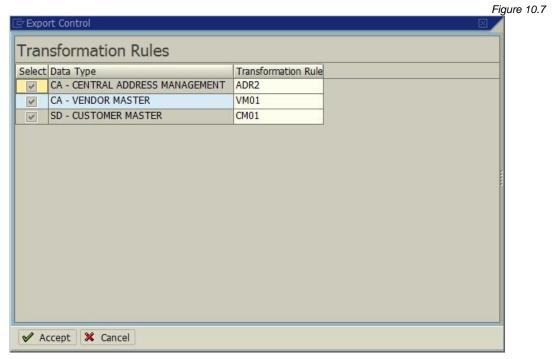
Data Transform

If the Data Type selected for the Data Snap execution is assigned a transformation rule, then it will execute this data transformation automatically during the export. To see if the Data Type being executed has a transformation rule assigned to it, select the 'Data Transform' button (Fig 10.5).



When the button is selected the system will respond in one of two ways depending on whether or not the Data Type is assigned to a transformation rule. If the Data Type is not configured, an informational message is displayed indicated as such (Fig 10.6), and if it is configured, a window shows the Data Type to Transformation Rule assignment (Fig 10.7). If the user has appropriate access, they may be permitted to override the rule assignment (for the execution of this one export).





Job Monitor

When selecting the 'Job Monitor' button (Fig 10.8) the system will respond with opening the Job Overview screen (t-code SM37) in a new GUI session.

Figure 10.8 Export Control 🕒 Execute in Foreground 🕒 Schedule Jobs 🏈 Import Options 🦻 Subset Sync 📴 Data Transform Export ID 0031 Description 1-month slice Created On 08/26/2016 Created By SGEORGE Select Container Data Type Sc.Num Status | Rec Ct | Changed On | Last Run Da Type 08/26/2016 0001 CA - BUSINESS PARTNERS 031 Intelligent ... 37 00/00/000 000

The SM37 session will programmatically apply filters as follows (Fig 10.9):

• From date: 'today' minus 7 days

To date: 'today'

User name: the user's IDProgram name: /HTG/*

Figure 10.9 Job Overview 🛐 Refresh 🎤 Release 👜 🗊 🐷 Spool 🗟 Job log 🐉 Step 📮 Application servers 🏂 🎛 🔽 🖴 🗟 Job overview from: 08/22/2016 at: 08/29/2016 at: to: Selected job names: * Selected user names: SGEORGE Scheduled Released ✓ Ready Active Finished Canceled Event controlled Event ID: ✓ ABAP program Program name : /HTG/*

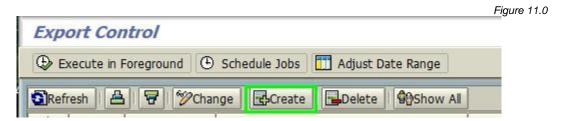
Maintenance Activities

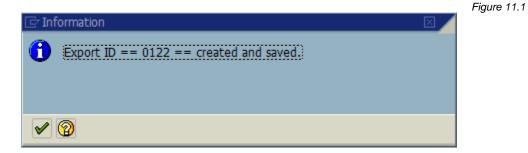
The Export Control function has several various maintenance capabilities that may need to be leveraged on an as needed basis; see the list that follows. This section describes in detail what steps need to be executed to perform each of these functions.

- Create a new Export ID
- Change an Export ID (the Owner or Description)
- Delete an Export ID
- Add a Container to an Export ID
- Delete a Container from an Export ID
- Change or Display Data Selection Criteria
- Adjust Date Range
- Show All / Show My button

Create a new Export ID

- 1. Go to t-code ZGOLD and select Export Control
- 2. Select the 'Create' button (Fig 11.0); Gold Client will create the record using the next unused Export ID and a message will display (Fig 11.1)





3. Close the informational message and locate the Export ID (Fig 11.2)

| | | | | | Figure 1 | 1.2 |
|------|---------|---------------------------|---|------------|----------|-----|
| | | • | | , , | | |
| 0122 | SGEORGE | Goldclient Export Id 0122 | | 08/29/2016 | | |
| 0000 | CCEODCE | 100 100 | 4 | 04/00/2016 | | |

Change an Export ID

- 1. Go to t-code ZGOLD and select Export Control
- 2. Select the 'Change' button (Fig 11.3); the Export Control screen converts to edit mode (Fig 11.4)
- 3. Change the Export ID owner and/or description as needed
- 4. Save changes when finished

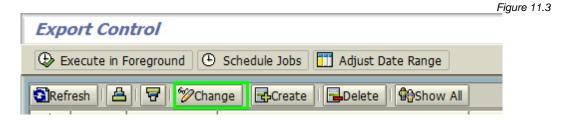
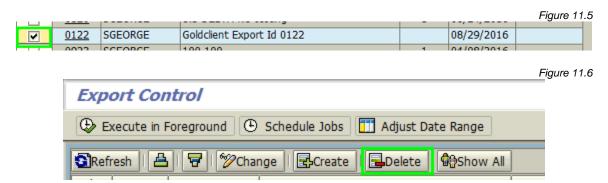


Figure 11.4 Export Control Execute in Foreground Schedule Jobs Adjust Date Range 🚰 Refresh 📗 📇 🦙 😭 Change 📗 🔂 Create 📗 🔂 Delete 📗 🍪 Show All Export Description Select Export ID Owner No. of C Created On Changed On HUB 19003 testing 0001 SGEORGE 1 12/28/2015 0002 SGEORGE 1H2008 8 01/07/2016 0003 SGEORGE misc testing 5 01/26/2016 0009 SGEORGE 8.5 transformation testing 3 02/29/2016 05/13/2016 8 5 Logical System testing

Delete an Export ID

- 1. Go to t-code ZGOLD and select Export Control
- 2. Tick the 'Select' checkbox for one or more Export ID's (Fig 11.5)
- 3. Select the 'Delete' button (Fig 11.6); the system provides a message requesting confirmation (Fig 11.7)
- Select 'OK' to continue, otherwise select 'Cancel' (Fig 11.7); if you proceeded with the deletion, the system provides a message confirming the action (Fig 11.8)



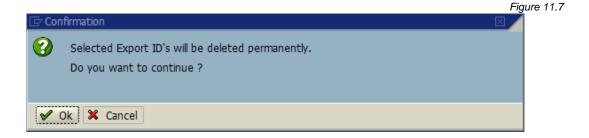
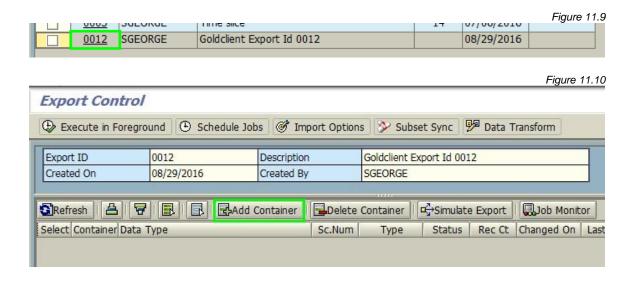


Figure 11.8

Ty... Name of the column Message Text
Export ID [0122] was deleted successfully.

