

# DSDP – TM Conference Call, 13-May-2005

## Meeting Notes

### Attendees:

#### **Wind River – Salzburg, Austria**

Rudi Frauenschuh – Wind River sponsor for getting Eclipse contributions started  
Martin Gutschelhofer – manages some Technology Lines in WR Workbench, including the Target Manager TL  
Martin Oberhuber – Will cover technical aspects of DSDP-Target Manager  
Uwe Stieber – Developer and Maintainer of the Target Manager in WR Workbench

#### **HP**

Sumit Sarkar – Remote Development Solution based on CDT (remote build & run)  
- since 6 months working; recently moved to CDT 3.0  
Balar – Senior Engineer for HP in India

#### **Accelerated Technologies**

Aaron Spear – Architect, Debugger (Nucleus Edge)  
- want connectivity to targets as normalized as possible  
- Also have a profiling product, connectivity utilized by it as well  
Mart – handles Eclipse portion of Nucleus Edge (IDE+Debugger)

#### **Montavista**

Pierre-Alexandre Masse – Presentation on RSF at EclipseCon (Bugzilla 65471)  
- not directly involved any more, but keeps an interest

#### **IBM**

Dave Dykstal – Remote System Explorer (RSE), embedded in other components  
- enterprise sort of communications (browse & edit files)  
- might be able to contribute  
- able to share target definitions now

#### **TI**

Chris Recoskie – Code Composer Essentials and Studio products  
- Very basic connectivity, mostly for debugging embedded processors on JTAG

### Original Agenda

- Get to know interested people, "who is who"
- Collect feedback regarding the use cases
  - Clarify where necessary
  - Add/elaborate where necessary
- Collect feedback:
  - Who knows existing frameworks that might be worth looking at in the context of TM (e.g. ECF, EMF, TPTP)
  - Who has existing code that might be migrated into TM?
- Next steps
- Resources

## Meeting Notes

Rudi F. opens the call and asks attendees to introduce themselves (see attendee list above). There is no request for additional agenda items.

### Feedback regarding the Use Cases:

Martin O: The scope of the Use Case document was intended to be rather wider than smaller, to ensure that nothing is forgotten. Anybody except WR interested in “shared target” scenarios?

- Chris R: TI thought about doing shared targets some time, but no time so far.

Sumit S: Windows/UNIX File System Differences? E.g. fwd/backslash, Ctrl+M

- David D: Two aspects of File System Differences – Name Mappings (No problem in a single virtual remote file system) and File Content (character encodings).
- Martin O: There are two possibilities for data transfer: via Protocol, and via path mappings for sharing a common file system. Wind River has experience with path mapping between Windows and UNIX systems. For “targets”, only binary transfer is needed (possible via path mappings), for “host” type remote systems, text transfer will be an issue and needs to be considered.
- Should there be an abstract notion of what a file is, e.g. should modules loaded into memory via a JTAG connection be presented like a file system?
- Martin O: No, since loading into hardware needs more and different options than loading into a file system (e.g. absolute address, type of target memory). Loading into remote memory should be a separate service.

Sumit S: How to disable functionality when required services are not available on a remote machine, e.g. want to do remote build but have only FTP but no rlogin?

- Pierre-Alexandre M: In his implementation, there are abstract service types, e.g. a service type for remote command execution. Protocols can plug in to realize a service type, e.g. rlogin. When a required service type is not available, corresponding functionality is disabled.

Sumit S: Missing Use Case “Revoke Access” when a developer leaves a company. In the Example Data Structures, Reserved by/since/until is missing Date and Time.

Balar: Buffer packets on Remote Connections in order to ensure good performance?

- Martin O: Implementation details currently out of scope but might need to be considered.

Mart: Does the scope of the Target Management project just mean some modified Launch Configurations?

- Martin O: Launch Configurations are not appropriate when dealing with dynamic contexts on targets. Also, direct manipulations of hardware (reset emulator, download)... require data structures for target management that are outside the Launch Configurations. Wind River currently has a Target Management View in its Workbench. This will be carried forward to DSDP-TM.

Aaron S: How do we envision the relationship between “build” and target management?

- Martin O: There are two aspects, a) remote build and b) match architecture of a local cross-compile against available targets. For remote build, this is envisioned as an external software component that utilizes services from target management, i.e. target discovery (for selecting a build host), data transfer and remote command.
- Aaron thought that their current Profiling infrastructure might be partially useful.

Feedback regarding suggested definitions of terms:

David D: The notion of “Target” seemed strange, but overall definitions make sense.

- The notion of “Shared Target” seems to imply computer systems that are used by multiple users at the same time. “Exclusive Target” would better convey the idea that a single user reserves/unreserves it for private use.
- Martin O: Target Management shall be able to handle multi-user targets (referred to as “host” or “remote system”. Ability to reserve/unreserve them is an additional feature that might be needed for performance tests even on multi-user machines.

Generally, the group accepts the Use Case document.

Existing Frameworks that might be useful for Target Management:

- David D. had a brief look at ECF, it seems to be specific for instant messaging
- Pierre-Alexandre M. recommends to look at the (1) the TPTP agent and (2) STAF, a framework for test automation that is available under CPL from Sourceforge (<http://staf.sourceforge.net>)
- TI has some proprietary solutions for low-level hardware descriptions, but nothing Eclipse based

Next Steps:

- Martin O: Since the Use Cases seem to meet the Requirements well enough for now, the next step is to write up a Design Proposal:
  - How to Map Use Cases to Eclipse Functionality
  - Data Structures and Interfaces
- It is planned to have monthly Conference Calls; yet since a lot of feedback will be needed in the beginning, the next call is scheduled earlier – already in two weeks, Monday 27.June
- At that call, Chris R. will give a short online demo what they have at TI

Resources:

- Rudi F: No firm commitments are needed for now, but please let us know informally what you think you could do for DSDP-Target Management. Please give feedback on possible resource contribution on the newsgroup, via direct E-Mail or by calling on the phone just as you like.

Next Call: Scheduled for Monday, 27.June at 9:00 am PST, an invitation as well as meeting notes from this call will be posted on the newsgroup.