software AG

Data Archiving for Adabas

Web Interface

Version 1.6

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1   Web Interface

This document describes the administrative tasks that you can perform with the Data Archiving for Adabas graphical user interface.

Using the Browser

Data Archiving for Adabas services is maintained and monitored using Software AG's cross-product and cross-platform product management framework System Management Hub (SMH). If you are not familiar with using SMH, please refer to the SMH documentation for further information.

If System Management Hub is available on your local machine, the install process creates a Start Menu entry; an example screen shot follows:
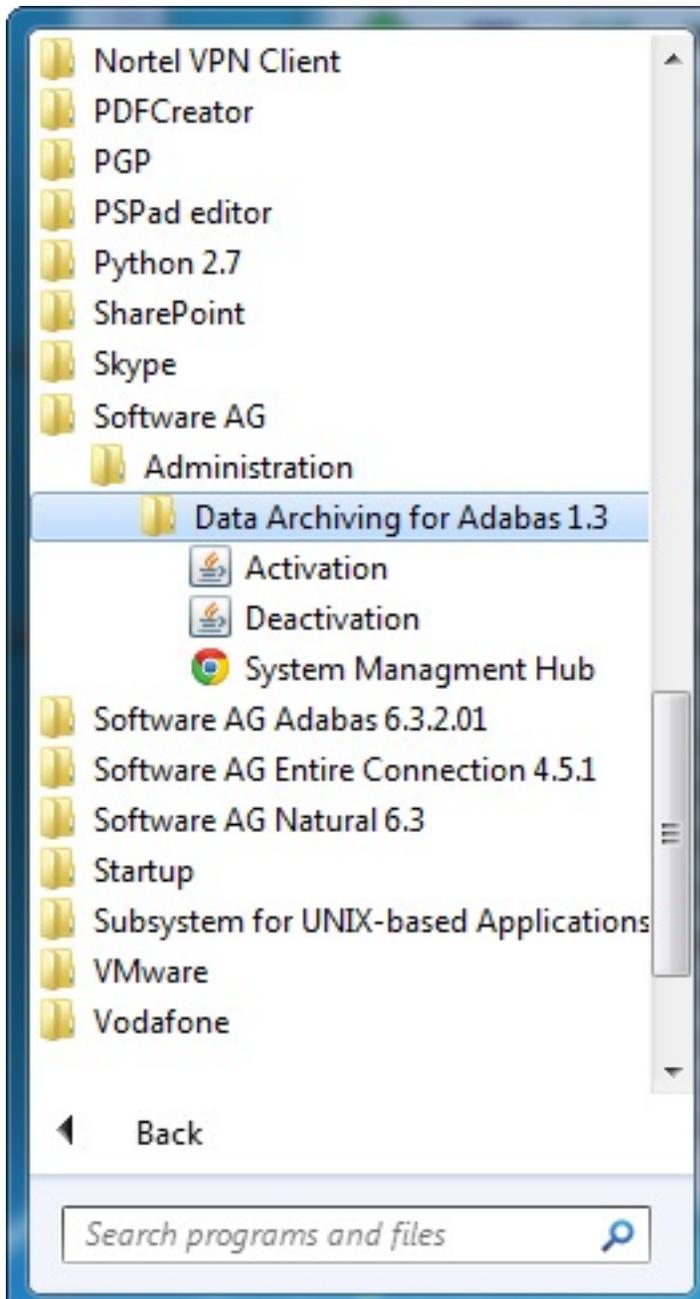
If no Start Menu entry is available, go to your browser and use http://localhost:10010/smh (assuming defaults have been used for the System Management Hub install) or use your normal entry to the System Management Hub.

The SMH screen is divided into two frames: the navigation frame on the left; and the content frame on the right. You can navigate within the navigation tree using expand (+) and minimize (-), selecting an object and then left clicking or right clicking on the object depending on the type of operation you wish to perform.

The following is a typical SMH screen:
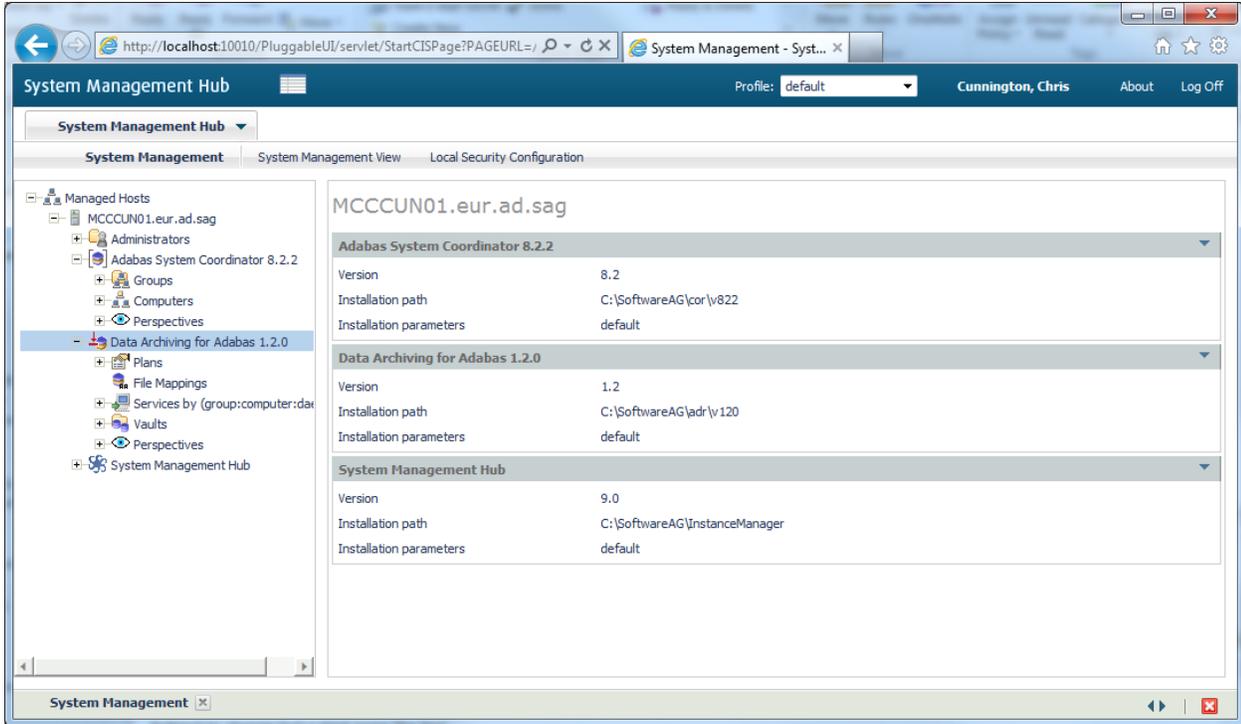
Vaults

Vaults are flat-file stores which are used to hold archived data and any relevant metadata such as Adabas FDTs.

A Vault must be associated with every Action and contains Archives written as a result of such Actions being run.

Vaults are maintained by selecting the Vaults node within the Data Archiving for Adabas navigation tree. Selecting this node results in the following sub-nodes:

- Vault Browse
- Vault Search
- Vault Validation

- Vault Configuration

Vault Browse

Vault Browse enables Vault content browsing and Archive recall capability.

A Vault contains Archives written as a result of Actions being run. Vault Browse lists these Archives and enables selected Archives to be recalled as required.

For efficiency, a Vault browse cache is maintained which can be refreshed on demand, and filtering enables the browse list content to be applicable to only those Archives of particular interest.

- Browsing Archives in a Vault
- Displaying Archive Detail
- Setting a Browse Filter
- Clearing a Browse Filter
- Refreshing the Browse Cache
- Recalling Archives

Browsing Archives in a Vault

≫ **To browse Archives in a Vault**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree

2   Select the *Browse* sub-node.

3   Select the Vault to be browsed.

4   The Vault Browse window lists all Archives in the selected Vault (subject to any current filter).

On selection of the Vault, sub-nodes of 'year' and 'month number' may be displayed in the navigation tree depending on the list content. Selection of these sub-nodes will automatically filter the list content in the Vault Browse window to only those Archives which match the particular year and month number of the sub-node selected.

Explicit filtering may also be performed, refer to Setting a Browse Filter for more information.

Displaying Archive Detail

≫ **To display Archive details**

1   Refer to **Browsing Archives in a Vault** to list the particular Archive(s) for which details are required.

2   To display the details for an individual Archive, click directly on its Archive–ID link. Alternatively, to display the details for multiple Archives, use the checkboxes for selection and then choose 'Detail' from the drop-down *Operations* box (this method can also be used for an individual Archive).

Setting a Browse Filter

≫ **To set a browse filter**

■   A browse filter can be set at the *Browse* sub-node and also any sub-node below Browse (e.g. Vault name, year number, month number) by simply right clicking on the sub-node and selecting *Set Browse Filter*.

