Chapter 6: Screen Development

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Screen Development Overview

The Screen Development function lets you modify existing screens and create your own new screens. You can put the information that you need on these screens, and you can remove the items you don't need.

You can create a logical flow of screens that matches your organization's workflow.

ViewID

If the operator who builds a screen has a ViewID, only that operator or other operators with the same ViewID may view that screen.

Genesys delivers all screens with a blank ViewID, which allows full access to the system.

Screen Types

The Genesys System includes these screen types:

- Menu
- Data Entry
- Data Inquiry
- System

Menu Screens list all the options that are available within a category. For example, the U.S. Payroll menu lists all the options that are available within the Payroll Application.

Data Entry Screens are used to enter data online and then process that data via transactions.

For example, use the Hire Employee screen (P110 01) in Payroll to add an employee to the database. This is accomplished by processing the 30 Transaction tied to the screen.

These are the pushbuttons that you see on a data entry screen.

To display the function keys associated with these buttons, select the word Functions from the menu bar.

Data Inquiry Screens are used to display the information stored in an existing record. You can also use these screens to add or change record information. The information displayed on a data inquiry screen shows you the data that is currently in the database. It also displays the information that is in the Suspense File, if there are pending deferred transactions for the record.

The example above shows the pushbuttons on a data inquiry screen. You may see a button labeled Calculate, in place of the Previous pushbutton. This occurs when the F7 key is linked to a GenCalc. To display the function keys, select Functions from the menu bar.

System Screens are the core of the Genesys system and include all screens in GenTools and SearchAll. System screens are not associated with a particular application. One set of system screens is delivered with each installation of the Genesys system. These are the only screens that cannot be modified.

Suspense Management screens are also considered system screens and therefore cannot be modified.

Suspense Management screens are specific to each application. If you have multiple applications, you'll receive one set of GenTools screens and one set of SearchAll screens. You will also receive one set of Suspense Management screens for each application you purchase.
General Guidelines

This section contains general information about Genesys screens. These general rules apply to all Genesys screens. Information that is specific to menu, data inquiry, and data entry screens is included in the sections that describe those screens.

Positioning

There are certain areas on all of our screens that can’t be used. Leave positions 1 and 2 and 78-80 blank on all screens. These positions are overlaid by the scroll bars in GenLink. Text entered here is not displayed.

Screen Names

Screen names are used to identify screens and to navigate through the Genesys system. Each screen must be assigned a unique screen name, which must be located in the upper right-hand corner.

1. Screen names are made up of six characters; the first 4 characters are the screen name, the remaining 2 characters are the chain number. You must always create screen names in XXXX nn format.

2. Place screen names on the first line of a screen, beginning in position 71. Each screen name must be preceded by a minimum of 2 blank spaces (positions 69 & 70) and be followed by exactly 3 blank spaces (positions 78-80). Add a space between the screen name and the chain number, not a hyphen.

3. The first position of each screen name is used to identify the category to which the screen belongs, either U.S. or Canadian.

   - U.S. screen names must begin with the letter P (PXXX nn).
   - Canadian screen names must begin with the letter C (CXXX nn). There is one exception: the French screens for Canadian Human Resources begin with PCXX.

4. The second position of each screen name identifies the application to which the screen belongs. For example, Benefit Payments screens are identified by the letter E in the second position of the screen name. Each Genesys application, and its corresponding screen name, is listed below.

<table>
<thead>
<tr>
<th>Application</th>
<th>Screen Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit Payments</td>
<td>Pexx</td>
</tr>
<tr>
<td>Benefit Payment Client Screens</td>
<td>PZxx</td>
</tr>
<tr>
<td>Defined Benefits</td>
<td>PDxx</td>
</tr>
<tr>
<td>Defined Contribution</td>
<td>PBxx</td>
</tr>
<tr>
<td>Flexible Benefits</td>
<td>PFxx/CFxx</td>
</tr>
<tr>
<td>HealthCare</td>
<td>PMxx</td>
</tr>
<tr>
<td>HealthCare Payroll</td>
<td>PNxx</td>
</tr>
<tr>
<td>Human Resource Planning</td>
<td>PHxx/CHxx</td>
</tr>
<tr>
<td>Human Resources</td>
<td>PPxx/CPxx *</td>
</tr>
<tr>
<td>Payroll</td>
<td>Pnnn/Cnnn</td>
</tr>
</tbody>
</table>

Note that the Payroll application doesn’t have a letter in the second position. Payroll screens begin with a P, which is then followed by numbers.
* The French screens for Canadian Human Resources begin with PCXX.

5. When more than one screen is necessary to complete a function (to add a record, to display information), the first screen must have a chain number of 01 (PXXX 01), the second and subsequent screens should have their chain numbers incremented (PXXX 02, PXXX 03, and so on).

Screen Titles

Screen titles are used to identify the function, or the main purpose, of a screen. Each screen must be assigned a title, which must be located on the first line.

1. Place screen titles on the first line of a screen, center them as accurately as possible, and do not extend past position 68. Leave positions 69 and 70 blank, allowing room for the screen name to being in position 71. Below the screen title, leave one blank line, if space allows.

2. Type screen titles in upper and lower case letters. In other words, uppercase the first letter of each word. The exceptions to this rule are abbreviations and acronyms, such as EEO and COBRA, which must appear in all uppercase letters.

3. Do not include the word Menu in menu titles. Also, limit menu titles to 30 characters. This is a requirement to fit the GenLink pop-up menu.

<table>
<thead>
<tr>
<th>USE</th>
<th>Employee Profile - Tax Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOID</td>
<td>EMPLOYEE PROFILE - TAX DATA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USE</th>
<th>U.S. Payroll</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOID</td>
<td>U.S. Payroll Menu</td>
</tr>
</tbody>
</table>

Moving on a Screen

1. You can tab from field to field, left to right, to advance through a screen. The cursor only stops on modifiable fields. Also, you can use your mouse to place the cursor on any modifiable field.

2. You can press back tab (Shift + Tab keys) to return to the previous modifiable field.

3. To exit a data inquiry screen that displays an imbedded image, press Enter.

Moving From Screen to Screen

You can navigate through the system by typing a four character screen name in the Screen Navigation field, available from the GenLink menu bar. The screen name must be typed in uppercase letters.

As an alternative to screen navigation, in character mode, you can:

- select F7 to return to the previous screen in a series (except when F7 is used to perform a calculation)
- select F8 to advance to the next screen in a series
- select F9 to return to a menu

As an alternative to screen navigation, in GenLink, you can:

- select the pushbutton labeled Previous to backup one screen in a series (except when F7 is used to perform a calculation)
- select the pushbutton labeled Next to advance one screen in a series
select the pushbutton labeled **Menu** to return to a menu.

