

# Memphyno status

Ciro Riccio, Mathieu Guigue

# mPMT installation

Support arrived at LPNHE

Julien made some additional holes (water draining)

Final preparation of mPMT at INFN

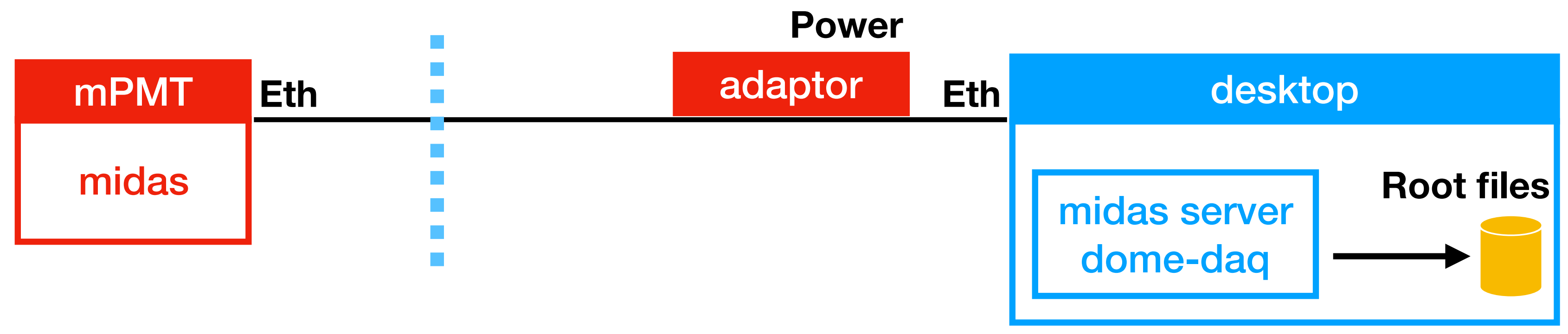
Gel pouring this Thursday

Should be able to ship it early next week

Could move it to APC in 2 weeks

Installation on support here or at APC?

# Current DAQ model



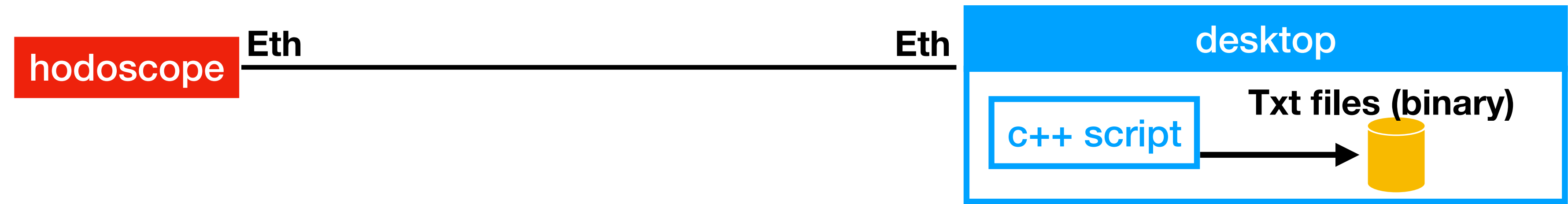
The screenshot shows a DAQ control interface with several panels:

- Run Status:** Run 154, Start: Thu May 2 14:48:58 2019, Stop: Mon May 13 11:19:55 2019. Alarms: Off, Restart: Off. Data dir: 1557739195 11:19:55.982 2019/05/13 [mhttpd,INFO] Run #154 stopped.
- Equipment:**

Equipment +	Status	Events	Events[/s]	Data[MB/s]
Dome01_events	Frontend stopped	1.365M	413.2	0.050
Dome01_data	Frontend stopped	0	0.0	0.000
Dome01_envi	Frontend stopped	0	0.0	0.000
Dome	Frontend stopped	0	0.0	0.000
- Logging Channels:**

