User Guide

4Gbps recording at Pico Veleta

with 2 recorders

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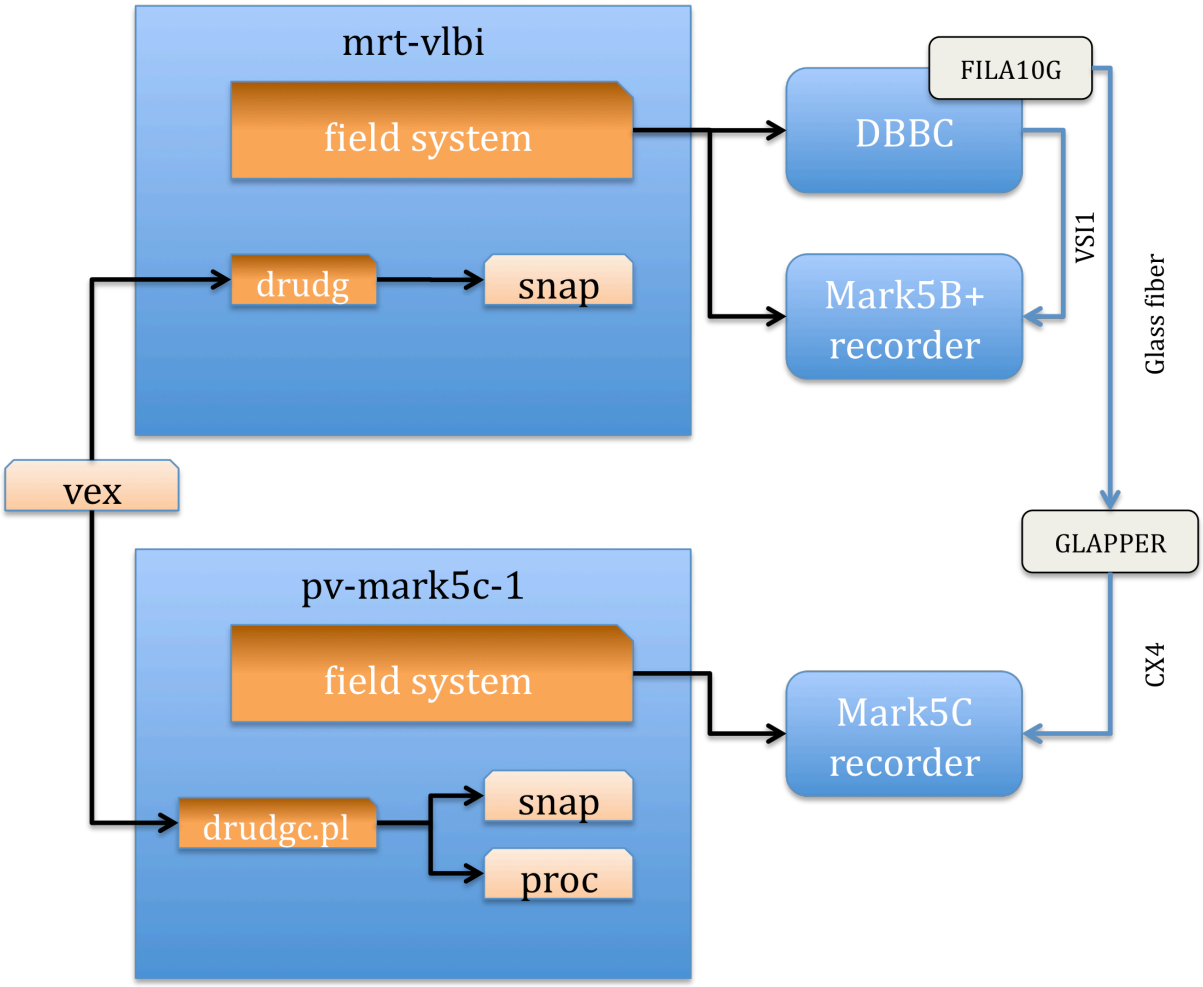
System overview

The goal is to achieve a 4Gbps recording rate at Pico Veleta. However, due to current limitations of the DiFX correlator the recoding cannot be done directly @4Gbps with a single mark5c recorder. Instead a setup is choosen where two recorders each record at 2Gbps. The following figure illustrates the setup for Pico Veleta.



Setting up the DBBC & FILA10G

1) Log-into the DBBC as user dbbc

2) On the desktop double-click ***„DBBC2 Control PFB v14.exe“***. When asked whether to reconfigure answer *„y“*. Wait until initialization is complete.

During initialization the status of the green LEDs on the DBBC front panel will change. At the end of the process LEDs 2&3 should be lit and 4 should be flashing with 1PPS. LED 4 on both core boards should flash in-sync.

On the GLAPPER box on top of the DBBC the “RX Act” LED should be flashing.

3) On the desktop double-click ***“fila10g 2Gpbs.bat”.*** Wait until complete.

Look at information printed at the very end of the procedure. Check for these lines:
Synched = 1pps sync done
Input src = VSI2
Output form = Mark5B

Setting up the Mark5B+ recorder

1) Log into pv-mark5b-1 as user oper
2) In a terminal run: ***dimino –s 5***
3) In a new terminal run: ***/home/oper/scripts/cfg5b.sh***. Wait for completion.

The middle LED must be flashing green @ 1PPS upon completion of the script.

4) Erase the disk and rewrite the VSN:

   Start ***tstdimino***
   In tstdimino type:
   protect=off
   reset=erase
   vsn=<VSN ON FRONT STICKER OF MODULE>

double-check that the VSN was correctly written by typing vsn?

Setting up the Mark5C recorder

1) Log into pv-mark5c-1 as user oper
2) In a terminal run: ***drs –s 10***
3) In a new terminal run: ***/home/oper/scripts/cfg5c_singlebank.sh***. Wait for completion.
4) Erase the disk
   Run: ***SSErase –u c –b A*** (assuming the module is in bank A)
5) Rewrite the VSN:

   Start ***drs_client***
   In drs_client type:
   protect=off
   reset=erase
   vsn=<VSN ON FRONT STICKER OF MODULE>

double-check that the VSN was correctly written by typing vsn?

Preparing the schedule on mrt-vlbi

Note: preferred method is method1 (see below). Method 2 is for backup only in case of problems.

Method 1:

1) Log into mrt-vlbi as user oper
2) cd /home/oper/schedule
3) run: ./processSchedule.py

   Note: this script downloads the schedules from the MPIfR FTP server and automatically drudges everything.

Method 2:

1) Log into mrt-vlbi as user oper
2) Copy the vex file to /usr2/sched
3) Run: ***drudg***

   Enter the name of the vex file
   Select „PL“ as station
   Type „11“ to go to the equipment page
   Type 18 14 1 1 <Enter>
   Type „3“ to create the snp file
   Type „0“ to exit drudg

Preparing the schedule on pv-mark5c-1

Note: preferred method is method1 (see below). Method 2 is for backup only in case of problems.

Method 1:

1) Log into pv-mark5c-1 as user oper
2) cd /home/oper/schedule
3) run: ./processSchedule.py

   Note: this script downloads the schedules from the MPIfR FTP server and automatically drudges everything.

Method 2:

1) Log into pv-mark5c-1 as user oper
2) Copy the vex file to /usr2/sched
3) cd /usr2/sched
4) run: ***./drudgc.pl <vexfile>***

Executing the schedule

On mrt-vlbi:

1) run ***fs***
2) In the command window type: *schedule=<name of schedule>*

On pv-markc-1:

1) run ***fs***
2) In the command window type: *schedule=<name of schedule>*