The only exception with the GenLink pushbuttons is when F7 is used to perform a calculation. In that case, the **Previous** pushbutton is replaced with the **Calculate** pushbutton.

---

**Screen Development Screen**

The Screen Development screen allows you to:

- Assign screen series names and chain sequence numbers
- Add, change, delete, or replace a screen
- Create a copy of a screen (to modify)
- Modify a screen

To display the Screen Development screen (shown below), type PPSX in a screen navigation field and select Enter, or select Screen Development on the GenTools Menu.

![Screen Development Screen](image)

To use the screen, follow these steps:

1. In the Screen Name field, type the four-character name of the screen you want to work with. If you're creating a new screen, follow the screen-naming conventions described earlier in this chapter.

2. In the Chain Number field, type a two-position number to link a related screen. If this is a standalone screen, or the first screen in a set, you would type 01. By chaining screens, you can calculate data and carry it forward to the next screen in the chain. Also, when data entry screens are chained, the system displays the next screen when you select Enter.

   **Note:** When security is established to deny access to a system screen in a chain, subsequent screens will not function correctly when accessed by using the chain.

3. Select the Application ID from the drop-down list.

4. In the Screen Type field, click on Inquiry, Menu, or Data Entry.

You have these Action options:

- **Add** a new menu, data entry, data inquiry, or help screen to an application. You may build a Help screen by following the instructions for inquiry or menu screens.
• **Modify** a screen by adding, changing, or deleting literals, defaults, or fields.

• **Change** the *static information* of an existing screen. Static information includes security access, language for error messages, and function key assignments.

• **Replace** the screen image (either the literals or the fields) or the field definitions of an existing screen.

• **Delete** an existing screen. You cannot delete Genesys-supplied system screens.

• **Replace** the defaults for an existing screen.

• **Copy** an existing screen to a new screen name within the same application.

To copy a screen from one language to another, select which language you want to copy to by clicking on the arrow and highlighting your choice. For example, if you want an English screen to be available (for use or modification) when you run the French version of the application, select French in the language field.

---

**Building a Menu**

Menus inform users about other screens that are available, and allow movement from one screen to another. Genesys recommends that you review these guidelines on screen titles and function keys before you create a menu.

**Screen Titles**

1. Do not include the word Menu in menu titles. Also, limit menu titles to 30 characters. This is a requirement to fit the GenLink pop-up menu.

<table>
<thead>
<tr>
<th>USE</th>
<th>U.S. Payroll</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOID</td>
<td>U.S. Payroll Menu</td>
</tr>
</tbody>
</table>

2. Do not add any fields to a menu.

**Function Keys**

Function keys serve many purposes, including retrieving data, performing calculations, and advancing through screens.

1. Align the F in the F key description. Also, uppercase the F key.

2. Limit function key descriptions to 30 characters.

3. If you're using a mainframe emulator, you have function keys 14-24 available on your keyboards. However, you can only assign functions to keys 13 and 19-24; keys 14-18 are reserved for GenLink. If you assign functions to keys 14-18, GenLink won’t work correctly.

4. F1 - F6 = Menu options.

5. F7 - F11 = Return options.

6. F12 = Must always return you to the Online System main menu.

7. Clear = Logoff

To add a menu, follow these steps:

1. Display the Screen Development screen by typing PPSX in a screen navigation field and selecting Enter, or selecting Screen Development from the GenTools Menu.

2. Type a four-position screen name that represents the menu you want to add
3. Enter a chain number.
4. Select the Application ID from the drop-down list.
5. To create a new menu, select the Menu radio button under Screen Type.

The example below uses ACCT as the screen name, P as the application, 01 as the chain number, and Menu as the Screen Type.

![Screen Development Interface](image1)

1. With Add a New Screen selected as the Action, select OK to display the Static Information Menu.

![Static Information Menu](image2)

2. In the Security Level field, you can leave the default 00, which is no security, or change it to a higher level. For more information on security levels, see your Security Administrator.

3. In the Language Code for Messages field, type the code for the language you want the system to use for system messages. E = English  F = French
4. In the entry blocks to the right of the numbers, type the four-position screen names that you want each F-key to reference. You may want to use F1-F6 for menu options, and F7-F11 for return keys.

5. In the Legend field, you may type the literal name for each menu selection, as shown below.

![Screen Development Interface](image)

6. Click OK when you are finished. The system displays the screen shown below.

![Floating Toolbar](image)

Note the floating toolbar on the left side of the screen. The buttons on this toolbar provide functions you use as you build or modify a screen. Here is an explanation of how to use them.

<table>
<thead>
<tr>
<th>Toolbar Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Text Tool" /></td>
<td><strong>The Text Tool</strong> - This is the default. Use your left mouse button to point to where you want to be on the screen, and then type alphanumeric text at that location.</td>
</tr>
</tbody>
</table>
The Centering Tool - Centers any text you type. To use this feature, you must select this button before you begin typing.

The Vertical Bar Tool - Inserts the vertical bar characters to define modifiable fields on the screen. To use, click on the button so that it is recessed on the toolbar, then position the cursor where you want the field to begin. Click and hold the left mouse button and a rectangular box displays. Drag the end of the box to the position you want the field to end. When you release the left mouse button, vertical bars display. Fields are double spaced.

The Pointer Tool - Click on the pointer. As you move the mouse around the screen, any text or field under the mouse is enclosed in a selection rectangle. When you are over the text or field you want to select, press the left mouse button once to mark your selection.

The Delete Tool - Deletes a selection. When you mark text or a modifiable field with the Pointer Tool, you can delete the selection with this button.

The Field Definer Tool - Defines a modifiable field to your application server during screen modification. Note that during screen building you are composing the look and feel of the screen at your desktop (client) computer. As a second step, you must define the fields to the server.

The Check Box Tool. Click on this tool, then click on the defined field that you want to become a checkbox. When checked this box returns the value of Y, when not checked it returns the value of N. When multiple check boxes are boxed using the group box tool, the check boxes become mutually exclusive. When one is selected, all the others in the box are deselected.

The Radio Button Tool. Click on this tool, then click on the defined field that you want to become a push-button. When selected, this button returns the value of 1, when not selected it returns the value of 0 (the opposite of most of the GENESYS participation switches.) When multiple Radio Buttons are boxed using the Group Box Tool, the radio buttons become mutually exclusive. When one is selected, all the others in the box are deselected.

The Group Box Tool. Click on this tool and position your cursor in the upper left-most position of where you want to start a box. Drag your cursor to the lower right-most position of where you want to end the box and release the mouse button.

The Error Message 1 Tool - Adds system messages on the bottom of the screen. When the international NOT sign displays, you may press it to delete the system message.

The Error Message 2 Tool - This tool adds system messages on the bottom of the screen. When the international NOT sign displays, click on it to delete the system message.