Add a Container to an Export ID

- 1. Go to t-code ZGOLD and select Export Control
- 2. Click on the Export ID to which you want to add one or more Containers (Fig 11.9)
- 3. To add a new Container, click the 'Add Container' button (Fig 11.10)



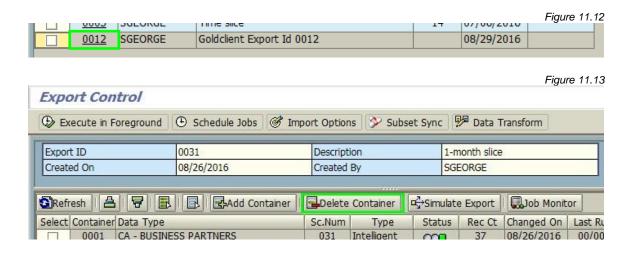
- 4. Input the relevant Data Type <u>first</u> followed by the Scenario number (Fig 11.11)
 - a. **Tip**: Use the search help functions for these two fields to ensure that the correct values are inserted

Figure 11.11 Export Control Execute in Foreground 🕒 Schedule Jobs 🎯 Import Options 👺 Subset Sync 💖 Data Transform Export ID 0012 Description Goldclient Export Id 0012 Created On 08/29/2016 Created By SGEORGE ③Refresh | 🔠 | 🗗 | 🖪 | 🖪 | 艮Add Container | 🔂 Delete Container | ➪ Simulate Export | 및 Job Monitor Select Container Data Type Sc.Num Type Status Rec Ct | Changed On | 0002 000 00/ 0 000

5. Repeat steps 3 and 4 to add more Containers as needed; save changes when done

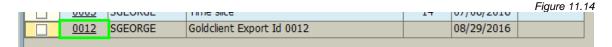
Delete a Container from an Export ID

- 1. Go to t-code ZGOLD and select Export Control
- 2. Click on the Export ID to which you want to delete one or more Containers (Fig 11.12)
- 3. To delete existing Containers, click the 'Delete Container' button (Fig 11.13)
- 4. Save changes when done



Change or Display Data Selection Criteria

- 1. Go to t-code ZGOLD and select Export Control
- 2. Click on the relevant Export ID (Fig 11.14)



3. Click on the Scenario number that you want to display or change (Fig 11.15)

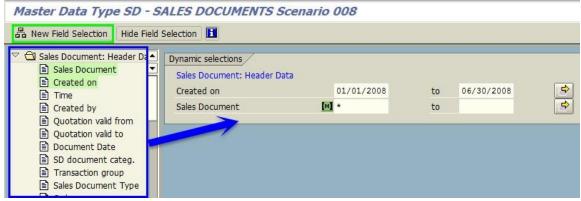


4. On the next screen the data selection criteria is displayed (Fig 11.16).



- 5. From this screen the existing criteria can be changed and/or the user can select the 'New Field Selection' button and add new fields as required (Fig 11.7).
 - a. **Tip**: to add new fields to the selection criteria, double-click on them

Figure 11.17



6. If changes are deployed to the data selection criteria then be sure to save them. This action will prompt Gold Client to qualify the updated data selection criteria and return a record count via informational message (Fig 11.18). If no changes are made the user can simply exit back to the previous screen.

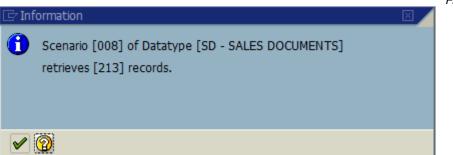
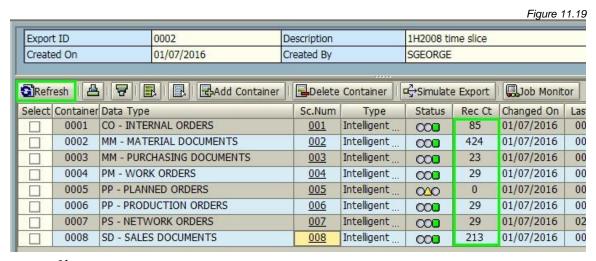


Figure 11.18

7. Close the informational message. The user is returned to the Export Control screen. The 'Record Count' column will not reflect a change in the count unless the 'Refresh' button is selected which refreshes the entire ALV grid (Fig 11.19).



Adjust Date Range

The purpose of this function is to modify the date range that may be used on some Scenarios. To help explain how this function can be utilized, here is a real-world example:

A user creates a Scenario using the data selection criteria consisting of a Created On date range for materials (via table-field MARA-ERSDA). The export of this data needs to be performed on a periodic basis and therefore must use a dynamic date range of 'today' minus 7 days since the export will run weekly. In this manner, when the export for this Scenario is executed it will always look at **today's date** and look back in 7 days. Without this adjustment, the Scenario's data selection criteria remains static and so running the export every week is essentially meaningless as it would export the same data set over and over.

To utilize this function, perform the following steps.

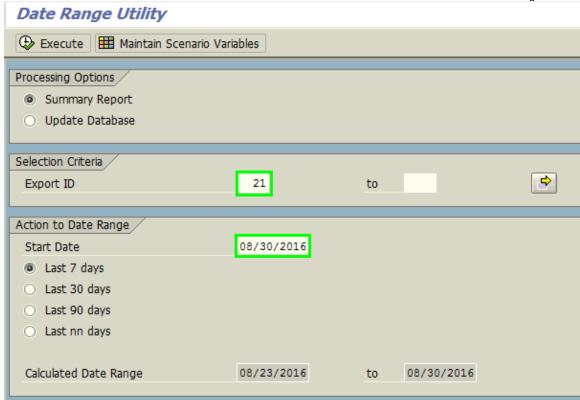
- 1. Go to t-code ZGOLD and select Export Control
- 2. Click on the one or more Export IDs that contain the Scenarios which need to have their dates adjusted (Fig 11.20)



- 3. Click the 'Adjust Date Range' button (Fig 11.21); the Date Range Utility screen displays (Fig 11.22)
 - a. The processing option defaults to 'Summary Report' which is basically running the program in simulation or test mode; this selection needs to be updated to 'Update Database' when ready for actual update execution
 - b. The 'Export ID' values are copied to this field from the selections made in step 2
 - c. The 'Start Date' value is defaulted to today's date
 - d. Radio buttons are available to determine the historical date range that should be used (7 days, 30, 90, or nn). The 'Calculated Date Range' is then updated based on the chosen settings so that the user can determine if it is accurate or not.



Figure 11.22



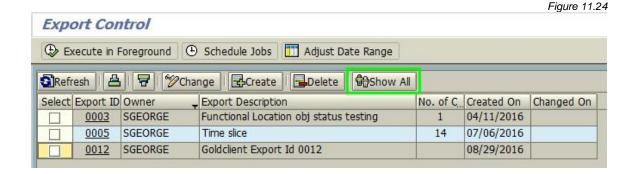
- 4. Make changes to any inputs as needed and then select the 'Execute' button
 - a. An output is provided as seen in this example (Fig 11.23); the output is the same no matter which processing option is used except that the report header will indicate either 'Summary Report' or 'Update Database'
- 5. Exit back to the main Export Control screen. Select the relevant Export ID and then the various Scenarios if you wish to display the updated data selection criteria.

