

OpenMI Association Technical Committee meeting no 20

See also: [OATC Wiki Home](#)

Date: November 3-5, 2008

Venue: [Deltares](#), Rotterdamseweg 185, Delft, The Netherlands

Participants:

[Jan Gregersen](#), DHI / LicTek (gregersen@lictek.dk) (chairman of the meeting)
[Adrian Harper](#), Wallingford Software (adrian.harper@wallingfordsoftware.com)
[Stef Hummel](#), Deltares (stef.hummel@deltares.nl)
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Apologies:

[Rob Knapen](#), Alterra (Rob.Knapen@wur.nl)
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Documents:

<http://www.openmi.org/>
<http://sourceforge.net/projects/openmi>
wiki.openmi.org

Agenda

1. Minutes from previous OATC meeting

Minutes:

The minutes from the last OATC meeting were accepted

2. Maintenance and support

2.1 Reported bugs

(GOTO bug list on [SourceForge](#))

Minutes:

No changes

2.2 Help issues

(GOTO help issues on [SourceForge](#))

Minutes:

No changes, seems we are doing well with respect to providing answers to questions. It was notified that now also people outside the OATC group are providing answers, which is highly appreciated.

2.3 Discussion issues

(GOTO discussion issues on [SourceForge](#))

Minutes:

No changes

3. OpenMI 2.0 Issues

3.1 Use cases

[GOTO use cases](#)

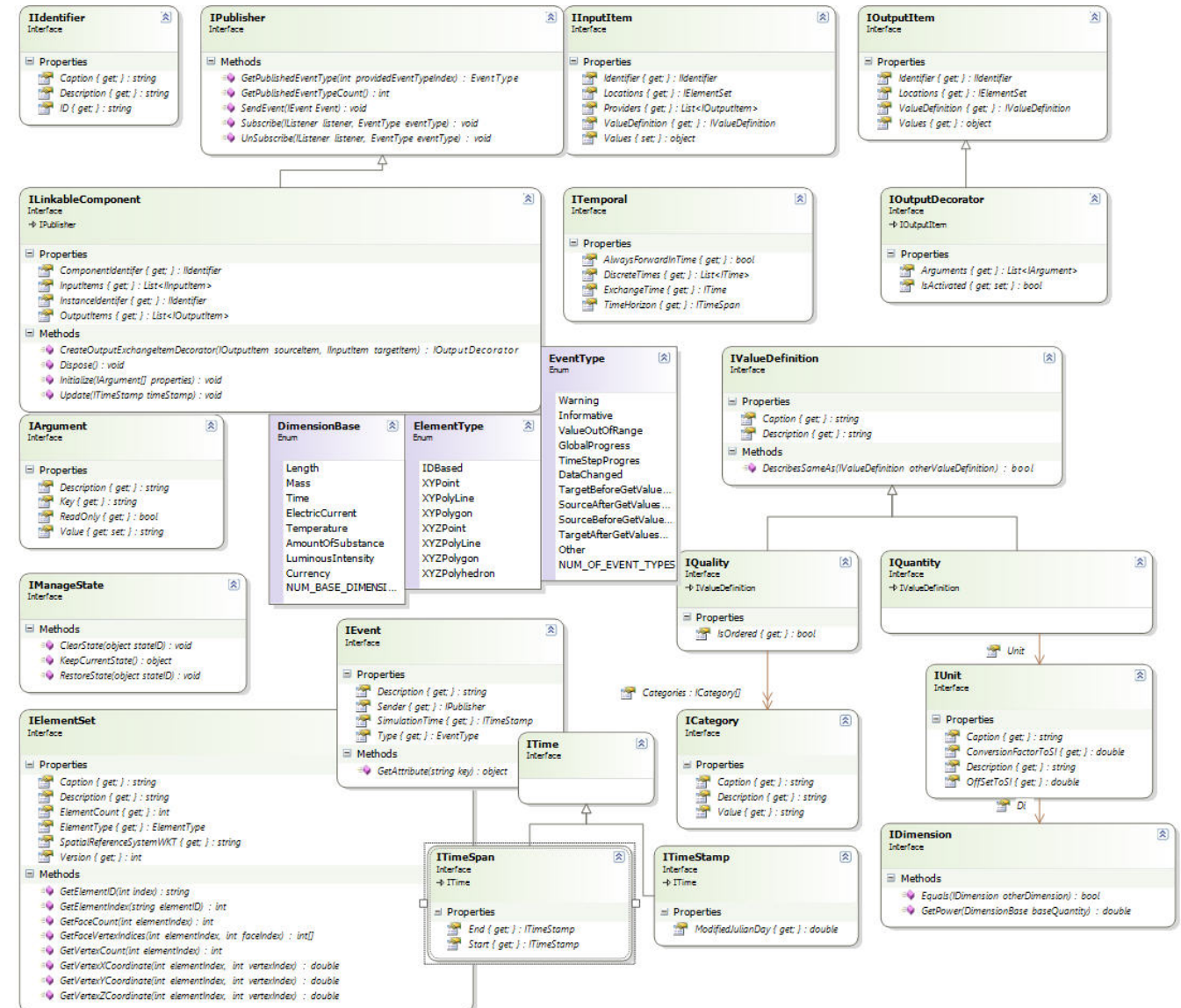
Minutes:

