## **Status of the Hardware Database**

- The dev. version has been running stably, according to our daily cron job.
- We are very close to release the production version.
- We are left with one final test and minor updates (see the next page).
- The final test is to upload data to both versions of the HWDB. This will happen later today.

# Some inconsistency behaviors between the WEB UI and the RESR API

- Test Specifications:
  - Currently we can't edit the Test Spec definition through the REST, while we can in the WEB UI.
- Item Specifications:
  - We can update the Item Spec definition in the WEB UI.
  - E.g., add new fields. The WEB UI then shows the new and old fields.
  - Nevertheless, this allows us to enter to the new fields.
  - On the other hand, we are not allowed to add the new required fields while keeping the old ones.
- We can define an empty Spec definition in the WEB UI, but can't through the REST.
- Still not sure how to GET/POST an image from/to a certain TEST entry via the endpoint, /component-tests/{oid}/images.
   How could one obtain an "old"?

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# Tracking shipments at a warehouse in Rapid City

The following slides (questions/comments) were induced by Mike's <u>talk</u> given at the I&I session of the previous collaboration meeting

- Met with the FDC Logistics team at the collaboration meeting.
   (Ladia Jakubec, Susie Thompson, Mike Pfaff)
   The FDC Logistics team bridges communications between Warehouse and DUNE.
- And learned that:
  - Warehouse staff will scan QR-codes that are attached to shipments.
  - They like to obtain the corresponding PIDs and descriptions of the components by scanning the QR-codes.
  - But they will NOT have credentials to access to the HWDB.

... so, what is the issue?

# **QR-code generated by the HWDB**

و ا	Edit Item 200100300001-01388										
- HWDB produces a QR code.	QR SPECS LO	G STRU	ICTURE LOG	CONTA	INER LOG	TEST LO	OG	IMAGES			
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	Serial Number	SND955E	906								
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- The code contains a hyper-link	1										

- https://dbweb9.fnal.gov:8443/cdbdev/view/component/150922 where 150922 uniquely corresponds to the PID, Z00100300001-01388.
- The relationship between the unique # and the PID can easily be found if you could access to the HWDB.

FEB/06/2024

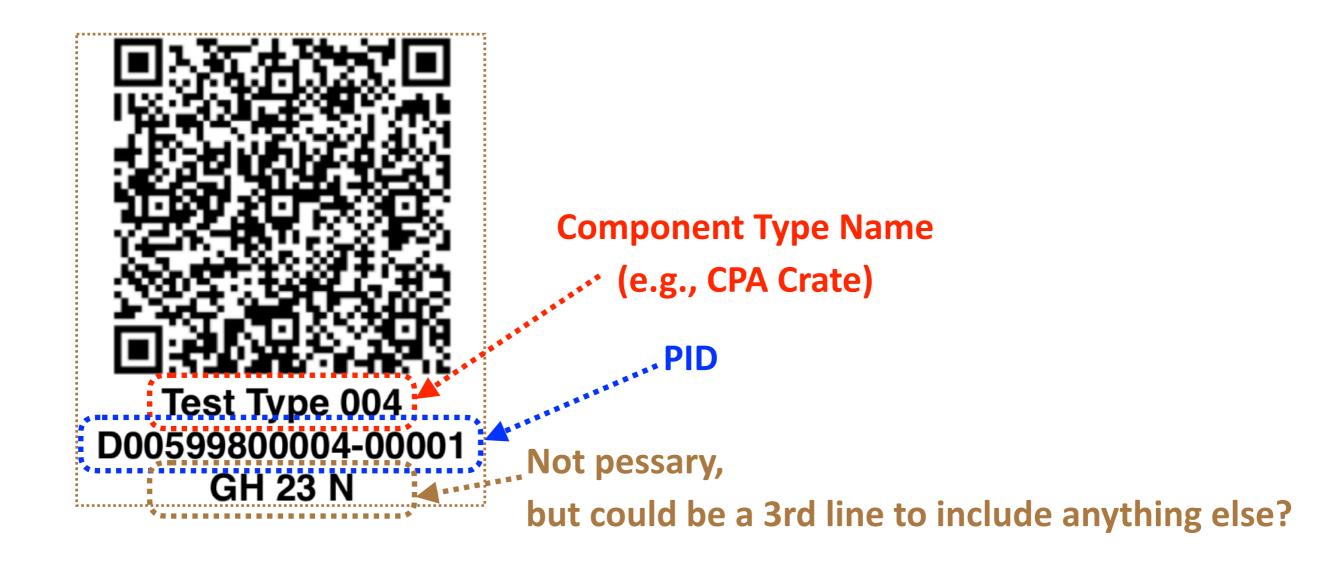
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#### Changing the embedded path?

