2 USING THE CGIS EXECUTIVE

The CGIS Executive serves as a gateway to the COBE data and analysis tools, other analysis packages, and the document browser. We will discuss each of these in turn; this chapter, however, focuses on using the Executive itself: getting in and out, making menu selections, moving within and between menus, using the information summaries, and logging comments. Examples will show you what you can expect to see on your terminal or workstation.

2.1 ENTERING THE CGIS EXECUTIVE

The CGIS software is installed at the COBE Guest Investigator Facility (CGIF) on the ZWICKY VAXstation (VAX/VMS) and the CUBA DECstation (ULTRIX), as well as at the Cosmology Data Analysis Center (CDAC) on the COBECL (VAX/VMS) cluster.

Running any image processing software (*e.g.*, UIMAGE) from a remote-site workstation requires two steps in addition to the usual `SET HOST` or `TELNET`. First, for a VAXstation or DECstation, the **`CUSTOMIZE SECURITY`** or **`Security...`** option must be used in the Session Manager window to include the COBE node of interest in your authorization list. Enter the full address of the COBE node, *e.g.*, `ZWICKY.GSFC.NASA.GOV`. For Suns and other UNIX-based X Window workstations, you should instead enter the command:

```
% xhost +cobe_node_address
```

e.g.,

```
% xhost +zwicky.gsfc.nasa.gov
```

at the UNIX system prompt.

To run the CGIS software, log in to one of these nodes as described in the *COBE Guest Investigator Handbook*, typing in your username and password. Once you see a system prompt, be sure to set the default directory to one to which you have write access in case you want to copy Executive screens to files or create data save sets. If you are going to need large amounts of memory, set your default to a scratch disk.

Now remote VMS users must type the following before invoking the CGIS or other imaging software:

```
$ SET DISPLAY/CREATE/NODE=your_full_node_address/TRANSPORT=xxx
```

where *xxx* is DECNET (if you've done a SET HOST) or TCPIP (if you've done a TELNET), and **$** is the system level prompt.

Remote UNIX and ULTRIX users must instead enter at the system prompt (%):

```
% setenv DISPLAY your_full_node_address:0.0
```

Now you're ready to enter the CGIS software; just type

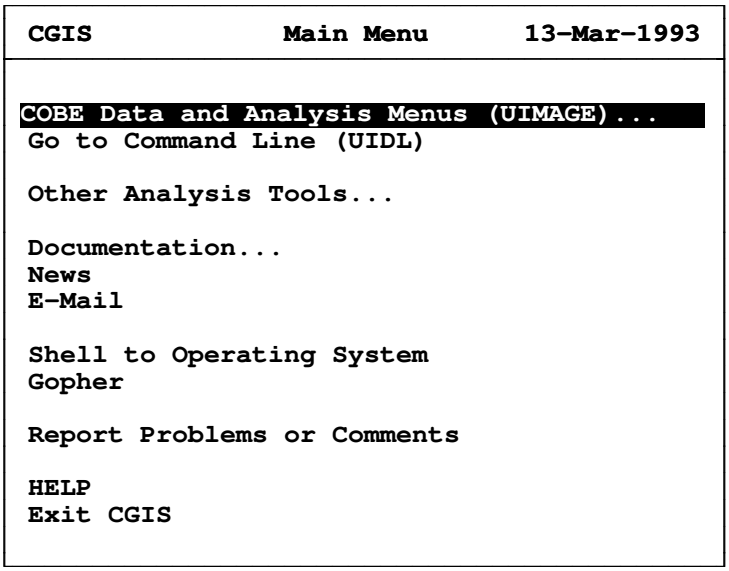
```
$ CGIS
```

(lower case for UNIX/ULTRIX).

The **CGIS Main Menu** will appear when you are in the CGIS Executive.

2.2 BRANCHES OF THE EXECUTIVE

The **CGIS Main Menu** contains the following menu choices:



Each of these menu options is described in the following sections.

2.2.1 COBE Data and Analysis Menus (UIMAGE). . .

This branch of the CGIS Executive accesses UIMAGE. A thorough description of UIMAGE is provided in Chapter 4. Examples (see Chapter 3) as well as a general overview are included to help you to quickly become acquainted with the software.

