# Re-defining our long-term milestones

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## **Current list of milestones**

Date	Milestone	TDR
Dec 00	FDR for Preprocessor ASIC (already done)	✓
Dec 00	FDR for Preprocessor MCM	✓
Jan 01	PRR for Preprocessor system, PPr ASIC and PPr MCM	
Jun 01	FDR for CP ASIC (no longer exists)	✓
Jun 01	FDR for CP MCM (no longer exists)	✓
Jun 01	FDR for CP/JEP Readout Driver Module	✓
Jun 01	Integration of level-1 in rest of T/DAQ/DCS specified	
Jul 01	<b>PRR</b> for CP system, CP ASIC, CP MCM and CP/JEP ROD	
Dec 01	FDR for Preprocessor Module	✓
Dec 01	FDR for Jet/Energy-sum Module	✓
Jan 02	PRR for Jet/Energy-sum system and JEM	
Jan 02	PRR for Preprocessor Module	
Jun 02	Jet/Energy-sum Processor system available for system tests	
Sep 02	FDR for Cluster Processor Module	✓
Oct 02	PRR for Cluster Processor Module	
Dec 02	Preprocessor system available for system tests	
Jun 03	Cluster Processor system available for system tests	
Dec 03	Preprocessor system tests completed	✓
Jun 04	Cluster Processor system tests completed	✓
Jun 04	Jet/Energy-sum Processor system tests completed	✓
Sep 04	Preprocessor integrated with calorimeters	✓
Dec 04	Calorimeter trigger available	✓
Jun 05	Full level-1 system available	

#### **Remarks**

- Treats the sub-systems too independently:
  - Now have more common modules.
  - Slice tests require more synchronisation between sub-systems.
- No milestones given for:
  - Common Merger Module.
  - Timing Control Module.
  - Preprocessor ROD.
  - CP/JEP Backplane.
- Slice tests not mentioned.
- Integration tests with level-2 and DAQ not mentioned.
- No distinction between prototypes and production designs, reviews of production designs not mentioned.
- PRRs not defined clearly.

(continued ...)

# New proposal for milestones

Date	Milestone	TDR
Nov 00	PDR for CP/JEP Backplane	
Dec 00	PDR for Common Merger Module	
Dec 00	PDR for Jet/Energy-sum Module	
Dec 00	FDR for Preprocessor MCM (Heidelberg to re-define date)	✓
Jan 01	PDR for Preprocessor Module and Preprocessor ROD	
Dec 01	Completion of slice tests (first phase)	
Jan 02	FDR/PRR for Preprocessor Module, ROD (?), and MCM (?)	✓
Mar 02	FDR/PRR for Cluster Processor Module	✓
Mar 02	Completion of integration tests with RoI Builder (Mar 01?)	
Mar 02	PDR for Timing Control Module	
Apr 02	FDR/PRR for Jet/Energy-sum Module	
Apr 02	PDR for CP/JEP Readout Driver Module	
May 02	FDR/PRR for CP/JEP Backplane	
Jun 02	FDR/PRR for Common Merger Module	
Sep 02	Completion of slice tests (second phase: mod-0 RODs and TCM)	
Oct 02	FDR/PRR for Preprocessor Readout Driver Module (? see above)	
Nov 02	FDR/PRR for Timing Control Module	
Dec 02	FDR/PRR for CP/JEP Readout Driver Module	✓
Mar 03	Preprocessor system available for system tests	
Jun 03	Cluster Processor system available for system tests	
Jun 03	Jet/Energy-sum Processor system available for system tests	
Mar 04	Preprocessor system tests completed	✓
Jun 04	Cluster Processor system tests completed	✓
Jun 04	Jet/Energy-sum Processor system tests completed	✓
Sep 04	Preprocessor integrated with calorimeters	✓
Dec 04	Calorimeter trigger available	✓
Jun 05	Full level-1 system available	

## **Additional notes**

- **PDRs** are short-term milestones, the rest are long-term.
- Combining PRRs with FDRs seems to define them better, but there are probably too many of them.

(continued ...)

- Think about this list to be sure that the items and the dates seem sensible before we submit it. Set a deadline of Friday 17 November for comments.
- In discussion during the meeting some useful comments were made. In addition to the magenta printing in the table:
  - Integration with DAQ/HLT not mentioned, apart from RoI Builder. Although dates not yet known, this should be on the list.
  - TileCal receivers not mentioned but should be, although dates not yet known.
  - Should we set milestones for software? Not always easy to do, but it is part of the project.