1 Introduction

1.0 Overview

Etsgen gui is a graphical user interface (GUI) which enables a user to construct HCL input files for the OFS FCST ESP function and run those HCL input files to generate ESP hindcasts to be used for verification studies.

2.0 Notation and Definitions

The following notational conventions are used in this documentation:

- o   A GUI component, including panels, menus and button is displayed in **bold**.
- o   **Menu1** >> **ItemA** indicates menu item **ItemA** within the menu **Menu1**.
- o   <key> indicates the keyboard key, <key>. For example <shift> means the shift key.
- o $(some_text) indicates the value of the Apps_defualt token, some_text.

The following terms and their definitions are used in this manual and will be displayed in *italics*:

- o   *stdout*: This is an abbreviation for standard out of the terminal from which the **etsgen** gui is executed.

3.0 Execution

To run the ETSGEN Batch Builder enter:

    ens -p etsgen

The main window is shown in Figure 3.1 below. It should come up when the command is executed.
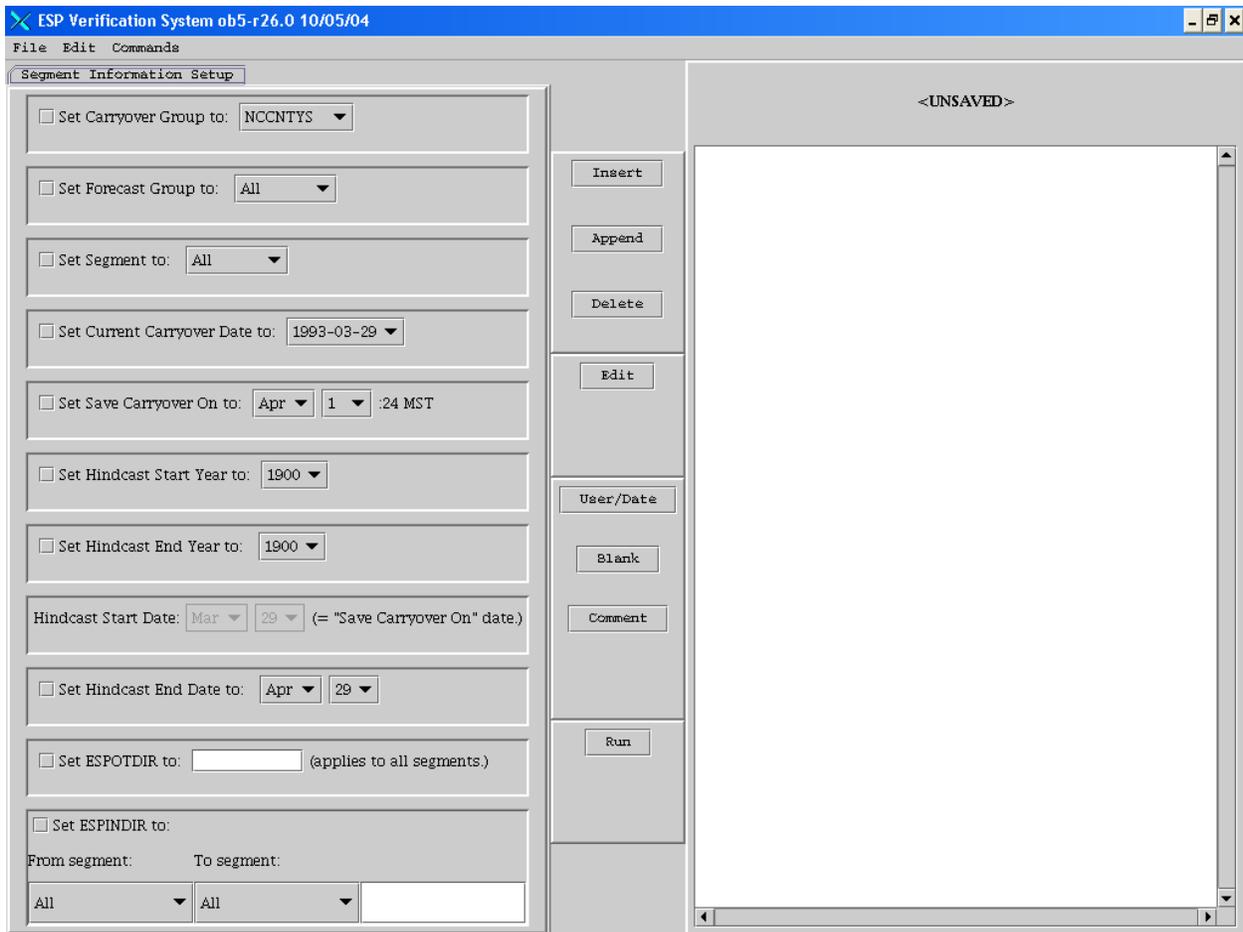
Figure 3.1 The **etsgen** gui main window

3.1 The etsgen gui initiation

When the **etsgen** gui is started it must collect information about the NWSRFS Segment, Forecast Group, and Carryover Group names and the carryover dates. This information is pulled from the fs5files with a helper program named **espvs_nwsrfs**, also located in the $(ens_rls) directory. This program reads the fs5files and then writes out an XML file to the OFS FCST input directory. The file is named $(ofs_input)/fcst/espvs_nwsrfs_data.xml.   This file is deleted after the **etsgen** gui reads it. The values in this XML file are parsed and then displayed in the **etsgen** main window.

3.2 The etsgen gui connection to ESP

The **etsgen** gui helps the users setup the information for ESP hindcast runs. The information needed is geographic (where to run ESP), and temporal (over what period to run ESP and what day to start it on). The **etsgen** gui constructs HCL input decks which are also placed in the directory $(ofs_input)/fcst. There are two types of HCL input decks: (1.) an HCL input file to run ESP in the Historical simulation mode to create the carryover needed to start ESP for the hindcasts; (2.) multiple HCL input decks to run ESP in the hindcast mode on the carryover created with the previous input deck. The **etsgen** gui creates only one HCL file to create. It is named co_generate. For the time series generation input decks, a file named ts_generate_*year* is generated for every year of hindcasting. These input decks are created by the

etsgen gui and then they are executed by the script **espvs_generate.sh** located in the $(ens_scripts) directory. When all the input decks have been run, the script deletes all the input files.

4.0 *Recommended Apps-Defaults Tokens*

Since **etsgen** gui runs the OFS FCST ESP function all of the apps-defaults token necessary for ESP should be set prior to running **etsgen** gui.   The **etsgen** gui allows users to store the configuration they set up for generating the HCL decks to create hindcasts. The default location for the files with the hindcast configuration information in them is in the directory $(ens_input)/espvs. The ens_input token is the only additional token required.

The directory $(ens_input)/espvs should be created by the user prior to trying to save files.