The filter applies at the user level and only a single filter can be active at any one time. To remove the filter refer to **Clearing a Browse Filter**.

The keyword 'Filter:' in the Vault Browse window indicates whether or not a browse filter is active.

Clearing a Browse Filter

≫ **To clear a browse filter**

■   A browse filter can be cleared at the *Browse* sub-node and also any sub-node below Browse (e.g. Vault name, year number, month number) by simply right clicking on the sub-node and selecting *Clear Browse Filter*.

Refreshing the Browse Cache

For efficiency, a browse cache is maintained at the Vault level. This cache is established the first time a Vault name under the *Browse* sub-node is selected, and then regularly refreshed automatically when the Vault content changes. The keyword 'Vault Contents Cached At:' in the Vault Browse window indicates when the browse cache for the current Vault was last refreshed.

If a more immediate refresh is required, this can be done manually as follows:

≫ **To refresh the browse cache**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Browse* sub-node.

3   Select and right click the Vault whose browse cache is to be refreshed, then select *Refresh Browse Cache*.

Recalling Archives

≫ **To recall an Archive**

1   Refer to *Browsing Archives in a Vault* to find the particular Archive(s) for which a recall is required.

2   To recall an individual Archive, use the checkbox for selection and then choose 'Recall' from the drop-down *Operations* box.

3   Refer to *Recall Archived Data* for additional information regarding the recall process.

Vault Search

Vault Search enables Vault content searching and Archive recall capability.

A Vault contains Archives written as a result of Actions being run. Vault Search allows searching to be performed against Archives and Vaults, and enables search results to be selectively recalled as required.

Refer to **Search Archived Data** for more information on searching archived data.

Vault Validation

Vault Validation is a configurable option and is intended to enable the periodic validation of the Vault contents in order to provide an early detection system in the event that the Vault contents become compromised in some way.

The validation process operates asynchronously to normal archiving operations and can be configured according to a defined schedule or simply run on demand.

Log files are created by the validation process and are listed under the corresponding Vault within the *Validation* sub-node.

> **Note:** Only Vaults with validation enabled are displayed under the *Validation* sub-node.

- Defining Vault Validation
- Running Vault Validation on Demand
- Displaying Vault Validation Logs

- Deleting Vault Validation Logs

Defining Vault Validation

≫ **To define Vault Validation**

1   Vault Validation settings can only be modified when *Adding a Vault* or *Modifying a Vault*.

2   Refer to *Vault Validation Settings* for the configurable options available.

Running Vault Validation on Demand

≫ **To run Vault Validation on demand**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Validation* sub-node.

3   Select and right click the Vault to be validated, then select *Run Validation Now*.

4   The corresponding validation log will appear in the Logs section of the Vault Validation window

📄   **Note:** Vault Validation on demand can only be run against Vaults with validation enabled.

Displaying Vault Validation Logs

≫ **To display Vault Validation logs**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Validation* sub-node.

3   Select the Vault whose validation logs are to be displayed. The Vault Validation window will appear.

4   The Logs section displays the validation logs (subject to any defined retention period).

Deleting Vault Validation Logs

≫ **To delete Vault Validation logs**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Validation* sub-node.

3   Select the Vault whose validation logs are to be deleted. The Vault Validation window will appear.

4   To delete individual logs or all logs on the current page use the checkboxes for selection and then choose 'Delete' from the drop-down *Operations* box. Alternatively, to delete all logs, right click the Vault, then select *Delete All Logs*.

Vault Configuration

At least one Vault must be configured to enable the storing of archive data, however, multiple Vaults can also be configured allowing the possibility of different business areas using dedicated Vaults.

Vaults are written to by archive processes called Accumulators, which are launched automatically on demand by the Data Archiving Service. An Accumulator which is launched on a particular computer must be able to identify the physical location of the Vault where the archive data is to be stored. It does this by referring to the Vault Path defined for that particular computer in the Vault configuration.

> **Note:** We recommend that your archived data should be maintained in Vaults outside of the installation directory.

- Adding a Vault
- Modifying a Vault
- Deleting a Vault
- Adding a Vault Path
- Modifying a Vault Path
- Deleting a Vault Path
- Vault Validation Settings
- Vault Granularity

Adding a Vault

> **To add a Vault**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select and right click the *Configuration* sub-node, then select *Add Vault*. The Add Vault window will appear.

Enter the following information for the new Vault:

Field	Description
Short Name	1-32 characters to be used as the name for the Vault. This is the name that will appear under the *Vaults* node within the Data Archiving for Adabas navigation tree Names are case-sensitive, the first character must be alphabetic, all other characters can be either alphabetic or numeric. The only special character permitted is underscore.
Description	A textual description of the Vault.

Granularity	Select the level of granularity with respect to the physical directory structure of a Vault.
	
	None (Default)
	    All Archives are written to the same physical directory.
	
	Year
	    All Archives are written to a physical directory corresponding to the current year.
	
	Month
	    All Archives are written to a physical directory corresponding to the current month.
	
	Day
	    All Archives are written to a physical directory corresponding to the current day.
	
	Refer to *Vault Granularity* for more information.

Access path to the vault content	The Vault Path is the physical location of the Vault, it can be HFS, a UNC path or a Windows directory. **Note:** If the Vault is to be accessed by Accumulator processes from multiple computers then each computer requires its own Vault Path defined.
Computer	Select the Computer from the drop-down box whose Vault Path is being defined.
Path	For the selected Computer, specify the path to be used by the Accumulator process to access the Vault.

3   If the default Vault validation settings are to be modified, refer to *Vault Validation Settings*.

4   Click the *Add Vault* button to add the new Vault.

Modifying a Vault

≫ **To modify a Vault**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Configuration* sub-node.

3   Select and right click the Vault to be modified, then select *Modify Vault*. The Modify Vault window will appear.

     Refer to *Adding a Vault* for an explanation of the modifiable fields

4   If the current Vault Validation settings are to be modified, refer to *Vault Validation Settings*.

5   Click the *Save Changes* button to save the changes.

Deleting a Vault

> **Note:** When deleting a Vault, only the Vault configuration information is deleted – the physical vault containing the archived data is not deleted. It is the responsibility of the user to delete the physical vault if the archive data within it is no longer required.

≫ **To delete a Vault**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Configuration* sub-node.

3   Select and right click the Vault to be deleted, then select *Delete Vault*.

4   A Vault cannot be deleted if it is currently the active Vault for one or more Plans/Actions. If it is not an active Vault, a confirmation window will appear.

5   Click the *Yes* button on the confirmation window to delete the Vault.

Adding a Vault Path

≫ **To add a Vault Path**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Configuration* sub-node.

3   Select and right click the Vault to be modified, then select *Add Vault Path*. The Add Vault Path window will appear.

     Enter the following information for the new Vault Path:

Field	Description
Computer	Select the Computer from the drop-down box whose Vault Path is being defined.
Path	For the selected Computer, specify the path to be used by the Accumulator process to access the Vault.

4   Click the *Add Vault Path* button to add the new Vault Path.

Modifying a Vault Path

≫ **To modify a Vault Path**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Configuration* sub-node.

3   Select the Vault to be modified. The Vault Configuration window will appear.

4   In the Physical Path(s) to the Vault section, identify the computer whose Vault Path is to be modified and click on the corresponding modify icon. The Modify Vault Path window will appear.

Refer to *Adding a Vault Path* for an explanation of the modifiable fields.

5   Click the *Save Changes* button to save the changes.

Deleting a Vault Path

≫ **To delete a Vault Path**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Configuration* sub-node.

3   Select the Vault to be modified. The Vault Configuration window will appear.

4   In the Physical Path(s) to the Vault section, identify the computer whose Vault Path is to be deleted and click on the corresponding delete icon. A confirmation window will appear.

5   Click the *Yes* button on the confirmation window to delete the Vault Path.

Vault Validation Settings

≫ **To modify Vault Validation Settings**

■ Vault Validation Settings may only be modified when *Adding a Vault* or *Modifying a Vault*.

Enter the following information as required:

Field	Description
Validation	*Enable* or *Disable* Vault Validation. The default is *Disabled*.
If *Enabled…*	

Level	Select one of:
	
	Basic
	    The existence of all appropriate files/segments is validated.
	Intermediate
	    Same as Basic plus all file/segment sizes are validated.
	Full
	    Same as Intermediate plus all record counts are validated.

Next run	The time of day the validation process will run.
Frequency	The repeating time period that the validation will run. For example, run every 1 day or 1 week etc.
Computer	The computer where the validation process will run.
Retain logs for	The retention period for log files created by the validation process. Log files are useful to Software AG in cases where a validation alert occurs.

Vault Granularity

Vault Granularity enables you to define levels of granularity with respect to the physical directory structure of a Vault thereby influencing the placement of Archive files within it.