Channel	Events	MB written	Compr.	Disk Level
#0: run00068_mid.lz4	0	0.000	0.0%	257%
Lazy Label	Progress	File Name	# Files	Total
- Clients:** mhttpd [raspbiano], mserver [raspbiano], Logger [raspbiano], rootana [raspbiano]

Need to have midas (and the package suite) installed on the desktop  
 Shared desktop (not owned by us): need to reduce “footprint”  
 Data rate: 4kHz (Dark rate) -> ~1MB/s -> ~3.6GB/h



Produce huge binary files (need conversion): 120Mo\*4 per 2 hours  
 Could reduce to 120Mo per 2 hours with ROOT format (ready for analysis)  
 Files not automatically shipped to storage (CC-IN2P3) — Limited local storage  
 Interference with other data taking efforts...

## **mPMT side:**

\*: needed to take data

Use of docker containers\*

Deploy software without touching desktop environment

Working with Gennaro to get docker of DAQ (midas+dome-daq) (1st step)

Ship data to CC-IN2P3

Modify dome-day to split files into smaller pieces (2nd step)

## **Hodoscope side:**

Use of docker containers\* (1st step)

Reduce interference with others

Use ToolDAQFramework/Rainette

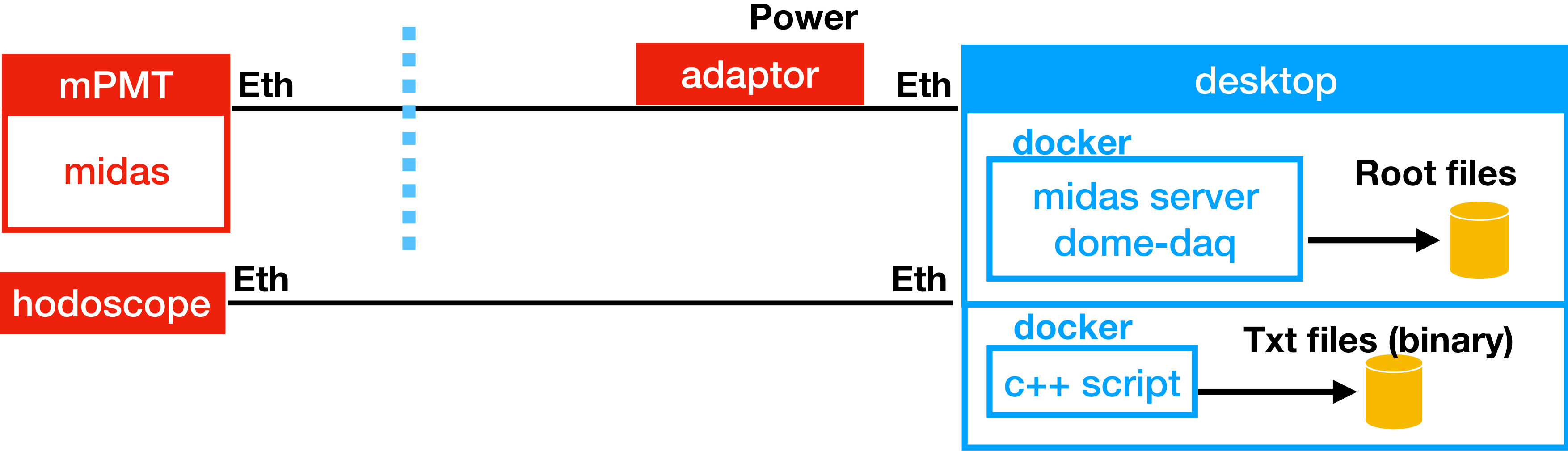
Receive data and produce events ROOT files (2nd step)

Ship data to CC-IN2P3

Limit the size of ROOT files to a few 100MB each (3rd step)

# Future DAQ (minimal)

**\*No shipping yet (single files produced)**



# Future DAQ (long term)

\*Modified version

