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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-acquisition) or as a DOM (data-playback) by changing the Xilinx code. The DIM/DOM personality can be changed in several minutes under software control. The Mark 5B is unlike the Mark 5A in that the Mark 5A included both DIM and DOM in a single personality 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 card.

The download program, XSVF, should already be on your system in `/home/oper/bin`,  
And the Xilinx code should be in `/home/oper/xsvf`.

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

11/10/2005 12:00AM	30,959	XSVF
05/30/2006 03:31PM	7,778,451	dimrev1b.xsvf
05/24/2006 05:24PM	7,778,451	domrev1.xsvf

Copy them to `/home/oper` on the Mark 5B unit.

The latest DIM configuration file is:

`dimrev1b.xsvf` - the first release of the DIM with phase cal.

The `tstMark5A` query `'dts_id?'` should return something like:

```
!DTS_id? 0 : Mark5B DIM : 2006y150d21h : 1 : mark5-645 : 1 : 1 :  
2.7x : 0x314 : 0x5b94 ;
```

where the "5b" in "0x5b94" 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:

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

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

For other forms of the XSVF program, see  
<http://gemini/tech/vlbi/mark5/docs/AuxProg.pdf>

If XSVF is not already installed on your system, copy the XSVF executable to your home or bin directory, and confirm that the XSVF file has the following permissions and ownership:

```
[root@mark5-645 bin]# ls -ll X*  
-rwsr-xr-x 1 root root 30959 Aug 23 2005 XSVF
```