



Risc-kit Configuration Training Course

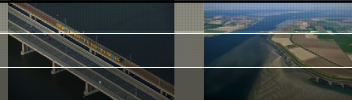
9 July, 2014



Risc-kit Configuration background information



Naming structure in Risc-kit



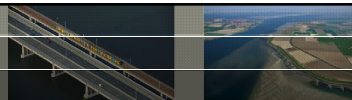
In order to allow for easy modification, the Risc-kit basic configuration was created to be as generic as possible, with no or little model specific information.

This means we use generic names where possible (e.g. moduleConfigFiles, locations and locationSets). Also, the displays (e.g. Filter, DisplayGroups, GridDisplay) are relatively straightforward and not specific.

This approach works best if the naming convention throughout the configuration is consistent.

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Module config template files



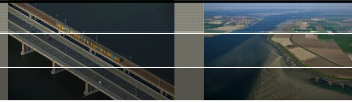
For the ModuleConfigFiles we have made use of the so called Template files, in order to save you work. The template files make use of keywords or \$PROPERTIES\$. These "variables" are filled in by FEWS on the fly based on the information in the corresponding workflowFile.

This means the moduleInstance file is generated automatically each time the workflow is run. This file therefore does not exist as a separate file in the configuration, but still has to be declared in the ModuleInstanceDescriptors.xml. See below for some examples.

This approach is only worth your while if the moduleInstance will be multiple times. Therefore, many of the import moduleInstances do not make use of this approach.

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Locations as *.csv

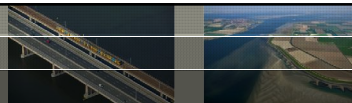


The locations and locationSets are generated as much as possible based on csv files (see MapLayerFiles). This method is explained on the wiki:

<http://publicwiki.deltares.nl/display/FEWSDOC/22+Locations+and+attributes+defined+in+CSV+files%2C+Shape-DBF+files+or+external+tables>

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Module/Model adapters



The model adapters are part of the configuration (Modules/bin/*_adapter/). The adapters are described on several wiki pages.

Model adapters: <https://publicwiki.deltares.nl/display/FEWSDOC/Module+adapters>

- <http://publicwiki.deltares.nl/display/FEWSDOC/Delft3d+adapter>
- <http://publicwiki.deltares.nl/display/MD/MD+-DFLOWFM+model+adapter> (module:2D hydrodynamica ondersteund, D-Flow FM Version 1.1.90.31714 (jan 2014), including restart from netcdf restart files)
- <http://publicwiki.deltares.nl/display/FEWSDOC/WW3+model+adapter>
- <http://publicwiki.deltares.nl/display/FEWSDOC/SWAN+model+adapter>
- <http://publicwiki.deltares.nl/display/FEWSDOC/XBeach+Adapter>

Configuration guide on model adapters

- <https://publicwiki.deltares.nl/display/FEWSDOC/Quick-start+Guide+for+Adding+an+External+Module+in+FEWS>
- (<http://wiki.wdelft.nl/display/FEWS/Delft3D-FEWS+adapter+configuration+manual>, referring to the "old" model adapter)

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ModuleDataSetFilesUnzip

We keep a copy of the ModuleDataSetFiles in the folder ModuleDataSetFilesUnzip, in order to be able to do file version management. When you need to change (or add) a ModuleDataSetFile, first make a / go to the folder in ModuleDataSetFilesUnzip/ModelX, make your changes and zip this folder to Config/ModuleDataSetFiles, which will be used by FEWS.

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Exercise

Now it's your turn to get your hands on the Risc-kit example configuration

Task:

- Add a new module to the example configuration using:
 - Xbeach model files
 - Your knowledge from the previous exercises
- We will be on hand to answer any questions along the way
- Good Luck!

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Risc-kit Configuration Training Course

