IGORE/IRM Installation Guide

IGORE Version 7.4

Gamma Ray Observatory
Oriented Scintillation Spectrometer Experiment

Naval Research Laboratory
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1 SYSTEM REQUIREMENTS

The IGORE/IRM application requires IGORE 7.4 or later as well a supported version of IDL and VMS Version 5.0 or later. Supported IDL versions 3.1.0 through 3.6.1. This version, dated August 10, 1995, will not work with IDL Version 4.0.

Only 500 blocks of disk space are required for the IRM software. The OSSE Monte Carlo (MC) database requires an additional 54,000 blocks. The software can be installed without the MC data, but cannot build an instrument response matrix without the data.

The OSSE response matrices built by this software can consume large amounts of dynamic memory. The standard analysis path will require user PGFLQUOTA and system VIRTUALPAGECNT values of about 120K. Multi-source or other more complicated analyses will require even greater values. Pagefile sizes may also require increases depending on other system usage.

2 INSTALLATION PROCEDURE

The installer should be using a privileged account, ideally the SYSTEM account. Before beginning the installation proper, the installer should execute the setup procedure for the version of Igore with which the IRM software will be used.

The installation uses the VMSINSTAL procedure in SYS$UPDATE. Invoke the procedure as follows:

```
$ @SYS$UPDATE:VMSINSTAL
```

The standard VMSINSTAL prompts will be issued. It is not necessary to remove system users to perform the installation. You may see a warning message regarding insufficient FILLM quota. The message may be ignored.

The installation procedure will install the IRM software under the current IGORE directory tree. The installation procedure will prompt you to specify whether or not to delete the object code after the installation. This saves a small amount of disk space.

The installation procedure will also ask whether or not the install the OSSE MC database. The MC data is required to build an OSSE response matrix.

You will also be asked for the name of a disk to receive the MC database. The default is the disk containing the current IGORE installation.

No verification procedure is currently supplied.

3 SAMPLE INSTALLATION

```
OSSE$ @odcm:[igrtst_74a]init_igore
OSSE$ @sys$update:vmsinstal


        OpenVMS VAX Software Product Installation Procedure V6.1


It is 5-SEP-1995 at 13:15.

Enter a question mark (?) at any time for help.

%VMSINSTAL-W-NOTSYSTEM, You are not logged in to the SYSTEM account.

%VMSINSTAL-W-LOWQUOTA, The following account quotas may be too low.
-VMSINSTAL-W-LOWQUOTA, If you want to modify these account quotas, type NO to
-VMSINSTAL-W-LOWQUOTA, the next question, modify the appropriate quotas, log out
-VMSINSTAL-W-LOWQUOTA, then log back in and restart this procedure.

        FILLM: currently 128; minimum expected 300

%VMSINSTAL-W-ACTIVE, The following processes are still active:
        DECW$TE_089E
        DECW$SERVER_0
        DECW$SESSION
        SQLSRV$SERVER
        _FTA92:
        DECW$MWM
        SERVER_0016
        MOPS
* Do you want to continue anyway [NO]? y
* Are you satisfied with the backup of your system disk [YES]?
* Where will the distribution volumes be mounted: od11:[igorekit.buildkit.irmkit
]
```

```
Enter the products to be processed from the first distribution volume set.
* Products: irm0a0
* Enter installation options you wish to use (none):

The following products will be processed:

  IRM V0.0


        Beginning installation of IRM V0.0 at 13:16

%VMSINSTAL-I-RESTORE, Restoring product save set A ...


* Do you want to delete the object code after the installation? [YES]?

* Do you want to install the OSSE Monte Carlo Database (approx 64k blocks) [YES]
?

* What disk should receive the OSSE Monte Carlo Database? [OSSES$DKA0:]: od22
Installation process will continue without further prompts...
Creating new directory for IRM$APPS...
%CREATE-I-EXISTS, IRM already exists
Restoring IGORE/IRM distribution save-sets...
Linking shareables for IRM$APPS...
%BACKUP-S-CREDIR, created directory OD22:[MCOPS.MCSDB.RECTGRID]
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.RECTGRID]PF_0643-1989.MCSDB;1
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.RECTGRID]PF_2111-4000.MCSDB;1
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.RECTGRID]PH_4433-20000.MCSDB;1
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.RECTGRID]PL_0025-0180.MCSDB;1
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.RECTGRID]PL_0200-0606.MCSDB;1
%BACKUP-S-CREDIR, created directory OD22:[MCOPS.MCSDB.POLAR]
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.POLAR]PF_E0683_29JUN95.MCSDB;2
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.POLAR]PF_E2111_29JUN95.MCSDB;1
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.POLAR]PH_E4433_10JUL95.MCSDB;2
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.POLAR]PL_E0025_29JUN95.MCSDB;1
%BACKUP-S-CREATED, created OD22:[MCOPS.MCSDB.POLAR]PL_E0180_29JUN95.MCSDB;1


The file SYS$COMMON:[SYSMGR]MC_LOGICALS.COM has been created. One of the
```

```
following should be performed to define the appropriate logicals at
system startup:

  1) add the following line to SYS$MANAGER:STARTUP_VMS.COM
          $ @SYS$MANAGER:MC_LOGICALS

  2) add the file the SYSMAN startup database with the command
          $ MCR SYSMAN START ADD FILE MC_LOGICALS.COM



To use the OSSE MC data from other nodes in your cluster, you must
first do the following on each node:

      @SYS$MANAGER:MC_LOGICALS.COM


%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

        Installation of IRM V0.0 completed at 13:19

Enter the products to be processed from the next distribution volume set.
* Products:  Exit

        VMSINSTAL procedure done at 13:19
```

4 USING THE IGORE/IRM SOFTWARE

To access the OSSE Monte Carlo database, the logical MCSDB_DEVICE must be defined. The installation procedure creates the file SYS$MANAGER:MC_LOGICALS.COM to define MCSDB_DEVICE. This procedure should be invoked at system startup.

The IRM code is invoked via the IDL procedure BUILD_RMTRX. Please see documention on BUILD_RMTRX, and the OSSE Data Analysis Cookbook for details on OSSE forward folding analysis tools.