10 Preference File Formats

This chapter provides information about the various file formats associated with different preference options within EnSight.

Section 10.1, Window Position File Format describes the format of the file which contains your saved window positions and sizes.

Section 10.2, Connection Information File Format describes the format of the file which contains your auto-connection information.

Section 10.3, Palette File Formats describes the format of the color selector palette, saved function palettes, and the default false color function palette.

Section 10.4, Default Part Colors File Format describes the file format for the default colors for parts.

Section 10.5, Data Reader Preferences File Format describes the format for the data reader preferences file.

Section 10.6, MPEG Parameters File describes the format of the MPEG parameters file.

Section 10.7, Parallel Rendering Configuration File points to the location where the format of the parallel rendering configuration file is described.

10.1 Window Position File Format

To save a window position file, click Edit >Preferences... from the Main Menu and select the “General User Interface” option. Then select the Save Size and Position of Main Windows button. When you select this button, the current position of major dialog windows is saved to the `ensight7.winpos.default.XRESxYRES` file. In general, this file contains dialog position and size information, along with information about the states of the expandable sections of dialogs.

This file is normally saved to and read from the .ensight7 directory of the users home directory. If the file is in the Client working directory it will be read from and saved to that directory instead.

Only major dialogs are affected; the miscellaneous pop-up dialogs are not specified. You do not have to include every dialog and every section listed. EnSight will process the ones provided.

Window File Format

The format of the EnSight window position file is as follows:

- Line 1: Font Size

  Integer specifying font size for dialog labels.

- Lines 2 to N: Dialog Title, Size, & Location

  `String: [IntegerXInteger+]Integer+Integer` specifying
  Dialog title: Width x Height + Xloc + Yloc. The dialog title of each window can be shortened using the * as a meta character. For example, the string title Transformation Editor: 0+815 can be shortened to *Transform*: 0+815. Be careful that your abbreviated name does not match any other names, or the position of all those names will be changed.

- Line N+1: List Separator String

  Character string `–Section Expansion Information–` to separate dialog size and location information from section-open information.

- Lines N+2 to End: Section Expansion Toggles

  `Dialog->Section[->Section]: open|closed` character strings indicating whether corresponding dialog section is open or closed.

The following is an example window position file:

```
fontsize: 13
EnSight: 910x984+369+31
Transformation Editor: 390x381+180+368
Command: 300x0+0+682
Connect Server: 137+0
Query Dataset: 0+0
```

10.2 Connection Information File Format

EnSight saves a file on the Client host system, called `ensight.connect.default` whenever you connect the Server via the auto connect feature. The next time you start EnSight, it will read this file and display your previous connection information. This file is normally saved to and read from the .ensight7 directory of the users home directory. But, any local file will override this location process.

The complete ASCII text file contains the following Server and/or plotter system information.

```
server
machine SERVER_SYSTEM_ID
executable [SERVER_EXE_PATH/]ensight.server
directory SERVER_WORKING_DIRECTORY
login_id SERVER_LOGIN_ID
```

Each line of the file consists of a descriptive keyword that is usually followed by an appropriate system variable. The system variables are shown above with generic abbreviations in capital letters.

Keyword	Description
`server`	Denotes that following keywords and variables pertain to how the program `ensight7.server` is started via an automatic connection.
`machine`	The id or hostname of the system where the program is executed. This defaults to your Client host system hostname.
`executable`	The complete path to the executable program. This defaults to executing ensight7.server (which must be in your defined UNIX search path). This path is normally defined in your .login or .cshrc file in your home directory (for C shell users).
`directory`	The directory that you wish the Server to execute from on the Server host system. You may want to specify the directory that contains your data files on the Server host system. This defaults to your home directory on the (Server or plotter) host system for a distributed connection. It defaults to the Client's working directory when in standalone mode.
`login_id`	Your alternate login id on the Server host system. This defaults to your Client host system login id. (This option is only applicable to distributed connections).