The Confirm Tool - This tool functions as the Enter key. It is active only during screen modification to make your changes permanent. It is disabled during screen building and screen replace. Note that during screen modification, you may change this button to the Move button, described below.

The Screen Navigation Legend Button - This tool inserts any screen navigation legends you type on the Static Information Menu. When this button shows the international NOT sign, click on it to delete the navigation legends.

The Cancel Tool - Cancels screen building and deletes any changes you've made.

The “OK” Tool - Indicates that you've finished composing the screen. Click on this button to accept all changes.
7. To populate your new menu screen with the F-keys and legends you typed on the Static Information screen, select the last button in the left column of the toolbar (the Legends Button). See the table above for a description of this button.

8. After you compose your menu, select the smiley face button on the lower right corner of the toolbar.

The system re-displays your new menu and displays a new floating toolbar with two choices:

- A left-pointing arrow, which allows you return to the menu-building screen to make changes.
- A smiley face button. Select this button to complete this stage of building your menu. You are returned to the Screen Development screen.

9. The final stage in building a menu is to tie the menu to an existing screen. If the menu is not attached to another screen, it cannot be accessed by any means except screen navigation.

To attach your new menu, determine to which screen you want your new menu tied, and then:

- Type that screen's name, application ID, and chain number on the Screen Development screen, and choose the Change Static Information option. Add the four-position name of your new menu to an available F-key, and then press OK.
- Use the modify function to add the F-key number and literal name to this screen.

Your new menu is now connected to an existing screen.

### Building a Data Inquiry Screen

The data inquiry screen is one of the most common screens you'll build. The ability to specify only the fields you need retrieved, as well as the ability to modify records from the screen, make it invaluable to your workflow.

Genesys recommends that you review the following guidelines on fields, function keys, messages, tables, and imaging before you create an inquiry screen.
Fields

Fields can identify data, clarify columns, and provide headings of information.

1. Type fields in upper and lower case letters. In other words, uppercase the first letter of each word in the field. Exceptions to this guideline are initials and acronyms, such as EEO and COBRA, which should appear in all uppercase letters.

<table>
<thead>
<tr>
<th>USE</th>
<th>State Tax Code/Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOID</td>
<td>STATE TAX CODE/PERCENT</td>
</tr>
<tr>
<td>USE</td>
<td>EEO</td>
</tr>
<tr>
<td>AVOID</td>
<td>Eco</td>
</tr>
</tbody>
</table>

2. Place a colon (:) immediately after each field to be populated.

<table>
<thead>
<tr>
<th>USE</th>
<th>Birth Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOID</td>
<td>Birth Date</td>
</tr>
<tr>
<td>AVOID</td>
<td>Birth Date :</td>
</tr>
</tbody>
</table>

3. Fields that aren’t populated, such as headings and informational text, do not require a colon.

4. Group associated fields together. Align field sizes so that the highlighted area of the screen is even.

5. Always define at least one error field. The only exception is an inquiry screen that is used as a statement screen. If there is no error field on the screen, the navigation field does not display.

6. Leave two blank spaces between the end of one field and the beginning of the next.

Function Keys

Function keys serve many purposes, including retrieving data, performing calculations, and advancing through screens.

1. When building data inquiry screens, place the function keys on the lower left-hand side of the screen on lines 19-22. Leave lines 23 and 24 in the lower left-hand corner of the screen blank. These two lines are reserved for messages.

2. On the lower right-hand side of the screen, you can place function keys on lines 19-23. You don’t need to leave room for messages; they do not display on this side of the screen.

3. Align the F in the F key description. Also, uppercase the F key.

4. Limit function key descriptions to 30 characters.

5. If you use a mainframe emulator, function keys 14-24 are available on your keyboard. However, you can only assign functions to keys 13 and 19-24; keys 14-18 are reserved for GenLink. If you use a mainframe emulator and you assign functions to keys 14-18, GenLink won’t work correctly.

6. F1 - F3 = Allows you to search for a record.

7. F4 - F6 = Not used.

8. F7 = Serves two functions, depending on the action that needs to be taken. Most often you can use F7 to return to the previous screen in a series. However, if a calculation is required to display data, selecting F7 performs the calculation instead of returning to the previous screen.

9. If there is a GenCalc attached to F7, the legend on your screen should contain the word Calc or Calculate. The C should be uppercased, followed by lower case letters.

Example:

| F7       | Re-Calc Years of Service |
This standard is required for GenLink to display a pushbutton that reads **Calculate**. If GenLink does not encounter the words **Calc** or **Calculate** with the F7 key, GenLink displays a **Previous** pushbutton, for previous screen.

1. **F8** = Advances to the next screen in a series.
2. **F9** = Returns to the menu associated with the function you are performing.
3. **F10** = F10 can be used for any function.
4. **F11** = Not used.
5. **F12** = Should always return you to the OnLine System menu.

### Messages

Genesys provides messages to assist you as you use screens. Some messages are informational (such as **Must Use F Key for Access**) while others indicate errors (such as **Net Pay Exceeded - Levy Invalid**).

1. Message numbers 0-1000 are reserved for your use.
2. Lines 23 and 24 in the lower left-hand corner of the screen are reserved for messages; don’t place function keys or other text to this area. Begin messages in position 3, on line 23. Load 32 vertical bars when defining.

### Tables

1. When a field has a table attached to it, you must leave a minimum of 3 positions between the end of the field and the beginning of the next field. This space accommodates the arrow icon that is used to display table entries. Of the 3 positions, 2 are for the arrow icon itself and 1 is a blank space after the icon.

2. When building a field to display a table entry, do not exceed twenty six positions. When writing table entry values in the table file, write them to display valid information within 32 positions. If you exceed these lengths, table codes and miscellaneous information display when you access the table.

3. When you click on an arrow icon, a list of table entries for that field should display. As noted in Step 2, table entries should not be longer than twenty six positions. The pop-up box that displays table entries should only display valid entries; it shouldn’t reveal any codes or other information.

Sort the table entries in alphabetical order. To move through the list, you should be able to use the scroll bar or type a letter to advance to an area of the list. For example, typing an **M** should advance you to the entries that begin with the letter **M**.

You should be able to select any entry from the displayed list; that entry should then populate the
To close the table without selecting an entry, you must press the \texttt{ESC} key.

4. Type table entries in upper and lower case letters. In other words, uppercase the first letter of each word. The exceptions to this rule are abbreviations and acronyms, such as EEO and COBRA, which should display in uppercase letters.

<table>
<thead>
<tr>
<th>USE</th>
<th>Full Time Regular</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOID</td>
<td>FULL TIME REGULAR</td>
</tr>
<tr>
<td>AVOID</td>
<td>Full time regular</td>
</tr>
</tbody>
</table>

**Imaging**

1. To identify an inquiry screen as an image displayer for Standalone, Application Server, or LAN system users, you must type the literal `!` on line 23, in position 42.

