



# DSDP Device Debugging Project Update

<http://www.eclipse.org/dsdp/dd/>

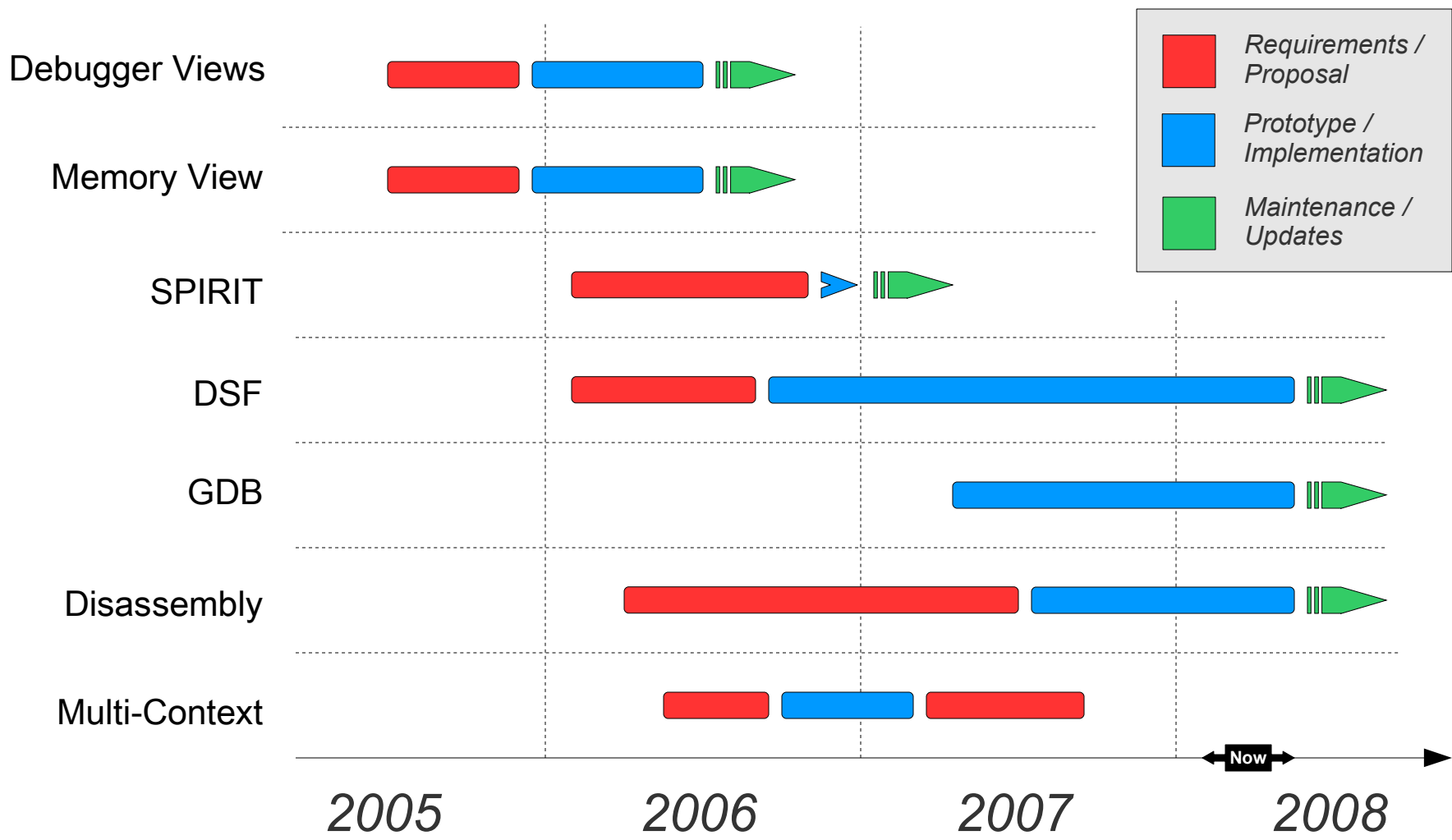
by Pawel Piech

Wind River Systems, Inc.

