



# *Status of Database & Software for minidrawer and superdrawer assembly and maintenance*



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# Project development history

- ✓ Sept/Oct - Internal review of requirements document draft-1
- ✓ Oct/Nov - Preparation of Draft-2 of requirements document
- ✓ Nov 10 - Requirements document draft-2
- ✓ Nov 11 - Comments on draft-2
- ✓ Nov 12 – Final requirements document
- Approval of requirements document of design proposal

We would like to say special thanks to:

Christophe, Henric, Oleg, Irakli, Fabrizioo



# Latest Updates

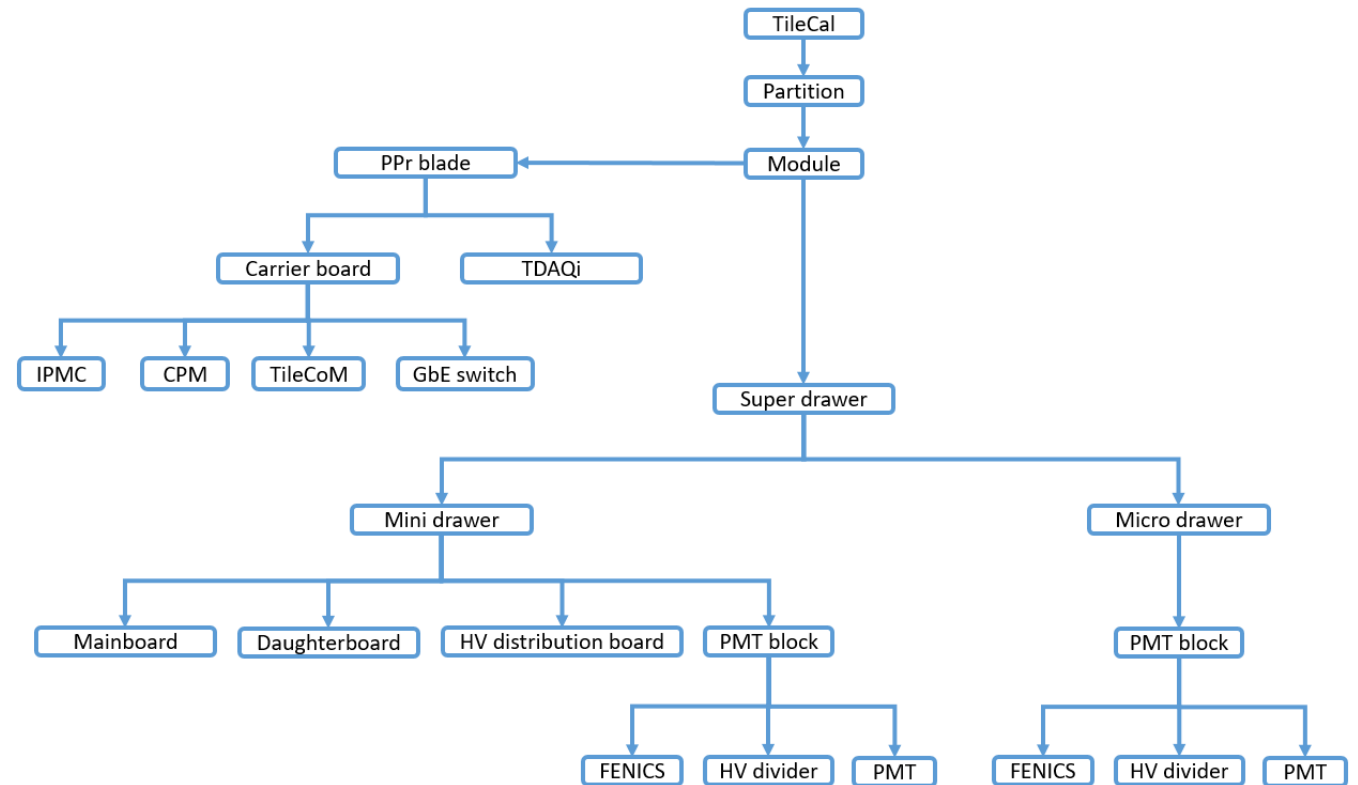
- 09 Oct. Meeting: Discussion about SRS Draft-1
- 10 Oct. After discussion we got three main inputs of comments from Christophe:
  1. Input 1: Adding information of off-detector electronics in the database.
  2. Input 2: Adding Barcode Structure
  3. Input 3: Adding missing paragraphs to the Document



# 1. Input 1: Adding information of off-detector electronics in the database.

## Required off-detector electronics components in the database:

1. PPr blade
2. TDAQi
3. Carrier board
4. CPM
5. TileCoM
6. GbE switch
7. IPMC



- All required off-detector electronics components were added to the database.