For example, specifying a granularity of 'Year' will automatically cause the current year to be suffixed to the Vault path. All Archive files created in the current year will then be written to that suffixed directory. When the current year rolls over to a new year, the new year will be suffixed to the Vault path and all subsequent Archive files will then be written to this new suffixed directory.

The result of this is that all Archive files for a particular year are located in a particular directory providing the ability to annually migrate archive data to another medium (for example, tape).

In the same way, specifying a granularity of 'Month' will automatically cause the current month within the current year to be suffixed to the Vault path. This results in all Archive files for a particular month in a particular year being located in a particular directory - providing the ability to monthly migrate archive data to another medium.

Plans

Archiving requirements are implemented by defining Plans and Actions.

A Plan identifies a collection of one or more related Actions, for example all the Actions required for a particular business application, division, or department.

- Adding a Plan
- Modifying a Plan
- Deleting a Plan

Adding a Plan

≫ To add a Plan:

1 Select and right click the *Plans* node within the Data Archiving for Adabas navigation tree, then select *Add Plan*. The Add Plan window will appear.

Enter the following information for the new Plan:

Field	Description
Short Name	1-32 characters to be used as the name for the Plan. This is the name that will appear under the *Plans* node within the Data Archiving for Adabas navigation tree. Names are case-sensitive, the first character must be alphabetic, all other characters can be either alphabetic or numeric. The only special character permitted is underscore.
Group	The Adabas System Coordinator Group for the Plan. An Adabas System Coordinator Group defines a logical network of computers where Data Archiving Services are available.
Description	A textual description of the Plan.
Vault	The default Vault for use by Actions within this Plan. Individual Actions within this Plan may override this default Vault if required. Refer to *Vault Configuration* if the Vault has not yet been defined.

2 Click the *Add Plan* button to add the new Plan.

Modifying a Plan

⟫ **To modify a Plan**

1   Select the *Plan* node within the Data Archiving for Adabas navigation tree.

2   Select and right click the Plan to be modified, then select *Modify Plan*. The Modify Plan window will appear.

The following information can be modified:

Field	Description
Description	A textual description of the Plan.
Vault	The default Vault for use by Actions in this Plan. Individual Actions within this Plan may override this default Vault if required.
	Note:
	1. Although the capability of changing the default Vault for an active Plan is provided, it must be used with caution because, for active Actions within this Plan, such a change may result in archive data being located in multiple Vaults.
	2. Any change in Vault name will apply immediately to (a) all new Actions (unless explicitly overridden) and, (b) all existing Actions which have not overridden the previous default value.

3   Click the *Save Changes* button to save the changes.

Deleting a Plan

⟫ **To delete a Plan**

1   Select the *Plan* node within the Data Archiving for Adabas navigation tree.

2   Select and right click the Plan to be deleted, then select *Delete Plan*. A confirmation window will appear.

3   Click the *Yes* button on the confirmation window to delete the Plan and all associated Actions.

Note: Deleting a Plan will also delete all Actions within the Plan.

Actions

An Action belongs to a Plan and defines where data is to be extracted from (the Source Files(s)), where it is to go (Vault or Target File(s)), and the computers on which the respective Extractor and Accumulator processes will run.

- Adding an Action
- Modifying an Action
- Deleting an Action
- Copying an Action
- Running an Action Manually
- Running an Action using an automatic Schedule
- Running an Action using an ad hoc Schedule
- Data Selection Mode
- Adding Source Files
- Adding Target Files

Adding an Action

≫ **To add an Action:**

1   Select the *Plans* node within the Data Archiving for Adabas navigation tree.

2   Select the Plan within which the Action is to be added.

3   Select and right click the *Actions* sub-node, then select *Add Action*. The Add Action window will appear.

    Enter the following information for the Action:

Field	Description
Action Name	1-32 characters to be used as the name for the Action. This is the name that will appear under the *Actions* sub-node for the selected Plan. This Action name must be unique within the selected Plan. Names are case-sensitive, the first character must be alphabetic, all other characters can be either alphabetic or numeric. The only special character permitted is underscore.
Description	A textual description of the Action.

4   *Extractor Settings* defines the Computer where the Extractor process will run and the data selection mode to be used.

    Enter the following information:

Field	Description
Computer	Select the computer where the Extractor is to run and where the Source File(s) reside. The selectable list of Computers is determined by the Group name defined to the Plan.
Mode	Identify the Data Selection Mode: ■ Extraction Syntax ■ To-do List (User generated archive/transfer lists) ■ User Library (Record selection plug-in) Refer to the sections *Data Selection Methods* and *Data Selection Mode* for information regarding these different types of selection methods.

5   *Accumulator Settings* defines the Computer where the Accumulator process will run, the Vault to use, and any required Search indexes.

Enter the following information:

Field	Description
Computer	Select the Computer where the Accumulator is to run (for a TRANSFER operation, this is where the Target File(s) reside). The selectable list of Computers is determined by the Group name defined to the Plan. **Note:** This can be a different computer to the one in *Extractor Settings*.
Vault	Select the Vault to be used by the Accumulator. The default selection is the Vault defined to the Plan but a different Vault can be selected if required.
Search Indexes	Select the number of search strings that will be supplied with the data to be archived. The default is 0, and the maximum is 4. Refer to *Search Archived Data* for more information.

6   *Scheduling Settings* defines the scheduling requirements.

Enter the following information:

Field	Description

Schedule Type	**Automatic**
	    This Action is to be run according to a pre-defined and regular schedule. After selecting this option and saving the changes a new sub-node *Schedule* appears in the navigation tree under this Action. Refer to *Running an Action using an automatic Schedule* for more information.
	
	Manual
	    This Action is to be run on demand. Refer to *Running an Action manually* for more information.

Field	Description
	Ad hoc This Action is to be run according to a pre-defined but irregular schedule. After selecting this option and saving the changes a new sub-node *Schedule* appears in the navigation tree under this Action. Refer to *Running an Action using an ad hoc Schedule* for more information.

7   *Runtime Control Settings* defines the runtime characteristics of the Action relating to processing limits, pacing and record locking.

Enter the following information:

Field	Description
Limit Action to a maximum of *nnnn* objects	Each run of this Action will stop when the specified number of objects has been processed. The default value of 0 means no limit or "Off".
Limit Action to a maximum of *nnnn* seconds	Each run of this Action will stop when the specified number of seconds has elapsed. The default value of 0 means no limit or "Off".
Pacing	When set to On, this control regulates the activity level (throughput) of each run of this Action so that a pre-determined level of service can be maintained. This is achieved by defining a maximum setting for the numbers of objects to be processed per second (approximately). The default is Off.
Record locking	When set to On, this control attempts to place a shared (read) lock on the set of records relating to a particular Object when they are selected for processing. This ensures transactional consistency at the Object level if the Action is run against active data. The number of retries and the interval between each attempt to acquire a lock can be specified. If a lock cannot be acquired the Action can be configured to stop or to skip the Object and continue.

8   Click the *Add Action* button to add the new action.

9   When a new Action is added, the sub-nodes *Source Files* and *Target Files* will appear in the navigation tree under the Action. All Adabas files referenced by the Action must be defined in these sub-nodes.

Refer to *Adding Source Files* and *Adding Target Files* for information on how to define these files.

Modifying an Action

≫ To modify an Action

1   Select the *Plans* node within the Data Archiving for Adabas navigation tree.

2   Select the Plan within which the Action to be modified is located.

3   Select the *Actions* sub-node.

4   Select and right click the Action to be modified, then select *Modify Action*. The Modify Action window will appear.

    Refer to *Adding an Action* for an explanation of the modifiable fields.

5   Click the *Save Changes* button to save any changes.

Deleting an Action

≫ To delete an Action

1   Select the *Plans* node within the Data Archiving for Adabas navigation tree.

2   Select the Plan within which the Action to be deleted is located.

3   Select the *Actions* sub-node.

4   Select and right click the Action to be deleted, then select *Delete Action*. A confirmation window will appear.

5   Click the *Yes* button on the confirmation window to delete the Action.

Copying an Action

≫ To copy an existing Action

1   Select the *Plans* node within the Data Archiving for Adabas navigation tree.

2   Select the Plan within which the Action to be copied is located.

3   Select the *Actions* sub-node.

4   Select and right click the Action to be copied, then select *Copy Action*. The Copy Action window will appear.

    Enter the following information:

Field	Description
Group	Select the Adabas System Coordinator group.
Plan	Select the Plan where the current Action will be copied to.
Action	1-32 characters to be used as the name for the copied Action. This is the name that will appear under the *Actions* sub-node for the selected Plan. This Action name must be unique within the selected Plan. Names are case-sensitive, the first character must be alphabetic, all other characters can be either alphabetic or numeric. The only special character permitted is underscore.
Description	A textual description of the copied Action.

5   Click the *Copy Action* button to copy the Action.

Running an Action Manually

An Action can be run manually at any time.

