Configuring and using INTREPID (R04)

In this chapter:

Configuring INTREPID under *Windows*

Parent topic: Configuring and using INTREPID (R04)

These notes assume that you are installing INTREPID to the directory **`c:\intrepid`**. Adjust the paths given here according to your installation drive and directory.

In this section:

Windows System settings

Parent topic: Configuring INTREPID under Windows

INTREPID obtains its settings from **`install.cfg`**. in the INTREPID **`config`** directory. See INTREPID system parameters and `install.cfg` (R07).

Program Manager launch

Parent topic: Configuring INTREPID under Windows

The INTREPID installer puts an entry for INTREPID in the **Start** menu and an icon on the desktop.

You can set up any shortcut or icon that executes
***`install_path`*`\bin\jfmanager.exe`**
(where ***`install_path`*** is the location of your INTREPID installation, for example, **`c:\Program Files\intrepid`**).

If you include the INTREPID installation path in the PATH environment variable of your computer or shell, you can start INTREPID using the command **`jfmanager.exe`** from a command window. See "Including the INTREPID installation folder in PATH" in INTREPID system parameters and `install.cfg` (R07).

If you want to use the Old Project Manager, use the instructions above with the application file **`fmanager.exe`**.

Configuring INTREPID under Solaris and SunOS

Parent topic: Configuring and using INTREPID (R04)

You can find the system parameters associated with these operating systems in **`install.cfg`**. See INTREPID system parameters and `install.cfg` (R07) for details.

In this section:

System parameters

Parent topic: Configuring INTREPID under Solaris and SunOS

You must set the system parameter LD_LIBRARY_PATH to point to the dynamic libraries ***`install_path`*`/bin/`** (where ***`install_path`*** is the location of your INTREPID installation.

Virtual memory

Parent topic: Configuring INTREPID under Solaris and SunOS

You may need to adjust the virtual memory settings for these computers

Solaris virtual memory

Use the commands

```
mkfile 100m swap1
swapon swap1
```

SunOS virtual memory

Use the commands

```
mkfile 100m swap1
swapon –a swap1
```

Number of files (Solaris)

Parent topic: Configuring INTREPID under Solaris and SunOS

By default Solaris allows only 64 open files. When working with an INTREPID dataset this translates to 32 vector dataset fields. INTREPID can reserve and reuse the last two file 'channels' if you have more than 32 fields. Alternatively, request your systems administrator to increase the number of files to, say, 256.

Accessing INTREPID data from both UNIX and *Windows*

Parent topic: Configuring and using INTREPID (R04)

INTREPID automatically converts data when you are accessing it from both UNIX and *Windows* environments. You will, however, need to attend to some aspects of drive, path and file names.

When using INTREPID interactively you will naturally use the notation appropriate to the system you are using. When using INTREPID in batch mode you will need to modify the task (**`.job`**) or hard copy (**`.map`**) specification files to allow for drive names vs letters.

Drive names vs drive letters Under UNIX, disc drives have names similar to directory names, whereas under *Windows* disc drives have a single letter followed by a colon. You must modify your task specification files and hard copy specification files or use variables accordingly for each system. See "Compatibility between Windows and UNIX" in INTREPID task specification (`.job`) files (R06) and "Compatibility of MAPCOMP between Windows and Unix" in MAPCOMP Map Specification Language (R20) for further instructions.

Case sensitivity UNIX traditionally has long case sensitive drive, directory and file names. *Windows* supports long directory and file names but it uses them case insensitively. You will reduce any problems arising from this difference by establishing an upper and lower case convention for your data.

INTREPID itself is only partially case-insensitive, so we recommend that you do establish the convention.

Forward slash and backslash INTREPID will automatically interpret path names in task (**`.job`**) or hard copy (**`.map`**) specification files no matter which platform you are using and no matter whether you use / or \.

LSB / MSB automatic conversion INTREPID will seamlessly convert data between different methods of floating point number representation (least significant byte first (LSB) vs most significant byte first (MSB)) under different operating systems.

Access to UNIX features from *Windows* (Hint) If you are regularly accessing INTREPID datasets or importing data across a network where you are using a *Windows* computer and the data resides on a UNIX system, you will find that INTREPID accesses the data seamlessly. You may, however, wish to use some UNIX features not normally available under *Windows*. In this case you may find software package such as *Cygwin* or *MKS Toolkit* useful.

MKS Toolkit:

- Provides access to common UNIX utilities such as *vi*, *grep* and *awk* under *Windows*
- Enables you to write UNIX shell scripts, eg: Korn and C-shell
- Enables you to mount SCSI tape devices and extract data from **`tar`** format tapes.

Space for temporary files

Parent topic: Configuring and using INTREPID (R04)

Make sure you have sufficient disc space on your computer for temporary files. See "Temporary directories" in INTREPID database, file and data structures (R05) and section "install.cfg" in INTREPID database, file and data structures (R05)) for more information.

Diagnostic reporting options

Parent topic: Configuring and using INTREPID (R04)

INTREPID reports its progress whilst processing your data.