Figure 11.23 Date Range Utility Report Mode: Summary Report Export ID read: 31 Sc.Num Seq. Nbr. Curr FROM New FROM Exp ID Container Data Type Curr TO New TO 0002 CA - ASSET MASTER 008 2 04/07/2007 12/31/2009 08/23/2016 08/30/2016 0003 CA - BUSINESS PARTNERS 003 1 04/07/2007 07/31/2007 08/23/2016 08/30/2016 2 04/07/2007 0004 CA - EOUIPMENT DATA 004 12/31/2009 08/30/2016 08/23/2016 0005 CA - VENDOR MASTER 005 1 04/07/2007 12/31/2009 08/23/2016 08/30/2016 0006 CO - INTERNAL ORDERS 003 2 04/07/2007 12/31/2009 08/23/2016 08/30/2016 0007 FI - FINANCE DOCUMENTS 005 2 04/07/2007 12/31/2009 08/23/2016 08/30/2016

Show All / Show My button

This button is used to simply convert the main Export Control screen between displaying only the user's Export ID's or displaying all Export ID's. The default setting is 'Show My' so that the user only sees their own. Selecting the 'Show All' button would then display all records (Fig 11.24).

There is no issue for a user to see his/her own, but the ability to see all others is potentially sensitive, especially if the user also has the ability to edit or even delete Export ID's.



Import Control

There are two ways to initiate imports in Gold Client; one way is a manual process and the other way is to use the auto-import feature available within Data Snap and Export Control. All manual imports are initiated solely from Import Control.

As most data controls exist on the export side, the import functionality is designed to simply import data into the database from the Gold Client files that were written during the export process.

The Import Control function manages the import of data into the target client in which it is being executed. In other words, a user cannot initiate an import in client 'A' and have data be imported into client 'B'; the data will be imported only into client 'A'; however Gold Client allows for multiple imports. This means that the import could be executed into the same (target) client multiple times or into various target clients.

Important: The Import Control function is not available in your production system to eliminate the risk of importing into production as there are programmatic safeguards in place. This button is not available on the main Gold Client screen, nor can it be executed directly via SA38/SE38.

The following sections of this document lead off with some important and meaningful details about using Import Control, followed by its various reporting capabilities, then a section that covers the detailed steps for performing the typical import process, and finally, a section for additional (optional) features that are available to the user.

Important Details

This section provides some important details so that the user gets to know and understand the nuances of working within the Import Control function.

The initial Import Control screen contains some filters that can be used when needed; they include: File creation date, User who ran Export, and the Export ID. The default file path shows to which directory the Gold Client files are written but since this is a static location, it is just informational. The File creation date value always defaults to today's date minus 30 days, and the User value always defaults to the user's logon ID.

Tip: When changing or applying filters, use the 'Enter' icon (or select Enter on your keyboard) to force a refresh of the entries displayed in the ALV grid

There are three screens within Import Control. The initial or main screen provides a list of data exports which display the following details in the ALV grid: Export ID, Owner, Source System, Source Client, Export Description, Created On, and Create Time. If a user clicks on an Export ID number, a details screen displays the following information in the ALV grid: Container number, Data Type, Export Status, Collection Count, and Create Time. If a user clicks on an Export ID number, the final screen displays the following in the ALV grid: Data Type, Export Status, Collection Count, and Create Time.

It's possible to initiate an import from all three of the screens within Import Control; however it is best practice to do so from either the **initial screen** (which lists the records by Export ID), or from the **details screen** (which lists the records by Container). The reason for not importing data using the **final screen** (which lists the records by Data Type) is because selectively picking which Data Types to import could easily lead to data integrity issues.

Once the import is initiated the user will be presented with an important option regarding conflicting data (Fig 12.0.0), and details about these options are listed here:

Replace Conflicting Data: If records that exist in the target client match
what is to be imported and the user wants to overlay this data, the Replace
Duplicate Records setting should be selected.

When selected, the import program deletes the records from the respective tables (corresponding to those records which are about to be imported) and then the data records from the files will be imported. This results in a refreshing of any data that was in the target client originally.

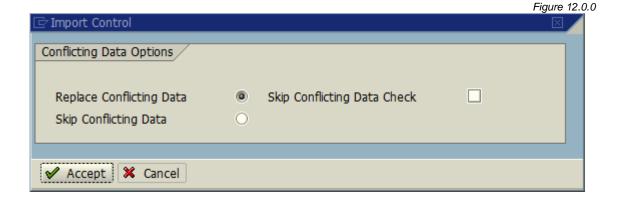
It is important to note that the Replace Duplicate Records option is selected by default since customers typically want the latest and greatest data.

Using this option can introduce risk to the data in the target client. Ensure that adequate communication between the business teams occurs before importing data into a target client already containing data.

• **Skip Conflicting Data**: If records that exist in the target client match what is to be imported and the user does not want to overlay this data, the Skip Conflicting setting should be selected.

Be mindful that using the Skip Conflicting Data option may not always lead to the highest levels of data integrity because what may occur is a blending of data from the source system and whatever data already exists within the target.

Tip: It's important to understand that when importing data there are only two outcomes possible: (1) data that does not already exist will be appended, and (2) data that already exists will be replaced (deleted and re-inserted). At no time does an import process **delete data outright**.



Key Reporting Functions

This section provides details surrounding some potentially important reports that a user may choose to execute. From a pragmatic perspective, most users would run these reports <u>prior</u> to initiating the data import but as long as the relevant Gold Client data files have not been deleted, the reports can be executed after the data has been imported as well. Of the three reports, the Conflicting Data Report is likely the most important. Because users may want to execute these reports <u>before</u> importing data, this content is shared first followed by the section titled <u>Import Control</u> - <u>Initiating an Import</u>.

There are three reports available and an overview of each follows. Instructions on how to execute these reports are available on the subsequent pages.

Data Detail Report: This report reads the data files and provides an output consisting of the details below. This report only displays the data for just the header table of the Data Type. For example, for Data Type SD - SALES DOCUMENTS the report would display the details for table VBAK (but not VBAP, VBUK, etc.), and for MM - MATERIAL MASTER it would display the details for only table MARA.

- Data Type
- Table Name
- File
- Records stored in the file
 - o Data displayed is limited to just the key fields for that table

Summary: This report may be useful for when a user wants to see some or all of the various data objects that were collected during the export process.

Sizing Report: This report reads the data files and provides an output consisting of the details below. Additionally, the user can click on the file to display what data is stored within it.

- Table Name
- Record Count
- Table Width
- Size
- Data Type
- File

Something to keep in mind is that this report only provides the size of the data that was <u>exported</u>. Some of this data may already exist within the target client and so the database will not increase because of this fact (the existing data will be replaced or ignored). Only those records newly appended will cause an increase.

Summary: This report may be useful for when a user wants to understand the volume of data (number of records) that was collected during the export process and the total space that could be (potentially) consumed in the target database if this data was to be imported.

Conflicting Data Report: This report reads the data files and provides an output consisting of the details below. The output of this report is going to mirror that of the Data Detail Report but there is one important difference: the Data Detail Report

displays all records from the data files whereas the Conflicting Data Report shows <u>onlythoserecords</u> from the data files AND which already exist in the target client. In other words, **running this report is like executing the import in simulation mode** so that the user understands what data they are about to import already exists in the target client and therefore has the potential to be overwritten.

- Data Type
- Table Name
- File
- Records stored in the file
 - Data displayed is limited to just the key fields for that table

Summary: This report may be useful for when a user wants to see some or all of the various data objects that were collected during the export process.