The use cases were not consulted at this meeting. We will make a detailed review of the use cases at the next meeting, when the draft OpenMI 2.0 architecture is in place in order to check if we covered the functionality defined by these use cases.

3.2 OpenMI 2.0 architecture

3.2.1 Current status

The OpenMI Standard interfaces before the meeting are shown in the figure below. The implementation is located in the trunk on source forge.



3.2.2 Events

At the last meeting we discussed if we adapt the way events are used in C# rather than using our own implementation.

See page: [Use standard events instead of many interfaces like IListener, IPublisher](#)

Minutes:

Gena presented his ideas and it was decided that Gena will add events and event args in the standard, add unit test for LinkableComponent in backbone demonstrating the events, add log4net and show how to use it in the backbone.

3.2.3 Configuration interfaces

Minutes: ToDo

3.2.4 IQuality and IQuantity

see also: [Rename IValueDefinition to IMeasurable](#)

Minutes:

We decided not to rename the IValuesDefinition interface. We will review all interface names when we have the final draft version of the standard architecture ready.

3.2.5 Spatial issues

see: [Changes to spatial classes related to interoperability with OpenGIS](#)

Minutes: ToDo

* We discussed if topology information is needed in the IElementSet. We decided that if someone has a use case show it is needed, he should present this. Otherwise we will not include topology in the standard. Actually, there is one use case, which is the case of coupling a river flow model and a water solute transport model. In such case the solute transport model will adapt the grid of the river models and therefore also need the topology. However, we do not find this case important enough to make the changes to the standard.

* The changes suggested see(Spatial Issues), were accepted.

* We will define a new interface called IRegularGrid which extends the IElementSet interface. This interface will have the following properties: X0, Y0, dx , dy, nx, ny, and angle.

3.2.6 ITime

see [Refactor ITime, ITimeSpan, ITimeStamp - use DateTime and TimeSpan in .NET and corresponding default types in Java](#)

Minutes:

It was decided to use the C# types for date and time instead of the Modified Julian time. Gena will make the changes to the version 2 standard and SDK. There is still a question about whether we also should include time zones. We will look into this at the next OATC meeting.

3.2.7 IArgument

Comment by Jan: I think we need a more powerful argument interface. Such interface should facilitate different types such as doubles, strings, bool, and selection types. By selection types I think about situations where the user will select on or multiple options from a predefined list. At our last meeting the IDictionary interface was mentioned, but I have doubts that it will provide the functionality needed. Then I came to think about the functionality provided by XML schema files. E.g. for our OpenMCompliance schema file a pretty complex data structure is well defined. However, I would prefer not to include schema files into the nice clean interfaces based standard, so maybe we can find an interface based solution that has the same functionality as a schema.

Minutes:

We investigated improving the IArgument interface. Gena will make a suggestion for the next OATC meeting.

3.2.8 Using Object to pass the values

Unfortunately Rob cannot participate in the meeting. However, Rob had provided two documents; [DynamicObjectModel.pdf](#) and [Seamless OpenMI Layer.doc](#), which are relevant for our discussions.

Minutes:

It was decided to use a list of objects as return type. Stef will update the standard interfaces accordingly.

3.2.9 IInputExchangeItem

Comment by Peter: In the design as presented before the meeting, the IInputExchangeItem has a Values-set property. I wonder if this is wise from a communication perspective. To outsiders. We want to pull-mechanism to remain the main focus of OpenMI components, such that they can easily be used in a service-oriented architecture. When introducing SetValues at the root level of an IInputExchangeItem, it is much more difficult to explain that we prefer usage of the pull-mechanism, but that some advanced applications may need this put mechanism. I would therefore recommend to move the Values-set property to a separate (derived) interface called IAdvancedInputExchangeItem. This makes explanation much easier, while we introduce less risk with components not being able to handle a set-value.

Minutes:

For the time being we will not make an advanced interface for setting values. Once we have the draft standard architecture completed and start documentation we will decide what to do. The main issue is to find out what is easiest to explain, since it with respect to functionality will be more or less the same.