Under UNIX the report text appears in the background window (**`stdout`**) of the INTREPID task. You can redirect the report to a text file by launching the tool with a command and adding a redirection specification. For example (redirecting to **`intrepid.log`**):

```
gridding.exe > intrepid.log
```

Under Windows INTREPID automatically saves the report to a file called **`nt.`*`username`*`.log`** in the ***`install_path`*`/tmp`** directory, where ***`install_path`*** is the location of your INTREPID installation and ***`username`*** is your Windows user name. You can configure this file to go into a different directory, eg: your working directory.

Each time you execute a task INTREPID will append the report to **`nt.`*`username`*`.log`** file. If you delete or rename **`nt.`*`username`*`.log`**, INTREPID will start a new **`nt.`*`username`*`.log`**.

For more information about starting INTREPID see "How to start INTREPID—Overview" in Introduction to INTREPID (R02).

INTREPID Memory limits and tiling

Parent topic: Configuring and using INTREPID (R04)

You can find the system parameters associated with these products or operation modes in **`install.cfg`**. See INTREPID system parameters and `install.cfg` (R07) for details.

When you are processing grid datasets, INTREPID stores the whole grid in memory wherever possible. If the grid is too large to fit in memory, INTREPID processes a section at a time. This process is called **tiling**.

INTREPID has a criterion for deciding whether tiling is necessary. If the number of grid cells is greater than the value of the system parameter INTREPID_MEMORY, then INTREPID will use tiling.

Grid size limits for tiling

INTREPID requires approximately 25 bytes of memory for each grid cell. We recommend that you set the INTREPID_MEMORY (maximum numbers of grid cells to process without tiling) to be 2/3 to 3/4 of your computers available RAM (in Mb).

You should set the value of the tiling variables so that, while the CPU is kept busy, the computer should not thrash the hard disc drive with heavy virtual memory demands. You can use your system activity monitor to observe swap space usage vs CPU usage. For optimum performance, adjust the tiling variables to keep the CPU as close to 100% as possible.

Modifying configuration files

Parent topic: Configuring and using INTREPID (R04)

You may wish to modify configuration (**`.cfg`**) files or the Project Manager **`menu`** file according to your requirements. See "Configuration (`.cfg`) files, `menu` and `.intrepidlock`" in INTREPID database, file and data structures (R05) for full details about configuration files. Some settings in these files can prevent INTREPID working if they are incorrect. Please contact our technical support service before modifying them if you are at all unsure about the implications of changing them.

Accessing INTREPID datasets and tools using other software

Parent topic: Configuring and using INTREPID (R04)

You can access INTREPID datasets and tools using other software.

In this section:

- Geosoft Oasis Montaj access to INTREPID tools
- ERMapper access to datasets
- ArcView, MapInfo and ERMapper access to datasets—INTREPIDlynx
- Print Map output in ARC/INFO format
- ModelVision

Geosoft *Oasis Montaj* access to INTREPID tools

Parent topic: Accessing INTREPID datasets and tools using other software

See "Geosoft Oasis montaj access to INTREPID tools" in Introduction to INTREPID (R02) for instructions.

ERMapper access to datasets

Parent topic: Accessing INTREPID datasets and tools using other software

ERMapper and INTREPID grid datasets have identical formats. Provided you have configured *ERMapper* with the datum and projection of the grid, it can display any INTREPID grid dataset.

ArcView, *MapInfo* and *ERMapper* access to datasets—INTREPIDlynx

Parent topic: Accessing INTREPID datasets and tools using other software

You can access INTREPID vector and grid datasets (and INTREPID tools) using *ArcView*, *MapInfo* and *ERMapper* through INTREPIDlynx.. See INTREPIDLynx—access for ArcView, MapInfo and ERMapper (T29) for full details.

Print Map output in ARC/INFO format

Parent topic: Accessing INTREPID datasets and tools using other software

The INTREPID Map Print tool can generate format vector files for contours and flight path plots in ARC/INFO format. See "The `devices.cfg` file" in Map composition configuration files (R21).

ModelVision

Parent topic: Accessing INTREPID datasets and tools using other software

If you wish to access INTREPID datasets using *ModelVision*, consult the *ModelVision* documentation or contact Encom technical support for assistance.

Accessing data created by other software

Parent topic: Configuring and using INTREPID (R04)

Using INTREPID you can:

- Directly open and directly write to data files in a number of formats. This is different to importing data into an INTREPID dataset, because the INTREPID tool opens the data directly and saves it back into its native format. See:
  - "Direct access by INTREPID" in INTREPID direct access, import and export formats (R11)
  - Direct access to relational databases (R16)
- Import and export data between INTREPID datasets and a wide variety of data formats. See:
  - "Import and export formats" in INTREPID direct access, import and export formats (R11)
  - Importing to INTREPID datasets (T05)
  - Exporting from INTREPID datasets (T07)

Customising the Project Manager menus

Parent topic: Configuring and using INTREPID (R04)

You can find the system parameters associated with these products or operation modes in **`install.cfg`**. See INTREPID system parameters and `install.cfg` (R07) for details.