2. To exit a data inquiry screen that displays an embedded image, you must press Enter.

**Building an Inquiry Screen**

To build an inquiry screen, follow these steps:

1. To display the Screen Development screen, type \texttt{PPSX} in a screen navigation field and select Enter. (or selecting Screen Development from the GenTools Menu.)

2. Type a four-position name that represents the inquiry screen you want to add, the application letter, and a chain number. For a new inquiry screen, select Inquiry under Screen Type.

3. With Add a New Screen selected as the Action, select \texttt{OK} to display the Static Information - Inquiry screen, shown below.
In the **Security** field, you can leave the default 00, which is no security, or change it to a higher level.

For more information on security levels, see your Security Administrator.

In the **Language Code for Messages** field, type the code for the language you want the system to use for error messages.  E = English  F = French.

In the **Data Type** section, you may choose to include permanent and temporary records (flags 0 and 1), select permanent records only (flag 0), or applicant records only (flag 2).  The default is flag 0 and 1 records.

In the **Transfer Control** section, assign screen names to the function keys that display on the inquiry screen you are creating.  As shown in the example, F7-F9 correspond to GenLink's pushbuttons:  F7 = previous screen, F8 = next screen, and F9 = menu.

4. Click OK to display the Inquiry - Search Paths screen, shown below.

![Inquiry - Search Paths screen](image)

You can define search paths for F-keys 1-4 on your new inquiry screen.  As shown, we've typed legends for paths 1-3 that correspond with the defaults delivered by Genesys.  You can create your
own paths for F-keys 2-4 using the Alternate Index feature described in the Data Dictionary section of this manual. You cannot change the path for the F1 key, but you can change its legend.

5. Select OK to display a blank inquiry screen.

On the floating toolbar, click the fourth button in the left column to populate the screen with the screen navigation legends you have assigned. (See the Menu Building section for a chart explaining the floating toolbar.)

6. Before you begin this step, you must know the field lengths of the data elements that you are assigning to the fields on the screen.

    Type the title text and format your screen exactly as you want it to display.

    Use the toolbar icon to draw vertical bars to indicate fields.
7. When you have finished, click the smiley-face button to display the new screen.

8. If you need to return to make a change, click the left arrow on the toolbar. To continue, click the smiley-face to display first Define Field screen, shown below.

The system displays a Define Field screen sequentially for each field to be defined. Your new inquiry screen is in the background, with the field you're currently defining highlighted. In this case, the field is Search Value.

Under Field, **Number** refers to the sequential number of the current data element, and the Row and Column numbers refer to its position.

**Note:** You must define each field on your inquiry screen.

9. In the Data Element section, type the name of the data element you want retrieved in this field.

   In the Start field, if you only want to display a portion of a field, rather than the entire length, indicate the first position in the data element field by entering the start position. The default is 01.

   In the Length field, if you chose a start position, indicate the number of positions to be displayed from that position. The default is the length of the data element in the Master Database.
In the **Appearance** section, choose whether you want the field highlighted on the screen, invisible, and/or modifiable. If you make the field modifiable, it can changed through overtyping; this would produce a 72 Change Transaction. If you choose to make the field invisible, you can still modify it, unless you leave the Modifiable box blank.

In the **Type** section, you may set the following options:

**Key Field** is the Search Value field. There must be one (and only one) Key Field per screen. The Online System uses both the Search Value (or Find) field and function keys 1-4 to retrieve a record. The function keys point the system to a category to use during a search, such as record key. They tell the system to retrieve a record based on the data entered in the Search Value field. The Search Value field tells the system to base the search within the general category specifically on this data. To specify the Search Value field as the Key field, mark an X in this box. If you mark this box, do not type anything in the Data Element Name field, and leave the following fields blank: Flag Indicator, Search Logic, and Message.

In the **Flag Indicator** field, mark an X in the box if you want the system to display the contents of the data element flag. The flags are 0 (permanent records), 1 (permanent and temporary records), and 2 (applicant records). If you mark this box, do not type anything in the Data Element Name field, and leave the following fields blank: Key Field, Search Logic, and Message.

In the **Search Logic** field, mark an X in the box if this should be a Search Logic field. A search logic field is used to perform a search that is G (greater than or equal to) or E (equal to) the search value. If you mark this box, do not type anything in the Data Element Name field, and leave the following fields blank: Key Field, Flag Indicator, and Message.

In the **Message** field, mark an X in the box if you want messages displayed in this field. If you mark this box, leave the following fields blank: Key Field, Flag Indicator, and Search Logic. You should include at least one error message field on your screen.

10. In the **Specifications** section, use the Format pulldown arrow to select how the system should accept information in this field. Your choices are:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>capable of group reference</td>
</tr>
<tr>
<td>A</td>
<td>alphanumeric</td>
</tr>
<tr>
<td>C</td>
<td>currency (nnnn.nn)</td>
</tr>
<tr>
<td>D</td>
<td>U.S. date (MM-DD-CCYY)</td>
</tr>
<tr>
<td>E</td>
<td>International date (DD-MM-CCYY)</td>
</tr>
<tr>
<td>N</td>
<td>numeric</td>
</tr>
</tbody>
</table>

Use the Modifier pulldown arrow to select how the system should display the field. Refer to the table below.

<table>
<thead>
<tr>
<th>When the format type is</th>
<th>And the format modifier is</th>
<th>Enter the date/amount on the screen as</th>
<th>The data is stored on the Master Database as</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2</td>
<td>99999999.99</td>
<td>9999999999 (nine-character field)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9999999.99</td>
<td>9999999999 (eight-character field)</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>MM-YY</td>
<td>MMYY</td>
</tr>
<tr>
<td>D</td>
<td>6</td>
<td>MM-DD-YY</td>
<td>MMDDYY</td>
</tr>
</tbody>
</table>
In the GenCalc field, you may specify an online GenCalc you want this screen tied to by typing the last four digits of the GenCalc name. The system then retrieves the Online GenCalc associated with the field, and use any data entered on this screen as input to the GenCalc. Note that you can associate GenCalcs with any field on the screen.

In the Table field, you may specify a table you want used for table look-up by typing the name of the table. The data element values are used as a key to the specified table. The system displays the value from the table, rather than the data element value.

As you are defining data fields, if you need to review the layout of your new inquiry screen, select Display. To return to the Define Field screen, press Enter.

To edit your Define Field screen, select Edit. If your input passes all edits, the system displays the following message: Field Edited, Not Posted.

When you’re finished defining a data element, select OK to post it. The system displays the next field to define.

After you finish defining all of the data elements on your inquiry screen, the final step is to tie the screen to an existing screen. If the inquiry screen is not attached to another screen, it cannot be accessed by any means except screen navigation.