- Since the warehouse folks won't be able to access to the HWDB, would it be possible to have the HWDB to generate a QR-code that contains a hyper-link like; <u>https://dbweb9.fnal.gov:8443/cdbdev/view/component/Z00100300001-01388</u> instead of <u>https://dbweb9.fnal.gov:8443/cdbdev/view/component/150922</u> ?
  - By the way, the above link, <u>https://dbweb9.fnal.gov:8443/cdbdev/view/component/Z00100300001-01388</u> already works. So the change needs to be done only in the generation of QR-code?

## Adding human readable extra lines?

- Would it be possible to add some human readable lines right below the code?



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... or



- If we could agree on that our QR-codes do not need to include hyper-links, then one could embed a few human readable lines there, such as;
   PID
  - **Component Type Name**
  - Anything else.
- I'm sure any scanner could read these.
  - It just will not take you to the corresponding Item site.

... or

Edit Ite	m Z001003	300001-	01388						
QR	SPECS LOG	STRU	CTURE LOG	CONTAINER LOG	TEST LOG	IMAGES			
Compor	nent Type	Z.Sandbox.	HWDBUnitTest.Te	st Type 001				8	
Part ID		Z0010030	0001-01388-U	S186				8	
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		Color	red				*		<ul> <li>And already prints a PID there.</li> </ul>
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Sub-cor	nponents							+	+ Add a Component Name there as well?
	(	SAVE	DONE						Add d component nume there ds went

 Ideally it would be great if we could use BOTH QR/Bar-codes for shipments.
 (Still prefer QR over Bar though. QR can contain far more # of characters and provide faster (less erratic) scanning speed)

#### How would the shipment info get to the HWDB?

- Assuming warehouse staff can scan the QR/Bar-codes and can obtain PIDs and descriptions (e.g., Type names) of shipments, how would that info reach the HWDB?
- When a shipment arrives at the warehouse:
  - The warehouse staff scan its QR/Bar-code
  - They perform a visual inspection.
    - If anything wrong, a detail report will be generated, along with photo(s).
  - The scanned info will be stored in their inventory system, along with its BoL, tracking #, PO, and the inspection result.
- The FDC Logistics team generates a report out of the inventory system and provide it to us (see the next page).

#### (Weekly) Warehouse Report

FDC Logistics team provide weekly report to us.

- The report is generated based on the inventory system of the warehouse.
- "us" needs to be defined, maybe liaisons from each consortia?
- It could be daily or monthly, depending on how we want it.
   We need to request.
- Provided electronically (emails, likely?).
- In pdf, word, photographic images, and/or csv files.
- The report includes:
  - Received(@ Warehouse)/Sent(to SURF) dates
  - PID and the corresponding Component Type name
  - Result of visual inspection (w/ photos, if needed)
  - BoL, PO, and tracking #

Anything else that we like to be included?

#### **Storing Weekly Warehouse Report in the HWDB**

- This info needs to be stored in the HWDB.
- We could provide a generic template for such DB schema once the format of the repot is finalized.
- If need to, we could also produce standalone app(s) (iPad's, Python), that would, e.g., take a csv and image files as inputs and upload them.