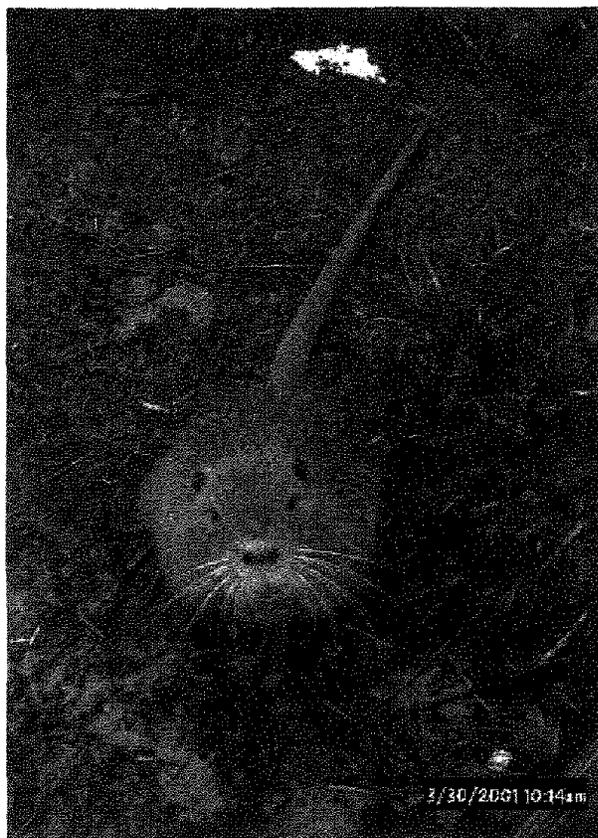


Department of Land & Natural Resources

Bureau of Conveyances Information System

BCIS

User Manual



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Introduction

The BUREAU OF CONVEYANCES INFORMATION SYSTEM, 'BCIS' for short, is a fully integrated "state of the art" runtime environment, customized for the Department of Land and Natural Resources, Bureau of Conveyances. It was built with a platform-independent, Rapid Application Development (RAD) tool called APPX. APPX, which stands for **APP**lication **eX**cellence provides the capability to quickly and easily develop and deploy full-featured, business applications. The BCIS currently resides on the IBM RS/6000 hardware and the IBM AIX operating system. The underlying database is IBM's DB2, a robust, fully relational database.

The BCIS was conceptually designed many years ago by the very users of the system today, who envisioned a new, enhanced, comprehensive system for receiving, storing, converting and disseminating information. It incorporates and integrates all the current users of the BOC under one on-line system, as well as provides for expansion of its central Honolulu office to each of the neighbor islands, utilizing a high-speed network.

The BCIS resides on a framework that can easily accommodate growth, and is flexible enough to utilize new technological advances, as they become available. The BCIS engages advance technology products and methods to increase BOC's operational efficiency. This translates to greater productivity of the BOC operations, and therefore capable of accommodating and providing proactive services to their Customers and to the Public in general.

***** *Welcome to the BCIS* *****

301400

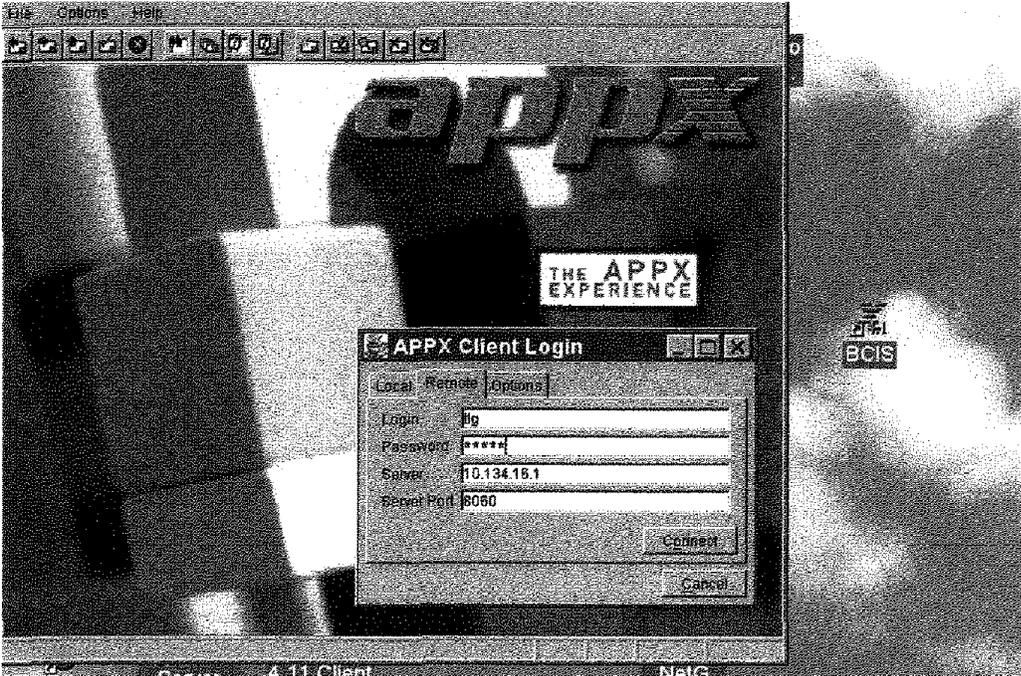
Getting Started in the BCIS

Double click the BCIS icon on your PC desktop to start. The cursor should be positioned in the Password field. Sign on to your workstation by entering your password, in lower case, then press ENTER, to evoke the BCIS application system.

