TACO - Device Server Catalogue

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Contents

1 Introduction

Looking for a device server ? Thinking of writing a device server but you don't know if it is written ? Maybe this catalogue can help you. Literally hundreds of TACO device servers exist (over two hundred alone at the ESRF). This list presents device servers which could be of general interest to other users (most of them support commercial hardware) written at the ESRF and other sites using TACO (FRMII, HartRAO, Lure, etc.). Device servers for site specific hardware are not listed here, refer to the each site's documentation for these. The present list is far from complete so if you know of a device server which is not listed on this page but you think could be of interest to other users please send an email to *goetz@esrf.fr*.

2 Motors

2.1 Oregon (VME/PC-104)

- **description** : a device server for the multiple axes motor controller Oregon VME58 (VME format) and PC68 (PC-104 format) cards from OMS (http://www.omsmotion.com). The device server supports the Maxe device server interface. The same device server supports both the VME and PC-104 card.

- **author(s)** : Andy Götz (goetz@esrf.fr)

- **documentation** : none

- **hardware** : VME, VME58 (VME motor control from OMS), CC133 (VME relative encoder) [optional], or PC-104 + PC68 (PC-104 motor controller from OMS)

- **platforms** : Linux/68k (VME) and Linux/x86 (PC-104)

- **language** : written in C++

- **note** : maximum steprate is 1 MHz

2.2 Galil (VME)

- **description** : a device server for the DMC 1300 DC motor controller VME card from Galil. Device server supports an external gate synchronised to the motor position. Microprograms can be downloaded and executed.

- **author(s)** : M.Perez (perez@esrf.fr)

- **documentation** : DSUG174

- **hardware** : VME + DMC1300 motor card.

- **platforms** : OS9

- **language** : written in C

- **note** :

2.3 Flexmotion (cPCI)

- **description** : a device server for the multiple axes motor controller Flex-Motion from National Instruments for compact PCI. The device server supports the Maxe device server interface. Presently no support for encoders or microprogramming.

- **author(s)** :Andy Gotz (goetz@esrf.fr)

- **documentation** : none

- **hardware** : cPCI, FlexMotion (cPCI card)

- **platforms** : Linux/x86

- **language** : written in C++

- **note** : only used in the lab

2.4 Huber (GPIB)

- **description** : a device for controlling Huber motors via GPIB.

- **author(s)** : V.Rey (rey@esrf.fr)

- **documentation** : DSUG106

- **hardware** : Huber motors + IOTech SCSI-GPIB controller

- **platforms** : Solaris

- **language** : written in C

- **note** :

2.5 Berger (serial line)

- **description** : device server for Berger motor controller via serial line.
- **author(s)** : C.Penel (penel@esrf.fr)
- **documentation** : DSUG048
- **hardware** : VME + serial line + Berger motor controller
- **platforms** : OS9
- **language** : written in C
- **note** :

3 CCD Cameras

3.1 Sensicam (PC/Windows)

- **description** : device server for the fast readout 12 bit Sensicam CCD cameras from Optimas.
- **author(s)** : Vicente Rey (rey@esrf.fr), Andy Götz (original version)
- **documentation** : none
- **hardware** : Windows PC + Sensicam interface card + CCD camera
- **platforms** : Windows
- **language** : written in C
- **note** :

3.2 Matrox (PC/Windows)

- **description** : device server for Matrox family of video grabbers.
- **author(s)** : Jens Meyer (meyer@esrf.fr) + Holger Witsch (witsch@esrf.fr)
- **documentation** : none
- **hardware** : Windows PC + Matrox frame grabber + CCD camera
- **platforms** : Windows
- **language** : written in C
- **note** : supports provided for doing image analysis on acquired image

3.3 Medoptics (PC/Windows)

- **description** : device server for 16 bit CCD camera from Medoptics.
- **author(s)** : Andy Götz (goetz@esrf.fr)
- **documentation** : none
- **hardware** : Windows PC + Medoptics interface card + CCD camera
- **platforms** : Windows
- **language** : written in C
- **note** :

3.4 Imagepro (PC/Windows)

- **description** : device server for image acquisition and analysis software ImagePro Plus from Media Cybernetics. Supports acquiring images and calling macros.
- **author(s)** : Andy Götz (goetz@esrf.fr)
- **documentation** : DSUG205
- **hardware** : Windows PC + ImagePro + CCD camera
- **platforms** : Windows
- **language** : written in C
- **note** : ImagePro supports a large number of interface cards and cameras e.g. Matrox, Sensicam, Photonics Science, TWAIN, ..., and has been extended at the ESRF to support the Frelon and Medoptics.

