TOTEM / PPS XRP Interlock Tests

MPP Meeting

24 March 2023

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Test Summary

Screenshots from MPP checklist:
https://checklist.cern.ch/machine/13/node/1003699

	All P5 Roman pots
MPP/TOTEM - 01 - Injection permit removal	tested for each pot
MPP/TOTEM - 02 - User permit removal	tested for each pot and both sets of inner limits (old and IPL)
MPP/TOTEM 03 - LVDT bypass	

DEILE 2023-03-08 16:20:47

Test ok. See collimation logbook:

https://logbook.cern.ch/elogbook-server#
/logbook?logbookId=1696&
dateFrom=2023-03-08T07%3A00%3A00&
dateTo=2023-03-09T07%3A00%3A00

DEILE 2023-03-08 16:21:37 ✓

DEILE 2023-03-09 16:06:07

Test of IPL violations complete and ok. See collimation logbook:

https://logbook.cern.ch/elogbook-server#
/logbook?logbookId=1696&
dateFrom=2023-03-08T07%3A00%3A00&
dateTo=2023-03-09T07%3A00%3A00

https://logbook.cern.ch/elogbook-server#
/logbook?logbookId=1696&
dateFrom=2023-03-09T07%3A00%3A00&
dateTo=2023-03-10T07%3A00%3A00

DEILE 2023-03-09 18:18:07 ✓

DEILE 2023-03-09 18:18:59

Test of dump limit violations complete and ok. See collimation logbook:

https://logbook.cern.ch/elogbook-server#
/logbook?logbookId=1696&
dateFrom=2023-03-09T07%3A00%3A00&
dateTo=2023-03-10T07%3A00%3A00

DEILE 2023-03-17 15:23:01

Bypass box successfully tested:

https://logbook.cern.ch/elogbook-server#
/logbook?logbookId=1696&
dateFrom=2023-03-17T07%3A00%3A00&
dateTo=2023-03-18T07%3A00%3A00

also reported here: test of Override key.

DEILE 2023-03-17 15:23:50 ✓

Beam mode and flags combinatorics test not done, as agreed (interlock logic card not touched).
Last test: spring 2022.