# What is it?

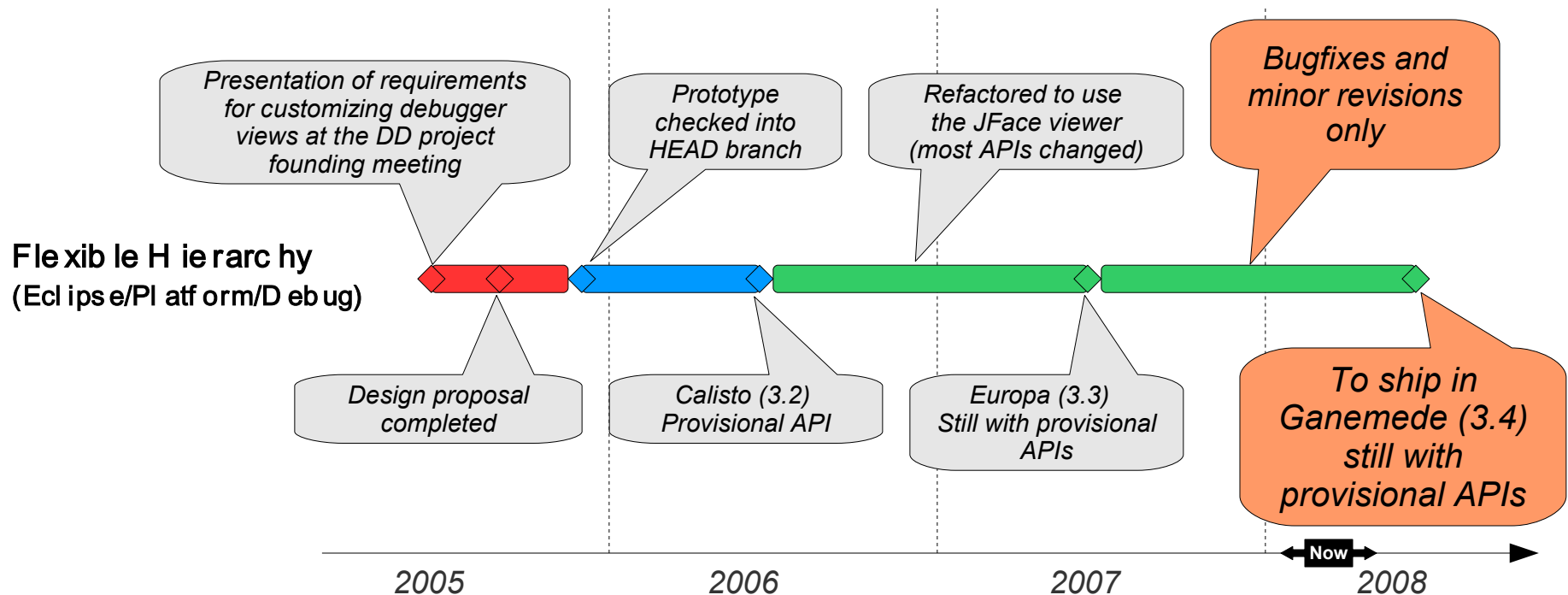
- Goal
  - To improve the overall experience of device software debugging in Eclipse by influencing other projects and filling in missing functionality.
- DD Project as a forum
  - Diverse participation: (Wind River (lead), IBM, Mentor Graphics, Nokia, PalmSource, TI, QNX, Freescale, Ericsson, ARM)
  - Close collaboration with other projects (Platform, CDT, etc).