3.5 Mar (PC/Linux)

- **description** : device server for the Mar CCD camera. Device server is usually forked by the Mar GUI application. Communication is via pipes.
- **author(s)** : A. Götz
- **documentation** : DSUG211
- **hardware** : Linux PC + Mar CCD
- **platforms** : Linux/x86
- **language** : written in C++
- **note** :

4 Data Analysis

4.1 Matlab (Unix/Windows)

- **description** : a device server which starts a Matlab engine and allows clients to send and get arrays and/or strings and evaluate Matlab commands. This allows remote clients to collect data, send it to Matlab and analyse it in an automatic fashion.

- **author(s)** : A.Götz (goetz@esrf.fr)

- **documentation** : DSUG212

- **hardware** : Matlab licence

- **platforms** : Windows and Linux

- **language** : two version, one written in C and one in C++

- **note** : C version for Windows, C++ version for Linux

5 Sample Environment

5.1 Linkam (serial line)

- **description** : a sample temperature environment controller from Linkam for controlling temperature.

- **author(s)** : Andy Gotz (goetz@esrf.fr)

- **documentation** : DSUG213

- **hardware** : Linkam device + serial line

- **platforms** : Linux/x86

- **language** : C++

- **note** :

6 Input/Output

6.1 ICV150 (VME)

- **description** : a device server for the multichannel VME ADC card ICV150 from ADAS.

- **author(s)** : A.Beteva (beteva@esrf.fr)

- **documentation** : DSUG177

- **hardware** : VME + ICV150

- **platforms** : OS9

- **language** : written in C

- **note** :

6.2 ICV712/ICV716 (VME)

- **description** : a device server for the 8/16 channel DAC VME card ICV712/ICV716 from ADAS

- **author(s)** : A.Beteva (beteva@esrf.fr)

- **documentation** : DSUG046

- **hardware** : VME + ICV712/ICV716

- **platforms** : OS9

- **language** : written in C

- **note** :

6.3 ICV101 (VME)

- **description** : a device server for the fast (MHz) analog to digital VME card ICV101 with on board memory from ADAS.

- **author(s)** : F.Epaud (epaud@esrf.fr), T.Mettälä (original version)

- **documentation** : DSUG109

- **hardware** : VME + ICV101

- **platforms** : OS9

- **language** : written in C

- **note** :

6.4   DM5210 (PC-104)

- **description** : a device server for the PC-104 analog and digital input/ output card DM5210.

- **author(s)** : A.Götz (goetz@esrf.fr)

- **documentation** : none

- **hardware** : PC-104 + DM5210

- **platforms** : Linux/x86

- **language** : written in C++

- **note** :

7   Counters/Timers

7.1   Lecroy 1151 (VME)

- **description** : device server for the VME 1151 counter from Lecroy.

- **author(s)** : F.Epaud (epaud@esrf.fr)

- **documentation** : DSUG087

- **hardware** : VME + Lecroy 1151

- **platforms** : OS9

- **language** : C

- **note** :

7.2   CAEN V462 (VME)

- **description** :   device server for the VME V462 gate generator from CAEN.

- **author(s)** : F.Epaud (epaud@esrf.fr)

- **documentation** : DSUG088

- **hardware** : VME + V462

- **platforms** : OS9

- **language** : C

- **note** :

8 Multichannel Analysers

8.1 Canberra AIM (PC/Windows or Unix)

- **description** : device server for the AIM MCA from Canberra. The AIM is interfaced via Ethernet. The device server can run on Windows using the Canberra libraries or on Unix (HP-UX and Solaris) using libraries written by the ESRF.

- **author(s)** : A.Beteva (beteva@esrf.fr)

- **documentation** : DSUG146

- **hardware** : AIM module + PC/Workstation

- **platforms** : Windows + HP-UX + Solaris

- **language** : C

- **note** :

9 Image Plates

9.1 MAR345 (PC/Linux)

- **description** : a device server for the MAR345 image plate scanner from Mar.

- **author(s)** : L.Claustre (claustre@esrf.fr)

- **documentation** : DSUG207

- **hardware** : MAR345 scanner

- **platforms** : Linux

- **language** : C++

- **note** :