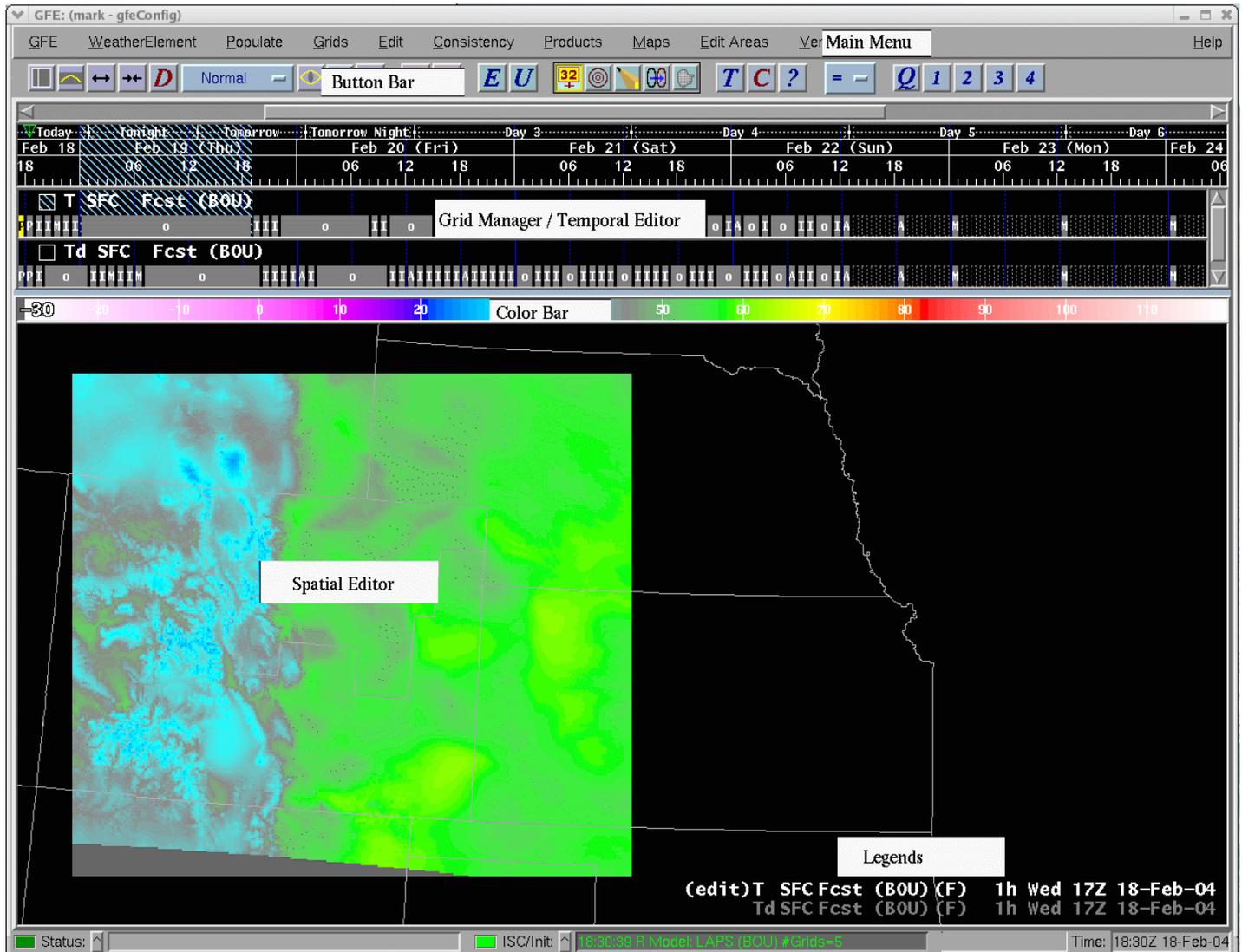


# Introduction

The Graphical Forecast Editor (GFE) is a grid-based editing system that provides various tools to forecasters that allow them to edit gridded fields of sensible weather elements. While this training guide describes most of the functionality within the GFE, it is not comprehensive. Its purpose is to familiarize users with GFE concepts and tools in order that they might use the GFE to generate gridded forecast products.

This training guide is divided into several sections. If you are new to the GFE, it is recommended that you follow the guide in the proper order, since terms and concepts learned in the beginning are used throughout the guide. This section is intended to get you familiar with the major components of the GFE. More detailed descriptions of each component can be found in subsequent sections.

The figure below labels the major components of the GFE. Since the names of these various components will be used throughout this guide, it is a good idea to familiarize yourself with them now.



