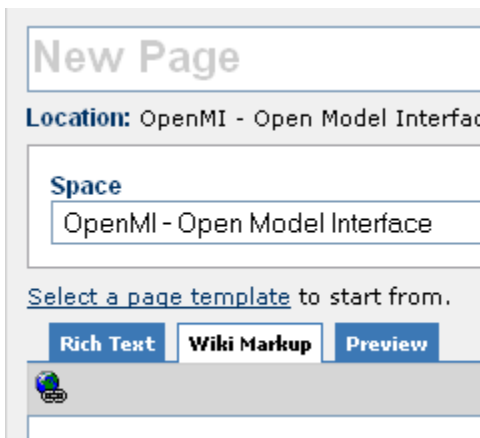


OpenMI Use Cases



Info

List use cases here which we were implementing in the past and where we met difficult areas when configuring and using it.

To add a new use case click [Add Page](#) link and then select [Select a page template](#).

Most important use cases

It was decided at the [OATC WEB meeting on Wednesday January 24th 2008](#), that we each participant should select on use case that is considered especially important and elaborate this use case into more details.

So please edit the list below:

- Jan will work on: [1. Change input data via an OpenMI-editor and show model results](#)
- Peter S. will work on: ??
- Stef will work on: ??
- Adrian will work on: ??
- Jon will work on: ??

Use Cases

- [1. Change input data via an OpenMI-editor and show model results](#)
- [2. Query flow time series from a database and use it in the river model as a boundary condition](#)
- [3. Qualitative Data Support](#)
- [4. Pre-initialize with Arguments](#)
- [5. Extend types of information exchanged via OpenMI from time-dependent to more general](#)
- [6. Gridded Data Transfer](#)
- [7. Exchange structured data](#)
- [8. Backtracking for model results](#)
- [9. Calibration of two linked models](#)
- [10. Apply OpenMI in real time operation systems](#)
- [11. Connect large sewer model with large river model](#)
- [12. Extract cross-section points elevation grid defined in GIS to River model on-the-fly](#)
- [13. Connect AD-WQ-process library to water movement model](#)
- [14. Provide uncertainty information to end users](#)
- [OpenMI LIFE use cases](#)

Typical types of Use Cases to be elaborated

Model to model

- Steady-to-steady model
- Transient-to-transient model
 - persistent state
 - numerical stabilization of first timestep
 - save state, move to another computer and restore state
 - clone state and use elsewhere

Run scenarios for one model

-

- OpenMI 1.2: Make a trigger, make a link, addLink, Get value....
- OpenMI 2.0 MyModel.Run;

Generic OpenMI-tools and services

- services
 - data transformation
- tools
 - visualization
 - data editor

Retrieve data from data stores

- relational data bases
- GIS
- files

Distributed computing

- web services
- parallelization and distribution

User applications utilizing OpenMI-components

- DSS, Frameworks
- GUI
- presentation app.
- Scenarios ..
- Real-time systems (incl. data acquisition, model runs)

Multi-simulation applications

- Calibration
- optimization
- iteration
- data assimilation