≫ To run an Action manually

1   Select the *Plans* node within the Data Archiving for Adabas navigation tree.

2   Select the Plan within which the Action to be run is located.

3   Select the *Actions* sub-node.

4   Select and right click the Action to be run, then select *Run Action 'name' Now*. A confirmation window will appear.

5   Click the *Yes* button on the confirmation window to run the Action.

Running an Action using an automatic Schedule

In order to define an automatic schedule, the Action must first be configured with a Schedule Type of Automatic. Refer to *Adding an Action* for an explanation of the parameter Schedule Type. Once configured with this setting, a *Schedule* sub-node will be present in the navigation tree under the Action.

≫ To define an automatic schedule

1   Select the *Plans* node within the Data Archiving for Adabas navigation tree.

2   Select the Plan within which the Action to be scheduled is located.

3   Select the *Actions* sub-node.

4   Select the Action to be scheduled.

5   Select and right click the *Schedule* sub-node, then select *Modify Schedule*. The Modify Schedule window will appear.

Enter the following information:

Field	Description
Run At	Define the time of day when the Action is to be run.
Occurring:... Daily... Weekly on... Monthly on day... Quarterly on day... Half Yearly on day... Annually on day... Repeat every...	Define the schedule.

6   Click the *Save Changes* button to save any changes.

Running an Action using an ad hoc Schedule

In order to define an ad hoc schedule, the Action must first be configured with a Schedule Type of Ad hoc. Refer to *Adding an Action* for an explanation of the parameter Schedule Type. Once configured with this setting, a *Schedule* sub-node will be present in the navigation tree under the Action.

≫ To define an ad hoc schedule

1   Select the *Plans* node within the Data Archiving for Adabas navigation tree.

2   Select the Plan within which the Action to be scheduled is located.

3   Select the *Actions* sub-node.

4   Select the Action to be scheduled.

5   Select the *Schedule* sub-node. The Schedule window will appear.

6   Click the *Add Schedule Entry* button. The Add Schedule Entry window will appear.

Enter the following information:

Field	Description
Time	Define the time of day when the Action is to be run.
Date	Define the date when the Action is to be run.

7   Click the *Add Schedule Entry* button to add the entry.

8   Repeat as necessary to define as many Schedule Entries as required.

Individual schedule entries can be modified and deleted by clicking on the respective icon in the Schedule window.

Data Selection Mode

When creating an Action you need to choose the mode of data selection. There are three modes available; Extraction Syntax, To-do List (User-generated archive/transfer lists), and User Library (Record selection plug-in).

≫ **To use Extraction Syntax**

1   Ensure the Action is defined with a mode of *Extraction Syntax*. This will create the node *Extraction Syntax* below the Action.

2   Select the node *Extraction Syntax* and the Modify Extraction Syntax window will appear.

3   Define the required extraction syntax. Refer to Extraction Syntax for more information and examples on using the extraction syntax.

4   Click the *Check Syntax* button to validate and check for compilation errors in the syntax. If the validation fails, an indication of the error is provided.

5   Click the *Save* button to store the syntax.

6   Click the *Help* button for a quick reference guide on the extraction syntax.

≫ **To use To-Do List (User-generated archive/transfer list)**

1   Ensure the Action is defined with a mode of *To-Do List*. This will create the node *To-Do List* below the Action.

2   Select the location that will be used to store the To-Do List for the Action. By default this is the Repository but an alternative Adabas file may be specified instead. The file will be created automatically if it does not already exist.

3   Create the To-Do List content by referencing the supplied Data Archiving for Adabas Application Programming Interface. Refer to Application Programming Interface for more information on using this interface.

4   Select the node *To-Do List* from within the Action to display the status of any To-Do List.

≫ **To use User Library (Record selection plug-in)**

1   Ensure the Action is defined with (a) a mode of *User Library* and (b) the library path for the plug-in. This will create the node *Real-Time API Parameters* below the Action.

2   The node *Real-Time API Parameters* is used to define the parameters which are passed to the plug-in.

3   Create the Plug-in by referencing the supplied Data Archiving for Adabas Application Programming Interface. Refer to API for the C Programming Language and the section titled *User-Lib Interface*.

Adding Source Files

An Action requires all the files that make up the business object be defined under the Source Files node.

≫ To add Source Files for an Action

1   Select and right click on *Source File* node below the Action, then select *Add Source File*. The Add Source File window will appear:.

Enter the following information:

Field	Description
File Name	1-32 characters to be used as the name for the Source File. This is the name that will appear within the *Source Files* sub-node under the selected Action. This file name must be unique within the Action. Names are case-sensitive, the first character must be alphabetic, all other characters can be either alphabetic or numeric. The only special character permitted is underscore.
Adabas	This identifies the data source. For Adabas data this is the database and file number.
File Mapping	*File Mappings* can be used in association with a Source File. This allows Adabas Long Field names to be used when the Action's *Data Selection Mode* is set to 'Extraction Syntax'.
Description	A textual description of the Source File.
Codepage	Defines the codepage to be associated with Alphanumeric format field values in the Source File. Select one of: **None** 　The default Source File platform codepage is used. **Default** 　If the target platform is Mainframe, the Adabas codepage associated with the Source File is used. 　If the target platform is Open Systems, the default Source File platform codepage is used. **Other** 　The specified codepage is used.

2   Click the *Add Source File* button to add the new source file.

Adding Target Files

> **Note:** Target files are only required if the Action will be using the TRANSFER feature of Data Archiving for Adabas.

You must define all the Target Files that are involved in making up the business objects to be transferred.

≫ **To add Target Files for an Action**

1   Select and right click on the *Target File* node below the Action, then select *Add Target File*. The Add Target File window will appear.

Enter the following information:

Field	Description
File Name	1-32 characters to be used as the name for the Target File. This is the name that will appear within the Target Files sub-node under the selected Action. This file name must be unique within the Action. Names are case-sensitive, the first character must be alphabetic, all other characters can be either alphabetic or numeric. The only special character permitted is underscore.
Adabas	This identifies the data target. For Adabas data this is the database and file number. If appropriate, a target LOB file must also be defined.

Codepage	Defines the codepage to be applied to Alphanumeric format field values when transferring data into the Target File.
	
	Select one of:
	
	None
	    The default target platform codepage is used.
	Default
	    If the target platform is Mainframe, the Adabas codepage associated with the Target File is used.
	
	    If the target platform is Open Systems, the default target platform codepage is used.
	Other
	    The specified codepage is used.

Duplicate ISN Handling	Specifies what action to take when inserting a Transfer record into the Target File and the ISN of this record already exists. Select one of:

Field	Description
	Replace The existing record is replaced by the Transfer record. **Forget** The existing record is kept and the Transfer record is discarded. **Change** The existing record is kept and the Transfer record is inserted with a new ISN. **Error** The Transfer operation will fail reporting an error.
Duplicate Unique Descriptors	Specifies what action to take when inserting a Transfer record into the Target File when a duplicate unique descriptor value already exists. Select one of: **Replace** The existing record is replaced by the Transfer record. **Forget** The existing record is kept and the Transfer record is discarded. **Error** The Transfer operation will fail reporting an error.
File Creation Parameters	If 'Create File If It Does Not Exist' is selected then define the appropriate Adabas file parameters. Refer to the Adabas documentation relating to file creation for further information on these parameters. The default parameter settings supplied are for example only.

2   Click the *Add Target File* button to add the new target file.

Monitoring Archiving Services and Activities

The Data Archiving Service (also simply referred to as the Archiving Service) manages all archive operations. It runs unattended and, according to any defined *Plans* and *Actions*, launches Extractor and Accumulator processes to perform the necessary archiving requirements.

For more information on the Archiving Service, Extractor, and Accumulator components please refer to *Components of Data Archiving for Adabas*.

- Monitoring Archiving Services

■ Monitoring Activities

Monitoring Archiving Services

Each Data Archiving Service runs within an Adabas System Coordinator Daemon on a Computer which is defined to an Adabas System Coordinator Group. Archiving Services running within the same Group can communicate collaboratively to provide a fully distributed archiving service where the Extractor can run on one computer and the Accumulator can run on another. An individual Archiving Service is referred to by *Group:Computer:Daemon*.

≫ **To monitor Archiving Services**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The Archiving Service window will appear.

The following information is displayed:

Field	Description
Group Computer Daemon	The name of the Group, Computer and Daemon corresponding to the selected Archiving Service.
Service Status Information	
Status	The run status of the selected Archiving Service.
Install Path	The installed location of the selected Archiving Service.
Version	The version of the selected Archiving Service.
Repository	The location information for the Repository used by the selected Archiving Service.
License Information	
File	The location of the selected Archiving Service's license file.
Status	The status of the selected Archiving Service's license.
Expires	The expiry date of the selected Archiving Service's license.

