

Controls System Prioritised Plan

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Prioritisation

MICE C&M has a 4-tier priority structure:

1. Must have for Step IV.
2. Should have for Step IV.
3. Would be nice for Step IV.
4. Not required for Step IV.

These priorities have been used to determine the schedule for completion of MICE C&M.

Milestones

Four milestones have been identified for C&M.

1. Detector and MICE muon beamline systems complete
2. Superconducting magnets and associated systems complete
3. Hydrogen absorber monitoring complete¹
4. Integration of additional controls & monitoring of smaller MICE components

Items in milestone 1, 2 and 3 fall under priority 1 and are essential for Step IV operation. A full test of the detector controls systems and beamline will be possible following completion of milestone 1. Commissioning of the MICE magnets will be possible following completion of milestone 2. Operation of the full experiment will be possible following completion of milestone 3.

Items in milestone 4 fall under priority 2 and 3 and are desirable for Step IV, but will not prevent operations or delay the schedule.

Breakdown of project by milestone

The items that fall into milestone 1 are:

- Integrated control of detector systems including trackers.
- Integrated control of beamline excluding target and decay solenoid systems.

Milestone 1 is scheduled to complete by 21st January 2015

The items that fall into milestone 2 are:

- Integrated control of spectrometer solenoids and focus coil
- Integrated control of water, gas and vacuum systems

Milestone 2 is scheduled to complete by 13th March 2015

The items that fall into milestone 3 are:

- Integrated monitoring of the liquid Hydrogen system and absorber

¹ Control of the Hydrogen system is the responsibility of the Hydrogen team overseen by the MICE collaboration and the MICE/ISIS safety committee.

Milestone 3 is scheduled to complete by 31st March 2015

The items that fall into milestone 4 are:

- Monitoring of PRY draw wires to identify motion of the walls – highest priority
- Integrated control of target and decay solenoid. These are presently operated as standalone systems
- Monitoring of electronics and computers

Milestone 4 is expected to complete by 22nd October 2015

The remaining items are priority 4 and not required for Step IV.

Detailed breakdown of project by milestone

There follows a detailed resource loaded schedule breakdown of the components required to achieve each milestone.

Milestone 1

ID	Task Name	Resource Names	2014	Qtr 1, 2015			Qtr 2, 2015			Qtr 3, 2015			Qtr 4, 2015				
			Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	controls_and_monitoring		09														
2	beamline		20/10														
5	beamline_ioc		07/01														
6	alh	Chris Heidt	Chris Heidt														
7	archiver	Chris Heidt	Chris Heidt														
8	ioc	Pierrick Hanlet	Pierrick Hanlet														
9	statemachine	Pierrick Hanlet	Pierrick Hanlet														
12	diffuser		27/11														
13	alh	Chris Heidt	Chris Heidt														
14	archiver	Chris Heidt	Chris Heidt														
15	mice-isis_gatewa		18/12														
16	alh	Chris Heidt	Chris Heidt														
17	archiver	Chris Heidt	Chris Heidt														
18	documentation	Pierrick Hanlet	Pierrick Hanlet														
19	testsuite	Pierrick Hanlet	Pierrick Hanlet														
20	proton_absorber		25/11														
21	alh	Chris Heidt	Chris Heidt														
22	archiver	Chris Heidt	Chris Heidt														
29	detectors		08/01														
30	ckov		17/11														
31	alh	Chris Heidt	Chris Heidt														
32	archiver	Chris Heidt	Chris Heidt														
33	emr		08/01														
34	alh	Chris Heidt	Chris Heidt														
35	archiver	Chris Heidt	Chris Heidt														
36	documentation	Ruslan Asfandiyarov	Ruslan Asfandiyarov														
37	ioc	Pierrick Hanlet	Pierrick Hanlet														
38	gva1		10/11														
39	documentation	Yordan Karadzhov	Yordan Karadzhov														
40	kl		24/11														
41	alh	Chris Heidt	Chris Heidt														
42	archiver	Chris Heidt	Chris Heidt														
43	luminosity_monit		26/11														
44	alh	Chris Heidt	Chris Heidt														
45	archiver	Chris Heidt	Chris Heidt														
46	ioc	Pierrick Hanlet	Pierrick Hanlet														
47	pid		11/12														
48	statemachine	Pierrick Hanlet	Pierrick Hanlet														
49	tof_0/1/2		19/11														
50	alh	Chris Heidt	Chris Heidt														
51	archiver	Chris Heidt	Chris Heidt														
52	tracker		09/12														
53	alh	Chris Heidt	Chris Heidt														
54	archiver	Chris Heidt	Chris Heidt														
55	documentation	David Adey	David Adey														
56	gui(s)	Pierrick Hanlet	Pierrick Hanlet														
57	ioc	David Adey	David Adey														
58	ioc_integration	Pierrick Hanlet	Pierrick Hanlet														
59	statemachine	Pierrick Hanlet	Pierrick Hanlet														
60	testsuite	David Adey	David Adey														
135	run_control		15/07														
138	beamline		07/01														
139	ioc	Pierrick Hanlet	Pierrick Hanlet														
148	pid_detectors		06/01														
149	ioc	Pierrick Hanlet	Pierrick Hanlet														
154	trackers		21/01														
155	ioc	Pierrick Hanlet	Pierrick Hanlet														

Milestone 2

ID	Task Name	Resource Names	2014		Qtr 1, 2015			Qtr 2, 2015			Qtr 3, 2015			Qtr 4, 2015			
			Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	controls_and_monitoring																
97	facilities		13/08														
98	a/c		15/12														
99	alh	Chris Heidt	Chris Heidt														
100	archiver	Chris Heidt	Chris Heidt														
105	gas_flow		06/02														
106	2761	Chris Heidt	Chris Heidt														
107	alh	Chris Heidt	Chris Heidt														
108	ioc	Pierrick Hanlet	Pierrick Hanlet														
109	gas_pressure		11/12														
110	alh	Chris Heidt	Chris Heidt														
111	archiver	Chris Heidt	Chris Heidt														
112	vacuum		17/12														
113	alh	Chris Heidt	Chris Heidt														
114	archiver	Chris Heidt	Chris Heidt														
115	ioc	DL	DL														
116	water_flow		27/01														
117	alh	Chris Heidt	Chris Heidt														
118	archiver	Chris Heidt	Chris Heidt														
119	ioc	Pierrick Hanlet	Pierrick Hanlet														
120	water_pressure		30/01														
121	alh	Chris Heidt	Chris Heidt														
122	archiver	Chris Heidt	Chris Heidt														
123	ioc	Pierrick Hanlet	Pierrick Hanlet														
144	run_control		16/07														
149	fc		10/03														
150	ioc	Pierrick Hanlet	Pierrick Hanlet														
159	sss		13/03														
160	ioc	Pierrick Hanlet	Pierrick Hanlet														

Milestone 3

ID	Task Name	Resource Names	2014		Qtr 1, 2015			Qtr 2, 2015			Qtr 3, 2015			Qtr 4, 2015			
			Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	controls_and_monitoring																
124	mice_channel		22/07														
127	lh2_absorber_monitor		25/03														
128	alh	Chris Heidt	Chris Heidt														
129	archiver	Chris Heidt	Chris Heidt														
130	ioc	Pierrick Hanlet	Pierrick Hanlet														
131	statemachine	Pierrick Hanlet	Pierrick Hanlet														
144	run_control		16/07														
145	absorber		31/03														
146	ioc	Pierrick Hanlet	Pierrick Hanlet														

Milestone 4