# Initiatives Overview



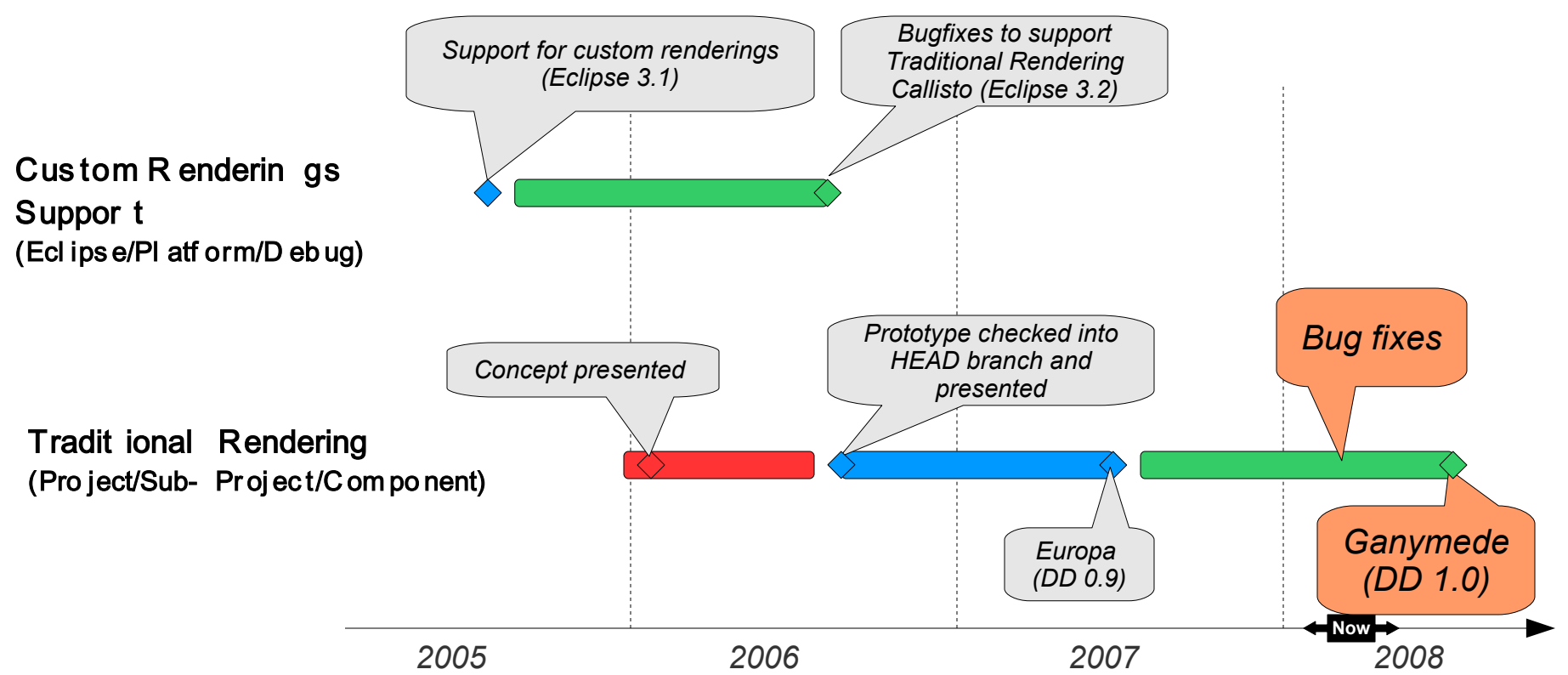
# Debugger Views

To allow complete customization of contents of Eclipse's standard debugger data views (Debug, Variables, Registers) and to create an API for populating these views that makes minimal assumptions about the structure and format for this debug data.