To attach your new inquiry screen, determine which screen you want your new screen tied to, and then follow this two-step process:

1. Type that screen’s name, application ID, and chain number on the Screen Development screen, and choose the Change Static Information option. Add the four-position name of your new inquiry screen to an available F-key, and then press OK.

2. Use the modify function to add the F-key number and literal name to this screen.

Your new inquiry screen is now connected to an existing screen.

### Building a Data Entry Screen

As with data inquiry screens, the ability to customize or create data entry screens specific to your organization or to a particular task, makes screen building a valuable asset.
Data entry screens allow you to type data into fields that display on the screen. The screen file contains all the data entry screens and their field definitions. The system accesses the security files to determine if a user should be allowed to view a screen, and in which fields a user can enter data.

The Screen Development function allows you to design screens that create multiple transactions by using Transaction Codes and Subcodes.

Genesys recommends that you review these guidelines on fields, function keys, messages, and tables before you create a data entry screen.

### Fields

Fields can identify data, clarify columns, and provide headings of information.

1. Type fields in upper and lower case letters. In other words, uppercase the first letter of each word in the field. The exceptions to this rule are initials and acronyms, such as EEO and COBRA, which must appear in all uppercase letters.

<table>
<thead>
<tr>
<th>USE</th>
<th>State Tax Code/Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOID</td>
<td>STATE TAX CODE/PERCENT</td>
</tr>
<tr>
<td>USE</td>
<td>EEO</td>
</tr>
<tr>
<td>AVOID</td>
<td>Eeo</td>
</tr>
</tbody>
</table>

2. Place a colon (:) immediately after each field that is to be populated.

<table>
<thead>
<tr>
<th>USE</th>
<th>Birth Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVOID</td>
<td>Birth Date</td>
</tr>
<tr>
<td>AVOID</td>
<td>Birth Date :</td>
</tr>
</tbody>
</table>

Fields that aren’t populated, such as headings and informational text, don’t require a colon.

3. Group associated fields together. Align field sizes so that the highlighted area of the screen is even.

4. Always define at least one error field. If there isn’t an error field on the screen, the navigation field does not display.

5. Leave two blank spaces between the end of one field and the beginning of the next.

### Function Keys

Function keys serve many purposes, including retrieving data, performing calculations, and advancing through screens.

1. When building data entry screens, the function keys on the lower left-hand side of the screen must be preceded by the words Enter - (explanatory text, specific to each data entry screen), which must be on line 19.

Place the function keys on lines 20-22. Leave lines 23 and 24 in the lower left-hand corner of the screen blank. These two lines are reserved for messages.

On the lower right-hand side of the screen, you can place function keys on lines 19-23. You don’t need to leave room for messages; they don’t appear on this side of the screen.
2. Align the F in the F key description. Also, uppercase the F key.

3. Limit function key descriptions to 30 characters.

4. If you use a mainframe emulator, function keys 14-24 are available on your keyboard. However, you can only assign functions to keys 13 and 19-24; keys 14-18 are reserved for GenLink. If you use a mainframe emulator and you assign functions to keys 14-18, GenLink won’t work correctly.

5. F1 (Edit Only) = Verifies the information on the screen. If no errors are found, the system executes any GenCalcs attached to the screen and redisplays it.

6. F2 (Accept As Is) = Processes the data you entered on the screen without performing the edit functions (above). This creates deferred transactions only.

7. F3 (Create Temporary Defaults) = Lists the data entered on the screen from subsequent individuals without having to duplicate certain information, such as state codes, hire dates, departments, etc., that might be the same for several individuals.

8. F4 - F6 = Not used.

9. F7 = Returns to the previous screen in the series.

10. F8 = Advances to the next screen in a series.

11. F9 = Returns to the menu associated with the function you are performing.

12. F10 = Prior to the Spring of 1995, Genesys' delivered application screens had associated help screens that was accessed by selecting F10. With the release of online documentation (via CD-ROM), these help screens are no longer delivered, and therefore F10 can be used for another function.

13. F11 = Not used.

14. F12 = Must always return you to the OnLine System menu.

Messages

Genesys provides messages to assist you as you use screens. Some messages are informational (such as **Must Use F Key for Access**) while others indicate errors (such as **Net Pay Exceeded - Levy Invalid**).

1. Message numbers 0-1000 are reserved for your use.

2. Lines 23 and 24 in the lower left-hand corner of the screen are reserved for messages; don’t place function keys or other text to this area. Begin messages in position 3, on line 23. Load 32 vertical bars when defining.
Tables
Do not attach a table directly to a data entry screen. You can, however, attach a GenCalc that uses a table.

Building a Data Entry Screen
1. Display the Screen Development screen by typing PPSX in a screen navigation field and pressing Enter, or selecting Screen Development from the GenTools Menu.

2. Type a four-position name that represents the data entry screen you want to add, the application letter, and a chain number. For a new Data Entry screen, select Data Entry under Screen Type.

3. With Add a New Screen selected as the Action, select OK to display the Static Information - Data Entry screen.
4. In the Security Level field, you can leave the default as 00, (which applies no security), or change it to a higher level. For more information on security levels, see your Security Administrator.

5. In the Language Code field, enter the code for the language in which you want to display system messages. E = English  F = French

6. In the Verify Key field, click the arrow to highlight a selection from the list or type the letter for one of the following options:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Verify if this TRAN Key exists on the Master Database.</td>
</tr>
<tr>
<td>N</td>
<td>Do not verify the TRAN Key against the Master Database.</td>
</tr>
<tr>
<td>V</td>
<td>Verify the existence of this TRAN Key on the Master Database and return the contents of the Data Entry Field Verification Data Element to the screen in the defined field.</td>
</tr>
</tbody>
</table>

Verification is important especially when your screen display is very specific. For example, if a data entry screen was designed for time entry, you might want to use the data element NAME as the verification field. If V is used, the system displays the contents of the field NAME for the TRAN key entered. You can then verify whether the TRAN Key is the correct one for the individual whose time you want to enter.

If you use RealTime Processing, you have two ways to specify the field for verification on the Online Master Database.

- First, you can add the data element to Table 910, through Table Maintenance. The system applies verification for your current processing.
- Second, you can run Program 910, as described below. Program 910 is used to load the Online RealTime database from a sequential backup. Refer to the Online System Manual for more information.

If you are a DB2 System user, you are required to specify data elements for verification on Table 910.

If you're using Non-RealTime Processing, you must run programs LS and LE to load the Online Shadow File from your sequential backup file.
To use the Data Entry Field Verification Feature (Program 910):

During the Online Reload Procedure, run Program 910 in Full or Selective Mode (with an *PAY card for each group) and specify a data element in positions 24-27.

On the Static Information screen, enter a V in the Verify Key Against Master Database field.