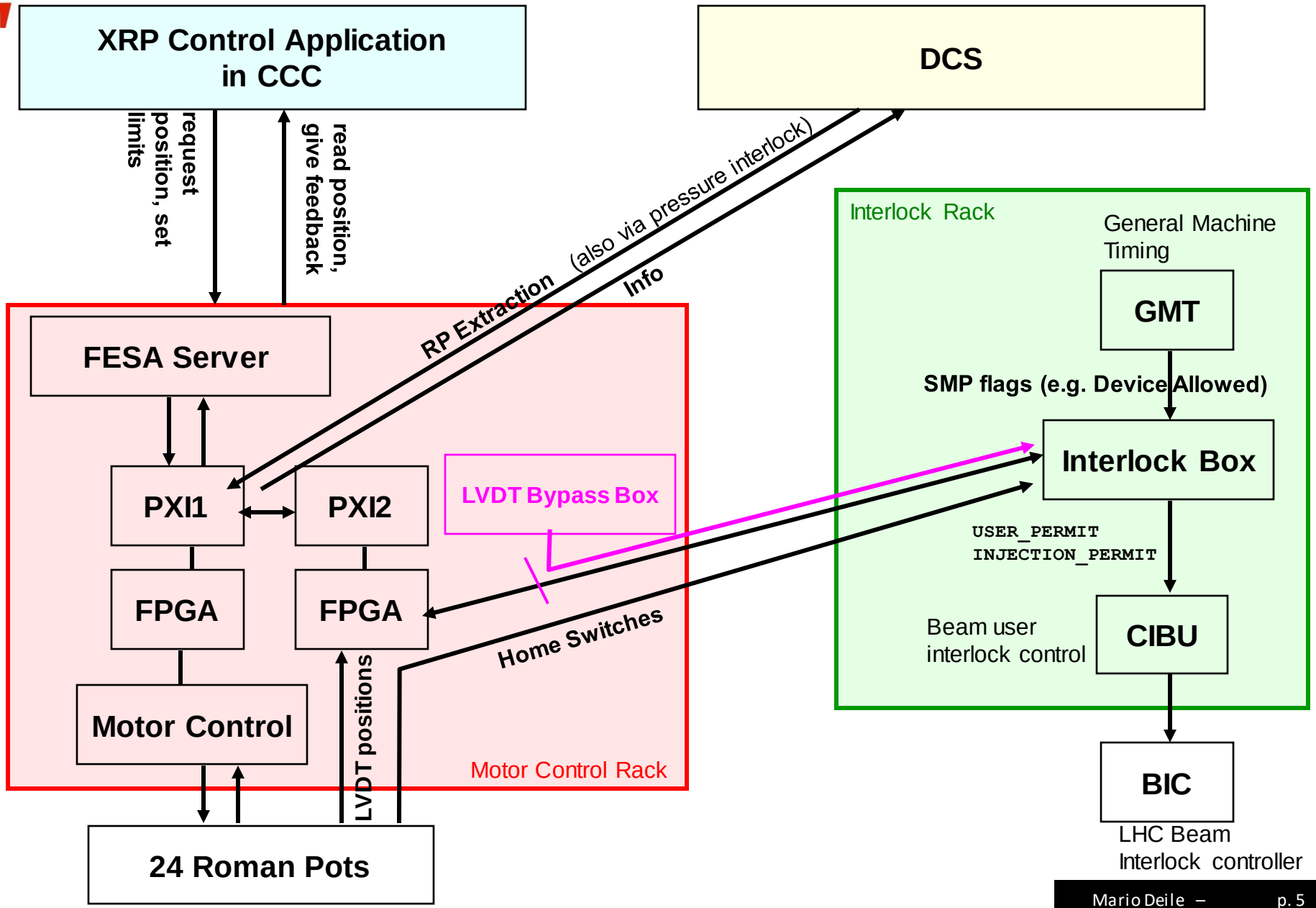
Status

No anomalies observed.