3.2.10 State management

Comment by Peter: Finally, it becomes time for a persistent state. However, it might be wise to evaluate the experiences with the current state mechanism.

Minutes:

We agreed to add an interface for persistent state management. Stef will implement the interface

3.2.11 ILinkableComponent instantiation

Comment by Peter: The OMI file is a pragmatic method to instantiate a component. A Factory pattern should be considered for the Standard, where the default implementation of the SDK is based on the OMI file.

Minutes:

We could not reach an agreement about using a factory pattern instead of the OMI file that is currently used in OpenMI 1.4. Stef and Peter will write at documents that in more details explain how the factory pattern could work and some examples of situation where using the factory pattern is beneficial to the end users (those that create compositions). We will discuss the factory pattern again at the next OATC meeting.

3.3 Development and release road map

Version 2 development plan:

September 11th 2008 - November 2nd 2008

Finish the configuration architecture (the decorator pattern) and update SDK and GUI.

November 3 - November 5 2008.

OATC meeting in The Netherlands: special focus on return types and geometry (ElementSet)

November 6th 2008 - January 12th 2009

Implementation of new geometry interfaces and return types. Update SDK and GUI

January 13th - January 15th 2009

OATC meeting in UK. Final decision for the version 2 standard interfaces. This also implies deciding which requested feature that will not be included in version 2.

January 16th - March 9th 2009

Complete implementation and unit testing of the version 2 standard, SDK and GUI

March 10 - March 12 2009

OATC meetings, Denmark. OpenMI 2 standard, SDK and GUI beta release

March 13 - April 20, 2009

Migrate and test selected commercial models and components for version 2

April 21 - April 23

OATC Meeting in The Netherlands. Evaluate real models test and further refinements for version 2

April 24 - June 09 2009:

Continues real models testing, write documentation.

June 10 - June 12 2009

OATC meeting in Denmark. Final evaluation, submission of the version 2 to the OpenMI Association Executive Committee for acceptance

June 13 - October 13 2009

The standard is reviewed by external reviewers

October 14 - December 19, 2009

Adjustments based on comments from the reviewers. Finalization of the OpenMI 2 release.

December 20th 2009

OpenMI 2 standard, SDK and GUI release.

Minutes:

There were no changes to the development roadmap. We are still on track..

3. OpenMI Java and OpenMI .net synchronization

Minutes:

No new issues here.

4. OATC Procedures

4.1 Proposal for procedures for OpenMI Standard releases

see: [Proposed procedure for OpenMI Standard releases](#)

Minutes:

This procedure will be discussed at the next OAEC meeting, no new comments from the OATC

4.2 Proposed procedure for evaluation of OpenMI compliance

see [Proposed procedure for evaluation of OpenMI compliance](#).

Minutes:

The OpenMI compliance acceptance procedure will be discussed at the next OAEC meeting. In case this procedure is accepted by the OAEC, the OATC will recommend that Stef becomes the OpenMI Compliance acceptance manager. Stef will review the proposed procedure and make changes or add comments to the wiki page where it is described.

4.2 Review and update the OATC procedures

What is the status with respect to procedures other than the standard release procedure (point 4.1)

(GOTO OATC procedures)

Minutes:

No changes to existing procedures.

5. www.OpenMI.org and wiki.OpenMI.org

5.2 Could we simply use a wiki for the official OpenMI web site

A proposal to the OAEC is ready in a draft version: see [OpenMI Association website proposal_MB.doc](#)

Minutes:

We will await the OAEC decision.

6. Miscellaneous issues

6.3 Submitted OpenMI compliance XML's

Since last meeting some XML has been submitted. See [TUDamstat.zip](#)

The currently accepted components are listed here : [M.4.2 Compliant software](#)

6.4 Demo of HRW SDK and Pipistrelle

Adrian will demonstrate the work done by Walling Software.

Minutes:

The OATC appreciates that HRW provides nice alternatives to the SDK and GUI provided by OATC.

7. Tasks and unresolved issues

All tasks are handled by sourceForge. GOTO: [OpenMI Tasks on source forge](#)

8. Any other business

h.4 Suggestion for changing the location for the next OATC meeting

***Minutes:**

It was suggested to have the next OATC meeting (January 13-15 2009) in Trento, Italy. Andrea will check if University of Trento will host the meetings and report back to Jan within a couple of weeks. If we decide to move the location of the next meeting, all already planned meetings will shifted accordingly .

h.4 The 1.4.1 SDK and GUI release

***Minutes:**

Jan will check the reported bugs, and fix the bugs assigned to him. Then report back to Adrian, who will create a beta 1.4.1 beta version (around December 5th). The target is to release before end of 2008.

Plan from now until next meeting