

TkDQMDoctor

Certification Helper

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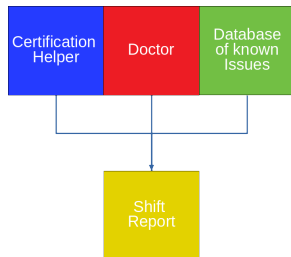
Motivation

Management system to create shift reports, and keep track of known issues.

- ▶ Problems that have been solved might be forgotten after a while and need to be solved again.
- ▶ Solution: Create a centralized system that keeps track of issues and their solutions. Ultimately a system that can give guidance to shifters while taking known issues into consideration is envisioned.
- ▶ Similar system successfully used: DAQDoctor

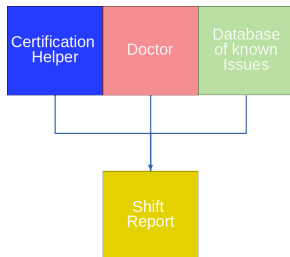
TkDQMDoctor - Overview

- ▶ Certification Helper
 - ▶ Input forms during run certification.
- ▶ Doctor
 - ▶ Interfaces with the Certification Helper and Database of known Issues.
- ▶ Database of known Issues



Certification Helper

- ▶ Overall Goal: Help shifters create good reports
- ▶ Checklist pages for each quality flag
- ▶ Guiding to the corresponding Twiki pages
- ▶ Produce **automated** shift report



Current state

List of Runs

<div><div><div><div><div></div><div>Add Run</div></div><div><div></div><div>Generate Summary</div></div></div></div></div>										<div><div><div>Help</div></div><div><div></div><div>New Session</div></div></div>		
Run Number	Type	Reference Run	Trackermap	Number Of Ls	Int Luminosity	Pixel	Sistrip	Tracking	Comment	Edit	Delete	
303030	Prompt Cosmics 3.8 T Proton-Proton /some/data/set	10	Exists	12	0.50	Good	Good	Bad	test	edit	delete	
313131	Prompt Cosmics 3.8 T HeavyIon-Proton /data/set1	10	Exists	321	123.00	Good	Good	Good	ahhhhhhhhh	edit	delete	

Current web interface.

- ▶ List of runs that were added in this session.
- ▶ All the usual stuff possible: sorting, editing, deleting
- ▶ Generating shift report from the runs in this session

Certifying a run

Adding a new run works through this form

- ▶ Mostly dropdown menus (reducing errors)
- ▶ Next to each field a link to a checklist page, detailing the procedure for checking that quality flag. (guiding)

Add Run

Type	<input type="text" value="....."/>	Add Type
Reference	<input type="text" value="....."/>	
Run number	<input type="text"/>	
Trackermap	<input type="text" value="....."/>	Checklist
Number of Is	<input type="text"/>	
Int luminosity	<input type="text" value="Unit: pb<sup>-1</sup>"/>	
Pixel	<input type="text" value="....."/>	Checklist
Sistrip	<input type="text" value="....."/>	Checklist
Tracking	<input type="text" value="....."/>	Checklist
Comment	<div></div>	Info

Certifying a run - Error Messages

Add Run

Pixel/SiStrip/Tracking is set to Bad. You need to add a comment.

Type	<input type="text" value="Prompt Cosmics 3.8 T HeavyIon-Proton /data/set/1"/>	Add Type
Reference	<input type="text" value="10 Prompt Cosmics 3.8 T HeavyIon-Proton /reference/data/se"/>	
Run number	<input type="text" value="133337"/>	
Trackermap	<input type="text" value="Exists"/>	Checklist
Number of Is	<input type="text" value="12"/>	
Int luminosity	<input type="text" value="1.25"/>	
Pixel	<input type="text" value="Good"/>	Checklist
Sistrip	<input type="text" value="Bad"/>	Checklist
Tracking	<input type="text" value="Bad"/>	Checklist
Comment	<div><div></div></div>	Info

Correctness checks: Pixel/Strip/Tracking are set to 'Bad' while there is no comment giving additional information.

Adding a run type

Adding a new run type works again through a dialog

- ▶ Mostly dropdown menus

Add Type

Reco	<input type="text" value="....."/>
Runtype	<input type="text" value="....."/>
Bfield	<input type="text" value="....."/>
Beamtype	<input type="text" value="....."/>
Dataset	<input type="text" value="e.g. /Cosmics/Run2017F-PromptReco-v1/DQMIO"/>

Adding a reference run

Site administration

AUTHENTICATION AND AUTHORIZATION	
Groups	+ Add Change
Users	+ Add Change
CERTHELPER	
Reference runs	+ Add Change
Run infos	+ Add Change
Types	+ Add Change

- ▶ Can not be done by shifters.
- ▶ Currently only possible through the admin page.

Home > Certhelper > Reference runs > Add reference run

Add reference run

Reference run:

Reco:

Runtype:

Bfield:

Beamtype:

Dataset:

Report Summary

- ▶ Summary is auto generated based on the runs in the current session.
- ▶ What goes in the **HDQM Trends** section?

[Back to overview](#)

=====Reference Runs=====

10 Prompt Cosmics 3.8 T HeavyIon-Proton /reference/data/set

=====Runs checked=====

Type 1: Prompt Cosmics 3.8 T HeavyIon-Proton /data/set/1

Run	Reference Run	Number of LS	Int. Luminosity	Pixel	Strip	Tracking	Comment
313131	10	321	123.00	Good	Good	Good	ahhhhhhhh

Type 2: Prompt Cosmics 3.8 T Proton-Proton /some/data/set

Run	Reference Run	Number of LS	Int. Luminosity	Pixel	Strip	Tracking	Comment
303030	10	12	0.50	Good	Good	Bad	test1

=====Tracker Maps=====

Type 1:

Produced: 313131

Type 2:

Produced: 303030

=====HDQM Trends=====

=====Special Comments=====

-> !!! WRITE STUFF HERE !!! <-

=====Certified Runs=====

Type 1:

Good: 313131

Type 2:

Bad : 303030

=====SUMS=====

Type 1	Sum of LS	Sum of int. luminosity
Good	321	123

Type 2	Sum of LS	Sum of int. luminosity
Bad	12	0.5

Conclusions

- ▶ We think the Certification Helper is mature enough to be used, starting Monday (4.12.2017).
- ▶ We are hoping to gather some feedback / find bugs.
- ▶ Currently in the process of deploying it.

Questions

- ▶ What checks must be performed on the input forms to guarantee validity?
(e.g. no comment + one of the quality flags is 'Bad')
- ▶ What belongs in the **HDQM** section of the shift report?

- ▶ Repository:
<https://github.com/imKuehlschrank/TkDQMDoctor>
- ▶ Suggestions/Feedback: filip.ilic@cern.ch, jandrea@cern.ch