

**EDOC...**

# **EUROGAM PROJECT**

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## **NSF DATA ACQUISITION SYSTEM**

### **Eurogam Spectrum Access Server - Commands**

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**NSF Software Systems Group  
UK Science and Engineering Research Council  
Daresbury Laboratory**



# Introduction

This document describes the UNIX command interface to the Eurogam Spectrum Access Server (SAS) forming part of the NSF data acquisition system. The commands call the functions described in the document *Spectrum Access Server — C library* (EDOC087)

Each time a command is invoked the host, capability, user and spectrum name are stored in an information file (/usr/tmp/sas\_info by default). Subsequent commands will assume these values if they are not specified on the command line.

## Commands

**sasclaim [ -f file ] host [ -u user ] [ password ] [ mode ]**

Claim the resource *host* for the use of the user. The returned capability is stored in the information file.

**sasfree [ -f file ] [ -u user ] [ -c capability ] [ host ]**

Free the resource *host*. If *host* is not specified the latest entry in the information file is assumed.

**sascreates [ -f file ] [ -u user ] [ -c capability ] [ spectrum [ host ]]**

Creates the spectrum *spectrum* (default is “no\_spectrum”). The description for the spectrum is currently coded into this testbed.

**sasdeletes [ -f file ] [ -u user ] [ -c capability ] [ spectrum [ host ]]**

Removes the spectrum *spectrum* from the resource *host*.

**sasreads [ -f file ] [ -u user ] [ -c capability ] [ spectrum [ host ]] [-k offset]**

Display the contents of a given part of the spectrum *spectrum*. The part of the spectrum to be read is currently coded into this testbed. The default offset is zero.

**saswrites [ -f file ] [ -u user ] [ -c capability ] [ spectrum [ host ]] [-k offset]**

Write data to a given part of the spectrum *spectrum*. The part of the spectrum to be written to is currently coded into this testbed. The default offset is zero.

**sasreadstr [ -f file ] [ -u user ] [ -c capability ] string\_type string\_number [ spectrum [ host ]]**

Read a given string of type *string\_type* and number *string\_number* from the spectrum *spectrum* on *host*.

**saswritestr [ -f file ] [ -u user ] [ -c capability ] string\_type string\_number [ -i string ] [ spectrum [ host ]]**

Write the string *string* of type *string\_type* and number *string\_number* to the spectrum *spectrum* on *host*.

**saslookup [ -f file ] [ -u user ] [ -c capability ] [ spectrum [ host ]]**

Display the header information for a given spectrum.

**sasnames** [ **-f file** ] [ **-u user** ] [ **-c capability** ] [ **-k cookie** ] [ **host** ]

Display a list of names recognised by the spectrum access server, starting from position *cookie* in the list. In the case of off-line servers, this will be a list of spectra and directories.

**sascao** [ **-f file** ] [ **-u user** ] [ **-c capability** ] [ **-n array** ] [ **spectrum** ] [ **host** ]

Change the options for the array *array*. The new options are currently coded into the testbed.

**saserm** [ **-f file** ] [ **-u user** ] [ **-c capability** ] [ **host** ]

Displays a short message associated with the last error that occurred for the user *user*.

## Options

This section describes the options available for the commands above. Users who do not wish to supply all the arguments or to supply them out of order, can do so by specifying them as options.

**-c capability** This option specifies capability string. The capability is stored in the information file when a resource is claimed so it is not recommended to use this option.

**-f file** This option specifies the name of the information file to use.

**-h host** This option specifies the host or resource name. If not specified the command will assume the last host entered on the information file.

**-i string** This option specifies a string. If not specified, the command will assume a null string was intended.

**-k cookie** This option specifies cookie value for use when returning lists of registers.

**-m mode** This option specifies the mode of access to be used when starting a session.

**-n number** This option specifies the string or array number when carrying out read or write operations..

**-p password** This option specifies the password for the user when starting a session.

**-t type** This option specifies the type of string to be dealt with when performing string operations.

**-u user** This option specifies the user when starting a session.

**-x** If this option is specified the command will display a list of options and quit.

## Examples

**sasclaim nnvb** will claim the resource *nnvb*.

**sasfree -f myfile** will free the last resource entered in the file *myfile*.

**sascreates aspectrum nnvf** will define a spectrum to be known by the resource *nnvx* with name *spectrum*.

**sasdeletes** will remove the last spectrum entered in the default information file.

**sasreads this.spectrum -n1 -k345** will read array 1 of spectrum *this.spectrum*, starting from element 345 into the area given in *sasreads*.