

PML

Plymouth Marine
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Marine Matters

NETMAR Service Chaining Editor

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Introduction

- What is a WPS?
- What is a Service Chain (or workflow)?
- How does the NETMAR Service Chaining Editor work?
- Demo
- Summary

What is a WPS?

- The OGC Web Processing Service (WPS) provides a standard for implementing geospatial processing as a Web service.
- The WPS standard defines how a client can request the execution of a process, and how the output from the process is handled.
- WPS defines three operations:
 - **GetCapabilities** (What processes are available)
 - **DescribeProcess** (What the process does. What its inputs and outputs are)
 - **Execute** (Runs the process and returns results)

What does a WPS do?

- WPS can describe any calculation (i.e. process) including all of its inputs and outputs, and trigger its execution as a Web service.
- Data can be local or on network.
- Designed to work with spatially referenced data but can be used with any kind of data.
- The specific processes defined by the owner of that server.
- WPS makes it possible to publish, find, and bind to processes in a standardized and thus interoperable fashion.

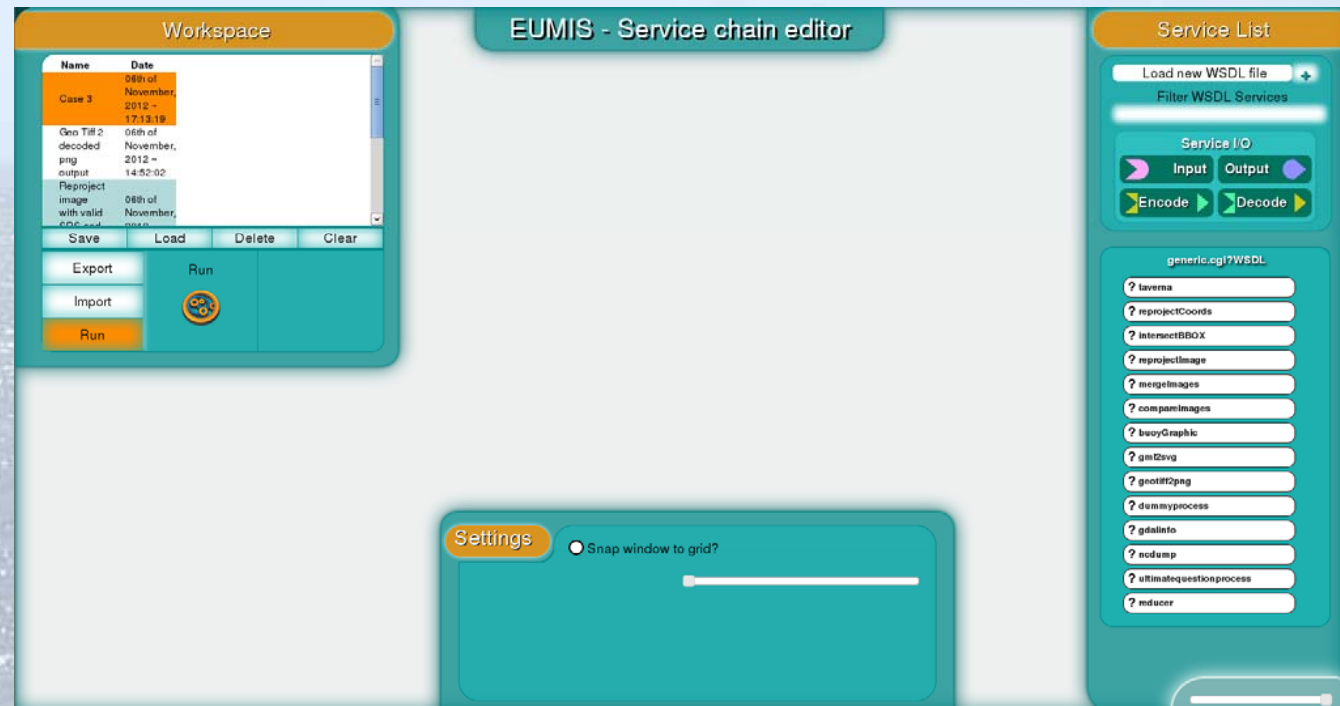
What is a Service Chain?

- AKA (Scientific) Workflow.
- A way of chaining simple modular processes together to form more complex systems.
- Very popular in bio-informatics but becoming more widely used.
- Often have nice GUIs to allow a workflow to be created by drag and drop.
- One example is Taverna, <http://www.taverna.org.uk>, (on which the NETMAR Service Chaining is built).

NETMAR Service Chaining Editor

- The SCE is made up of an editing canvas on which the workflow is created and three control windows

- Workspace
- Service List
- Settings



- A workflow is created by dragging services from the Service List onto the canvas and joining the inputs and outputs

NETMAR Service Chaining Editor Demo



Summary

- WPS allows us to execute processes running on web based servers
- Service Chaining allows us to combine these processes into more complex programs
- The NETMAR Service Chaining Editor lets us do this from the comfort of our web browser