





# Software Trigger

Xavier Grave

On behalf of the Dev CSNSM Team

5<sup>th</sup> October 2016



► Since our last presentations (November 2014 and January 2015)

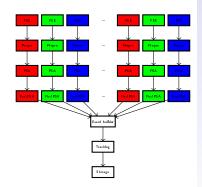
- ➤ Since our last presentations (November 2014 and January 2015)
  - ► Started to port NARVAL 1.14 version to DCOD 1.0

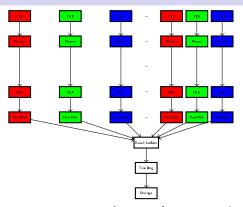
- ➤ Since our last presentations (November 2014 and January 2015)
  - ▶ Started to port NARVAL 1.14 version to DCOD 1.0
- Do you want a reminder of our trigger software proposal?

#### HARDWARE Trigger



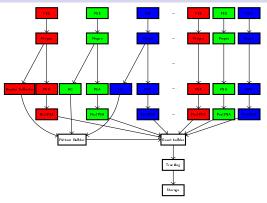
#### DATA Flow





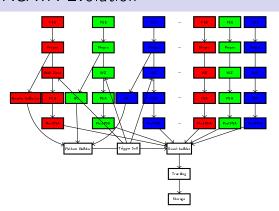


Xavier Grave



Names are not mandatory, frames need a common clock

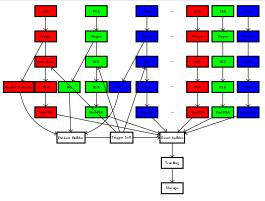
▶ Header Collector : keep only the meta data of frames



- ▶ Header Collector : keep only the meta data of frames
- ▶ Wait Zone

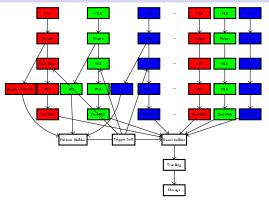


Xavier Grave



- ▶ Header Collector : keep only the meta data of frames
- ▶ Wait Zone
  - ▶ Buffering data until the trigger validations arrive

Xavier Grave



- ▶ Header Collector : keep only the meta data of frames
- ▶ Wait Zone
  - ▶ Buffering data until the trigger validations arrive
  - ► Select data as function of trigger validations

- ▶ In January 2015
  - ▶ 32 GB of RAM  $\simeq$  300-400 €
  - ▶ 10 Gb/s  $\Rightarrow$  ≈ 30 seconds of buffering

- ▶ In January 2015
  - ▶ 32 GB of RAM  $\simeq$  300-400 €
  - ▶ 10 Gb/s  $\Rightarrow$  ≥ 30 seconds of buffering
- ▶ In October 2016
  - ▶ 64 GB of RAM  $\simeq$  300-400 €
  - ▶ 10 Gb/s  $\Rightarrow$  ≈ 60 seconds of buffering

Questions?