2.2.2 Go to Command Line (UIDL)

When this menu item is selected, you are presented with the UIDL command line. Chapter 5 discusses some of the capabilities of UIDL with thorough examples. Typing `CGIS` at the **`UIDL>`** prompt returns you to the **`CGIS Main Menu.`**

2.2.3 Other Analysis Tools. . .

This branch of the Executive lets you access IRAF and SAOimage through the Executive. Short descriptions of these packages are contained in Chapter 6 of this user's guide, but for further

information, see the COBE Guest Investigator Handbook and package-specific manuals and help files.

2.2.4 Documentation. . .

You can find the online versions of the *COBE Guest Investigator Handbook*, this *User's Guide*, the *Proposer Information Package*, the *COBE Software Catalog*, and the *CDAC Orientation Handbook* in this branch of the Executive. The **Documentation** branch of the Executive also informs you how to obtain hardcopies of these documents under the option **How to Get a Document**. Manuscripts of many COBE papers are also available; instructions on how to obtain these papers can be found under the same option.

In addition to the documents themselves and information about obtaining them, the **Documentation** branch also contains a list of the Astronomical Data Bases (ADBs) that are available locally. From the **Astronomical Data Bases at the CDAC...** option, users will find a listing of available data bases and an informative text screen providing details about each one, although these might be somewhat out of date. The most current information on both the ZWICKY workstation and the COBECL cluster resides in **ADBDISK:[ADB]** and its subdirectories, as described in the **AAA_README.TXT** file there.

Details about the terminals, workstations, Macintoshes, printers, and tape mounts available at the CDAC is located in the **CDAC Peripheral Hardware** menu option. Information for users outside the CDAC facility can be found in the **Remote Access Information** option. This menu choice offers information on dialing into the CDAC; details about Telnet, DECnet, and rlogin; electronic mail; types of file transfers; and a brief discussion of the user's **LOGIN.COM** file. Guest investigators should refer to the *COBE Guest Investigator Handbook* for similar information about the CGIF facility.

See Sections 2.4 and 2.5 for instructions on how to move in, out, and through the text screens, including the online documentation.

2.2.5 News

Check the **News** section for updates on the Executive, UIMAGE, and UIDL software.

2.2.6 E-Mail

You can enter into your system's mail facility directly from the **CGIS Main Menu** with the **E-Mail** option, which allows you to read and send mail without disrupting your analysis session. At this writing, VMS users are connected to standard VAX mail; ULTRIX users are connected to `Vmail`, which is like standard VAX mail. Once you have selected **E-Mail**, your mail session will be like that below:

```
MAIL> send
To:   addressee
Subj:   your_subject_here
Enter your message below.  Press CTRL/Z when complete, or CTRL/C to quit:
Type_your_message_here....
^Z Exit

MAIL> exit
```

and you will return to the menu.

To read messages instead of sending them, enter `read` or just press <CR>.

2.2.7 Shell to Operating System

This option allows the user to temporarily suspend an analysis session and jump out to the system prompt. Once you have finished, type `LOGOUT` to return to the **CGIS Main Menu** on VMS machines, `exit` for ULTRIX.

2.2.8 Gopher

By choosing the **Gopher** option from the main menu, you can automatically connect to the Internet Gopher Information Client. As directed, type `gopher` at the **login:** prompt to start the session. While in the menus of Gopher, the status bars at the bottom of the screen give instructions on how to move through the system.

To end the session, type a `q` (no carriage return) and then answer `y` <CR> to the confirmation question **Really quit (y/n) ?**. When you exit Gopher, you will return to the **CGIS Main Menu**.

2.2.9 Report Problems or Comments

We encourage you to tell us about any problems or suggestions you may have. This should be done by choosing the **Report Problems or Comments** option on the **CGIS Main Menu**.