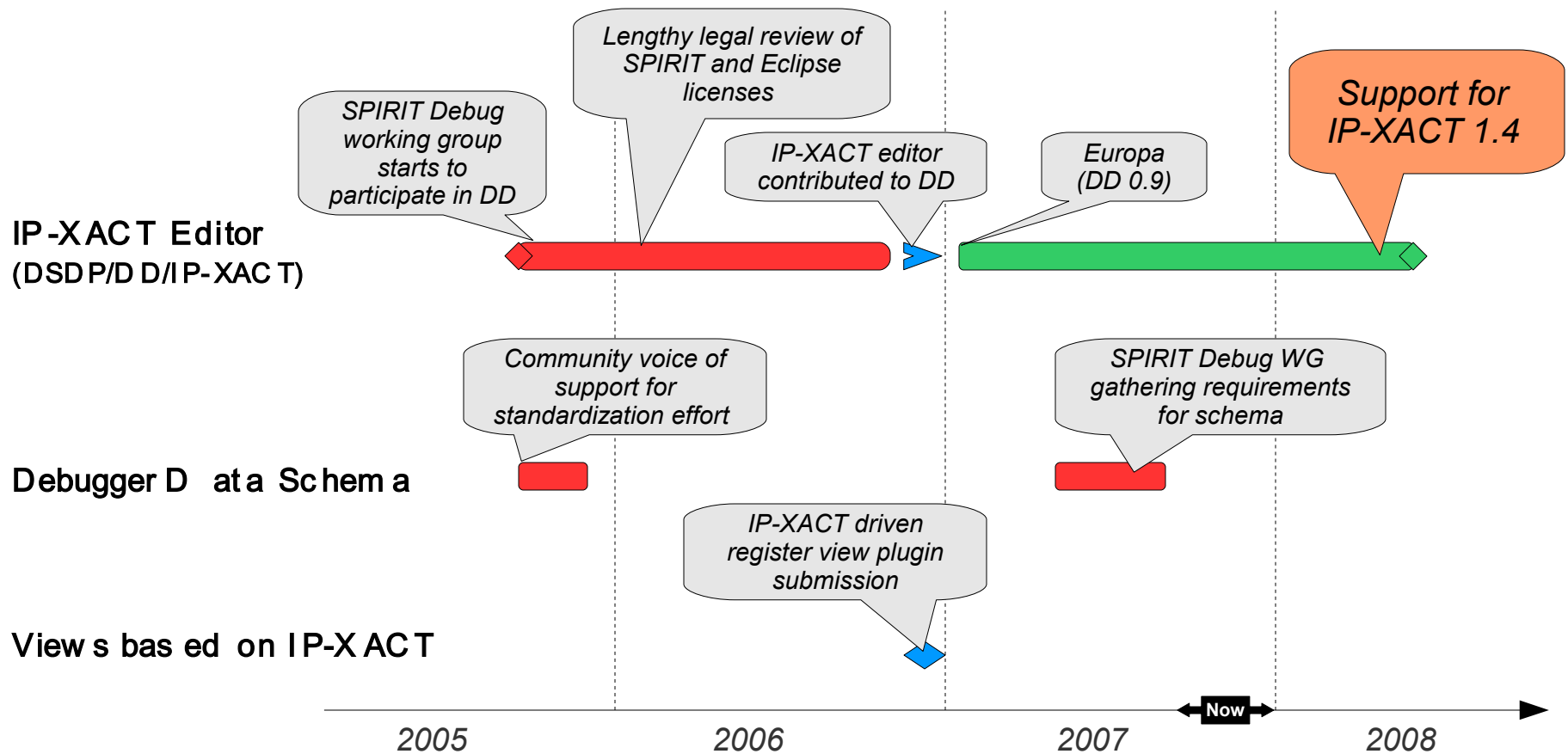
# Memory View

Provider memory view support suitable for Embedded development



# SPIRIT Debug Working Group

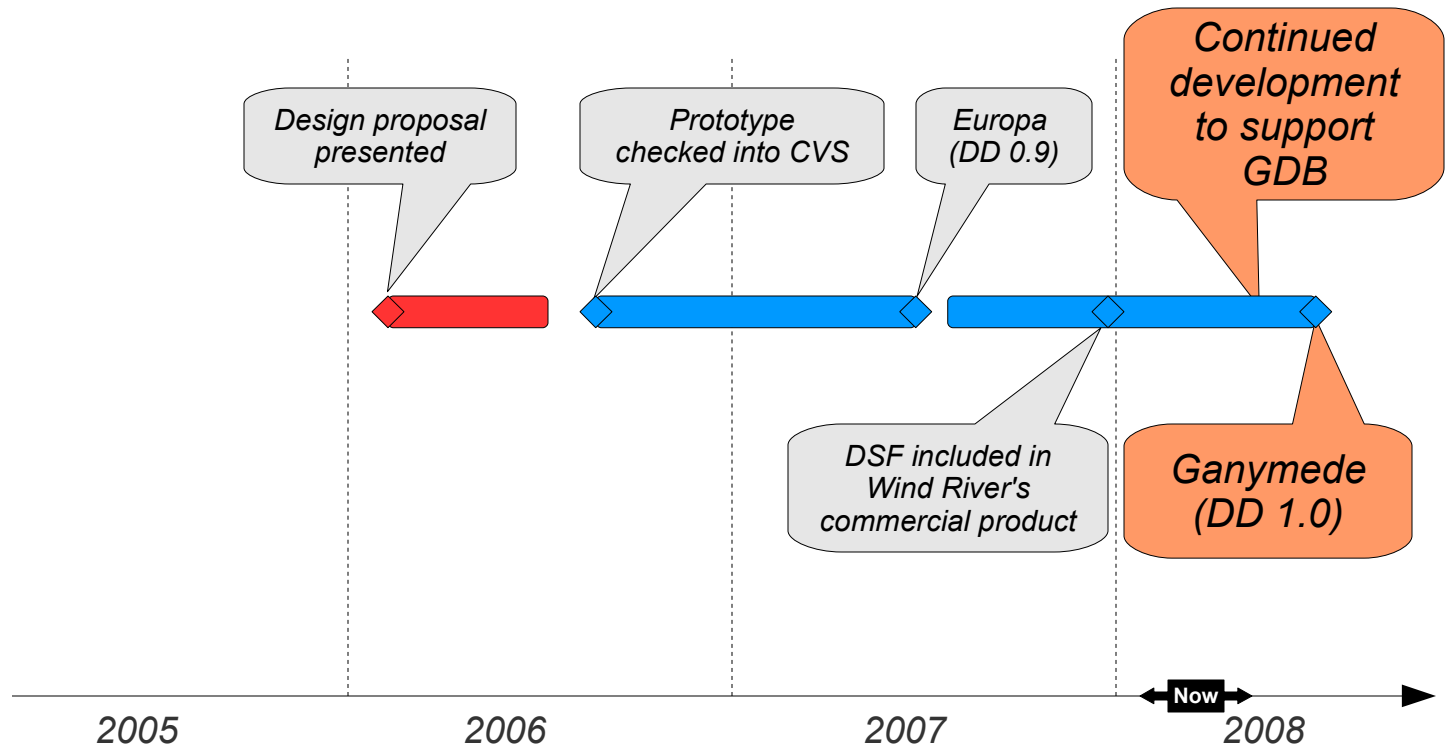
To achieve some level of standardization of "target descriptions" used by device debuggers in Eclipse