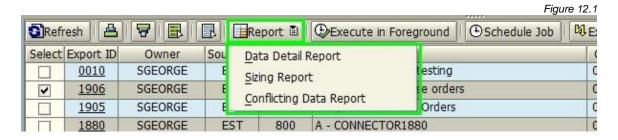
To run the various reports, follow the steps below.

Note: These steps show how to run the reports from the main Import Control screen but it's possible to run them from either of the detailed screens within Import Control as well. See the subsequent section for more details.

- 1. Go to t-code ZGOLD and select Import Control
- 2. Tick the 'Select' checkbox next to one or more Export ID's (Fig 12.0)

Figure 12.0 Import Control 2 08/01/2016 4 File creation date to 4 User who ran Exp SGEORGE to 4 Export ID Default File / /usr/sap/trans/goldclient/ Export ID Adjust Delete Files Maintain User Exits Refre 4 Report 🖺 Report 🖺 Execute in Foreground ① Schedule Job Created On Cre. Time Select Export ID Owner Source Export Description Source SGEORGE 08/29/2016 21:54:40 800 8.5 Logical System testing EST 0010 1906 SGEORGE EST 800 Selection of purchase orders 08/29/2016 16:20:13 SGEORGE EST 800 Sample of Purchase Orders 08/29/2016 16:18:20 CCEOPCE 800 A - CONNECTOR1880 08/24/2016 22:01:26

3. Select the 'Report' button which displays a menu of the three reports available (Fig 12.1)

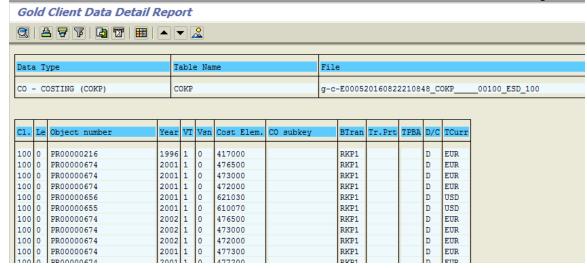


4. Click on the respective report that you want to run

a. Data Detail Report

- i. This report runs in foreground and provides an output; here is an example of that output (Fig 12.2)
- ii. This information is stored by file and may be several pages long so scroll through as needed or use the binoculars to perform a search
 - 1. **Tip**: consider searching by table name
- iii. Exit back to the Import Control screen to run other reports

Figure 12.2



b. Sizing Report

- i. This report runs in foreground and provides an output; here is an example of that output (Fig 12.3)
- ii. Selecting one of the files takes the user to another screen that displays the data stored to that file (Fig 12.4)
- iii. Exit back to the Import Control screen to run other reports

Gold Client Sizing Report 3 A 7 M 7 2 2 % 1 D D D 1 H H H Table Name E Rec Ct Tab Width E No. of bytes Data Type Physical file path 42,890 • 14,753,190 COKP 178 86,152 CO - COSTING (COKP) g-c-E000520160822210848 COKP 00100 ESD COKP 500 484 242,000 CO - COSTING (COKP) g-c-E000520160822210848 COKP 00103 ESD 109,384 CO - COSTING (COKP) COKP 226 g-c-E000520160822210848 COKP 00104 ESD 11 5,324 CO - COSTING (COKP) COKP g-c-E000520160822210848 COKP 00105 ESD 8,094 CO - COSTING (COKS) COKS 19 g-c-E000520160822210848 COKS 00109 ESD 25 10,650 CO - COSTING (COKS) COKS g-c-E000520160822210848 COKS 00115 ESD JEST 1,165 68 79,220 PS - PROJECT DEFINITIONS g-c-E000520160822210848 JEST 00018 ESD 80 40,720 PS - PROJECT DEFINITIONS g-c-E000520160822210848 JSTO JSTO 509 00017 ESD 50 25,450 PS - PROJECT DEFINITIONS p-c-E000520160822210848 ONR00 00016 ESD ONR00 509 66 33,594 PS - PROJECT DEFINITIONS a-c-E000520160822210848 ONRPD ONRPD 509 00015 ESD PROJ 509 1,362 693,258 PS - PROJECT DEFINITIONS q-c-E000520160822210848 PROJ 00001 ESD **PROJS** 33 1,306 43,098 PS - PROJECT DEFINITIONS q-c-E000520160822210848 PROJS 00014 ESD TCNIF 1 162 162 PS - PROJECT DEFINITIONS p-c-E000520160822210848 TCNIF 00004 ESD 116,698 PS - PROJECT DEFINITIONS 0-c-E000520160822210848 VSPROJ C 00002 ESD VSPROJ_CN 83 1,406 JEST 13,463 68 915,484 PS - WBS ELEMENTS q-c-E000520160822210848 JEST 00078 ESD 311,600 PS - WBS ELEMENTS 80 JSTO 3,895 g-c-E000520160822210848 JSTO

Figure 12.3

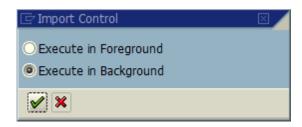
Figure 12.4

| | | | | 701 | 102 | | | | 701 | | | |
|-----|------------|------|---|-------|---------------|------|-------|--------------|----------|------------------|--------------|--------|
| Cli | Purch.Doc. | Item | S | T Mat | Material Doc. | Item | H Mv. | Posting Date | Quantity | Quantity in OPUn | Amount in LC | Amount |
| 8 | 4500006784 | 10 | | 8 | 80005341 | 1 | L | 07/06/1999 | 80.000 | 0.000 | | |
| 800 | 4500006783 | 10 | | 8 | 80005340 | 1 | L | 07/06/1999 | 331.000 | 0.000 | | |
| 800 | 4500006782 | 10 | | 8 | 80005339 | 1 | L | 07/06/1999 | 271.000 | 0.000 | | |
| 800 | 4500006781 | 10 | | 8 | 80005338 | 1 | L | 07/06/1999 | 225.000 | 0.000 | | |
| 800 | 4500006780 | 10 | | 8 | 80005337 | 1 | L | 07/06/1999 | 376.000 | 0.000 | | |
| 800 | 4500006787 | 10 | | 8 | 80005344 | 1 | L | 07/06/1999 | 70.000 | 0.000 | 4 | |
| 800 | 4500006786 | 10 | | 8 | 80005343 | 1 | L | 07/06/1999 | 57.000 | 0.000 | | |
| 800 | 4500006785 | 10 | | 8 | 80005342 | 1 | L | 07/06/1999 | 48.000 | 0.000 | | |

c. Conflicting Data Report

- i. This report can be run in foreground or background (Fig 12.5)
 - 1. The default and recommended setting is to use the background option but for small amounts of data the foreground option is probably okay; foreground execution results in displaying the output automatically; this output displays conflicts (Fig 12.7) and this output does not (12.7.1).
 - 2. This information is stored by file and may be several pages long so scroll through as needed or use the binoculars to perform a search
 - Exit back to the Import Control screen to run other reports

Figure 12.5



- ii. Select the background option to initiate the report as a background job; the system responds with a message noting that the job was started (Fig 12.6).
 - 1. **Tip**: Open t-code SM37 to view this job
- iii. Once the job completes, the spool request should contain the report's output; this output displays conflicts (Fig 12.7) and this output does not (12.7.1)
 - 1. This information is stored by file and may be several pages long so scroll through as needed or use the binoculars to perform a search

