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To: Mark 5 Development Group

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Subject: Downloading Mark 5B Xilinx code

The Mark 5B can be configured either as a DIM (Data Input Module for data-acquisition at a station) or as a DOM (Data Output Module for data-playback at a correlator) by changing the Xilinx code. The DIM/DOM configuration can be changed in several minutes under software control. The Mark 5B is unlike the Mark 5A in that the Mark 5A includes both DIM and DOM in a single configuration, and the Xilinx code was not software downloadable. This memo provides the details of obtaining the Xilinx code and how to load it to the Mark 5B IO card.

The Xilinx configuration program, XSVF, should already be on your system in /usr/local/bin/mark5b/,
And the Xilinx configuration bit code should be in /home/oper/Xilinx/.

If these files are not already on your system, they can be downloaded from <ftp://gemini.haystack.mit.edu/pub/mark5/B/Xilinx/>

```
Oct  3  2007          31207 XSVF
May 30  2006      7778451 dimrev1b.xsvf
May 24  2006      7778451 domrev1.xsvf
```

Copy them to /home/oper on the Mark 5B unit, and confirm that the XSVF file has the following permissions and ownership:

```
% ls -ll XSVF
-rwsr-xr-x 1 root root 31207 Oct  3  2007 XSVF
.
```

The latest DIM configuration file is:

dimrev1b.xsvf - A fully tested DIM with phase cal.

The tstdimino query 'dts_id?' should return something like:

```
!DTS_id? 0 : Mark-5B+ DIM : 2007y222d00h : 1 : Mark5-764 : 1 : 1
: 2.7x : 0x1b : 0x5bdb ;
```

where the "0x1b" is the DIM version.

The latest DOM configuration file is

domrev1.xsvf - A fully tested DOM with phase cal.

'dts_id?' should report "Mark5B DOM : ...;"

To load the new files, use the XSVF program at the linux prompt:

```
% XSVF -m0 -f <filename>
```

Note that it takes about six minutes to load the configuration file.
Please be patient.

For other forms of the XSVF program, see

<http://www.haystack.mit.edu/tech/vlbi/mark5/docs/AuxProg.pdf>