You will be connected directly to a text editor, which will allow you to create a file that may be mailed automatically to the contact person for user support. The default editor for VMS users is EDT. If you want to specify a different default editor, like TPU (EVE), TECO, or EMACS, for example, type the appropriate command at the DCL prompt *BEFORE* entering the CGIS software, or put the statement in your **LOGIN.COM** file:

```
$ EDIT :== EDIT/TPU
$ EDIT :== EDIT/TECO
$ EDIT :== 'EMACS'
```

The default ULTRIX editor is EMACS. To set up another instead, set the **EDITOR** environment variable to the editor of your choice, *e.g.*,

```
% setenv EDITOR 'your_favorite_editor'
```

All users should see the following problem report form on their screens:

```
Please type your comments, request, or a description of a problem below.  PRESS
CONTROL-Z WHEN DONE, THEN TYPE EXIT.
------------------------------------------------------------------
Comments:




------------------------------------------------------------------
Please include the information below.

Name               :
E-Mail Address     :
Telephone Number   :

You accessed CGIS via [ ] Local Network Node
                      [ ] Dial-in
                      [ ] Remote Network

You were on a [ ] Workstation
              [ ] Terminal
              [ ] PC
```

If you are using the EDT editor and you see only the first line of the report preceded by a **1** and followed by a ***** on the next line, type C<CR> to change to full-screen editing mode.

Type your message. Use the arrow keys to move around on the text screen and the DELETE key to erase mistakes. If you're in the EDT editor, type ^Z when you have finished; this gives you a ***** prompt. Type EXIT and press <CR>. If you are in EMACS, press ESCAPE followed by z. (If your terminal does not have an ESCAPE key, use ^[instead.)

The VMS system will reply with the following:

disk:[*directory*]**SENDCOMMENT.TMP;***m* *n* **lines**

Your comments are saved in a file
called *disk*:[*directory*]**SENDCOMMENT.TXT;**
You may now send it to the CGIS Support Contact.
Send it? (Y/N) [Y]:

Type Y (the default) or N as desired and press <CR>. The system then replies

DELETE *disk*:[*directory*]**SENDCOMMENT.TXT;***m* **? [N]:**

where *m* is the version number. Again type N (the default) or Y and press <CR>. You will return to the **CGIS Main Menu**. The ULTRIX version looks slightly different, but asks the same questions.

2.2.10 Help

The **HELP** option provides a brief discussion of the Executive and its branches.

2.3 SELECTING EXECUTIVE MENU ITEMS

The ellipsis after some of the choices in the **CGIS Main Menu** indicates that more menus are encountered within that choice. The items without ellipses directly invoke the action specified. For example, choosing **COBE Data and Analysis Menus (UIMAGE)...** brings up UIMAGE's main menu, while choosing **Go to Command Line (UIDL)** puts you at a UIDL prompt.

One of the choices maybe highlighted, probably the first one, as shown in the menu in section 2.2. To choose a different selection, VT240 users can use the arrow keys until their choice is highlighted and then press <CR> to activate the selection. If your terminal does not have arrow keys, press the TAB key to move the bounce bar and then hit <CR> to select the highlighted menu option. X Window users use the mouse and click <MB1> to highlight and select a menu option.

2.4 GETTING AROUND IN TEXT SCREENS

The text for the CGIS Executive help screens is generally short enough to fit on one VT240 screen, but other text information (like a document chapter) is not. If you choose one of these longer screens, **News**, for example, you will see something like the excerpt in Figure 2.1:

```
     CGIS NEWS                                              22 April 1993

12 May 1992

UIMAGE has numerous new capabilities:
                        :
                  (more text)
                        :
We encourage you to send feedback through the "Report Comments and


        Next Scrn=(Space)   Prev Scrn=(B)   Help=(H)   Exit=(Tab)
```

Figure 2.1 Excerpt from **News** screen, showing first screen of a multiple screen text item as it might appear on a VT240 terminal.

Notice the status line at the bottom of the box. This appears beneath all text screens to remind you how to move around on the screens.

To see the text line-by-line, just use the up and down arrow keys. If you prefer to scroll by screens press the space bar to move forward as indicated by the status line. Press B to move one screen backward. If you try to scroll up past the top of the text, the computer will sound a sharp beep, and the word **TOP!** appears on the rightmost side of the status line. Similarly, if you try

to scroll past the bottom of the text, the computer beeps, and the message **END!** appears in the status line. Also, when you reach the bottom, the message **End of Text.** appears in the text screen (not in the status line) in reverse video.