Monitoring Activities

Archiving requirements are implemented by defining Plans and Actions. A Plan identifies a collection of one or more related Actions, and an Action defines where data is to be extracted from, where it is to go, and the computers on which the respective Extractor and Accumulator processes will run.

Each run of an Action is called an Activity and the Archiving Service manages and records all pending, current and completed Activities in order to assist the administrator in monitoring and controlling archive operations.

- Pending Activities
- Current Activities
- Completed Activities

Pending Activities

Pending Activities are Activities relating to those Actions that have been scheduled to run in the future. Refer to *Running an Action using a Schedule* for more information on how to define a schedule for an Action.

≫ **To monitor Pending Activities**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The Archiving Service window will appear.

3   Select the *Pending Activities* sub-node. The Pending Activities window will appear.

If pending Activities are present, the following information is displayed:

Column	Description
Type	The type of operation to be performed by the Activity; for example, Archive or Transfer.
Schedule	The type of schedule defined to the Action for which this Activity has been scheduled; for example, Automatic or Ad Hoc.
Due	The date and time when this Activity is scheduled to run.
Plan	The name of the Plan corresponding to the Action for which this Activity has been scheduled.
Action	The name of the Action for which this Activity has been scheduled.
Added At	The date and time when the Action schedule was created.
Added By	The user identity of the person who created the Action schedule.
Cancel	To cancel the scheduled Activity, click the icon on the appropriate entry.

Current Activities

Current Activities are Activities relating to those Actions that are currently in progress having been submitted to run manually or automatically via a defined schedule. Refer to *Running an Action* for more information on the options available for running an Action.

- Monitoring Current Activities
- Displaying Current Activity Details
- Stopping Current Activities
- Pausing/Resuming Current Activities

Monitoring Current Activities

≫ **To monitor current Activities**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The Archiving Service window will appear.

3   Select the *Current Activities* sub-node. The Current Activities window will appear.

If current Activities are present, the following information is displayed:

Column	Description
Started	The start time of the Activity.
Activity-ID	The internal identity by which this Activity is known.
Plan	The name of the Plan corresponding to the Action for which this Activity has been started.
Action	The name of the Action for which this Activity has been started.
Type	The type of operations being performed by the Activity; for example, Archive, Remove, Transfer or Recall. Remove indicates that records have been deleted from the Source Files by use of the Extraction Syntax statements 'ARCHIVE MOVE' or 'REMOVE' (or by the equivalent functions in the Natural and C APIs).
Overall	The highest progress count from either the Accumulator process or the Extractor process.
Status	The overall status of the Activity, a combination of the Accumulator and Extractor statuses.
Extractor	The progress count for the Extractor process.
Status	The status of the Extractor.
Accumulator	The progress count for the Accumulator process.
Status	The status of the Accumulator.

Displaying Current Activity Details

≫ **To display details of current Activities**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The Archiving Service window will appear.

3   Select the *Current Activities* sub-node. The Current Activities window will appear.

4   To display the details for an individual Activity, click directly on its Activity-ID link. Alternatively, to display the details for multiple Activities, use the checkboxes for selection and then choose 'Detail' from the drop-down *Operations* box (this method can also be used for an individual Activity).

5   The Activity Detail window appears which provides additional details about the selected Activity.

Stopping Current Activities

Current Activities may be stopped to enable unplanned maintenance to be performed on Activity-involved databases or files by allowing the resources used by such Activities to be released. Refer to *Adabas Database and File Maintenance* for additional information when considering this operation.

≫ **To stop current Activities**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The Archiving Service window will appear.

3   Select the *Current Activities* sub-node. The Current Activities window will appear.

4   To stop one or more Activities, use the checkboxes for selection and then choose 'Stop' from the drop-down *Operations* box.

5   Click the *Yes* button on the confirmation window to stop the selected Activities.

Pausing/Resuming Current Activities

Current Activities may be paused and resumed to enable unplanned maintenance to be performed on Activity-involved databases or files by allowing the resources used by such Activities to be released. Refer to *Adabas Database and File Maintenance* for additional information when considering this operation.

> **To pause and resume current Activities**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The Archiving Service window will appear.

3   Select the *Current Activities* sub-node. The Current Activities window will appear.

4   To stop one or more Activities, use the checkboxes for selection and then choose 'Pause' from the drop-down *Operations* box.

5   Click the *Yes* button on the confirmation window to pause the selected Activities.

6   To resume one or more paused Activities, use the checkboxes for selection and then choose 'Resume' from the drop-down *Operations* box.

7   Click the *Yes* button on the confirmation window to resume the selected Activities.

Completed Activities

Completed Activities are Activities relating to those Actions that have previously been run either successfully or unsuccessfully.

- Viewing Completed Activities
- Displaying Completed Activity Details
- Deleting Completed Activities
- Restarting Failed Activities

Viewing Completed Activities

> **To view completed Activities**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The Archiving Service window will appear.

3   Select the *Completed Activities* sub-node. The Completed Activities window will appear.

If complete activities are present, the following information is displayed:

Column	Description
Started	The start time of the Activity.
Activity-ID	The internal identity by which this Activity is known.
Plan	The name of the Plan corresponding to the Action for which this Activity was run.
Action	The name of the Action for which this Activity was run.
Type	The type of operations performed by the Activity; for example, Archive, Remove, Transfer or Recall. Remove indicates that records have been deleted from the Source Files by use of the Extraction Syntax statements 'ARCHIVE MOVE' or 'REMOVE' (or by the equivalent functions in the Natural and C APIs).
Overall	The highest completed progress count from either the Accumulator process or the Extractor process.
Status	The overall completion status of the Activity, a combination of the Accumulator and Extractor completion statuses.
Extractor	The completed progress count for the Extractor process.
Status	The completion status of the Extractor.
Accumulator	The completed progress count for the Accumulator process.
Status	The completion status of the Accumulator.
Ended	The end time of the Activity.

Displaying Completed Activity Details

≫ **To display details of completed Activities**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas
    navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The
    Archiving Service window will appear.

3   Select the *Completed Activities* sub-node. The Completed Activities window will appear.

4   To display the details for an individual Activity, click directly on its Activity-ID link. Altern-
    atively, to display the details for multiple Activities, use the checkboxes for selection and then
    choose 'Detail' from the drop-down *Operations* box (this method can also be used for an indi-
    vidual Activity).

5   The Activity Detail window appears which provides additional details about the selected
    Activity.

Deleting Completed Activities

≫ **To delete completed Activities**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The Archiving Service window will appear.

3   Select the *Completed Activities* sub-node. The Completed Activities window will appear.

4   To delete one or more completed Activities, use the checkboxes for selection and then choose 'Delete' from the drop-down *Operations* box.

5   To delete all completed Activities, right-click on the *Completed Activities* sub-node and select 'Delete All' from the pop-up menu.

6   Click the *Yes* button on the confirmation window to delete the Activities.

Restarting Failed Activities

An Activity may fail for many reasons; from a database or file not being available, to an unexpected processing error. The restart operation is designed to provide recovery from such failures by checking (and if necessary repairing) the integrity of the current archive files before continuing with the Activity. Log messages are written to provide information relating to the restart operation.

≫ **To restart failed Activities**

1   Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.

2   Select the group:computer:daemon for the Archiving Service you wish to monitor. The Archiving Service window will appear.

3   Select the *Completed Activities* sub-node. The Completed Activities window will appear.

4   To restart one or more completed Activities, use the checkboxes for selection and then choose 'Restart' from the drop-down *Operations* box.

5   Click the *Yes* button on the confirmation window to restart the selected Activities.

Perspectives

The configuration data for Data Archiving for Adabas is stored in a Repository. A Perspective defines an access path to a particular Repository. Multiple Perspectives can be defined, enabling configuration data in different Repositories to be maintained from a single Administration machine.

- Adding a Perspective
- Selecting a Perspective
- Discovering a Perspective
- Deleting a Perspective

Adding a Perspective

Adding a Perspective allows the Administration machine to maintain different Repositories.

≫ To add a Perspective

1   Select and right click the *Perspectives* node within the Data Archiving for Adabas navigation tree, then select *Add Perspective*. The Add Perspective window will appear.

Enter the following information for the new Perspective:

Field	Description
Communication Type	**Daemon Repository (using a Daemon as the access point)** The Repository, currently in use by the specified Adabas System Coordinator Daemon, will be accessed by the UI. This is useful if you do not know the database and file number for the current Repository. **Specific Repository (direct from the UI)** The specified Repository will be accessed directly by the UI. The file may be local to the UI machine or be available via Software AG's Net-work. **Specific Repository (using a Daemon as the access point)** The specified Repository will be accessed indirectly by the UI via the specified Adabas System Coordinator Daemon. This is useful if you cannot access the file directly.
Hostname	When using a Daemon as the access point, this is the hostname of the computer where the Adabas System Coordinator Daemon is running.
Port	When using a Daemon as the access point, this is the Group Services port number for the Adabas System Coordinator Daemon running on the computer defined in the "Hostname" field above.
Database/File	When explicitly specifying a Repository, this is the database and file number of the Repository.