10.3 Palette File Formats

The following palette formats are discussed in this section:

Color Selector Palette File Format

Function Palette File Format

Predefined Function Palette

Default False Color Map File Format

Color Selector Palette File Format

This file defines the colors that are used with the EnSight Color Selector. If EnSight does not find a definition file it uses a default palette. If, however, it does find a file (the file must be called ensight.colpal.default and be located in the .ensight7 directory of the users home directory) at start-up it will read your colors and show them in the Color Selector.

The format of the ensight.colpal.default file is as follows:

- Line 1: “Version 6.0” (Note, this need not match EnSight’s version number.)
- Line 2 through Line 37

  Three integers, one for each color (red, green, blue), ranging from

  0 (no intensity) to 255 (full intensity).

Function Palette File Format

A function palette file is saved using the Function Editor when you save (one or more) function color palettes. The following is an example function palette file:

```
palette ‘velocity’
variable_type vector
variable ‘velocity’
type continuous
limit_fringes no
scale linear
number_of_levels 5
colors
0.000000 0.000000 1.000000
0.000000 1.000000 1.000000
0.000000 1.000000 0.000000
1.000000 1.000000 0.000000
1.000000 0.000000 0.000000
values
0.100341
0.301022
0.501704
0.702385
0.903067
```

Many lines of the file consists of a descriptive keyword followed by an appropriate value. In other areas the keyword is used to start a block of

information. The values are all free format real or integer numbers or string constants. The palette name must have single quotes around each name. The string keywords and constant values must match exactly.

Keyword	Description
`palette`	Name of the palette when one name is present. Name of the subpalette when two names are present (ex. palette 'velocity''xcomp')
`variable`	Name of the variable used with the palette.
`variable_type`	Type of the variable, scalar or vector.
`type`	Type of the palette, continuous or banded.
`limit_fringes`	Indicates if the palette is set up for limiting fringe. If it is, the options are `by_Part` or `by_invisible`.
`scale`	Indicates whether the palette scale is linear, logarithmic, or quadratic.
number_of_levels	Indicates the number of levels defined for the palette.
colors	Indicates the start of a block of RGB triplets, 1 triplet per line. There will be the same number of lines as there are levels.
values	Indicates the start of a block of level values. There will be the same number of values as there are levels.

Predefined Function Palette

When EnSight starts, it looks for user defined function color palettes located under `$ENSIGHT7_HOME/site_preferences/palettes` and in the `.ensight7/palettes` directory found in the user's home directory. These files must be named `palette_name.cpal`, where the palette_name is the name of the color palette in the Simple Interface area of the function dialog.

The format of the `.cpal` file is as follows:

- Line 1: The string "`number_of_levels x`", where x is an integer.
- Line 2: The string "`colors`"
- Line 3 through x + 2: Three float values in range 0.0 to 1.0, indicating red, green, and blue color components.

An example color palette file:

```
number_of_levels 5
colors
.008 0. 0.
.5 0. 0.
1. 0. 0.
1. 1. 0.
1. 0. 1.
```

Default False Color Map File Format

This file defines the default false-color map color range that is assigned by EnSight to each palette when variables are activated. If EnSight does not find a definition file, it uses an internal default list. If, however, EnSight does find a file (the file must be called `ensight.false_color.default` and be located in the `.ensight7` directory of the user's home directory or be located in `$ENSIGHT7_HOME/site_preferences`) at start-up, EnSight will read your colors as the default palette colors.

The format of the `ensight.false_color.default` file is as follows:

- Line 1: "Version 6.0" (Note, this need not match EnSight's version number.)
- Line 2: One integer, the number default false color map colors
- Line 3 on: three floats (each ranging between 0. and 1.), the (red, green, blue) color triplet of each color, each listed on separate lines.

An example default file can be found in:

```
$ENSIGHT7_HOME/site_preferences/ensight.false_color.default
```

on your client system.

