LHC BLM SYSTEM:
EXPERT NAME CONVENTION ADDITIONS

Machine Protection Panel 16/05/2014

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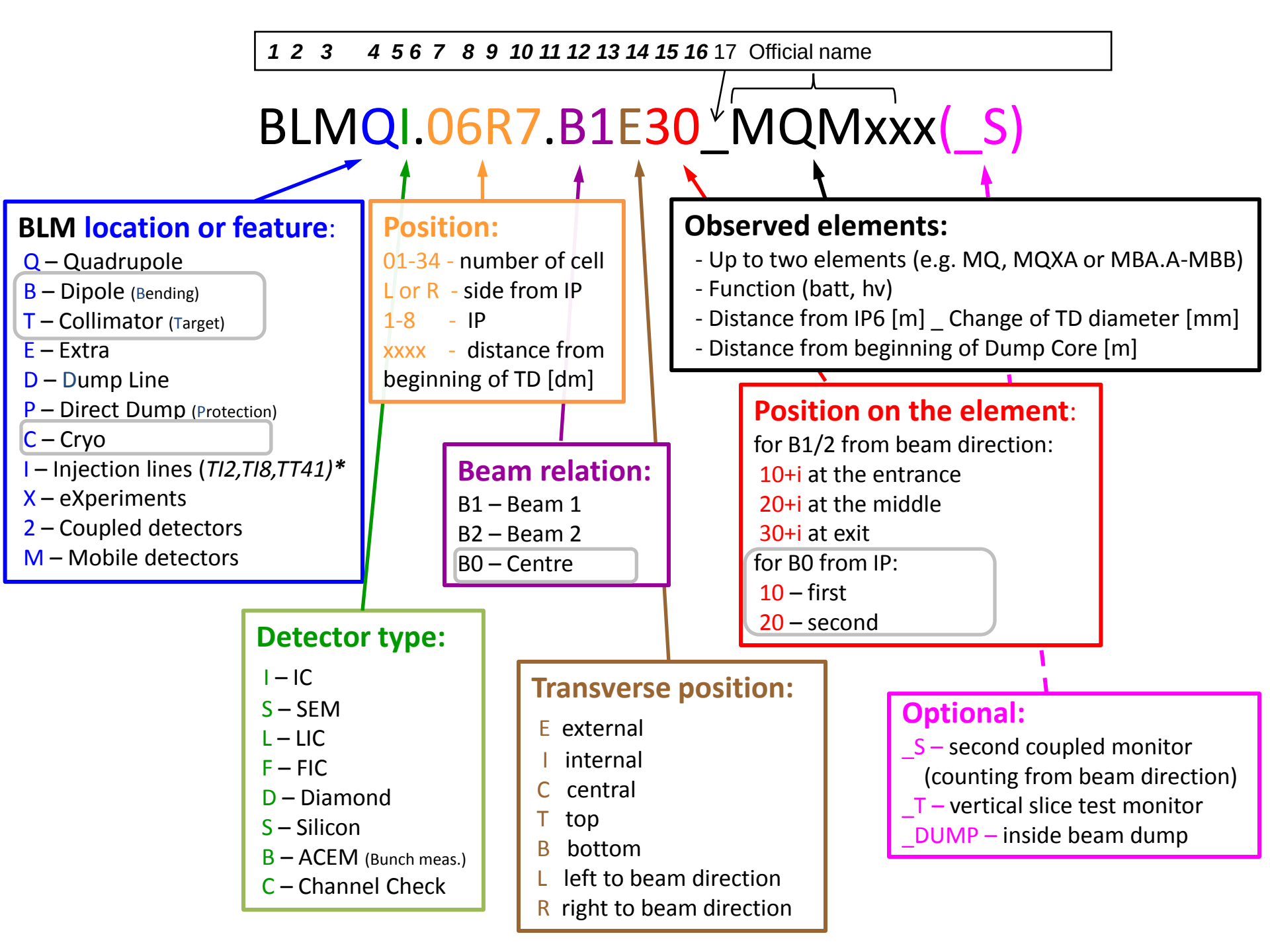
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 Official name
BLMQI.06R7.B1E30_MQMxxx(_S)
BLM location or feature:
Q – Quadrupole
B – Dipole (Bending)
T – Collimator (Target)
E – Extra
D – Dump Line
P – Direct Dump (Protection)
C – Cryo
I – Injection lines (TI2,TI8,TT41)*
X – eXperiments
2 – Coupled detectors
M – Mobile detectors
Position:
01-34 - number of cell
L or R - side from IP
1-8 - IP
xxxx - distance from beginning of TD [dm]
Observed elements:
- Up to two elements (e.g. MQ, MQXA or MBA.A-MBB)
- Function (batt, hv)
- Distance from IP6 [m] _ Change of TD diameter [mm]
- Distance from beginning of Dump Core [m]
Beam relation:
B1 – Beam 1
B2 – Beam 2
B0 – Centre
Position on the element:
for B1/2 from beam direction:
10+i at the entrance
20+i at the middle
30+i at exit
for B0 from IP:
10 – first
20 – second
Detector type:
I – IC
S – SEM
L – LIC
F – FIC
D – Diamond
S – Silicon
B – ACEM (Bunch meas.)
C – Channel Check
Transverse position:
E external
I internal
C central
T top
B bottom
L left to beam direction
R right to beam direction
Optional:
_S – second coupled monitor (counting from beam direction)
_T – vertical slice test monitor
_DUMP – inside beam dump

Propagation of Name Changes 1/3

All these changes will need to be propagated, as usual, in several locations:

- MTF, LAYOUT, LSA, Logging DB
- IQC, XPOC and Collimation systems.

For the parameters in MTF, Layout and LSA DBs:

- The naming convention proposed for the “Expert Names” will be applied to all monitors.
- We consider a new monitor, not only those that are new installations, but also those that have been **moved**.

Propagation of Name Changes 2/3

All these changes will need to be propagated, as usual, in several locations:

- MTF, LAYOUT, LSA, Logging DB
- IQC, XPOC and Collimation systems.

For the data stored in Logging DB :

- New variables will be created were needed. (Similar protocol as in the parameters' DBs.)
- For those monitors moved, new variables are created instead of renaming to avoid errors. Otherwise, one could compare historical data and draw wrong conclusions.
- Disconnected/removed monitors' variables will be renamed to follow the convention, but will remain in the DB.

Propagation of Name Changes 3/3

All these changes will need to be propagated, as usual, in several locations:

- MTF, LAYOUT, LSA, Logging DB
- IQC, XPOC and Collimation systems.

For the data stored in the Post Mortem DB (for IQC, XPOC and PM analysis):

- Translator modules (or equal method) is not necessarily needed to be implemented for data stored before 2013.
- The data stored are “atomic”. That is, they hold all information needed for their analysis.

Examples

Relocation of detectors:

Current		Displaced	
Official name	**Expert name**	**Official name**	**Expert name**
BLMQI.D12R1	BLMQI.12R1.B2I20_MQ	**BLMBI.A13R1**	BLM**B**I.13R1.**B0T20**_QBBI.A13R1
BLMQI.E13R1	BLMQI.13R1.B1E20_MQ	**BLMBI.B13R1**	BLMBI.13R1.B0T20_QBBI.B13R1

Change of observable:

Current		New name	
Official name	**Expert name**	**Official name**	**Expert name**
BLMEI.C4L1	BLMEI.04L1.B1I10_TCTH.4L1.B1	**BLMTI.C4L1**	BLM**T**I.04L1.B1I10_**TCTPH**.4L1.B1