2   Click the *Add* button to add the new Perspective.

Selecting a Perspective

You can alter your current Perspective by selecting another one. This allows you to administer multiple Repositories from the Administration machine.

≫ **To select a Perspective**

1   Select the *Perspectives* node within the Data Archiving for Adabas navigation tree.

2   Select and right click the Perspective to be selected, then select *Select Perspective*.

3   Select and right click the *Data Archiving for Adabas* node, then select *Refresh*. This will perform a refresh on the navigation tree to ensure the change in Perspective is correctly registered.

Discovering a Perspective

You can discover which computers are using the same Repository for a particular Perspective. This enables you to select alternative access paths to the Repository.

≫ **To discover a Perspective**

1   Select the *Perspectives* node within the Data Archiving for Adabas navigation tree.

2   Select and right click the Perspective to be discovered, then select *Discover Perspectives*.

Deleting a Perspective

≫ **To delete a Perspective**

1   Select the *Perspectives* node within the Data Archiving for Adabas navigation tree.

2   Select and right click the Perspective to be deleted, then select *Delete Perspective*.

3   Click the *Yes* button on the confirmation window to delete the Perspective.

File Mappings

File Mappings allow the use of Adabas long field names in the Extraction Syntax by providing a means to map Adabas short field names to long field names. A File Mapping is the equivalent of a Natural DDM (a view of a file). The File Mapping node provides support for the maintenance and creation of File Mappings, including importing from FDTs, Predict or Natural DDMs.
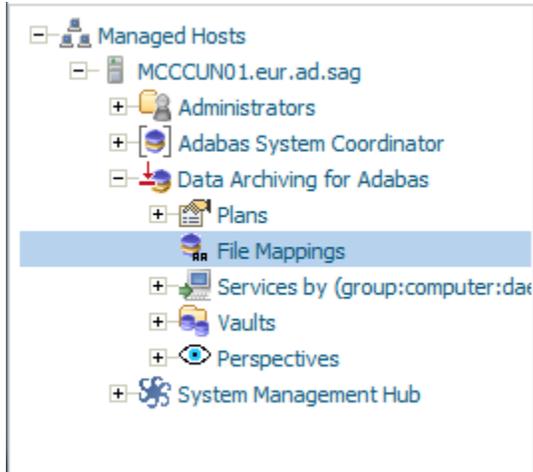
- Defining a new File Mapping
- Copying an existing File Mapping
- Modifying an existing File Mapping
- Synchronising a File Mapping with an FDT

Defining a new File Mapping

≫ **To add a new File Mapping**

1   Select the *File Mappings* node within Data Archiving for Adabas:
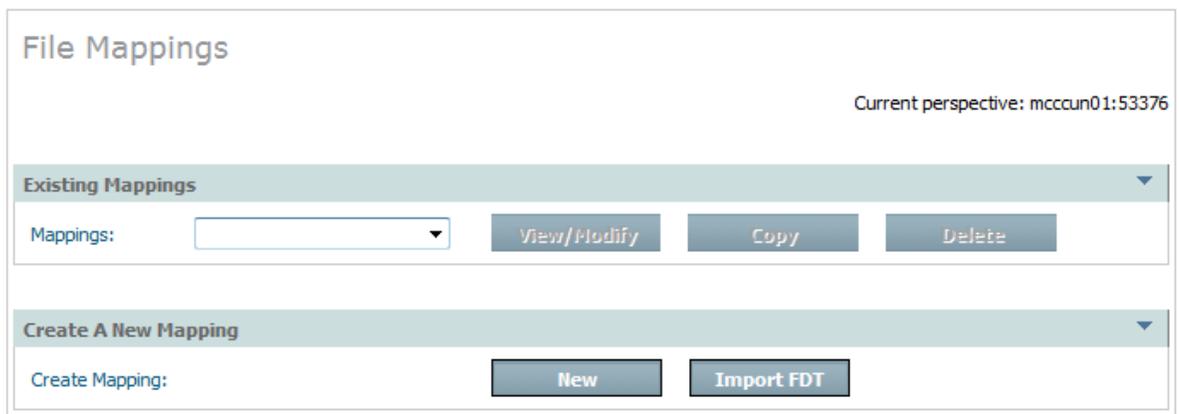
2   Click the *New* button, the Add A New File Mapping window will appear:

Enter the following information:

Field	Description
Mapping Name	1-32 characters to be used as the name for the file mapping. This is the name that is used by the Source Files in an action.

3   Click the *Add Mapping* button to create the new file mapping.

4   Once the new mapping file is created it is then possible to edit, add and delete the fields.

Field descriptions:

Field	Description
Select	Select rows to mark them for deletion.
Full Name	Full long field name (32 characters max., cannot start with a number and must not contain symbols used in Extraction Syntax or space characters).
Short Name	Short field name (2 characters, 1st character must be alpha, 2nd character must be alphanumeric. The range E0 to E9 is not allowed.).
Move Up	Move the selected field up the File Mapping list order.
Move Down	Move the selected field down the File Mapping list order.

5   Click the *Save* button to store the new File Mapping.

> **To import a new File Mapping**

1   Select *File Mappings* node within Data Archiving for Adabas
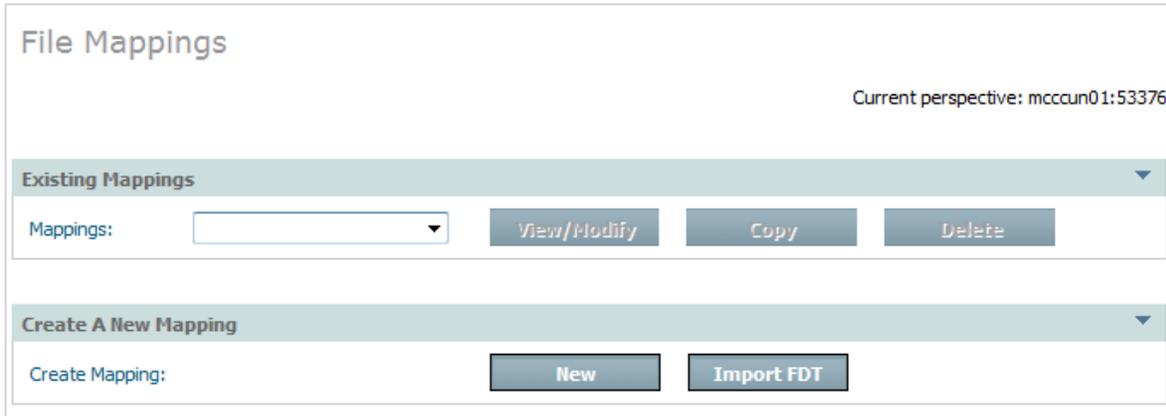
2   Click the *Import FDT* button, the Import A New File Mapping From FDT window will appear:
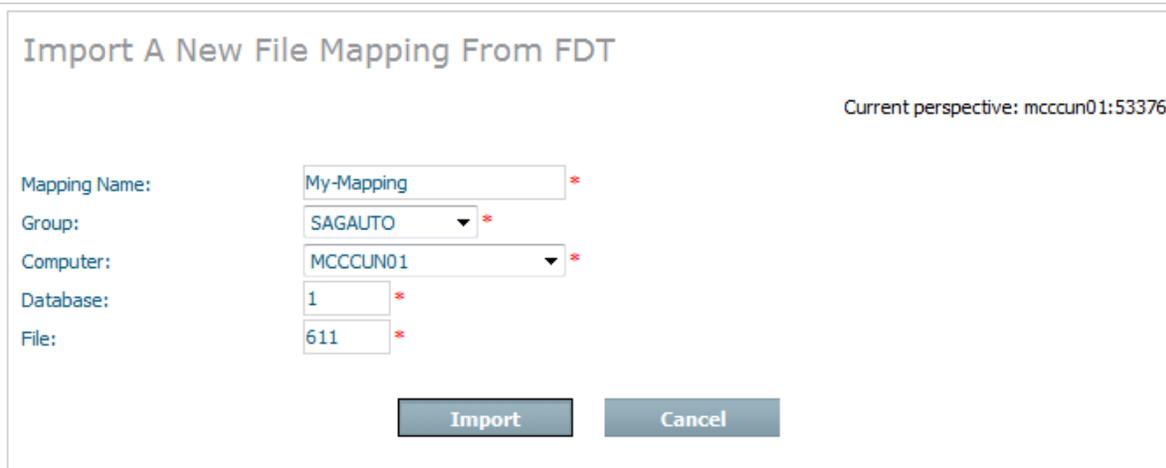
Enter the following information:

Field	Description
Mapping Name	1-32 characters to be used as the name for the File Mapping. This is the name that is used by the Source Files in an action.
Group	The Adabas System Coordinator Group for the plan
Computer	Choose a computer from the list where the FDT will be read from. The list of computers comes from the Adabas System Coordinator Group that the archive Plan uses.
Database	The Adabas database number where the FDT is to be imported from.
File	The Adabas file number where the FDT is to be imported from.