Figure 12.6

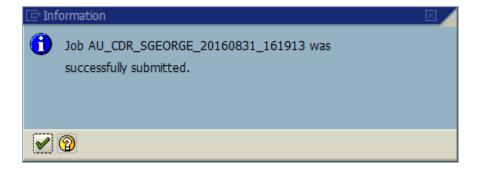


Figure 12.7

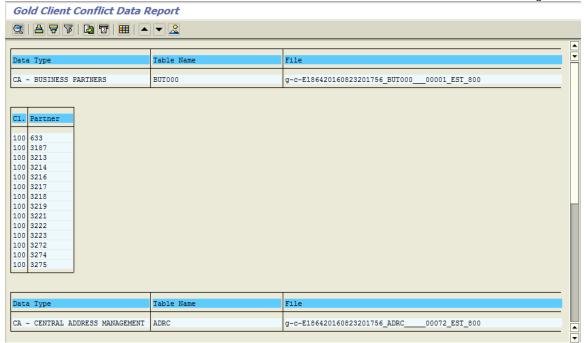
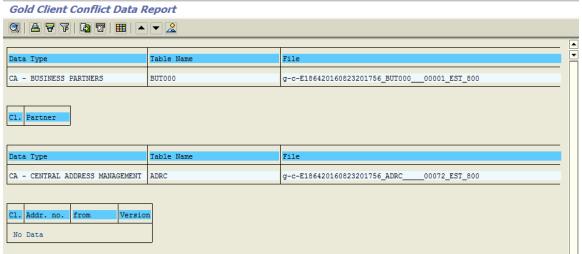


Figure 12.7.1



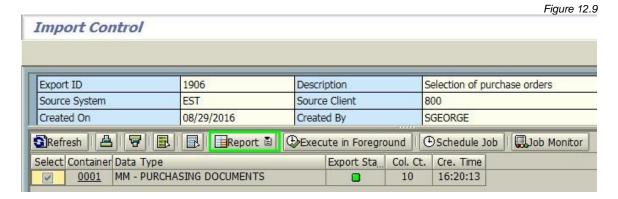
Report Execution - Alternative Methods

All three of these reports can be executed from the various Import Control screens and not just from the initial screen.

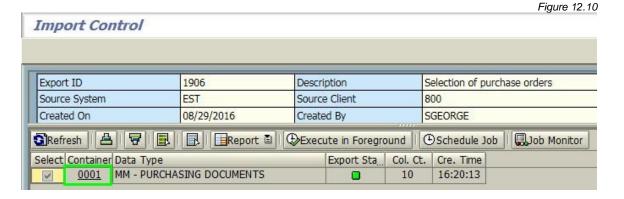
• If you want to run the reports at a more detailed level (using the Container instead of the Export ID), then click on the Export ID (Fig 12.8)

Figure 12.8 Import Control File creation date 2 08/01/2016 4 to SGEORGE 4 User who ran Export to ₽ Export ID to Default File Path /usr/sap/trans/goldclient/ 📵 Refresh 🖺 🗑 🗟 🖪 🖪 Report 🖺 🕀 Execute in Foreground 🛮 OSchedule Job 🕅 Export ID Adjust 🖟 Delete Files 🛮 📆 Maintain User Exits Created On Cre. Time 08/29/2016 21:54:40 Select Export ID Owner Source ... Source ... Export Description 0010 SGEORGE EST 800 8.5 Logical System testing 1906 SGEORGE 800 Selection of purchase orders 08/29/2016 16:20:13 800 Sample of Purchase Orders SGEORGE EST 08/29/2016 16:18:20 1905 08/24/2016 22:01:26

From the next screen that displays you can select the 'Report' button and choose which report to execute (Fig 12.9)



 If you want to run the reports at even more of a detailed level (not using the Container but one or more Data Types), then click on the Container (Fig 12.10)



 From the next screen that displays, select the relevant Data Types that should be included and then select the 'Report' button and choose which report to execute (Fig 12.11)

Figure 12.11

| Ref | fresh | Execute | in Forear | ound Schedu | ule Joh |
|-----|----------------------------------|------------|-----------|-------------|---------|
| | t Data Type | Export Sta | | Cre. Time | |
| | CA - CHANGE DOCUMENTS | 0 | 12 | 16:20:13 | |
| | CA - CONDITIONS (KONV) | | 8 | 16:20:13 | |
| | CA - OUTPUT STATUS | | 18 | 16:20:13 | |
| | FI - FINANCE DOCUMENTS | | 8 | 16:20:13 | |
| | LINK - MATL DOC TO TRANSF ORDERS | | 24 | 16:20:13 | |
| | LINK - PO TO DELIVERY (EKBE) | | 8 | 16:20:13 | |
| | LINK - PO TO GOODS ISSUE | | 8 | 16:20:13 | |
| | LINK - PO TO GOODS RECEIPT | | 8 | 16:20:13 | |
| | LINK - PO TO PUR REQ | | 10 | 16:20:13 | |
| | LINK - PUR ORDER TO MASTER DATA | | 10 | 16:20:13 | |
| | MM - MATERIAL DOCUMENTS | | 16 | 16:20:13 | |
| | MM - PURCHASING DOCUMENTS | | 10 | 16:20:13 | |
| | SD - DELIVERIES FROM PO | | 8 | 16:20:13 | |

Important Note: When running these reports, it is possible that the message below will be received (Fig 12.12). This means that the scope of data selected for the report is too large. The recommendation here is to run the reports by drilling down to the Import Control screen where the Data Types are listed and to run the report as this level by specifically choosing which Data Types need to be in scope.

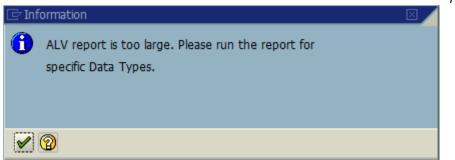


Figure 12.12

Initiating an Import

This section provides the details for performing the typical process of initiating a data import. In addition to the reporting capabilities covered in the previous section, Import Control also has some features that can be used when needed, but they are not directly connected to the import process. These functions are listed in the section of this document titled *Import Control - Optional Features*.