Part 2

29 September – 3 October

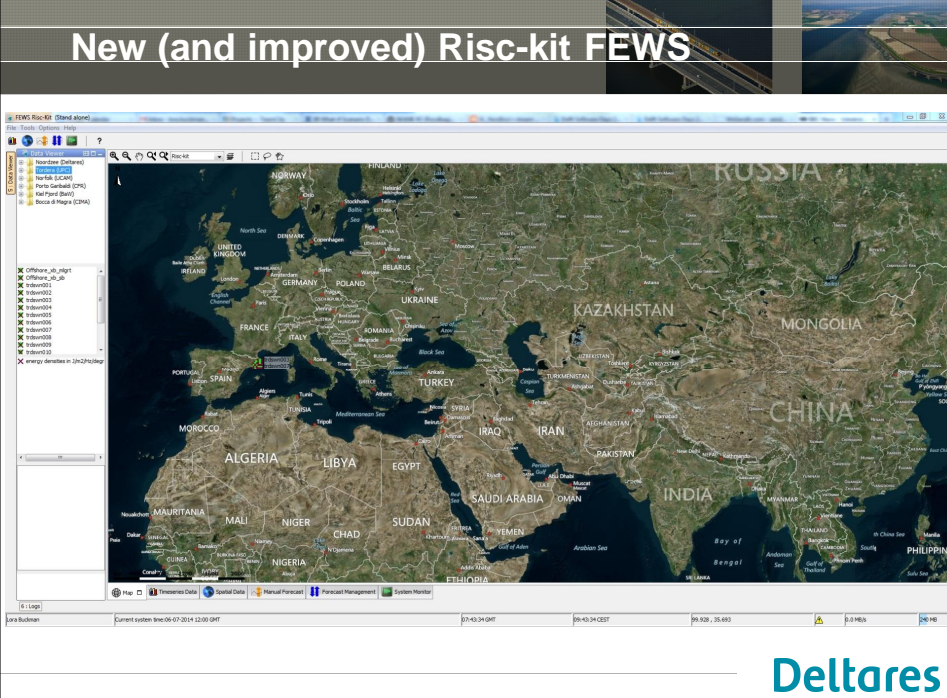


Thank You...

...for sending your configurations!



New (and improved) Risc-kit FEWS



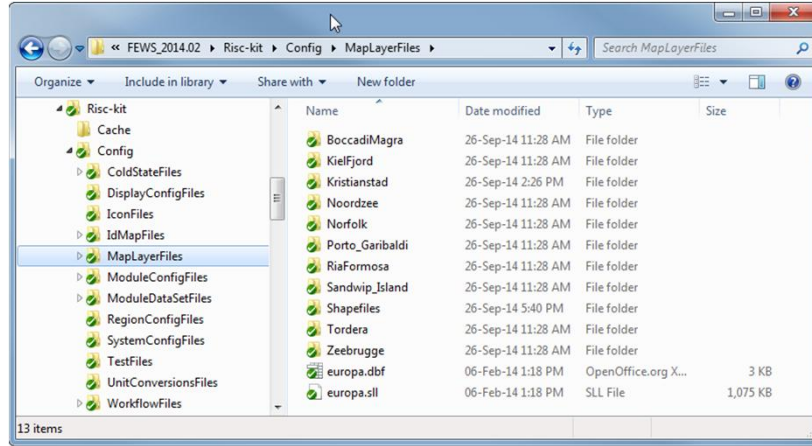
The screenshot displays the FEWS Risc-kit software interface. The main window shows a world map with various regions highlighted. The interface includes a menu bar, a toolbar, and a list of systems on the left. The Deltares logo is visible in the bottom right corner.

New (and improved) Risc-kit FEWS

- Subdirectory structure by system name
 - IdMapFiles
 - MapLayerFiles
 - ModuleConfigFiles
 - WorkflowFiles
- Systems integrated into single files
 - DisplayConfigFiles (GridDisplay)
 - RegionConfigFiles (Filters, Grids, Locations, LocationSets, ModuleInstanceDescriptors, Parameters, WorkflowDescriptors)
 - SystemConfigFiles (Explorer)
- Added Module files
 - ColdStateFiles
 - ModuleDataSetFiles
 - ModuleDataSetFilesUnzip

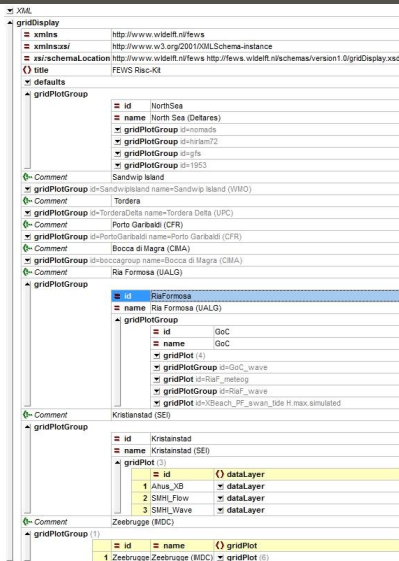
The Deltares logo is visible in the bottom right corner.