# 1. Input 1: Adding information of off-detector electronics in the database.

## Required properties of off-detector electronics components in the database:

XIV.	PPr blade	XVII.	CPM:	XX.	IPMC
1.	PPr blade ID (Barcode)	1.	CPM ID (Barcode)	1.	IPMC ID (Barcode)
2.	Rack number	2.	Carrier board ID (Barcode)	2.	Carrier board ID (Barcode)
3.	Shelf number	3.	Production batch	3.	Production batch
4.	Slot number	4.	Hardware revision	4.	Hardware revision
5.	Production batch	5.	Firmware version	5.	Firmware version
6.	Hardware revision	6.	MAC addresses	6.	MAC addresses
7.	Firmware version	7.	Current location with Time & Date	7.	Current location with Time & Date
9.	Installation Date				
XV.	Carrier board:	XVIII.	TileCoM		
1.	Carrier board ID (Barcode)	1.	TileCoM ID (Barcode)		
2.	PPr blade ID (Barcode)	2.	Carrier board ID (Barcode)		
3.	Production batch	3.	Production batch		
4.	Hardware revision	4.	Hardware revision		
5.	Firmware version	5.	Firmware version		
6.	Current location with Time & Date	6.	MAC addresses		
		7.	Current location with Time & Date		
XVI.	TDAQi:	XIX.	GbE switch		
1.	TDAQi ID (Barcode)	1.	GbE switch ID (Barcode)		
2.	PPr blade ID (Barcode)	2.	Carrier board ID (Barcode)		
3.	Production batch	3.	Production batch		
4.	Hardware revision	4.	Hardware revision		
5.	Firmware version	5.	Firmware version		
6.	MAC addresses	6.	MAC addresses		
7.	Current location with Time & Date	7.	Current location with Time & Date		

- All required off-detector electronics components properties were added to the database.

## 2. Input-2: Adding Barcode Structure

### Barcodes:

- The barcode reader system tied to the database must be able to recognize the type of component based on the first two digits of the barcode and bring either existing record for that component if it is already in the DB, or bring an interface that proposed to create a corresponding entry.

We would like to have 7 digits barcode.

- first 2 digits indicate the type of item.
- last 5 digits are free for the institutes to chose.
- Mainboards, Mini drawer frames and Micro drawer frames should have long format 14 digit “20LLXXYYYYYYY” barcode.
- Barcode standard: ATLAS standard which is bar-code 128 B.

Reference: <https://indico.cern.ch/event/852486/#27-other-information-collected>

- We considered barcode structure in the database and to the functioning of the application.

## 3. Input-3: Adding missing paragraphs to the Document

### Missing paragraphs in Draft-1:

- 3.2.3 Concurrent Operation
- 3.8.1 Lifetime
- 3.8.2 Reliability
- 3.8.4 Mean Time To Repair
- 3.11 On-line User Documentation and Help System Requirements
  
- All missing paragraphs were added to Draft-2 of document
  
- We considered all inputs of comments and created draft-2 of the document.

# Comments on Draft-2

## Comments on Draft-2 from Christophe:

- Slight modification of PMT block disassembly work flow
- Adding property "MAC address" to Gbe switch
- Specifying which components will have full 20LLXXXYYYYYYY format barcode displayed

For now all comments are considered and added to Draft-2 of the document.

You can check the document here: <https://indico.cern.ch/event/852250/>



# Next Steps

- Start working on development plan with detailed timetable
- After its done send it for internal review
- Start of the Development phase of the Database & Software

Part of the database development schedule provided by Christophe - May 2019

Technical implementation proposal preparation	DATB-4		7/4/2019	9/5/2019
Technical implementation proposal internal review	DATB-5		9/6/2019	10/4/2019
<b>Technical implementation proposal internal approval</b>	<b>DATB-M2</b>		<b>10/7/2019</b>	<b>10/7/2019</b>
DB Prototype implementation v0	DATB-6		10/8/2019	1/14/2020



Thanks for your attention!