3   Click the *Import* button to create the new File Mapping.

4   Once the new mapping file is created it is then possible to edit, add and delete the fields.

> **Note:** The initial long field names will be a duplicate of the short names when import is used.

Field descriptions:

| Field	Description
Select	Select rows to mark them for deletion.
Full Name	Full long field name (32 characters max., cannot start with a number and must not contain symbols used in Extraction Syntax or space characters).
Short Name	Short field name (2 characters, 1st character must be alpha, 2nd character must be alphanumeric. The range E0 to E9 is not allowed.).
Move Up	Move the selected field up the File Mapping list order.

Field	Description
Move Down	Move the selected field down the File Mapping list order.

5   Click the *Save* button to store the new File Mapping.

Copying an existing File Mapping

≫ **To copy an existing File Mapping**

1   Select the *File Mappings* node within Data Archiving for Adabas:
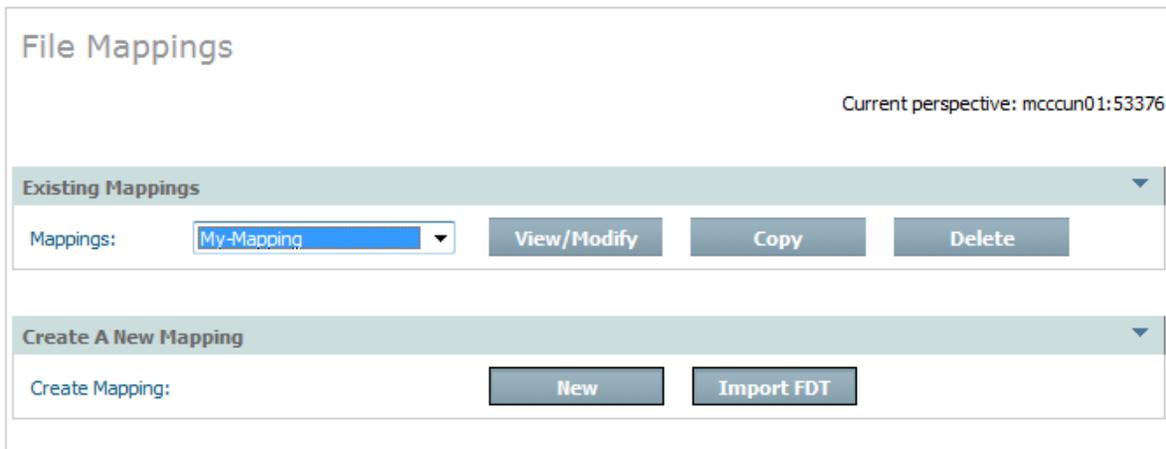
2   Click the *Copy* button, the Copy File Mapping window will appear:
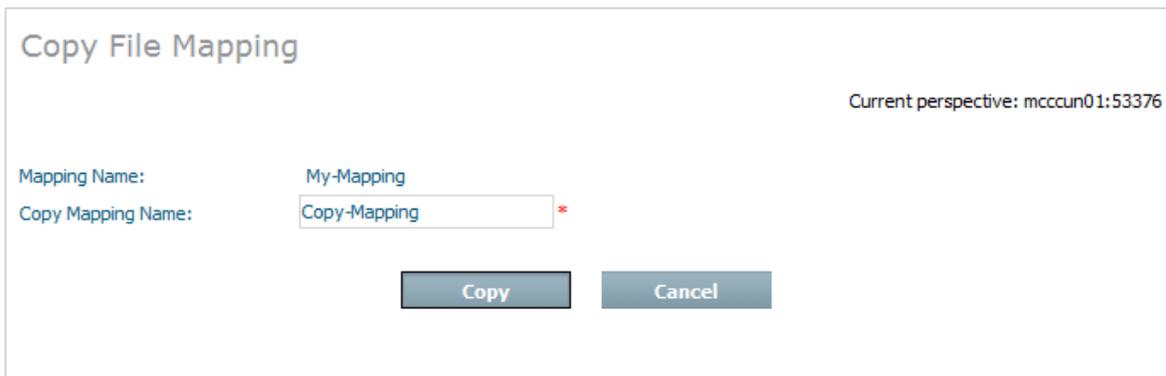
Enter the following information:

Field	Description
Mapping Name	The File Mapping being used as the base for the copy.
Copy Mapping Name	1-32 characters to be used as the name of the new File Mapping.

3   Click the *Copy* button to create the new File Mapping.

Modifying an existing File Mapping

≫ To modify an existing File Mapping

1   Select the *File Mappings* node within Data Archiving for Adabas:

2   Click the *View/Modify* button, the View/Modify File Mapping window will appear:

3   Edit, add and delete fields as required:

To edit the name of a field, over-type the existing names in the Full Name column.

To add a field,click the *Add Field* button, the Add Field dialog will appear:

Enter the Short Name and Full Name for the new field and then click the *Add Field* button.

Enter the Short Name and Full Name for the new field and then press the *Add Field* button.

To delete a field, click on the corresponding checkbox in the Select column and click the *Delete Selected Fields* button.

4   When the modifications have been completed, click the *Save* button to save the changes.

Synchronising a File Mapping with an FDT

≫ **To synchronise a File Mapping with an FDT**

1   Select the *File Mappings* node within Data Archiving for Adabas:.

2   Click the View/Modify button, the View/Modify File Mapping window will appear:

3   Click the *Sync With FDT* button, the Sync Fields With FDT window will appear:

Confirm the operation by clicking the *Yes* button.

The File Mapping will be synchronised with the FDT and the View/Modify File Mapping will display the refreshed field mappings.

4   Click the *Save* button to save the changes.

Search Archived Data

Archived data is maintained in Archives within Vaults, written as a result of Actions being run.

It is possible to search these Archives and Vaults, and perform selective recalls on the search results as required.

- Search Maintenance
- Adding a Search
- Modifying a Search
- Deleting a Search
- Search Results
- Recalling Search Results
- Searching Within Results
- Deleting Search Results

Search Maintenance

≫ **To display the Search Maintenance window**

1   Select the Vaults node within the Data Archiving for Adabas navigation tree.

2   Select the Search sub-node. The Search Maintenance window will appear.

The following information is displayed:

Column	Description
Name	The name of the Search.
Last run At	The date and time of the last run of this Search.
Run By	The userid of the person who last ran this Search.
Status	The status of the Search: *Ready* The Search is ready to be run. *Searching* The Search is in progress. Click on the status link to view the available search results.

Column	Description
	Completed
	The Search has completed successfully. Clink on the status link to view the search results.
	Completed (with errors)
	The Search has completed but some Vaults/Archives were unreadable. Click on the status link to view the available search results and error messages.

Adding a Search

≫ **To add a Search:**

1 Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2 Select and right click the Search sub-node, then select *Add Search*. The Search window will appear.

Enter the following information for the new Search:

Field	Description
Search Name	1-32 characters to be used as the name for the Search. Names are case-sensitive, the first character must be alphabetic, all other characters can be either alphabetic or numeric. The only special character permitted is underscore.
Description	A textual description of the Search.

3 *Scope* defines the parameters of the search.

Enter the following information:

Field	Description
Group Plan Action	Limits the search to those Archives which correspond to a specific Group, a specific Group and Plan, or a specific Group, Plan and Action. No specification (the default) will result in all Archives in all Vaults being included in the search.
Use automatically selected Vaults	This checkbox determines whether Vaults are selected automatically or manually for inclusion into the search. If ticked (the default), Vaults will be automatically selected based on any specification of Group, Plan or Action (see above). In the absence of any specification, all available Vaults are included in the search.

Field	Description
	If un-ticked, you must manually select which Vaults are to be included in the search from the available Vault list shown.
Vaults: Available: Selected:	The "Available" box lists those Vaults available for inclusion into the search, and the "Selected" box lists those Vaults selected for inclusion into the search. When "Use automatically selected Vaults" is ticked (see above), these boxes are populated automatically and non-modifiable. In order to manually change the Vault selection, first un-tick "Use automatically selected Vaults", and then use the arrow buttons to select/de-select individual Vaults or all Vaults, as required.
Search Computer	Select the Computer where the search is to run.
Date	Specify a date range to further narrow down the scope of the search. Enter dates in the format YYYY/MM/DD.

4   *Query* defines the search criteria.