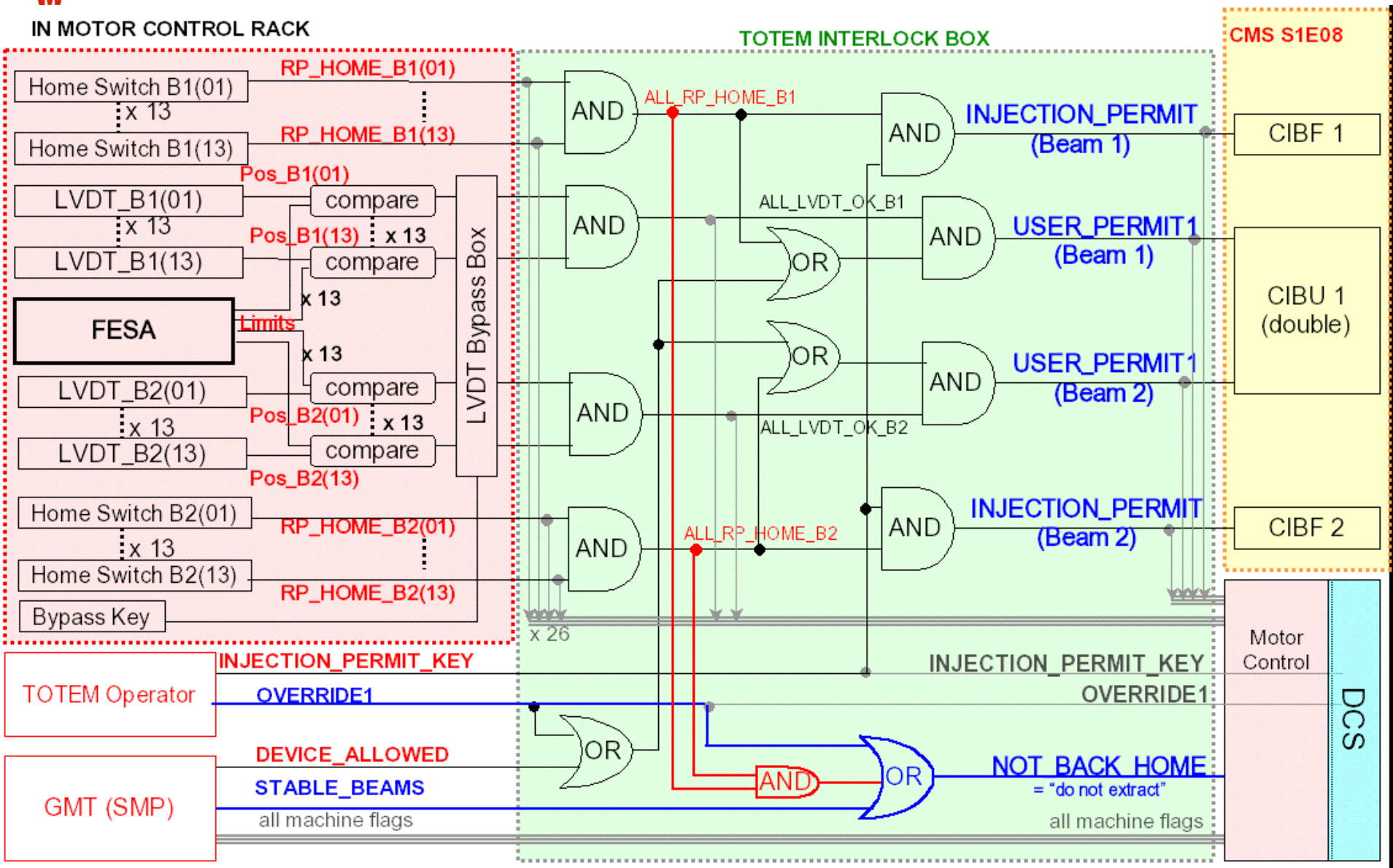
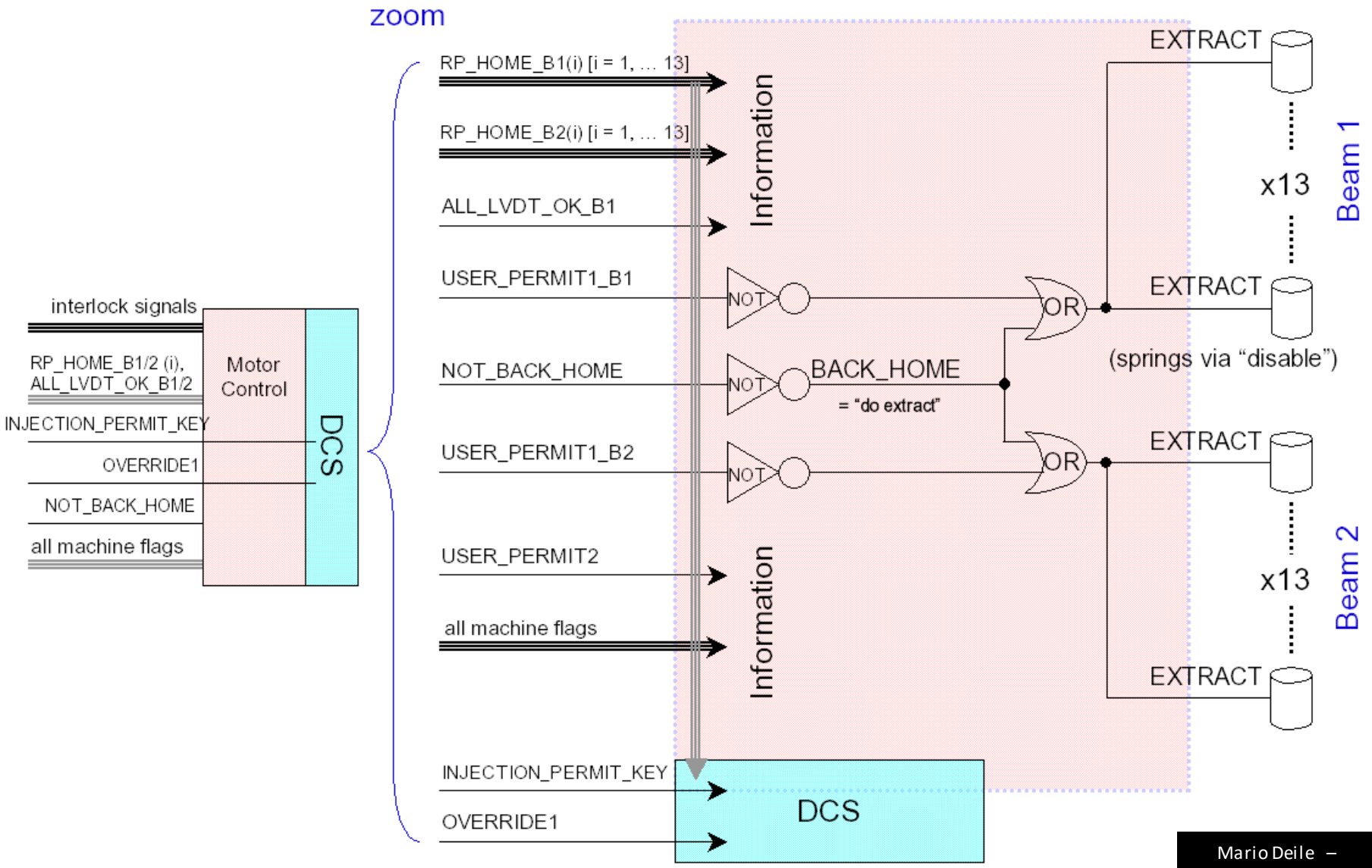
XRP system ready for beam.

Reference Material

Movement System Architecture (strongly simplified)



TOTEM-BIS Interlock Logic Since 2015



Interlock Logic 2015
(Zoom on the motor control)