## GFE Components

We will briefly introduce the main GFE components in the following sections. To learn more about the Grid Manager, Spatial Editor, or Temporal Editor components, go to the section with the same title.

### Menu Bar

Loads/Unloads weather elements, saves/reverts grids, interpolates grids, populates weather elements from model. Many other functions are available from the Menu Bar as well. The Main Menu Bar menus are described in the Main Menu Reference Guide. The various menus allow you to set viewing and editing preferences, define configuration files and tools, load and unload weather elements, control the map backgrounds, do grid-based edit operations, and handle product generation.

### Button Bar

Controls GridManager time scale, animation, edit tools, and edit areas.

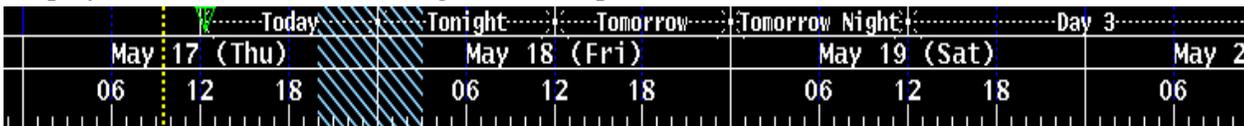


The

Button bar is located just below the menu bar. The figure above illustrates that the buttons are grouped by function. We will defer discussing each button's function here and describe each of them in later sections that include exercises.

### Time Scale

Displays time for both Grid Manager and Temporal Editor.



The Time Scale is located immediately above the Grid Manager (or Temporal Editor) and shows you the time period over which the every grid is valid. In addition, it contains a small green triangle that indicates the current time. The yellow dotted line displays the current Spatial Editor Time and the blue hatching shows the Selected Time Period. User-defined time periods are shown at the very top of the time scale.

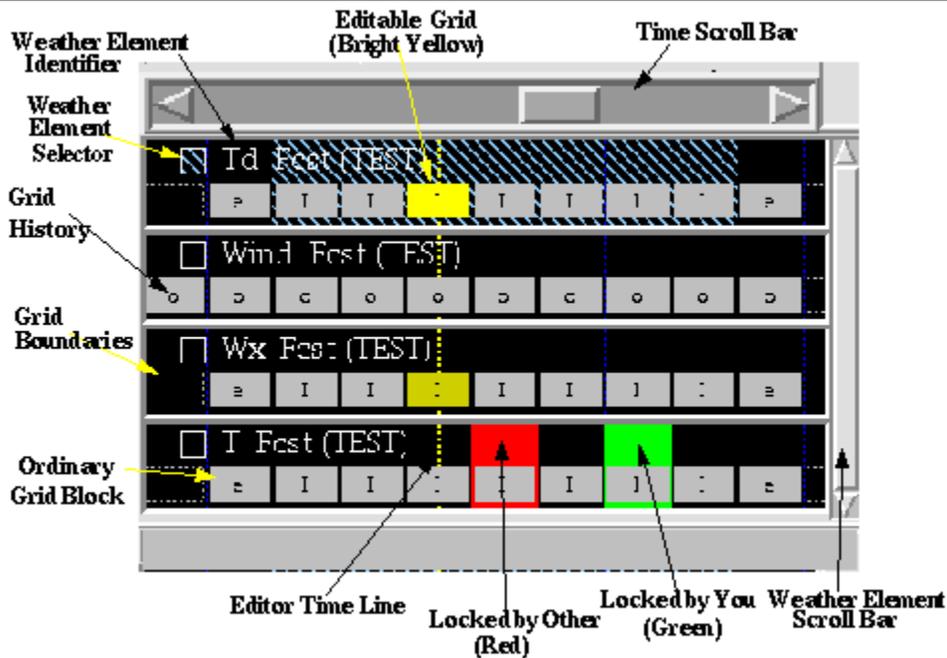
### Grid Manager

Displays grid inventory, edits grid times, temporally interpolates, copies grids from other databases, creates grids from scratch, displays grid history.

The Grid Manager is arguably the most complex component of the GFE. Its display presents an inventory of the gridded data in the forecast, official or any other model database. With the Grid Manager you can copy all or a portion of another database into your forecast, temporally interpolate time periods to fill in undefined gaps in your forecast, remove grids from your forecast, and many other operations too numerous to mention here. The Grid Manager looks complex because it displays a large amount of information and offers a long list of features that help you manipulate the gridded forecast data. While its appearance can be intimidating, once you have performed the exercises and understand how each of the features work, you will understand that it is necessarily complex.