Example: MapLayerFiles



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Example: GridDisplay.xml



Systems separated by comment lines for visual clarity

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Example: Filters.xml

The screenshot shows a web browser displaying a hierarchical tree view of filters. The root node is 'filter (37)'. It contains several child nodes, including 'Noorzee (Deltares)', 'WaveWatch3_global_nomads', 'Import_hrhm72', 'D3D_flow_wave_obsn72', 'D3D_flow_obsn72', 'Swan_obsn72', 'Import_ecmwf_obsn72', 'D3D_flow_wave_obsn72', 'Import_obsn72', 'Tordera_obsn72', 'Tordera_obsn72', 'Offshore_Sabanael', 'Offshore_Magrat', 'Herfak (UCAM)', 'CSX3_import', 'Wave_obsn72', 'Wave_obsn72', 'Telemac_norfolk_bc', 'Wind_norfolk_bc', 'Porto_Garibaldi (CFR)', 'Ria_Formosa', 'Ria_Formosa', 'View gauge observations', 'View meteorological observations', 'View boundary conditions waterwell', 'View boundary conditions meteorology', 'Bocca di Magra (CIMA)', 'Kristianstad (SEI)', 'D3D_flow_wave_obsn72', 'Zeebrugge (IMDC)', 'Discharge_Boundaries', and 'Observation_Points'. A blue box highlights the 'parent filter' node, and arrows point to its 'child filters'.

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Where are we now?

Partners	FEWS system	Known issues
CIMA – Mirko	Bocca di Magra	<ul style="list-style-type: none"> • Import of Miloch data • Output from Continuum to FEWS
SEI – Ali	Kristianstad	<ul style="list-style-type: none"> • D3D data imports to FEWS • Set up Xbeach GA
LIENSs – Gael	La Faute sur Mer	
UCAM – Elizabeth	North Norfolk	<ul style="list-style-type: none"> • Make exe from Python script • Set up model configurations
CFR – Mitchell	Porto Garibaldi	<ul style="list-style-type: none"> • ??
UALG – Haris	Ria Formosa	<ul style="list-style-type: none"> • Debug SWAN exe • Configure custom data import
WMO – Willem	Sandwip Island	<ul style="list-style-type: none"> • Set up model configs
UPC – Marc	Tordera Delta	<ul style="list-style-type: none"> • Configure custom data import
IO-BAS – Nikolay & Petya	Varna	<ul style="list-style-type: none"> • D3D run and export
IMDC -	Zeebrugge	<ul style="list-style-type: none"> • ??

Custom Data Imports

- Many, many data import types already available in FEWS
- NOT EVERY text format is supported
 - 2 options for custom text formats (time series):
 - HARDER BUT BETTER WAY: Custom time series import formats using java
<https://publicwiki.deltares.nl/display/FEWSDOC/Custom+time+series+import+formats+using+java>
 - EASIER WAY: Write a script using an external program (Matlab?, Python, etc) to convert the data to a FEWS-compatible format.
 - For automated import: create an executable from that script to run using the General Adapter from FEWS

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Creating executables from Python/Matlab

It is possible to create an executable from Python and Matlab scripts to be executed from within FEWS, however:

- For Matlab:
 - You need a special license to run the compiler
 - This license also needs to be present on the computer where you call the executable
- For Python:
 - No special license is required
 - Kees den Heijer could explain how it's done later this week

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Troubleshooting / tools

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FAQ / General Comments

- Be careful with **time zones** between FEWS and external modules
 - Time zone used in preadapter is specified in GA – general
 - Model time zone is specified within the model (i.e. mdf for D3D)
 - Make sure these are the same!!!!
 - System time in FEWS can always be customized and FEWS will take care of the necessary conversions for model runs

- Be careful with **location** and **location set** names, **time steps**, and **data types** (i.e. external forecasting vs. simulated historical)
 - If all aspects of the time series are not correct the data will not be displayed and/or transferred. Especially important for:
 - GridDisplay
 - Filters
 - Import / Export to external modules

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Troubleshooting adding modules

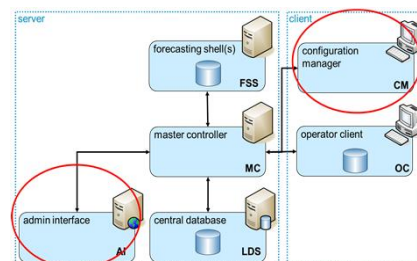
Check out the improved Quick-start Guide and Troubleshooting page of the Deltares FEWS wiki:

<https://publicwiki.deltares.nl/display/FEWSDOC/Quick-start+Guide+for+Adding+an+External+Module+in+FEWS>