On the Screen Building screen, include a field to display the contents of the data element field on your data entry screen.

On the Field Definition screen, define the field as defaulting from the Screen Buffer in position 198 for the length of the field.

7. In the Totals Matrix field, the system allows you to keep a running total of the number of transactions created using a particular screen at a given time. You can specify up to 20 matrixes. Program ASBPPBB generates reports on totals for each of the possible 20 matrixes.

8. In the Clear buffer before write field, you can mark an X to allow you to pass specific fields of data from one screen to the next screen in a chain sequence. Generally, when data is passed from one screen to the next, the buffer is cleared before the first screen is displayed, but not cleared on subsequent screens in the chain.

Data is not automatically written to the buffer, unless you specify it in this field. You must do so on a field-by-field basis.

Mark an X (yes) to tell the system whether or not to clear the screen buffer before you see the screen. If you tell the system to clear the buffer before displaying the screen, the data that was in the buffer is cleared so that new data can be written to the buffer.

9. In the Applicant Data Elements field, if you are creating this screen for either the Human Resources or Human Resources Planning application, you can specify whether the system should accept (X) or not accept (blank) only applicant-level data elements.

10. In the Transfer Control section, assign screen names to the function keys that displays on the data entry screen you are creating. As shown in the example, F7-F9 corresponds to GenLink's pushbuttons: F7 = previous screen, F8 = next screen, and F9 = menu.

If you have a series of screens chained together and you want to provide the option to go directly to a screen without having to go through the entire sequence (for example, screens 01-05), you can use **NN. **NN allows you to designate a function key as the next screen the system displays regardless of the sequential order of the screens. This means that if a function key had been designated as a particular screen in a chain, let's say 05 (in a chain of 01-05), the user can select the function key and go directly from screen chain number 01 to screen chain number 05 without having to go through screens 02-04.

11. Select OK to display a blank data entry screen. On the floating toolbar, click the fourth button in the left column to populate the screen with the screen navigation legends you've already assigned. (Refer to the Menu Building section in this chapter for a chart explaining the floating toolbar.)

Data entry screens contain the following system-defined function keys.

F1 (Edit Only). Verifies the data on the screen. If no errors are found, the key executes any GenCalc attached to the screen, and redisplays it.

F2 (Accept As Is). Processes the data you entered on the screen without performing the edit functions. This creates deferred transactions only.

F3 (Create Temporary Defaults). Lists the data entered on the screen for subsequent individuals without having to duplicate certain information such as state codes, hire dates, departments, and so on, that might be the same for several individuals.
12. Use the floating toolbar to lay out your screen exactly as you want it appear. Type screen literals (text) and use vertical bars to indicate fields. Note that you must know the field lengths of date elements that you're assigned to fields on the screen.

13. Use the E1 and E2 buttons on the toolbar to add system message blocks.

14. Click the smiley-face button when you're done to display a playback of your screen.

15. If you need to return to make a change, click the left arrow on the toolbar. To continue, click the smiley-face to display first Define Field screen, shown below.

![Define Field Screen](image)

The system displays a Define Field screen sequentially for each field that needs to be defined. Your new data entry screen is in the background, with the field you're currently defining highlighted.

Under Field, Number refers to the sequential number of the current data element, and the Row and Column numbers refer to its position. In our example above, we're displaying the first field, which is in row five, starting in column 25.

You must define each field on your inquiry screen.

16. In the Data Element section, you can enter a data element name or mask in the Name field. This field tells system how to format the transaction and which fields to include in a particular transaction. The information you enter in this field depends upon the following:

- How you want to format the transaction.
- The order in which you want the transaction processed.

For example, do you want this field used to change an individual's street address (ADR2), hourly rate or pay (RATE), or salary (SALY)? Or, you can use a Transaction Mask to define the field and produce a transaction. Here's an example of a transaction mask:

300149

![Transaction Mask Diagram](image)

The Transaction Mask 300149 identifies the field on the individual's record in the same way as the data element ADR1. With one exception: the mask 300149, creates a 30 transaction; the data element ADR1 creates a 72 transaction. The system processes the 30 transaction before a 72.

You can only use a 30 transaction to add a new record, while a 72 transaction is used to change data.

17. The Starting Position and Length fields tell the system to enter the data into a specific portion of the field. For example, in the figure below, the data element field ADR3 (address line 3) contains three elements, city, state, and ZIP code.
There are 24 positions available in ADR3. The city, state, and ZIP code are divided into three sections.

When data is entered on screen, the fields can look like the figure below.

Enter City _______ Enter State ___________Enter ZIP Code _____

18. In the Appearance section, choose whether you want the field highlighted on the screen, invisible, and/or modifiable. If you make the field modifiable, it can changed through overtyping; this would produce a 72 Change Transaction. If you choose to make the field invisible, you can still modify it, unless you leave the Modifiable box blank. If you want the system to automatically position the cursor in this field when the screen is first displayed, mark an X in the box.

19. In the Definition section, follow these instructions.

Message -- If this is a system message field, mark an X in the box. If the field is a system message, no other information is needed on this screen.

Data -- If the field can be used in conjunction with the Data Element name field to create one change transaction, mark an X in the box to identify the field as containing the data portion of the transaction.

Output Transaction Number -- In the Output Transaction Number field, type a value to tell the system which transaction the field belongs to. By assigning fields to the same Output Transaction Number, you can tell the system to process the contents of these fields as one transaction. You also can assign different Output Transaction Numbers to different fields and generate multiple transactions from one screen.

If you assign the same transaction number (for example 01) to multiple fields, the system creates a single transaction from these fields. If, however, you assign different transaction numbers to each field, the system creates as many transactions as there are fields.

The system also can attach the contents of a field to every transaction created from the screen, by assigning the value of SC (System Controlled) to the field. For example, the data element TRAN is used when generating all transactions. If you were defining this field and wanted it to be attached to all transactions, you should enter SC as the Output Transaction Number for this field.

Guidelines for Output Transactions

- The first and second positions on each of the 24 rows of the screen are reserved and remain blank.
- Type 01 for every field defined on the screen to create one transaction for one individual.
- Type SC to define a field whose contents are to be included with every transaction generated from the screen.
- Increment the Output Transaction Number every time the defined field indicates a change in: TRAN Key, Transaction Code, or Transaction Subcode/data element.

Here are some examples of how to use the Output Transaction Number field.

**One Transaction for One Individual**

The fields TRAN, NAME, and APT/P.O. Box share the output transaction number 01 and therefore the system groups the fields together to form one transaction. In this example, the system generates a 3001 transaction to load the data elements NAME and ADR1 on the Individual Record. The system does this by using Subcodes in addition to Transaction Codes. In the following example, 30 is the Transaction Code and 01 is the Subcode.