Enter the following information:

Field	Description
Query	Specify the values to be searched for: String values (fields of format A) must be enclosed in double quotes. eg. "DERBY" Numeric values (fields of format P, U, F, G) must be defined without quotes eg. 1234 Binary values (fields of format B) must be enclosed in double quotes and prefixed with H. eg. H"0001" Multiple values can be specified separated by a space.
Operation	AND / OR When multiple values are specified, separated by a space, you must select the logical condition to be used when the search criteria is evaluated. COMPLEX Choose this operation to allow more complex search criteria. When selected, the query box will support the use of the logical AND operator && and the logical OR operator || in combination with parenthesis. For example: "DERBY" && ("WATSON" || "WOOD")

5   *Runtime Control Settings* defines the runtime characteristics of the search relating to processing limits and pacing.

Enter the following information:

Field	Description
Limit hits to a maximum of *nnnn* archives	The Search will stop when the specified number of archive hits has been reached. The default is no limit.
Limit hits to a maximum of *nnnn* objects	The Search will stop when the specified number of object hits has been reached. The default is no limit.
Pacing	When set to On, this control regulates the activity level (throughput) of each run of this Search so that a pre-determined level of service can be maintained. This is achieved by defining a maximum setting for the numbers of objects to be processed per minute (approximately). The default is Off.

6   Click the *Save* button to save the new Search or the *Save & Run* button to save and immediately run the Search.

Modifying a Search

≫ **To modify a Search:**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Search* sub-node. The Search Maintenance window will appear.

3   For the Search you wish to modify, click on the Name link. The Search window will appear.

Refer to **Adding a Search** for an explanation of the fields.

4   Click the *Save* button to save the modified Search or the *Save & Run* button to save and immediately run the modified Search.

Deleting a Search

≫ **To delete a Search:**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Search* sub-node. The Search Maintenance window will appear.

3   To delete one or more Searches, use the checkboxes for selection and then choose "Delete" from the drop-down Operations box.

4   Click the *Yes* button on the confirmation window to delete the Search(es).

Search Results

≫ **To display Search Results:**

1   Select the *Vaults* node within the Data Archiving for Adabas navigation tree.

2   Select the *Search* sub-node. The Search Maintenance window will appear.

3   For the Search you wish to view the results for, click on the Status link. The Search Results window will appear.

Refer to **Search Maintenance** for an explanation of the search status and the availability of the status link.

The following information is displayed:

Field	Description
Search Name	The name of the Search.
Status	The status of the Search.
Last Run At	The date and time of the last run of this Search.
Run By	The userid of the person who last ran this Search.

4   *Query* displays the search criteria used for the search.

The following information is displayed:

Field	Description
Query	The search criteria used by the Search.
Operation	The associated operation/logical condition for the query.

5   *Statistics* displays the statistics generated by the search.

The following information is displayed:

Field	Description
Estimated number of Archives to be searched	An estimation of the number of Archives to be searched based on the defined scope.
Number of Archives searched	The number of Archives searched. If the status is "Completed" this is the total number. If the status is "Searching" this is the current number.
Number of Hits	The number of objects and records that match the search criteria. If the status is "Completed" this is the total number. If the status is "Searching" this is the current number.

Field	Description
Number of unreadable Vaults	In the event that the Search process has a Vault-level error, this count will be incremented and a row in the Search results will be inserted to record the actual error (one row per Vault). A non-zero value in this field should always be accompanied by a status of "Completed (with errors)".
Number of unreadable Archives	In the event that the Search process has an Archive-level error, this count will be incremented and a row in the Search results will be inserted to record the actual error (one row per Archive). A non-zero value in this field should always be accompanied by a status of "Completed (with errors)".

6   *Results* displays the search results.

Each row in the search results table refers to an Archive in which at least one object and record has matched the search criteria.

The following information is displayed for each of these Archives:

Column	Description
Vault	The name of the Vault in which this Archive resides.
Archived At	The date and time when this Archive was created.
Archive-ID	The internal identity by which this Archive is known.
Group	The name of the Group corresponding to this Archive.
Plan	The name of the Plan corresponding to this Archive.
Action	The name of the Action corresponding to this Archive.
Hits	The number of objects and records that match the search criteria within this Archive.

> **Note:** In the event of a Vault-level or Archive-level error, a row is inserted into the search results table identifying the Vault/Archive in question and the associated error code.

7   Refer to the relevant section for information on **Recalling Search Results**, **Searching Within Results**, and **Deleting Search Results**.

Recalling Search Results

≫ **To recall search results:**

1   Refer to section **Search Results** for information on how to display the search results for a particular Search.

2   To recall an individual search result, use the checkbox for selection and then choose "Recall" from the drop-down Operations box.

3   Refer to **Recall Archived Data** for additional information regarding the recall process.

Searching Within Results

≫ **To search within results:**

1   Refer to section **Search Results** for information on how to display the search results for a particular Search.

2   To search within a particular set of results, click the "Search Within Results" button.

> **Note:** You can only run a Search Within Results against all the Archives in an existing search results list, you cannot select individual Archives from within the list.

3   This will direct you to the "Add Search" window with the scope section pre-set to the Search name corresponding to the search results you wish to search.

Refer to **Adding a Search** for information on how to add this new search.

4   Run this newly added search to create a sub-set of search results based on the previously created search results.

> **Note:** The "parent" Search must be available for the duration of the Search within Results process.

Deleting Search Results

≫ **To delete search results:**

1   Refer to section **Search Results** for information on how to display the search results for a particular Search.

2   To delete a set of search results, click the "Delete Search Results" button.

3   This will delete the search results without deleting the Search definition itself.

> **Note:** It is not necessary to delete search results before re-running a Search. The initialization process of the Search will delete all previous search results which exist for the same search name.

Recall Archived Data

You can recall one or more Archives back to an Adabas file at any time.

» **To recall archived data:**

1   Refer to *Browsing Archives in a Vault* to find the particular Archive(s) for which a recall is required or **Recalling Search Results** to select an Archive for recall from a search results list.

2   To recall an individual Archive, use the checkbox for selection and then choose 'Recall' from the drop-down *Operations* box. The Recall window to define the Source and Destination computers and to select the Source Files for recall will appear.

Enter the following information:

Field	Description
Source Computer	Specifies the computer to be used to recall the data from the Vault. A Vault Path to the Vault must be defined for the specified computer.
Destination Computer	Specifies the computer to be used to write the recalled data back into Adabas. This must be the computer where the target Adabas database(s) are running.
Select	Specify which Archive Source Files are to be recalled.
Destination DB	Specify the target database number for the selected Archive Source File.
Destination File	Specify the target file number for the selected Archive Source File.
Destination LOB File	If relevant, specify the associated target LOB file number for the selected Archive Source File.

3   Click the Next button. The Recall File Parameter settings window for the first selected Archive Source File will appear.

Enter the following information:

Field	Description
Mode	Select one of: **Create file** The recall operation will create a new file specified by the Destination DB/File; if the file already exists, an error will occur. **Overwrite file** The recall operation will create a new file specified by the Destination DB/File; if the file already exists, it will be deleted and a new one created in its place. **Append file** The recall operation will add the Archive data to an existing file specified by the Destination DB/File; if the file does not exist, an error will occur. Refresh file **Refresh file** The recall operation will refresh the specified Destination DB/File and then store the Archive data into it.
Codepage	Defines the codepage to be applied to Alphanumeric format field values when recalling the Archive data into a target file specified by the Destination DB/File. **None** The default target platform codepage is used. **Default** If the target platform is Mainframe, the Adabas codepage associated with the target file is used. If the target platform is Open Systems, the default target platform codepage is used. **Other** The specified codepage is used.
File Creation Parameters	If the Mode selected is such that an Adabas file may be created, define the appropriate Adabas file parameters. Refer to the Adabas documentation relating to file creation for further information on these parameters. The default parameter settings supplied are for example only.
Duplicate ISN Handling	Specifies what action to take when inserting an Archive record into the target file and the ISN of this record already exists. Select one of: **Replace** The existing record is replaced by the Archive record. **Forget** The existing record is kept and the Archive record is discarded. **Change** The existing record is kept and the Archive record is inserted with a new ISN.

Field	Description
	Error The recall operation will fail reporting an error.

Duplicate Unique Descriptors	Specifies what action to take when inserting an Archive record into the target file when a duplicate unique descriptor value already exists.
	
	Replace
	    The existing record is replaced by the Archive record.
	Forget
	    The existing record is kept and the Archive record is discarded.
	Error
	    The recall operation will fail reporting an error.

4   Click the *Next* button to repeat the file parameter settings for each selected Archive Source File.

5   Once parameter settings have been specified for all selected Archive Source Files, a window appears in which it is possible to define runtime pacing characteristics for the recall operation.

Field	Description
Pacing	When set to On, this control regulates the activity level (throughput) of the recall operation so that a pre-determined level of service can be maintained. This is achieved by defining minimum and maximum settings for the numbers of records to be processed per second (approximately). The default is Off.

6   Click the *Recall* button to schedule the recall.

Checking License Settings

Each Archiving Service is associated with a license file. Refer to *Monitoring Archiving Services* for information on how to select an Archiving Service and check the associated license details.