To initiate an import from the initial Import Control screen, follow these steps:

- Go to t-code ZGOLD and select Import Control
- 2. Tick the 'Select' checkbox next to an Export ID (Fig 13.0)
 - a. **Note**: It's possible to select more than one Export ID but this would be atypical



Figure 13.0

3. Select a processing method with which to initiate the import process, either 'Execute in Foreground' or 'Schedule Job'; see below for more details regarding these two options (Fig 13.1)

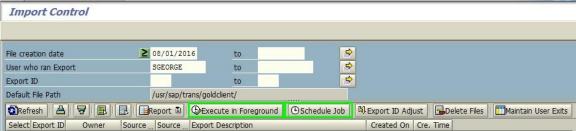
Execute in Foreground

- Using this option means that the import will run in foreground (dialog) mode and will consume your GUI session until the process completes
- Due to the potential runtime this option should be used conservatively; may be suitable for very small amounts of data
- If this option is chosen and results in a TIME_OUT shortdump, run the import again using the Schedule Jobs option instead

Schedule Jobs

- Using this option means that the import will run in background mode (a.k.a. as a background job)
- This is the recommended option for all imports except for those where the data amounts are very small

Figure 13.1



- a. Select the **'Execute in Foreground**' button
 - i. A pop-up window appears containing the Conflicting Data Options (Fig 13.2); leave the setting as defaulted or choose 'Skip Conflicting Data'
 - 1. **Tip**: Consider selecting the 'Skip Conflicting Data Check' option when importing large volumes of data and you want the program to skip this check during the process
 - ii. Click 'Accept'. The program provides an output showing the results of the import (Fig 13.3).
 - iii. Exit back to the previous screen to return to Import Control
- b. Select the 'Schedule Job' button
 - i. A pop-up window appears containing the Conflicting Data Options (Fig 13.2); leave the setting as defaulted or choose 'Skip Conflicting Data'
 - Tip: Consider selecting the 'Skip Conflicting Data Check' option when importing large volumes of data and you want the program to skip this check during the process
 - ii. Click 'Accept'. Another pop-up window appears (Fig 13.4).
 - iii. Enter a value in the 'Job name' field
 - 1. The default start option is always 'Immediate' but can be scheduled for the future using the 'Date/Time' option
 - 2. If copying a large volume of data, you may want to consider selecting the 'Parallel Processing' option. This will trigger Gold Client to use multiple background jobs to import all of the data instead of just a single job. The number of jobs consumed will depend on the settings defined within Gold Client. For more information regarding the Parallel Processing settings, reference the *Gold Client Configuration and Utilities* guide.
 - iv. Click the 'Accept' button to initiate the background import; the system responds with an informational message (Fig 13.5)
 - v. Exit back to the previous screen to return to Import Control

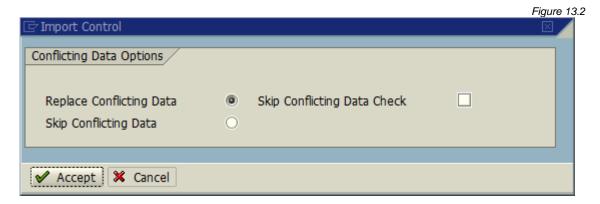
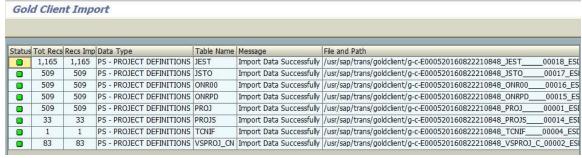


Figure 13.3



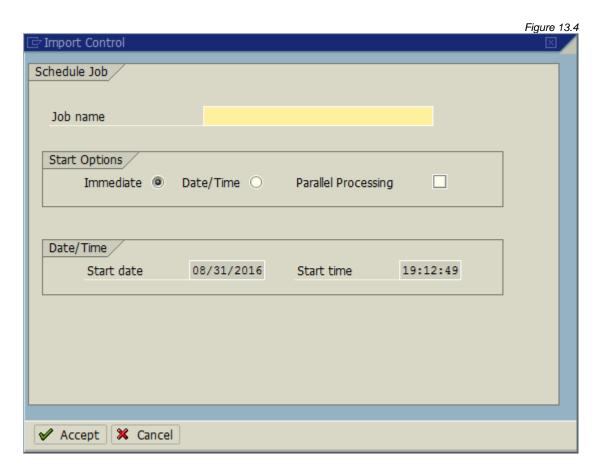


Figure 13.5



At this point the import is running in background. It's not necessary to monitor the import process but you may choose to do so when needed. The steps involved with monitoring the process are explained below.

1. To monitor the export it is necessary to use t-code SM37. You can either reach this t-code using standard SAP navigation or use the button named 'Job Monitor' but only when displaying the details Import Control screen (Fig 13.6). Using this function will open SM37 (Job Overview) in a new GUI session.



2. Example of a Gold Client import using a single background job (Fig 13.7)

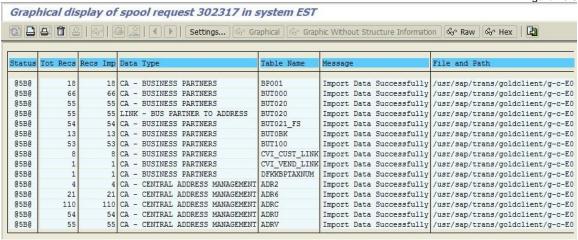
Note: The 8.5 version (using the new export engine) no longer uses the same logic that was used in previous versions to determine the number of parallel background jobs.

Figure 13.7

| JobName | Spool | Job doc | Job CreatedB | Status | Start date | Start Time | Duration(sec.) |
|------------------------------|----------|---------|--------------|----------|------------|------------|----------------|
| SELECTION OF PURCHASE ORDERS | <u>s</u> | | SGEORGE | Finished | 08/29/2016 | 14:20:13 | 14 |

 Once the background job is complete, it's possible to select the spool to see what data was imported and whether it was successful or not. The spool will display the Total Records, Records Imported, Data Type, Table name, Message, and File and Path (Fig 13.8).

Figure 13.8



Optional Features

The optional features discussed here are simply that, optional for users as they see fit.

Delete Files

The Delete Files function will remove the data files from the Gold Client directory on the file system based on the user's selection. This function is available on the main screen of both Import Control as well as Delete Data.

Notes:

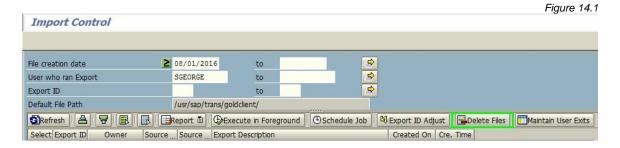
- This function only deletes the data files, not the actual data
- Be aware that once the files are deleted that they can no longer be used to import data

Follow the process below to delete files.

- 1. Go to t-code ZGOLD and select Import Control (or Delete Data)
- 2. Tick the 'Select' checkbox next to one or more Export ID's (Fig 14.0)

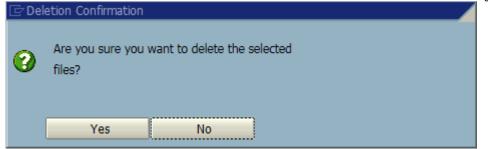
Figure 14.0 Import Control File creation date 2 08/01/2016 0 ₽ User who ran Exp SGEORGE to 4 Export ID to Default File /usr/sap/trans/goldclient/ 🗑 🖪 🖪 Report 🛭 🕀 Execute in Foreground 🕒 Schedule Job 🖟 Export ID Adjust 🕞 Delete Files 📗 Maintain User Exits | Source | Source | Export Description | EST | 800 | 8.5 Logical System testing Created On Cre. Time Select Export ID Owner SGEORGE 08/29/2016 21:54:40 0010 800 Selection of purchase orders 08/29/2016 16:20:13 SGEORGE FST 1906 1905 SGEORGE EST 800 Sample of Purchase Orders 08/29/2016 16:18:20 CCEORCE FCT 800 A CONNECTOR1880 08/24/2016 22:01:26

3. Select the 'Delete Files' button (Fig 14.1)



4. A message appears confirming that the data files be deleted (Fig 14.2).

Figure 14.2



5. If you choose to delete the files, there is an informational message after the file removal is complete (Fig 14.3). The file(s) are deleted, and the Export ID record is no longer visible in the AVL grid within Import Control (or Data Delete).

