

Notes and Logbook

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1 Objectifs et mise en contexte du stage

1.1 The CERN and the LHCb Departement

1.2 What is WinCC-OA ?

1.3 What is JCOP ?

1.4 Main goals of the internship

2 Avancements des travaux

3 Logbook and tasks done

3.1 Iteration from the Monday 4th of May to the Friday 15th of May

Objectives of the iteration : The main goal of this iteration was to get more familiar with WinCC-OA and the JCOP Framework. Also the main idea was to think about how to make the LHCb experiments monitor more accessible from the web without changing the WinCC-OA pre-existing project drastically.

Tasks done & notes :

- Reading documentations about WinCC-OA.
- Setting up the main project.
- Reading/Writing emails to the ISIMA supervisor (Mr HILL) and the CERN one (Mr Luis Granado Cardoso).
- Helping and exchanging with Loann, who is working on the same technology as me.
- Going through the tutorial slides.
- Experimenting through Exercice 1,2,3 and 4.
- Facing some difficulties with the CTRL system.
- Reading documentation about HttpServer
- Watching videos about WinCC-OA on Siemens and KAASM's youtube channel.
- Doing daily meetings with Luis to track the progress.

3.2 Iteration from the Wednesday 15th of May to the Sunday 20th of May

Objectives of the iteration : The aim of this iteration was to look at all the documentation about the Web-Server components in WinCC-OA, how to navigate properly between panels, how to manage users access permissions and restrictions, and how to well organise configs files in a project.

Tasks done & notes :

- I was sick during a part of this iteration, so I did not work effectively on Monday
- Reading all the documentation
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Configs files notes : config.level is for managers configurations, and basically, loading libs through this file. config.redu is for redundancy, that we are not seeking for, at the moment config.http is a premade file from the WinCC-OA folder config.webclient is an additional file for configuration Desktop and Mobile UI add-ons. . . Not what we are looking for

I have tested multiple stuffs on those. Nothing really can simply the actual config (root) file. I guess there's another option not yet tested which is the own conf file, idk if we can use more than once.

For the navigation fluidify and simply, I have been testing stuffs and reading about the differences between Modules, Embedded Modules , Child and Root Panel. To navigate properly, I think I should take a look at the Topologies panels components... Embedded modules through one root module, may be the best option.

3.3 Iteration from Wednesday 20th to the 27th

TO DO :

- User permissions, one can connect to view, another can connect to administrate
- Play with the alarm Screen, make a shortcut to it
- (FSM) Implement one, how it goes

DONE :

- Login panel has been implemented (worked on both ULC and Regular WinCC)
- Can access on user administration panel through it : Module \hookrightarrow SysMgm \hookrightarrow Permissions \hookrightarrow User Administration, which on root access list all users and permissions
- Groups \hookrightarrow Administrate \hookrightarrow Permissions : You can change the group permissions but also, create new groups with new permissions
- Permissions are logged in an Authorization Bits system. The first five bits are already define, they are predefined and un-changeable, but you can change the description if you want and texts of it :
 - 1 : Visualisation: Visualize only
 - 2 : Normal operator authorization: permits the opening of child panels.
 - 3 : Advanced operator authorization: permits execution of commands, explicit setting of replacement values, input of correction values as well as changes to all value range types.
 - 4 : Administration: permits the use of the PARA.
 - 5 : Acknowledgement: permits acknowledgment of alerts.
 - 32 : Allows SSO for one work station
- Can also access on login statistics panel to see whose connected : Module > Login Statistics
- We can manage the Components access thanks to the boolean getUserPermission() function : CONTROL > Control functions > G > getUserPermission()
- We can check on the Main Panel, by Login via Guest or via Root
- Auto login done, with inactivity (Glitch with inactivity, security one) (UI number changed some time)
- Alarm Panel, I have worked on it, but there is a glitchy features, the windows appears behind the Alarm Screen
- I also haven't the time to experiment on the FSM Things

3.4 Iteration from Wednesday 27th to Tuesday 2nd

The aim of the iteration was to :

- Adding and testing the FSM, on the Web app, it actually works but...
- Create Shortcut for opening differents kinds of panels, I had issues with the DEN Panel... But now it works
- Didn't check on the Alarm Screen and the Users Permissions, as I had issues with the DNS part of the tutorials.

4 Real Gantt chart