In this section:

Paths, filenames and system parameters

Parent topic: Customising the Project Manager menus

INTREPID constructs the Project Manager menus from information in a **menu file**. Menus files are located in the ***`install_path`*`/config`** directory (where ***`install_path`*** is the location of your INTREPID installation).

Tool	Platform	File Name
Project Manager	All	**`fmanager.cfg`**
Old Project Manager	Windows	**`menunt`**
	UNIX	**`menu`**

You can modify the menu files. For example, you can add startup commands for other software on your system for easy access while using the Project Manager.

Multiple versions of the menus file

The current Project Manager only supports a single menu specification file, **`fmanager.cfg`**. If you want multiple versions, you need to maintain them yourself and rename them to **`fmanager.cfg`** yourself.

If yu are using the Old Project Manager, you can have a number of versions of the menu file. INTREPID uses the menu file according to the value of the system parameter INTREPID_MENU. Before launching the Project Manager, set this variable to contain the name and full path of the required menu file. (See INTREPID system parameters and `install.cfg` (R07) for instructions about system parameters.) Contact our support service for detailed help if you want to edit menus or have alternate menus for different purposes.

If INTREPID_MENU has no value (= **`NULL`**) INTREPID will use the file with name shown in the table above, in the directory ***`install_path`*`/config`**.

How to customise the menus

Parent topic: Customising the Project Manager menus

These specifications are for the current Project Manager.

The Old Project Manager menu file is similar but without some features described here. If you want to customise the Old Project Manager menu file, examine it and use the existing syntax as a guide. Contact our technical support service if you need help.

>> *To modify the Project Manager menu*

Edit the menu file using any text editor.

- **`Subsystem Begin .. Subsystem End`** The entire menu definition must be between these lines *(Project Manager)*.
- **`FileManager Begin .. FileManager End`** The entire menu definition must be between these lines *(Old Project Manager)*.
- **`Single_words`** INTREPID uses spaces to distinguish between items in the menu definition. If an item has more than one word you must join the words with some character other than a space. Underscore '_' is the most popular character for this purpose.
- **`MenuBar =`** describes the menu names in the menu bar. (See examples following)
- *`menuname={menuitem menuitem ...}`* defines the items in a menu

  e.g., **`Edit = {SpreadSheet Profile FlightPath}`**
- *`menuitem`*={***`command filetype filetype ...`***} defines the command to be executed if the user chooses this menu item and the file or dataset type that it processes. Example: **`SpreadSheet={*dbedit.exe GRIDS VECTOR}`**
- | specifies a group separator in the menu

  e.g., **`Filter = {Line | Spatial | Pre_post Grid}`**
- There is no user access to the **Utility** or **Help** menu in Project Manager, or the **File** and **Help** menus in Old Project Manager. Specifications for these menus reside in the INTREPID software.

File type notation

You can specify the following file types in the Project Manager menu

File type	Description
`ANY`	Any file
`GRIDS`	Any grid dataset format that INTREPID can read or write
`VECTOR`	Any vector dataset format that INTREPID can read or write
`INTREPIDJOB`	Task specification (**`.job`**) files
`INTREPIDMAP`	Map specification (**`.map`**) files in MAPCOMP language
`3DMODEL`	3D GeoModeller projects

Project Manager menu definition sample

Here is a sample of code from the current Project Manager menu file

```
Dataset = {Import Import_Ascii_Columns | Export | Subsection Merge_Dataset
Append_Dataset Remove_Duplicates }
      Import               = {*import.exe ANY}
      Export               = {*export.exe GRIDS VECTOR}
      Import_Ascii_Columns = {*asciiimport.exe ANY}
      Subsection           = {*subset.exe GRIDS VECTOR}
      Merge_Dataset        = {*MergeFields.exe VECTOR}
      Append_Dataset       = {*AppendTable.exe VECTOR}
      Remove_Duplicates    = {*RemoveDuplicates.exe VECTOR}
Editing = {Spreadsheet_Editor Profile_Editor Flight_Path_Editor Clip_Line_Tool}
      Spreadsheet_Editor = {*dbedit.exe GRIDS VECTOR}
      Text_Editor = {*AsciiEditor.sh}
      Profile_Editor = {*pedit.exe VECTOR}
      Flight_Path_Editor = {*fedit.exe GRIDS VECTOR}
      Clip_Line_Tool = {*jclipline.exe VECTOR}
```

Menu extension example

You can add options to the Project Manager menu that launch other applications. You can also create your own INTREPID tools and include them in the menu. This illustration shows how you can add your own menu to the Project Manager menu using the menu definition language.

```
Scripts={Contour_flight_A4 Colour_Stack_A4 Stack_A1_land Stack_A1_port}
Contour_flight_A4={*launch_cf4}
Colour_Stack_A4={*launch_cs4}
Stack_A1_land={*launch_sp1l}
Stack_A1_port={*launch_sp1p}
```