Figure 14.3

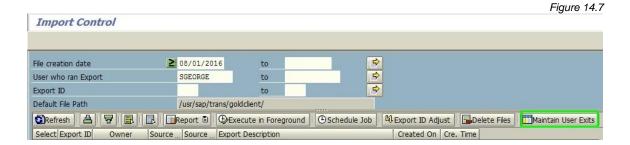


Maintain User Exits

Gold Client provides the ability to apply some additional processing to the copy process where needed; this is referred to as user exits in Gold Client, but they are not the same as an ABAP user exit.

Practical applications of Gold Client user exits have been found mostly in the HR space, primarily due to the sensitive nature of HR data and also due to how some of the tables in this space are structured.

To make use of this functionality, the user exit table in Gold Client must be populated accordingly. This maintenance activity can occur in two ways: (1) by going to ZGOLD and selecting Import Control and then from the initial screen selecting the 'Maintain User Exits' button (Fig 14.7), or (2) by going to ZGOLD and selecting Configuration; on the subsequent screen select the Maintain User Exits executable. Reference the <u>Gold Client Configuration and Utilities</u> guide for more details on maintaining this table.



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Delete Data

Using the Delete Data function is the only way to remove data that exists within a Target client. This function looks and acts very similar to that of Import Control but can be used only for the strict purpose of deleting data.

As most data controls exist on the export side, the delete data functionality is designed to simply remove data from the database using the Gold Client files that were written during the export process.

The Delete Data function manages the deletion of data from the target client in which it is being executed. In other words, a user cannot initiate a deletion in client 'A' and have data be deleted from client 'B'; the data will be deleted only from client 'A'.

Important: The Delete Data function is not available in your production system to eliminate the risk of deleting data from production as there are programmatic safeguards in place. This button is not available on the main Gold Client screen, nor can it be executed directly via SA38/SE38.

There are two sections to this document; it leads off with some important and meaningful details about using Delete Data and is followed by the detailed steps for performing the typical deletion process.

Delete Data also has the exact same reporting capabilities as is available in Import Control (except that the Conflicting Data Report is named Simulate Delete Report but it works the same programmatically), so for information on using these reports reference the section of this document titled *Import Control - Key Reporting Functions*.

Some additional (optional) features are also available to the user in Delete Data but they are identical to those in Import Control, so for information on using these functions reference the section of this document titled *Import Control - Optional Features*.

Important Details

This section provides some important details so that the user gets to know and understand the nuances of working within the Delete Data function.

The initial Delete Data screen contains some filters that can be used when needed; they include: File creation date, User who ran Export, and the Export ID. The default file path shows to which directory the Gold Client files are written but since this is a static location, it is just informational. The File creation date value always defaults to today's date minus 30 days, and the User value always defaults to the user's logon ID.

Tip: When changing or applying filters, use the 'Enter' icon (or select Enter on your keyboard) to force a refresh of the entries displayed in the ALV grid

There are three screens within Delete Data. The initial or main screen provides a list of data exports which display the following details in the ALV grid: Export ID, Owner, Source System, Source Client, Export Description, Created On, and Create Time. If a user clicks on an Export ID number, a details screen displays the following information in the ALV grid: Container number, Data Type, Export Status, Collection Count, and Create Time. If a user clicks on a Container number, the final screen displays the following in the ALV grid: Data Type, Export Status, Collection Count, and Create Time.

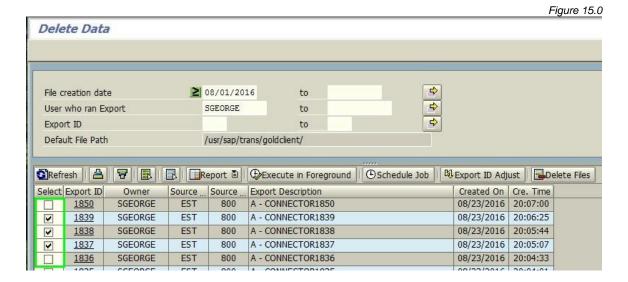
It's possible to initiate a delete from all three of the screens within Delete Data. Some of your data deletions may need to be quite surgical so that, for example, transactional data is deleted but not the related master data, and so the only way to perform a deletion with this type of granularity is by initiating the deletion from the final screen.

Initiating a Deletion

This section provides the details for performing the typical process of initiating a data deletion.

To initiate a data deletion, follow these steps:

- 1. Go to t-code ZGOLD and select Delete Data
- 2. Tick the 'Select' checkbox next to one or more Export ID's (Fig 15.0)
 - a. Alternatively, if you want to perform a granular deletion (e.g. at the Data Type level), click on an Export ID (Fig 15.1) and then on a Container (Fig 15.2) to reach the last detail screen which displays details such as the Data Type and collection count



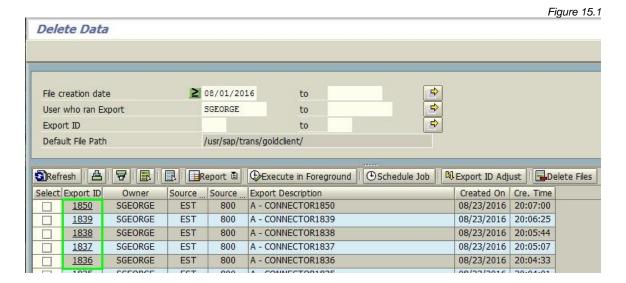
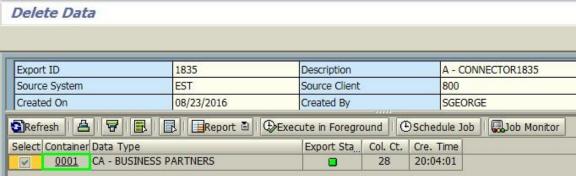


Figure 15.2



3. Select a processing method with which to initiate the deletion process, either 'Execute in Foreground' or 'Schedule Job'; see below for more details regarding these two options (Fig 15.3)

Execute in Foreground

- Using this option means that the delete will run in foreground (dialog) mode and will consume your GUI session until the process completes
- Due to the potential runtime this option should be used conservatively; may be suitable for very small amounts of data
- If this option is chosen and results in a TIME OUT shortdump, run the delete again using the Schedule Jobs option instead

Schedule Jobs

- Using this option means that the delete will run in background mode (a.k.a. as a background job)
- This is the recommended option for all deletes except for those where the data amounts are very small

Delete Data 2 08/01/2016 File creation date to ₽ User who ran Export SGEORGE 4 Export ID to Default File Path /usr/sap/trans/goldclient/ ③Refresh 🛮 🖶 🖟 🖪 🖪 🖪 Report 🖺 ⊕Execute in Foreground 🗷 Schedule Job 🖟 Export ID Adjust 🕞 Delete Files