The following is an example default false color map file with 5 colors; blue, cyan, green, yellow, and red:

```
Version 6.0
5
0. 0. 1.
0. 1. 1.
0. 1. 0.
1. 1. 0.
1. 0. 0.
```

10.4 Default Part Colors File Format

This file defines default Constant Colors that are assigned (and cycled through) by EnSight when parts are built. If EnSight does not find a definition file it uses an internal default list. If, however, EnSight does find a file (the file must be called `ensight.part.colors.default` and be located in the `.ensight7` directory of the user's home directory or be located in `$ENSIGHT7_HOME/site_preferences`) at start-up, EnSight will read your colors as the default Constant Colors.

The format of the `ensight.part.colors.default` file is as follows:

- Line 1: "Version 6.0" (Note, this need not match EnSight's version number.)
- Line 2: One integer, the number of default part colors
- Line 3 on: three floats (each ranging between 0. and 1.), the (red, green, blue) color triplet of each color, each listed on separate lines.

An example default file can be found in:

```
$ENSIGHT7_HOME/site_preferences/ensight.part.colors.default
```

on your client system.

The following is an example default part colors file with 6 colors (blue, cyan, green, yellow, red, and magenta):

```
Version 6.0
6
0. 0. 1.
0. 1. 1.
0. 1. 0.
1. 1. 0.
1. 0. 0.
1. 0. 1.
```

10.5 Data Reader Preferences File Format

This is an optional file that will be created when the user saves preferences under Main Menu > Edit > Preferences... Data. It can contain two basic things: 1) the reader name desired to be the default Format in the Data Reader dialog, and/or 2) any reader names that the user does NOT want to appear in the Format list. The default data Format will be “Case” unless this file exists and overrides it. Also, by default, all readers (both internal and User-Defined) will appear in the list of available reader Formats unless specifically set to be removed in this file. The file must be called `ensight_reader_prefs.def` and be located in the `.ensight7` directory of the user's home directory or be located in `$ENSIGHT7_HOME/site_preferences`.

The format of the `ensight_readers_prefs.def` file is as follows:

- Line 1: "Version 7.1" (Note, this need not match EnSight’s version number.)
- Line 2: “select *readername*” Where *readername* is the name of the reader that will be used as the default
- Line 3 on: “remove *readername*” Where *readername* is the name of a reader that will NOT be shown in the data reader Format list.

The following is an example data reader preferences file which sets EnSight 5 as the default Format, and causes the Movie, MPGS 4.1, and the SCRYU readers to NOT be available in the list.

```
Version 7.1
select Ensight 5
remove Movie
remove MPGS 4.1
remove SCRYU
```

10.6 MPEG Parameters File

This file sets the parameters used by the MPEG Encoder. MPEG is a lossy video compression standard. As such, there are trade-offs to be made regarding the degree of compression vs. image quality. The MPEG Encoder utilizes a parameters file to set numerous options that affect quality, compression, and other attributes. Three sample parameter files can be found in:

```
$ENSIGHT7_HOME/site_preferenses/
```

These files roughly correspond to:

high quality/low compression (`cei_mpeg_hi_q.param`)
medium quality/medium compression (`cei_mpeg_med_q.param`)
and low quality/high compression (`cei_mpeg_lo_q.param`).

The format of the parameters file is documented in the PostScript document:

```
$ENSIGHT7_HOME/doc/mpeg/mpeg_encode_doc.ps
```

The Encoder will read the parameters from `~/.ensight7/cei_mpeg.param` if it exists, otherwise it will use `$ENSIGHT7_HOME/site_preferences/cei_mpeg.param` which is a link to `cei_mpeg_hi_q.param`; thus high quality/low compression is the default.

Note: This is the opposite of the EnSight 6.1 default

Please see the file:

```
$ENSIGHT7_HOME/doc/mpeg/README.mpeg
```

for further information.

10.7 Parallel Rendering Configuration File

The format of the configuration file for parallel rendering is described in detail in Section 2.15, Parallel Rendering Setup and in How To Setup For Parallel Rendering