How to use Delft-Fews Archiving

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This short description of the archiving module has been taken from the Work Document made by the EA (Quick Guide - Use of Archiving in NFFS.doc)

Introduction

Version 2001/1 of Delft-Fews includes a new Archiving Module with a user interface that should make it easier for users to get access to the archives.

Introduction to the Archive Module

In an operation Delft-Fews system a workflow (usually called Archive_Scheduled) runs that creates four separate archive files. These four archives are generated as zip files and contain the following information:

- 1. Archive_Forecasts: All approved forecasts that run from midnight to midnight on the pervious day.
- 2. Archive_Thresholds: All details of threshold crossings from forecasts that run from midnight to midnight on the pervious day.
- 3. Archive_Timeseries: All details of timeseries that have been generated the previous day.
- 4. Archive_Configuration: All details of configuration changes made.

The Archive database polls file shares for any zip files. If it sees any zip files it copies them to the storage location and takes a snapshot (known as metadata) of the archive into the archive database.

Users can then query the archive database from the Delft-Fews operator client. Querying is based on the metadata stored in the database. Retrieving archives is then done by finding the appropriate zip files in the file system and copying them to the Archive/Import directory configured in Delft-Fews.

Manual Archiving from Delft-Fews

Manual Archiving can be used if users want to archive forecasts that haven't been approved - these could be test forecasts or forecasts run with what-if scenarios. The only archives that can be run manually are the forecast archives; all others can only be generated by the scheduled archiving workflow.

To manually archive a single forecast, open the Operator Client where the forecast was run. Select Archiving from the Tools Menu, Select Forecast Runs filter under Upload to Archive. Select the forecast that you want to archive and click on Upload:

	3								×
	Upload to Archive	Export directory Wdfsmcof.ea.govWid_FsstfromWindowstArchivetexport							
	Forecast Runs	ТО	Dispatch time	Workflow	What-if scenario	Description	Forecaster	\square	Export single file
		10-06-2007 16.	11-06-2007 02:00:03	Fluvial Historical		Midlands Daily staterun		1	
	> Time Series	10-06-2007 16.	10-06-2007 16:20:02	Fluvial_Forecast		Midlands standard for			
		10-06-2007 18.	10-06-2007 18:20:04	Fluvial_Forecast		Midlands standard for		1	
	_	10-06-2007 18.	10-06-2007 18:50:03	Coastal_Forecast		Midlands standard coa		1	
		10-06-2007 20.	10-06-2007 20:20:02	Fluvial_Forecast		Midlands standard for		1	
		10-06-2007 22.	10-06-2007 22:20:01	Fluvial_Forecast		Midlands standard for		1	
		11-06-2007 00.	11-06-2007 00:20:01	Fluvial_Forecast		Midlands standard for			
		11-06-2007 00.	11-06-2007 00:50:01	Coastal_Forecast		Midlands standard coa			
		11-06-2007 02.	11-06-2007 02:20:04	Fluvial_Forecast		Midlands standard for			
		11-06-2007 04.	11-06-2007 04:20:04	Fluvial_Forecast		Midlands standard for			
		11-06-2007 06.	11-06-2007 06:20:05	Fluvial_Forecast		Midlands standard for			
		11-06-2007 06.	11-06-2007 06:50:02	Coastal_Forecast		Midlands standard coa			
		11-06-2007 08.	11-06-2007 08:20:03	Fluvial_Forecast		Midlands standard for			
		11-06-2007 10.	11-06-2007 10:20:03	Fluvial_Forecast		Midlands standard for			
0		11-06-2007 12.	11-06-2007 12:20:03	Fluvial_Forecast		Midlands standard for			
		11-06-2007 12.	11-06-2007 12:50:04	Coastal_Forecast		Midlands standard coa			
		11-06-2007 14.	11-06-2007 14:20:01	Fluvial_Forecast		Midlands standard for			
		11-06-2007 16.	11-06-2007 16:20:01	Fluvial_Forecast		Midlands standard for			
		11-06-2007 16.	12-06-2007 02:00:02	Fluvial_Historical		Midlands Daily staterun			
		11-06-2007 18.	11-06-2007 18:20:02	Fluvial_Forecast		Midlands standard for			
		11-06-2007 18.	11-06-2007 18:50:04	Coastal_Forecast		Midlands standard coa			
		11-06-2007 20.	11-06-2007 20:20:03	Fluvial_Forecast		Midlands standard for			
		11-06-2007 22.	11-06-2007 22:20:01	Fluvial_Forecast		Midlands standard for			
		12-06-2007 00.	12-06-2007 00:20:04	Fluvial_Forecast		Midlands standard for			
		12-06-2007 00.	12-06-2007 00:50:02	Coastal_Forecast		Midlands standard coa			
		12-06-2007 02.	12-06-2007 02:20:02	Fluvial_Forecast		Midlands standard for			
		12-06-2007 04.	12-06-2007 04:20:00	Fluvial_Forecast		Midlands standard for			
		12-06-2007 06.	12-06-2007 06:20:03	Fluvial_Forecast		Midlands standard for			
		12-06-2007 06.	. 12-06-2007 06:50:03	Coastal_Forecast		Midlands standard coa			
		12-06-2007 08.	12-06-2007 08:20:05	Fluvial_Forecast		Midlands standard for			
		12-06-2007 10.	12-06-2007 10:20:02	Fluvial_Forecast		Midlands standard for		¥	
							d <u>C</u> lose		Help