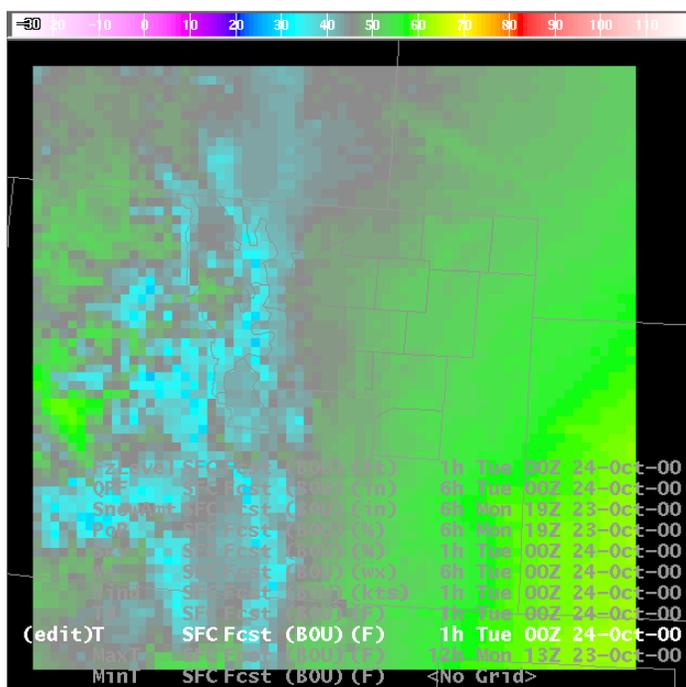
Below is a snapshot of the Grid Manager component of the GFE along with labels that name its various parts.