<table>
<thead>
<tr>
<th>Enter TRAN Key:</th>
<th>(01)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter Name:</td>
<td>(01)</td>
</tr>
</tbody>
</table>
One Transaction for Multiple Individuals

The TRAN, Earnings Number and Hours Worked fields share different Output Transaction Numbers (01, 02 and 03) because they apply to different TRAN Keys. In this example, the system generates three 85 transactions. Remember, if the TRAN key changes, you must create a new transaction.

<table>
<thead>
<tr>
<th>TRAN Key</th>
<th>Earnings Number</th>
<th>Hours Worked</th>
</tr>
</thead>
<tbody>
<tr>
<td>(01)</td>
<td>(01)</td>
<td>(01)</td>
</tr>
<tr>
<td>(02)</td>
<td>(02)</td>
<td>(02)</td>
</tr>
<tr>
<td>(03)</td>
<td>(03)</td>
<td>(03)</td>
</tr>
</tbody>
</table>

Multiple Transactions for One Individual

The screen uses the SC option to link a number of fields together via the TRAN Key. In this case the TRAN key is included in every transaction generated from the screen.

<table>
<thead>
<tr>
<th>Enter TRAN Key:</th>
<th>(SC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter Name:</td>
<td>(01)</td>
</tr>
<tr>
<td>Enter Apt/P.O. Box</td>
<td>(02)</td>
</tr>
<tr>
<td>Enter Sex:</td>
<td>(03)</td>
</tr>
</tbody>
</table>

20. GenCalc -- In this field you may specify an online GenCalc you want this field tied to by typing the last four digits of the GenCalc name. The system then retrieves the Online GenCalc associated with the field, and use any data entered in the field as input to the GenCalc.

21. In the Format field, use the pulldown arrow to select a format type for the data element. The default setting is the Data Element File Characteristic. Your choices are:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>capable of group reference</td>
</tr>
<tr>
<td>A</td>
<td>alphanumeric</td>
</tr>
<tr>
<td>C</td>
<td>currency (nnnn.nn)</td>
</tr>
<tr>
<td>D</td>
<td>U.S. date (MM-DD-CCYY)</td>
</tr>
<tr>
<td>E</td>
<td>International date (DD-MM-CCYY)</td>
</tr>
<tr>
<td>N</td>
<td>numeric</td>
</tr>
</tbody>
</table>

In the Modifier field, use the pulldown arrow to select how the system should display the field. Refer to the following table.

<table>
<thead>
<tr>
<th>When the format type is ...</th>
<th>And the format modifier is ...</th>
<th>Enter the date/amount on the screen as ...</th>
<th>The data is stored on the Master Database as ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2</td>
<td>999999999.99</td>
<td>9999999999 (nine-character field)</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>99999999.99</td>
<td>9999999999 (eight-character field)</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>MM-YY</td>
<td>MMYY</td>
</tr>
<tr>
<td>D</td>
<td>6</td>
<td>MM-DD-YY</td>
<td>MMDDYY</td>
</tr>
<tr>
<td>D</td>
<td>8</td>
<td>MM-DD-CCYY</td>
<td>CCYMMDDL</td>
</tr>
<tr>
<td>N</td>
<td>2</td>
<td>999999999.99</td>
<td>9999999999 (nine-character field)</td>
</tr>
</tbody>
</table>
22. In the **Error Code** field, type the error code of the error message you want the system to display when this field fails an editing routine. Select an error message from the Error File. There are Genesys-supplied and user-defined error messages. For more information, see Chapter 3 in this manual.

23. In the **Edit Code** field, type either the Genesys-supplied or user-defined edit code. User-defined edit codes correlate to editing routines defined in Program UE. (For more information on user-defined edit codes, refer to the Genesys System Manual.)

24. There are two Field Required options:
- Mark an X in the **To Process Screen** box if you want to require data in this field in order to create the transaction. For example, some fields (like the TRAN key and NAME on the Add an Employee screen) must be filled in before the system can process the data.

  OR

- Mark an X in the **If Transaction Generated** box to tell the system to require this field if fields with the same Output Transaction Number contain data.

25. To set additional options, click the Advanced button to display a second Define Field screen, shown below.

26. **Transaction Code** field tells the system that the user will enter a transaction code in this field.

When the field you're defining is used to enter either a transaction code or a transaction subcode, you must define these fields to specify the action. For example:

**Transaction Code X Format 47**

Mark an X in the box to tell the system that the user enters a transaction code in this field. The 47 indicates to the system which transaction format to use. Refer to your Application Reference Manual for application transaction codes.
In the following **Format** field, specify the type of transaction to be entered on the screen. This determines the format of the transaction created by the screen.

27. In the Sub-Code field, mark an X to indicate to the system that the user will enter a subcode in the field.

28. In the following Format field, type the general format of the subcode and start position of the data within the transaction.

29. In the Transaction Code Required to Process field, mark an X in the box if the field you are defining requires a data entry operator to enter the Transaction Code in the TRAN Code field. If you leave this field blank, the system defaults to the Transaction Mask to define the field.

30. When you specify field defaults, you can instruct the system to take the data from either the screen or the screen buffer.

   The buffer (256 characters long) is used to pass data from one screen to another. The system uses the buffer to store data such as the TRAN in positions 1-20, field verification data in position 198, and the current open Batch and Sequence numbers starting in position 246 and 251 respectively. You can use the buffer as a storage area to move data from screen to screen and avoid typing input again and again.

   To use the buffer or screen default you must fill in one of the following:

   In the **Default from Buffer** field, mark an X to either store or display previously entered data in this field. By specifying a storage location within the buffer for a particular field, the system stores the field's data in the buffer and also displays the data from the buffer in the field.

   For example, TRAN is always stored in positions 1-20 of the buffer. If you wanted to default TRAN from the buffer to the screen, mark an X in the Default from Buffer field and 1 in the Start position and 20 in Length.

   In the **Start** field, type the buffer location of the data.

   In the **Length** field, type the length of the data in the buffer.

   In the **Default from screen** field, the system displays the screen default. Mark an X to use the default value from the screen, which is defined when you build the screen.

31. In the Is Default section, you have three options:

   Operator entered -- If you want the system to treat the default or the data from the buffer as if a data entry operator had typed the data, mark an X in this field.

   **Informational** -- If you want the data from the buffer or the default to be used for the data entry operator's information only and not be part of the transaction, mark an X in this field.

   **Only When Tran Created** -- If you want the data from the buffer or the default to be part of the transaction only if an entire transaction is created, mark an X in this field.

   The displayed data can be used strictly for the data entry operator's information, or as part of generating a transaction.

   As you're defining data fields, if you need to review the layout of your new data entry screen, select Display. To return to the Define Field screen, press Enter.

