

Notes to: FMI Development Process and Communication Policy

The Role of this Document

The main definition document shall be approved by the FMI Steering Committee. This proposal aims to:

- define a development process for future FMI releases
- improve communication internally and externally by clarifying the process and the roles of the participants
- increase participation by tool vendors, users and enthusiasts as their role in the process is clearly defined
- improve reputation of the FMI by preventing misleading communication to the outside
- speed up the industrial adoption of the FMI Standard

The State of FMI Development at Release of FMI 2.0

After several years of development and delays, FMI 2.0 was finally released in July 2014. The Modelica Association has had ample experience with developing public standards. FMI has increased the level of interaction, both for the number of actively participating entities during standard definition and later in implementation and even more so during use. But what seems like a quantitative change turned into a qualitatively different, more challenging, process to manage. More participants means more requirements, more diverse backgrounds and terminologies, more constraints... And while the Modelica definition effort has had years to tune the partners to a certain informal style of working, the FMI initiative is comparatively young and does not benefit from such long-lasting cooperative practices.

These differences have led to a number of frustrations: multiple delays until release, unclear communication patterns both internally and externally, quality of implementation issues and more.

Comments to development phases

1.1 Developing FMI Change Proposals (FCP)

It seems very beneficial to involve end-users AND tool-vendors in this process to balance desires and feasibility early on. However, since we require contributors to sign the CLA and only have very few industrial users in both committees, we had to reluctantly drop the requirement to have at least one vendor and one user authoring the FCP.

All material to an FCP is stored on the FMI svn under "branches/FCPs/FCP-XXXX_shortText". Example for a valid svn directory: "branches/FCPs/FCP-0002_clocks". For every FCP a formal document has to be filled out based on the provided template ("branches/FCPs/[Template.dotx|Template.odt]"). Anyone who has write access to the FMI svn can directly store an FCP here. Someone not having write access shall send the material to one member of the FCP working group who will then organize the storage on the svn.

Additionally, a new ticket has to be created under <https://trac.fmi-standard.org/>. An FCP is discussed via the ticket system and by other means (such as web- or personal meetings).

1.2 Defining a new FMI release

Backward compatibility of FCPs needs to be taken into account w.r.t. the version number.

1.3 Building the specification document for the new FMI release

Earlier access to the feature description is an incentive for tool vendors and end users to work in one of the FMI Committees.

1.4 Alpha tests

1.5 Beta tests

We need to keep the FMI Compliance Checker concurrent with this process.

1.6 Release phase

Comments to Communication

The FMI project has suffered from miscommunications and optimistic release date predictions. While complex software projects can be managed tightly with a limited number of partners with fixed and contractual obligations, this is a completely different situation here.

The FMI development partners voluntarily spent time and effort to drive the standard development. No contract exists to enforce deliverables and feedback. Under these circumstances it seems impossible to predict release dates with any meaningful accuracy – as the past has shown – and consequently, the process specified here refrains from setting fixed time limits for any phase.

One vehicle for consistent, centralized communication of recurring questions is a page with FAQ and answers for those, edited by the project leader. The FMI community can then point interested parties there for more, up-to-date information.

Bylaw Changes

There are a number of changes required to integrate the Development Process

- Majority Vote definition
- Quorum Rules update
- Reference to the Development Document
- FMI CLA hook

Those are under way now.