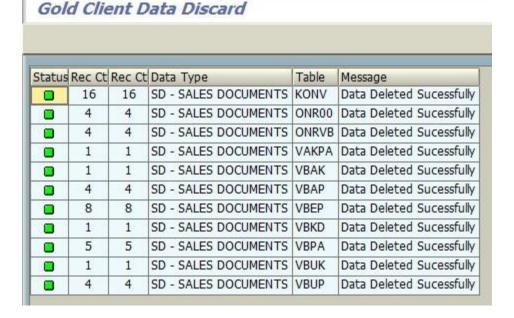
Figure 15.3

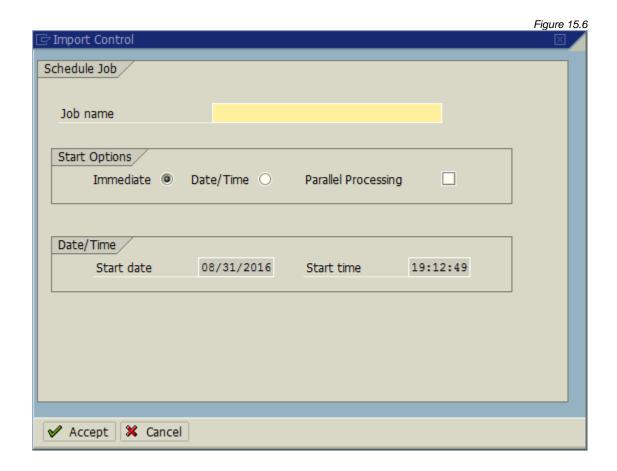
- a. Select the 'Execute in Foreground' button; a confirmation message appears asking the user whether or not to continue (Fig 15.4)
 - i. Click 'OK' to continue. The program provides an output showing the results of the deletion (Fig 15.5).
 - ii. Exit back to the previous screen to return to Delete Data
- b. Select the 'Schedule Job' button; a confirmation message appears asking the user whether or not to continue (Fig 15.4)
 - i. Click 'OK'. Another pop-up window appears (Fig 15.6).

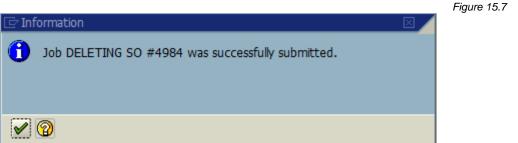
- ii. Enter a value in the 'Job name' field
 - 1. The default start option is always 'Immediate' but can be scheduled for the future using the 'Date/Time' option
 - 2. If deleting a large volume of data, you may want to consider selecting the 'Parallel Processing' option. This will trigger Gold Client to use multiple background jobs to delete all of the data instead of just a single job. The number of jobs consumed will depend on the settings defined within Gold Client. For more information regarding the Parallel Processing settings, reference the *Gold Client Configuration and Utilities* guide.
- iii. Click the 'Accept' button to initiate the background deletion; the system responds with an informational message (Fig 15.7)
- iv. Close the information message to return to the Delete Data screen



Figure 15.5



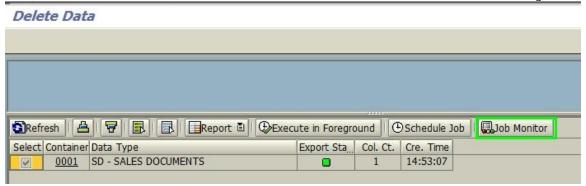




At this point the deletion is running in background. It's not necessary to monitor the deletion process but you may choose to do so when needed. The steps involved with monitoring the process are explained below.

1. To monitor the deletion it is necessary to use t-code SM37. You can either reach this t-code using standard SAP navigation or use the button named 'Job Monitor' but only when displaying the details Delete Data screen (Fig 15.8). Using this function will open SM37 (Job Overview) in a new GUI session.

Figure 15.8



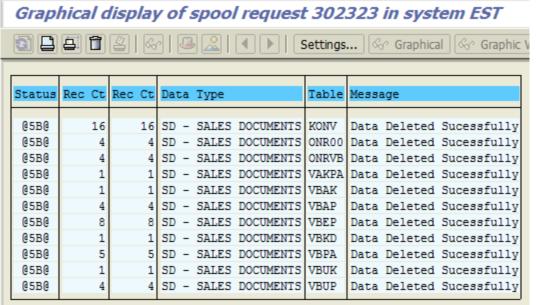
2. Example of a Gold Client deletion using a single background job (Fig 15.8)

Figure 15.8

| JobName | Spool | Job doc | Job CreatedB | Status | Start date | Start Time | Duration(sec.) |
|------------------------------|----------|---------|--------------|----------|------------|------------|----------------|
| SELECTION OF PURCHASE ORDERS | <u>s</u> | | SGEORGE | Finished | 08/29/2016 | 14:20:13 | 14 |

 Once the background job is complete, it's possible to select the spool to see what data was deleted and whether it was successful or not. The spool will display the Total Records, Records Deleted, Data Type, Table name, and Message (Fig 15.9).

Figure 15.9

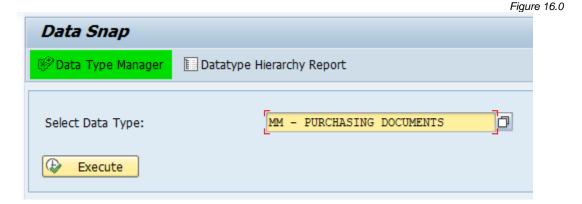


Appendix

Various content added here for the purposes of providing holistic information.

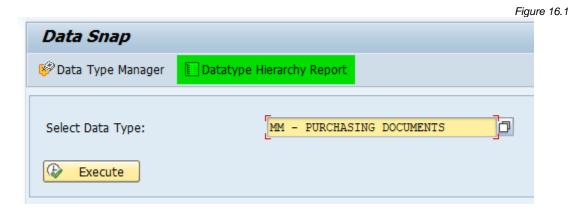
Data Type Manager

This function is available from the initial Data Snap screen (Fig 16.0). Once the user has input a Data Type, this function can be selected which will direct the user to another screen where the configuration relevant to the given Data Type can be displayed. If the user has the proper authorizations, they would be able to deploy changes to this config, but if not, then the config would be display only. For more information, reference the *Gold Client Data Echo Advanced Configuration Guide*.



Datatype Hierarchy Report

This function is available from the initial Data Snap screen (Fig 16.1). Once the user has input a Data Type, this function can be selected which will direct the user to another screen where the Data Type hierarchy for the given Data Type is displayed. This provides potential insight to the user to understand that if they start their export using this Data Type, what related (dependent) Data Types would be included in the export. This is only a report and no changes to the config can be deployed using this function. For more information, reference the document titled <u>Gold Client Configuration and Utilities</u>.



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Support Information

Qlik Analytics (ISR) Ltd. can be contacted either by telephone or via email. Any support related issue regarding problems with or use of the Gold Client software and process can be reported for resolution.

If our offices are closed, or staff is unable to directly respond to a support request, we will respond within 24 hours of the initial call. Problems related to the export or import processing may require code enhancements. If a code enhancement or fix is required, resolution time may vary.

As per the maintenance agreement, any repairs or enhancements to the Gold Client software will immediately be deployed to all customers up-to-date with their maintenance contract. It is the choice of the customer as to if and when such enhancements are implemented. In addition, customers may request a planning session with Qlik to review changes in the software and how the changes might impact their environment.

We can also be contacted to discuss application or feasibility of using the Gold Client process to resolve a current challenge the project team faces. When this is required, a planning session can be scheduled in advance to ensure proper participation by both Qlik and the client.

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