### Grid Manager in Normal Display Mode



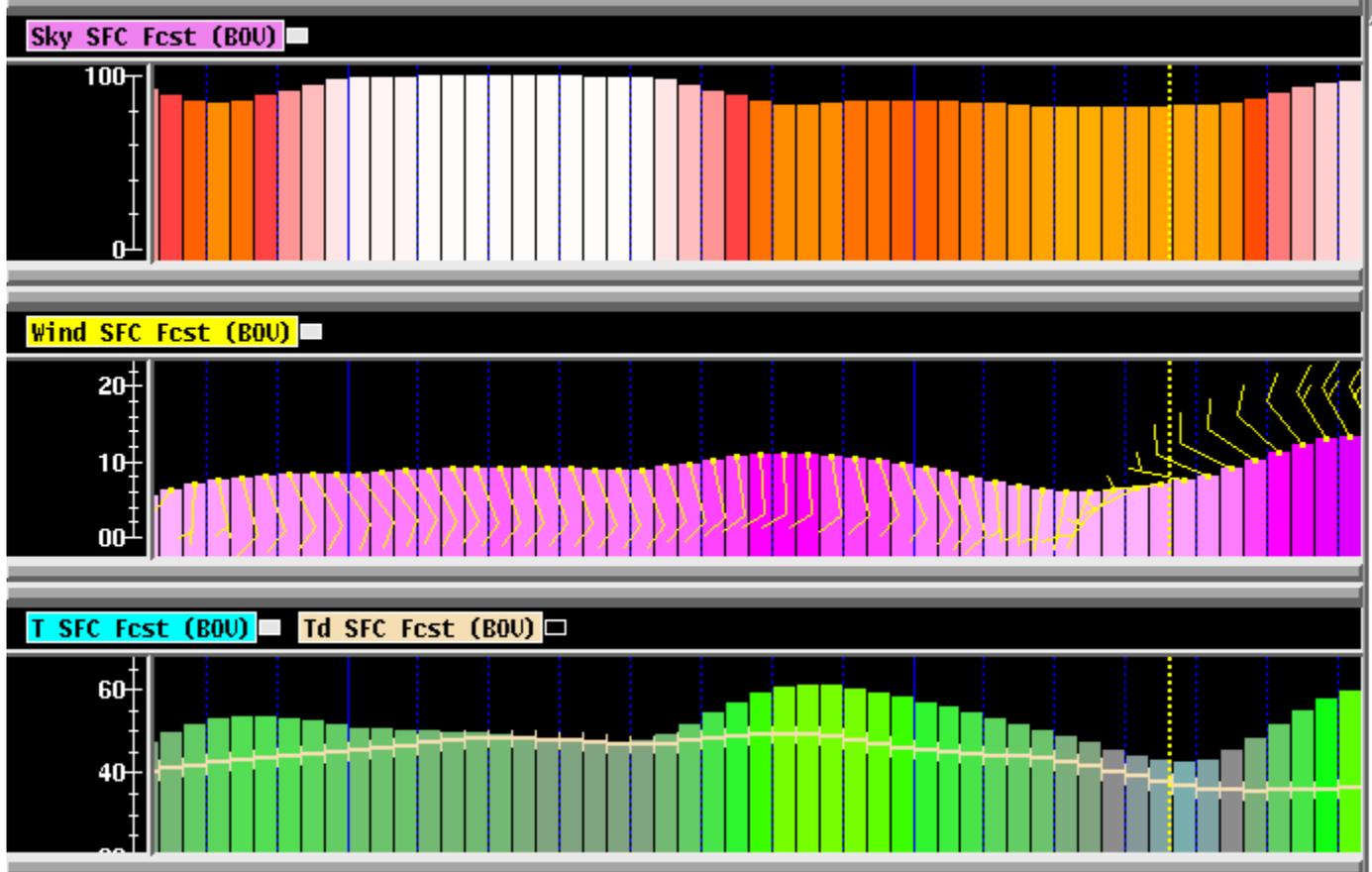
### Spatial Editor

The Spatial Editor allows you to edit the values of any grid in the forecast database using a number of different tools. Some of the tools are interactive while others work in more of a batch mode. The multi-colored area at the top is the color bar that shows the relationship between color and value. Displays and edits one or more grids.



## Temporal Editor (not shown)

Displays and edits time series of weather elements at a point or area. This area is shared with the GridManager.



The Temporal Editor presents a time-series display, over an area that you specify, and allows you to edit several grids with a single edit operation. When used properly, the Temporal Editor can save you much time during the editing process.

## Status Bar

The Status Bar appears at the bottom of the GFE display. It contains two complete status bars, each with a message indicator light and message display. At the right side of the two status bars is a progress bar, and the current time. When a new message is displayed, the appropriate message light will blink. Messages are color-coded (set up in the gfe configuration file) and of the following categories:

- Regular: Successful completion of an operation. (default color: green)
- Significant: An error message usually indicating an operation cannot be completed. (default color: yellow) When a Significant message occurs, the Significant Messages Dialog will appear.
- Urgent: A serious error usually indicating a server or system problem. (default color: red) When an Urgent message occurs, the Urgent Messages Dialog will appear.
- Alert: A warning to the forecaster of an event (default color: orange).

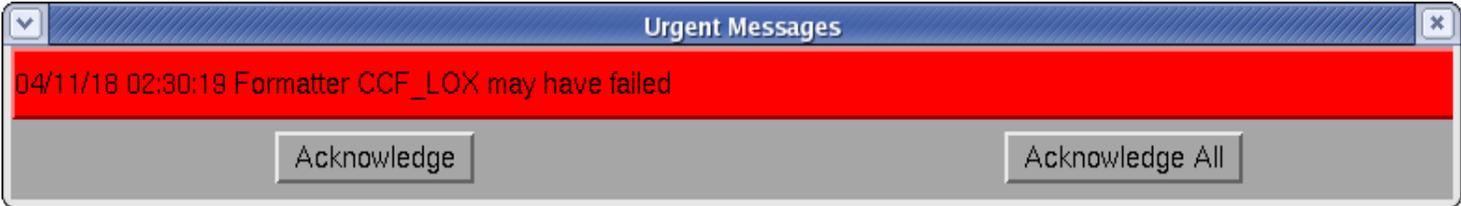
To acknowledge a Regular or Alert message and stop the blinking, click MB1 over the message which will change to gray.

To view a list of previous messages, click on the ^ sign to the left of the Status message. The View Messages Dialog will appear.

Most of the status messages will appear in the left status bar. The right status bar is reserved for incoming ISC traffic and Smart Init model arrival messages.

### Urgent Messages Dialog

The Urgent Messages Dialog appears with a red message bar. Multiple messages may be active in the Dialog and each must be acknowledged by clicking "Acknowledge." You can acknowledge all the active messages by clicking "Acknowledge All." A history of all messages, including Urgent Messages, can be viewed in the View Messages Dialog.



### Significant Messages Dialog

The Significant Messages Dialog appears with a yellow message bar. Multiple messages may be active in the Dialog and each must be acknowledged by clicking "Acknowledge." You can acknowledge all the active messages by clicking "Acknowledge All." A history of all messages, including Significant Messages, can be viewed in the View Messages Dialog.



### View Messages Dialog

If you'd like to view a history of status messages, click on the ^ to the left of the Status Bar message. The View Messages Dialog will appear. The messages are color-coded with the most recent listed first. You may scroll or resize the window to see all the messages. Click "Close" to close the dialog.



## Progress Bar

The Progress Bar is on the right-hand side of the Status Bar. It shows the progress of a smart tool executing over multiple grids. For point-based smart tools, if the user clicks B3 over the Progress Bar, the smart tool execution will be interrupted. In this case, the progress is shown per grid, so if you are running a point-based smart tool over multiple grids, you will see the progress bar paint for each grid.