   To edit your Define Field screen, select Edit. If your input passes all edits, the system displays the following message: Field Edited, Not Posted.

   When you're finished defining a data element, select OK to post it. The system displays the next field to define.

   After you finish defining all of the data elements on your data entry screen, the final step is to tie the screen to an existing screen. If the data entry screen is not attached to another screen, it cannot be accessed by any means except screen navigation.

   To attach your new data entry screen, determine to which screen you want your new screen tied, and then follow this two-step process:
32. Type that screen's name, application ID, and chain number on the Screen Development screen, and choose the Change Static Information option. Add the four-position name of your new data entry screen to an available F-key, and then press OK.

33. Use the modify function to add the F-key number and literal name to this screen.

Your new data entry screen is now connected to an existing screen.

Changing Static Information

You can change function key assignments and other static information. Your options vary depending on whether you're working with a menu, inquiry screen, or data screen. Refer to the sections earlier in this chapter for descriptions of the static information that applies to each type of screen.

You also can change a screen's security class. Note that to change security, you must work with your system's Security Administrator, who has access to the Genesys security program.

Function Key Assignments

The function keys have been defined for all of the screens delivered with your system. Certain standards apply to the literals used to describe the function keys on each screen. You can change the use and description of the function keys associated with your system-related screens. However, you cannot modify the function keys on system-controlled screens, such as the SearchAll screens and the screens accessed from your application's GenTools.

On all inquiry and data entry screens, the Function Keys F12 and Clear do not display. These are standard function keys. By pressing F12, you can display the Online System Menu. By pressing Clear, you can log off the system from a data entry screen, or display base data from a data inquiry screen.

To change a function key, follow these steps:

1. Display the Screen Development screen by typing PPSX in a screen navigation field and pressing Enter, or selecting Screen Development from the GenTools Menu.

2. Type the name of the screen that has the function key you want to change, or the screen where you want to add a function key. Select the application and type the chain number.

3. With Change Static Information selected as the Action, choose OK to display the Static Information screen.

4. Type your change, or addition, and then click OK or press Enter. When you make a change to a function key, make sure that you change the legend (literal description) of the key to be consistent with its new function.

Here are some additional guidelines

On data inquiry screens, Function Keys 1-5 are used to retrieve data based on the value assigned to the key. F1 (Search By Key) always performs a search by the TRAN key. You cannot change the operation of this key. However, depending on your application, and the set of screens you're viewing, this key could search by employee, participant, applicant, group, or position.

Function Keys 2-5 correspond to the Alternate Index paths 1-4. You can establish alternate search paths for individual records based on whatever field values you want (such as Social Security/Social Insurance Number, Last Name, and so on).

For example, the Human Resource System inquiry screens are delivered with literals for F2 (Search By Last Name) and F3 (Search By Social Security/Social Insurance Number). These keys are not functional when your system is delivered. To enable F2 and F3, to define new paths, or for more information on Creating an Alternate Index, see Chapter 2 of this manual.
Also on data inquiry screens, you can change the search paths for Function Keys 2-5 and navigation paths for Function Keys 7-10.

On data entry screens, you can change the navigation paths for Function Keys 4-10 used to access other screens.

Deleting a Screen

To delete a screen, follow these steps:

1. On the Screen Development screen, type the screen name, application, and chain number of the screen you want to delete.
2. With Delete Screen selected as the Action, select OK. The system asks you to confirm your decision to delete the screen. Click Yes to confirm. After the delete is completed, the system displays the message "Preceding Screen Deleted."

Replacing a Screen

You can use this function to recreate a screen. This allows you to change any static information for the screen and to begin recreating the screen.

To replace a screen, follow these steps:

1. On the Screen Development screen, type the screen name, application, and chain number of the screen you want to replace.
2. With Replace Screen selected as the Action, select OK to display the Static Information screen.
3. Make any changes you want to the function key assignments.
4. Click OK to display the screen, where you can make modifications to the screen display.
5. Define the data elements as described in this chapter. (If you modify rather than replace a screen, you do not have to re-define the data elements.)

Replacing Screen Defaults

You can change the defaults for an existing data entry or data inquiry screen. A default is the data that you want to appear on the screen when the screen is first displayed.

To replace a screen default, follow these steps:

1. On the Screen Development screen, type the screen name, application, and chain number of the screen for which you want to replace defaults.
2. With Replace Screen Defaults selected as the Action, select OK to display the screen you want to change.
3. Type or space over the default literals you want to change. You also can add defaults to other fields on the screen.
4. Select Enter to process your changes, and re-display the Screen Development screen.

Copying a Screen

You can copy a screen and then modify the literals to create a new screen.

To copy a screen, follow these steps:
1. On the Screen Development screen, type the name of the screen you want to copy, plus its application ID and chain number.

2. In the Copy Screen To field, type your new screen name, chain number, and language.

3. Click OK. The system displays the message **Screen Copy Complete**, and returns you to the Screen Development screen. You then can display your new, copied screen, and modify it.

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**Modifying a Screen**

You can add, modify, move, and delete a screen's literals, fields, and field defaults.

To modify a screen, follow these steps:

1. On the Screen Development screen, type the name of the screen you want to modify, application ID, and chain number.

2. With Modify Screen selected as the Action, select OK to display the screen.

   Use the functions on the floating toolbar to modify the screen. Refer to the chart earlier in this chapter for a description of this toolbar.

   You have the following options:

   **To modify literals**, type over the existing text, or use the space bar to remove unwanted text, and then type your new text in a new location.

   **To modify a field's size**, use the Pointer to position the cursor in the field, click the Vertical Bar button, and then double-click the right mouse button. The system displays the field with vertical bars, and you can make your changes.

   **To move a field**, use the Pointer to select the field you want to move. Double-click the right mouse button to display the Move button on the toolbar. Position the cursor in a new location and then click the Move button. Note that this process moves fields; you must allow space in the new location to type any screen literals associated with the field. Also, fields can be moved over themselves, but they should not be moved over other fields.

   **To delete a field**, use the Pointer to select the field and then press the Delete button on the toolbar. Space out any screen literal associated with the deleted field.

   **To add a field**, type an appropriate literal (if any), and use the Vertical Bar button to define the field's size and location. Select the Enter button on the toolbar to make your change permanent. The system displays your field with @ signs. To define your new field, select the question mark button on the toolbar to display the Define Field screen. If you fail to define an added field, it displays: @ signs, and you will not be able to use it.

   If you display a Field Definitions screen by pressing the question mark button after adding a new field, scrolling occurs through all new fields without stopping at existing definitions. Once you have defined all new fields, the next scroll returns to the screen. However, if you display the Field Definitions screen from an existing field, scrolling stops at all fields until you scroll to a new, undefined field. At that point, scrolling stops only on new, undefined fields. Once all new fields are updated, the next scroll returns to the screen.