

**To enable/disable a trigger channel and to change a downscaling fraction**

- Open the L0DU FSM
  - ◆ On windows: G:\online\ecs\Shortcuts311\TRG\TRGL0DU\TRGL0DU\_UI\_FSM
  - ◆ On linux: /group/online/ecs/Shortcuts311/TRG/TRGL0DU/TRGL0DU\_UI\_FSM.sh
- Open the L0DU panel
  - ◆ Double click on LODU\_1
- Go to the tab Algorithm and then to the sub-tab Recipes
  - ◆ Select the algorithm you want to start with
  - ◆ Click on View Algorithm
  - ◆ Make sure this is really the algorithm you want to start with
- Go to the sub-tab Trigger Channels
  - ◆ Click on Load
  - ◆ Select the algorithm you want to start with
- Go to the sub-tab Conditions
  - ◆ Click on Update and then on Save
  - ◆ This is necessary even if you should not change anything here
    - ◇ The only thing you may be authorized to change on elementary conditions would be thresholds: for that the simplest way is different, it is explained at the end of this tutorial
- Go back to the sub-tab Trigger Channels
  - ◆ Update the enables that you have to change
    - ◇ Make sure to select the right line
    - ◇ Right click ever in the column Phys , B1G or B2G depending on what you want
  - ◆ Update the downscaling fractions you have to change
    - ◇ Make sure to select the right line, left click in the column Rate
    - ◇ Put the right number
      - This is in per mil so 1000 mean no downscaling and for instance 25 mean a downscaling of 1/40 (25/1000)
    - ◇ Click Enter (mandatory!)
- Still in the sub-tab Trigger Channels
  - ◆ Click on save
    - ◇ Write the name of the new algorithm
      - Make sure this name is not already taken (see sub-tab Algorithm )
      - \_0xABCD (where ABCD is the TCK number in hexadecimal) will automatically be appended to the name
    - ◇ Eventually put a comment
    - ◇ Write the TCK of the new algorithm
      - As 0xABCD where ABCD is the TCK number in hexadecimal
      - Make sure this TCK is not already taken (see sub-tab Algorithm )
- Go to the sub-tab Algorithm
  - ◆ Your new algorithm should appear in the list
    - ◇ The list is in alphabetic order (upper/lower case sensitive)
  - ◆ Select it and click on View Algorithm
    - ◇ Make sure you did the right changes
  - ◆ Click on Export to file
    - ◇ Select your new algorithm
    - ◇ Click on the single right arrow
  - ◆ Click on the directory icon
    - ◇ Browse to the directory where you want to save the file
      - For instance G:\trg\l0\pvss\fw\Components\_TRGL0DU\panels\fwL0DU\data
    - ◇ Write the name of the options file
      - For instance NewAlgo\_0xABCD.opts (where ABCD is the TCK number

in hexadecimal)

### To change a threshold

- Open the L0DU FSM
  - ◆ On windows: G:\online\ecs\Shortcuts38\TRG\TRGL0DU\TRGL0DU\_UI\_FSM
  - ◆ On linux: /group/online/ecs/Shortcuts38/TRG/TRGL0DU/TRGL0DU\_UI\_FSM.sh
- Open the L0DU panel
  - ◆ Double click on L0DU
- Go to the tab `Algorithm` and then to the sub-tab `Recipes`
  - ◆ Select the algorithm you want to start with
  - ◆ Click on `View Algorithm`
  - ◆ Make sure this is really the algorithm you want to start with
  - ◆ Click on `Export to file`
    - ◇ Select the algorithm you want to start with
    - ◇ Click on the single right arrow
  - ◆ Click on the directory icon
    - ◇ Browse to the directory where you want to save the file
      - For instance G:\trg\l0\pvss\fwComponents\_TRGL0DU\panels\fwL0DU\data
    - ◇ Write the name of the options file
      - For instance OldAlgo\_0xABCD.opts (where `ABCD` is the TCK number in hexadecimal)
- Copy OldAlgo\_0xABCD.opts to NewAlgo\_0xWXYZ.opts (where `WXYZ` is the new TCK number in hexadecimal)
- Edit NewAlgo\_0xWXYZ.opts
  - ◆ Change the threshold(s) you want to change
    - ◇ Please to not forget to change the name of the elementary condition accordingly if needed
      - In the line defining the elementary condition itself but also in all the lines corresponding to the trigger channels in which this elementary condition is used
  - ◆ Change the TCK in the line starting with "ToolSvc.L0DUConfig.registerTCK"
  - ◆ Change the TCK in all the lines starting with "ToolSvc.L0DUConfig.TCK\_0x"
  - ◆ Change the algorithm name in the line starting with "ToolSvc.L0DUConfig.TCK\_0xWXYZ.Name"
  - ◆ Eventually update the description in the line starting with "ToolSvc.L0DUConfig.TCK\_0xWXYZ.Description"
  - ◆ Save the option file
- Go to the sub-tab `Recipes` on the L0DU panel
  - ◆ Click on `Import from file`
    - ◇ Select your new algorithm (browsing as explained above)
    - ◇ Click 'Save' and then 'Yes'
  - ◆ Your new algorithm should appear in the list on the sub-tab `Recipes` of the L0DU panel
    - ◇ The list is in alphabetic order (upper/lower case sensitive)
  - ◆ Select it and click on `View Algorithm`
    - ◇ Make sure you did the right changes and that everything is fine

### For more information

- See <https://lbtwiki.cern.ch/bin/view/L0/L0DUCreateAlgorithm>

-- RegisLefevre - 04-Jun-2010

---

This topic: LHCb > L0TCKPVSS

Topic revision: r3 - 2015-08-13 - OlivierDeschamps



Copyright &© 2008-2019 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.  
Ideas, requests, problems regarding TWiki? Send feedback