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Tools (recap from the first week)

- . Workflow Navigator
 - . Database Viewer
 - . Displays
 - . WIKI
 - . XML Spy, oXygen
 - creating, editing, validating (schema)
-
- . FEWS Configuration manager (special class in OC)
 - Managing the (operational) configuration
 - Distribute through the database(s)
 - . Admin interface (Web application)
 - System Management
 - Scheduling tasks/workflows
 - Health checking



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Tools – Workflow Navigator (F12 – K)

- Check configuration step by step
- helps you finding errors in the configuration

Demonstration

Workflow Navigator

- workflows FEWS Risc-Kit (Stand alone)
 - Empty_00 (workflow)
 - Empty_0 (workflow)
 - WF_Import_nomads (workflow)
 - WF_WaveWatchIII_global_nomads (workflow)
 - Empty_1 (workflow)
 - WF_Import_hirlam72 (workflow)
 - Import_hirlam72_fc (fms import)
 - noos_timeseries (http://matroos.deltares.nl/direct) (process)
 - Import_hirlam72 (id map)
 - ImportUnitConversions (unit conv)
 - Wind
 - matroos_
 - Import_hirlam
 - Import_hirlam
 - Import_hirlam
 - WF_D30_flow_w4
 - WF_D30_flow_w4

Logs

```

29.09.2014 07:08:05 INFO
29.09.2014 07:08:05 ERROR
remove location from local
IdMapFiles/Zeebrugge/Id
IdMapFiles/Zeebrugge/Id
    
```

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Tools – Database Viewer (F12 – J)

- Check what has actually been imported to your local data store
- helps you finding errors in the configuration

Demonstration

FEWS Risc-Kit (Stand alone)

| Module Instance | Parameter Group | Parameter Id | Domain Parameter | Location Id | Location Name | X | Y | Time Series Type | Value Type | Time Step |
|-----------------|-----------------|---------------|------------------|---------------|-----------------|---------|----------------|------------------|------------|-----------|
| Swan_dcm... | Wave varia... | Wave varia... | f dir | A12 | A12 | 3.8167 | 55.4 | simulated h... | scalar | hour |
| Swan_dcm... | Wave varia... | Wave varia... | f dir | BG2 | BG2 | 3.6173 | 51.76857 | simulated h... | scalar | hour |
| Swan_dcm... | Wave varia... | Wave varia... | f dir | EURPPM2 | EURPPM2 | 3.28 | 52 | simulated h... | scalar | hour |
| Swan_dcm... | Wave varia... | Wave varia... | f dir | E13 | E13 | 3.73694 | 52.01 | simulated h... | scalar | hour |
| Swan_dcm... | Wave varia... | Wave varia... | f dir | F3 | F3 | 4.7167 | 54.85 | simulated h... | scalar | hour |
| Swan_dcm... | Wave varia... | Wave varia... | f dir | regmond input | regmond (inp... | 4.60195 | 52.61947 | simulated h... | scalar | hour |
| Swan_dcm... | Wave height | Wave.hm0... | EURPPM2 | EURPPM2 | 3.28 | 52 | simulated h... | scalar | hour | |
| Swan_dcm... | Wave height | Wave.hm0... | | | | | 52.01 | simulated h... | scalar | hour |
| Swan_dcm... | Wave height | Wave.hm0... | | | | | 54.85 | simulated h... | scalar | hour |
| Swan_dcm... | Wave height | Wave.hm0... | | | | | 55.4 | simulated h... | scalar | hour |
| Swan_dcm... | Wave height | Wave.hm0... | | | | | 2.61947 | simulated h... | scalar | hour |
| Swan_dcm... | Wave height | Wave.he.10... | | | | | 52 | simulated h... | scalar | hour |
| Swan_dcm... | Wave height | Wave.he.10... | | | | | 52.01 | simulated h... | scalar | hour |
| Swan_dcm... | Wave height | Wave.he.10... | | | | | 54.85 | simulated h... | scalar | hour |
| Swan_dcm... | Wave height | Wave.he.10... | | | | | 55.4 | simulated h... | scalar | hour |
| Swan_dcm... | Wave height | Wave.he.10... | | | | | 2.61947 | simulated h... | scalar | hour |
| Swan_dcm... | Period | Wave.perio... | | | | | 52 | simulated h... | scalar | hour |
| Swan_dcm... | Period | Wave.perio... | | | | | 52.01 | simulated h... | scalar | hour |
| Swan_dcm... | Period | Wave.perio... | | | | | 54.85 | simulated h... | scalar | hour |
| Swan_dcm... | Derivof | Wave.nesr... | | | | | 54.85 | simulated h... | scalar | hour |