This forecast is then written to a zip file and stored in the file shares until the archiver process picks it up.

Users can also archive several forecasts to one archive file by checking the Export Single File box in the top right hand corner of the archive window.

Querying the Archives in Delft-Fews

The database can be queried from the Operator Client and the Standalone system. Select Archiving from the Tools Menu, and then click on Forecast Runs under Retrieve from Archive. You will see the following screen:

**				×
Upload to Archive	Region ID	MIDLANDS		Run query
Retrieve from Archive	End date (T0)			Clear query
Forecast Runs	Min. no. of forecasted threshold crossings			
Time Series	Min. no. of observed threshold crossings			
	p			
			Close	Help

Queries can be made using the parameters in the search boxes. For start date and end date, if you click in the box it will default to the current date and time. You need to press enter for your changes to be remembered. If you are looking for events where a certain number of thresholds are crossed then use the appropriate search boxes. If you click in the What-If Scenario box, a dropdown arrow appears, clicking on this will give you the options of the What-If Scenarios that are available in the archive. After you have made the required entries in the search boxes, click Run Query and the table below will be populated with results.

You can do similar searches for the other archive types; Thresholds, Timeseries and Configuration but the only options here are start date and end date. If you want to find an existing configuration then you need to leave the end date blank.

Importing Archives into the Delft-Fews Standalone

The Standalone System is the only system that archives can be imported to. In order to import archives, you should use a Standalone that only contains the regional configuration. You can do this by copying the config folder of an Operator Client to the Standalone or by deleting the local datastore of an Operator Client and downloading the configuration using the Configuration Management Tool, then copying the local datastore from the Operator Client to the Standalone.

a) Importing Forecast Run Archives

This kind of import can only be done on a Standalone system and works as follows:

- Select Archiving from the Tools Menu.
- Select the Forecast Runs filter under Retrieve from Archive.
- Run the required query as described in Section 3.
- Select one or more forecasts to download, or select none of them to download them all.
- Note: a download will take all forecasts from an archive file, not only the ones that were selected from the list.
- Click Download to download the archives from the archive database and import them into the Standalone system.
 A workflow then starts running in the Standalone that, when completed, will have imported all forecasts from the selected archives into the system.

You can then view these forecasts by opening the Forecast Management Display. They will be listed under forecasts in local datastore.

To view the results of the required forecast:

- · Select it in the list.
- Click Open.

It will appear in the bottom left hand corner of the screen.

• Double click on this to set the system time to the T0 of the open forecast. You can then view the results in the pre-configured displays.

b) Importing Threshold Event Archives

As in a) except you need to select Threshold Events under Retrieve from Archive. To view Threshold Events you need to open the Skill Scores Display.

c) Importing Time Series Archives

As in a) except you need to select Time Series under Retrieve from Archive. To view Time Series you need to open the pre-configured displays for Performance.

Please note: You cannot import archived configurations directly into your standalone system.

Retrieving Archives to file

You can retrieve archive zip files to the file system of the Standalone. To do this you should start as in Section 4 with only the regional configuration present in the Standalone System. Query the database for the required information and then instead of clicking on Download, click on Save. The requested files will be saved in C:\NFFS\<region>_SA\Archive\import.

Import Archives from file

To import the archives save to the file system, open Archiving from the Tools Menu, click on the archive type you want to import and then click on Import. A window will open which shows you all the files available in a configured directory. Click on the required file and click Open. The requested file will be imported and can be viewed as in Section 4.