# DSF (Debugger Services Framework)

Create an alternative debug model API that will accommodate diverse needs of embedded debuggers: performance, modularity, extensibility.

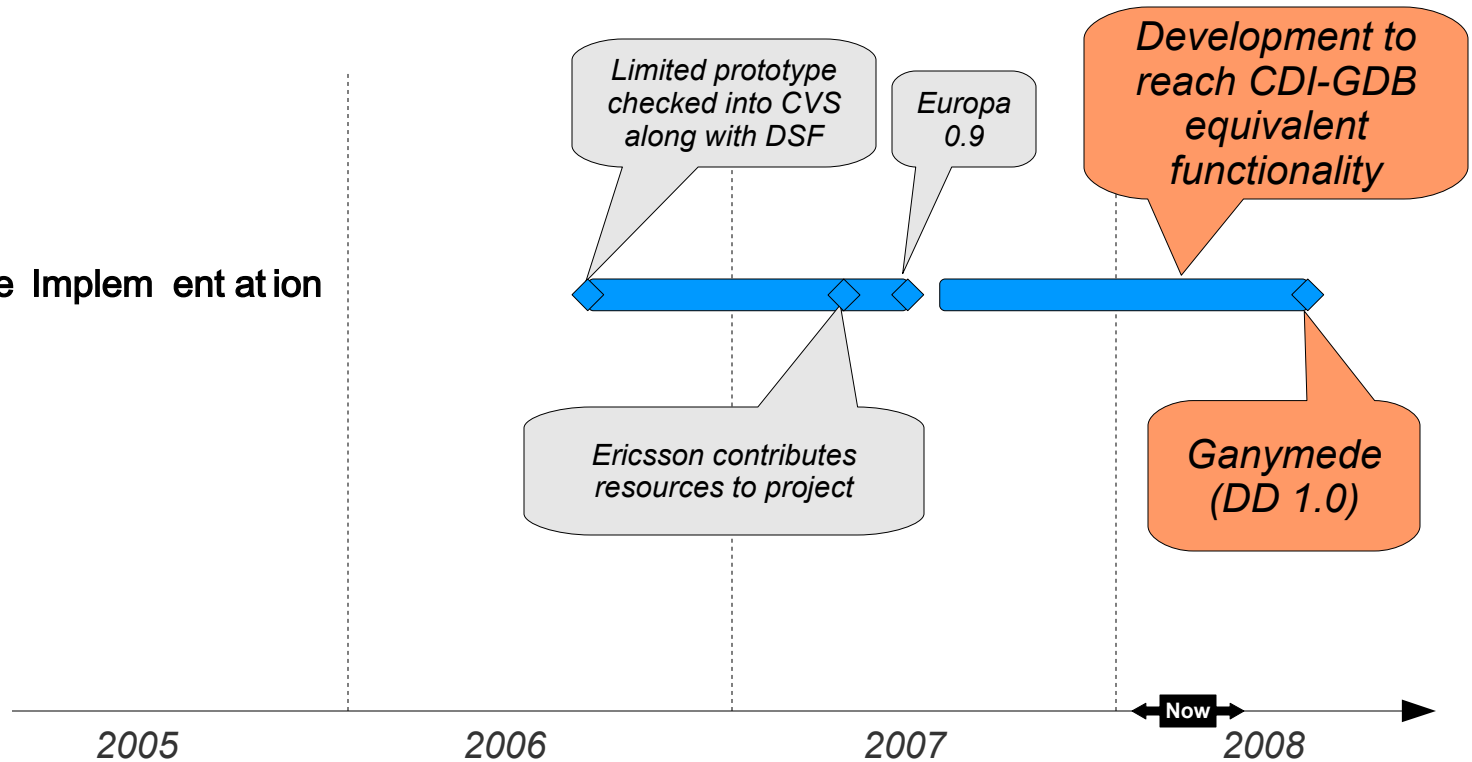
DSF  
(DSDP/D D/D SF)