Filter for selection
 Remove filter for column
 Remove all filters
 Sort column
 Select columns
 Show time series dialog
 Show spatial display
 Show rating curve
 Copy TimeSeriesSet xml to clipboard
 Export to CSV

es

Tools - WIKI

Documentation on Public Wiki

<http://public.wldelft.nl/display/FEWSDOC>

Dashboard > DELFT-FEWS Documentation Browse > Simone Platze > Search

Home Edit + Add Tools

+P6 Added by [Gerrit Dierckx](#), last edited by [Gerrit Dierckx](#) on 02-12-2009 (view change)

Delft-FEWS

Delft-FEWS provides an open shell system for managing forecasting processes and/or handling time series data. Delft-FEWS incorporates a wide range of general data handling utilities, while providing an open interface to any external (forecasting model). The modular and highly configurable nature of Delft-FEWS allows it to be used effectively for data storage and retrieval tasks, simple forecasting systems and in highly complex systems utilizing a full range of modelling techniques. Delft-FEWS can either be deployed in a stand-alone, manually driven environment, or in a fully automated distributed client-server environment.

This site

This site provides information on how to use and configure Delft-FEWS, it also contains a FAQ and HOWTO section. Delft-FEWS is available free under licence. For more information about Delft-FEWS please visit the main [Deltarees website](#) or contact us at fews.info@deltarees.nl

News

2009/11/20
No news found.

Contents

- [-] Documentation Area —
 - [-] Manuals for use, configuration and installation
 - [-] Delft-FEWS Administrator's guide — for system administrators
 - [-] Delft-FEWS Configuration Guide — describes how to set up and configure a DELFT-FEWS system
 - 01 Structure of a DELFT-FEWS Configuration
 - 02 Data Handling in DELFT-FEWS
 - 03 System Configuration
 - 04 Regional Configuration
 - 05 Configuring the available DELFT-FEWS modules —
 - 06 Configuring WorkFlows
 - 07 Display Configuration
 - 08 Mapping I/O's flags and units
 - 09 Module settings and Module Parameters
 - 10 Setting up an operational system
 - 11 Setting up a forecasting system
 - 12 Configuration management Tool
 - 13 Additional Modules
 - 14 Tips and Tricks
 - 15 External Modules connected to Delft-FEWS
 - 17 Launcher Configuration
 - 20 Interactively modifying display colour
 - Appendices
 - Interactively modifying display colours
 - [-] Delft-FEWS User Guide — Explains the DELFT-FEWS client functionality

Demonstration

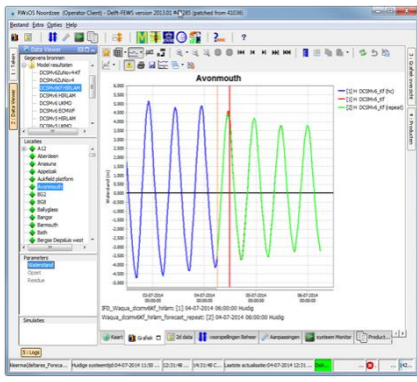
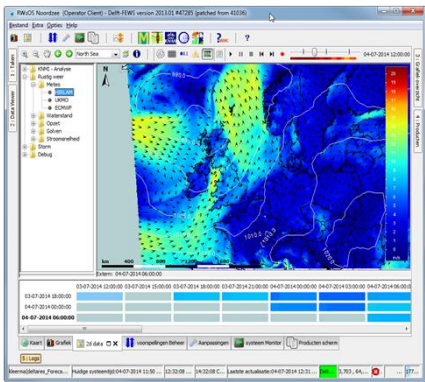
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Tools - Displays

Exercises tomorrow

Exercises tomorrow

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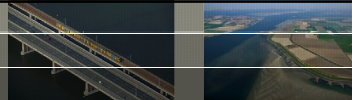


End of the Week Goal

- All imports automated
- At least one instance from each module in your model train running with correct, or a complete example of correct, data input and importing of all, or at least some, output
- Display of all relevant data in FEWS explorer

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Let's start unzipping...



The new configuration will be distributed via USB sticks.

Please take note:

- Unzip the zip files into folders with the same name
 - e.g. Extract to "Risc-kit"
- LocalDataStore: put in the folder Risc-kit
- bin folder includes FEWS 2014.02 (was 2014.01)
- jre folder is unchanged

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