If your display supports X Windows, you will instead see a text window with horizontal and vertical scroll bars. Move through the text by clicking on the scroll bar and dragging it down or up, or click on the arrows to move a line at a time. Click in the **Done** box to resume your session.

2.5 GETTING SCREEN HELP

Each CGIS Executive menu screen has an attached help screen that describes how to move through the Executive, refresh the screen, and use other features of the Executive. To view the help text, press H while you're in any text screen. An excerpt of the view text help screen is shown in Figure 2.2.

```
                    HELP:  Viewing Help Text

   KEY STROKE                        RESULT
 ------------------------------------------------------------------
   Tab          - Exits the text being viewed.  If there are any
                  subtopics associated with the current topic, a
                  subtopic menu will be presented.  Otherwise, you
                  are returned to the previous menu.

                         :
                     (more text)
                         :

   Next Screen - Any of these keys advances the text window
   Return        forward one screen.

       Next Scrn=(Space)   Prev Scrn=(B)   Help=(H)   Exit=(Tab)
```

Figure 2.2 Excerpt from text viewing help screen, showing text and status line as seen on a VT240 terminal.

Scroll help screen text in the same way as ordinary text information. Pressing `TAB` from a help screen returns you to the screen from which you requested help. Pressing `Q` returns you to the **`CGIS Main Menu`**. Note that this help feature is for users of VT240-type terminals.

2.6 REFRESHING THE SCREEN

Incoming mail and system and queue notices can put messages onto your screen like the one on the top line in Figure 2.3 below.

```
                                CGIS NEWS

Job AAA692163 (queue 156_1590LN, entry 911) started on CSDR_156_159
 12 May 1992

UIMAGE has numerous new capabilities:
                    :
                (more text)
                    :
We encourage you to send feedback through the "Report Comments and


        Next Scrn=(Space)   Prev Scrn=(B)   Help=(H)   Exit=(Tab)
```

Figure 2.3 Sample of system message overwriting an Executive screen. The exact placement of the message depends on the cursor position.

To remove the system message and restore the overwritten line of text, press `^W`. This redraws the screen as it was before. Note that this applies only to users of VT240-type terminals.

2.7 COPYING A TEXT SCREEN TO A FILE

To copy a text screen from your VT240 terminal to a file in the Executive, simply press `^F`. Type in a file name at the prompt and then press `<CR>`. If you are using a workstation, click on the **`File Dump`** box.

2.8 EXITING THE EXECUTIVE

You can end your session in the CGIS Executive by choosing **`Exit CGIS`** from the **`CGIS Main Menu`**. (You can return to the main menu depending on where you are in the Executive either by backing up from screen to screen or by pressing `Q` if you're in a text screen.)
After choosing **`Exit CGIS`**, you'll see the screen shown in Figure 2.4.

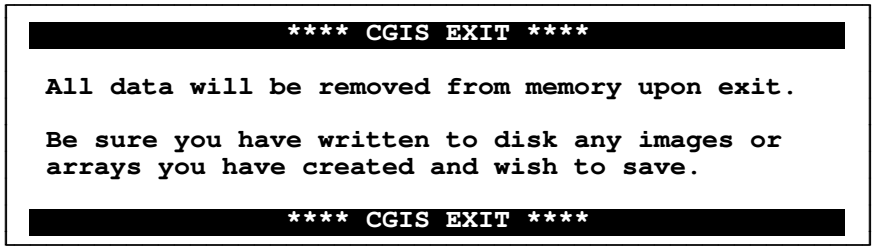


Figure 2.4 CGIS exit screen.

Type `Y` (the default is `N`) and then <CR> to exit the CGIS Executive.

WARNING! Typing `^Y` or `^Z` while in UIDL, UIMAGE, or the CGIS Executive will terminate that session AND consequently your entire CGIS software session. If this happens, you will have to start over again. You can use `^C` to interrupt UIDL processes and remain in UIDL. Use `^C` with care, however, as multiple rapid `^C`s will be interpreted as `^Y` by IDL.