# GDB Reference Implementation

Create a GDB-based debugger which implements DSF model APIs. This debugger should be functionally equivalent to the GDB debugger using CDI and standard debug model.

GDB/MI Reference Implementation  
(DSDP/DD/GDB)

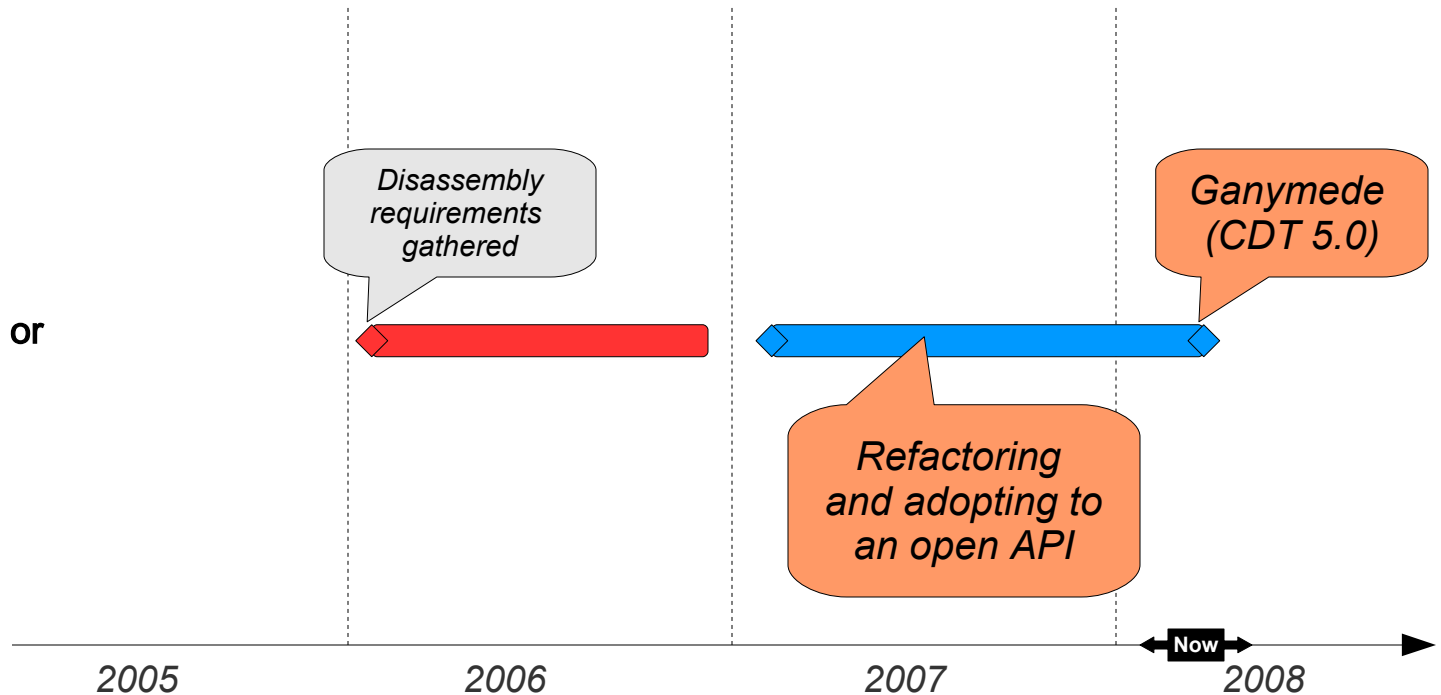




# Disassembly

To provide a disassembly editor and replace existing CDT disassembly view.

Disassembly Editor  
(Tools/CDT/Debugger)



# Multi-Context

To improve workflows and context switching when debugging multiple threads, processes, targets, etc.