You can also use the mouse to “click” into any field on the screen. The Logon name is always the last person who logged on to the BCIS from your PC. If this is not correct, or if the Server or Server Port is not as shown below, simply use the tab key, or click into the field with the mouse, and correct the information. Press ENTER, or press the Connect button, to evoke the BCIS application system.

The first screen you will normally see is a menu. To initiate any activity, select the appropriate button from this menu. Thereafter, what you see on your terminal depends on what functions the application contains and which options you select. Later in this manual, the different types of processes you may encounter in an application are described.

Note: All fields are case sensitive and Logons are all lower case on the BCIS.



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The BCIS Screen Layout

Although there are virtually no limitations on the type and format of information you may see on your BCIS screen, there are some patterns that are common throughout.

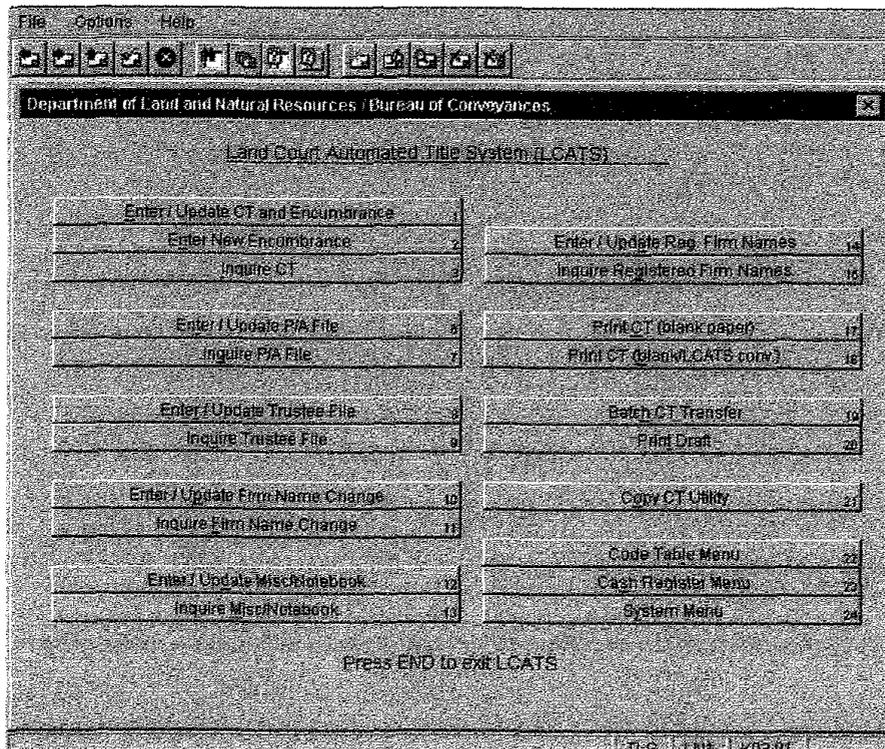
Title Bars are located at the top of every BCIS screen and screen overlay. They generally describe the function or contents of the screen and also provide three special functions in the form of buttons that are located at the far right end of the title bar. These buttons vary depending on the level of the title bar.

Directly under the main title bar is the **Menu Bar**. It contains special functions in categories such as **File, Options, Help etc.** Under the menu bar is the **Tool Bar, which** contains several icons. These icons represent functions that can be performed throughout the BCIS applications.

The **body of the screen** contains text or items, or a mixture of both, depending on the type of process. For example, a menu contains a list of one or more options, usually in the form of buttons. An input process contains one or more items to enter.

The bottom of every screen contains a **Status Bar**, a common area that is used to provide relevant information at all times while running your application.

Below, shows a sample BCIS screen layout, in this case, the LCATS main menu.



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Title Bars



The title bar, located at the very top of your screen, contains three buttons at the extreme right that can be used to perform standard Windows functions. These buttons, from left to right, minimize, maximize, and close your BCIS window and end your session.



Subordinate title bars for other windows and overlays contain three buttons at the far right that can be used to display help, save changes to the current record and move forward to the next, or to return to the previous screen or menu.



You can select the "question mark" or **HELP** button while positioned anywhere on a screen to receive an on-line description of any process that can be invoked from the screen below, or to display detailed information about a field that appears on a data entry screen. To display this description, click **HELP** then click the desired option button or field. When finished reading the help text, select the button on the help overlay's title bar to remove the help overlay.



The button is also referred to as **ENTER**. Selecting this button generally validates and saves any data entry you have performed on the current screen and moves you to the next record in a file or the next screen or overlay in a series. It can be used interchangeably with the **ENTER** or **RETURN** key on your keyboard.



The **END** button, or **F8** key, when selected, ends the current process and "takes you back" to the previous process. For example, in the Cash Register Menu, if you select **END** from the line item screen, you will return to the LCATS initial menu. Normally, if you end a menu process, you return to the previous menu process (if one exists) and, if you select **END** from your initial menu, you exit the BCIS. The **F8** key performs the same function as the **END** button.

301403

Menu Bar

As shown in *Table 1* below, the menu bar contains six categories of functions available during your BCIS session.

Menu Category	Functions	Description of Function
File	Print Setup	Define local printer, paper type, and page orientation
Options	GUI Interface	Adds GUI features to a character-based APPX session.
	Show Option Numbers	Displays corresponding <u>option</u> numbers on buttons.
	Auto Tab-Out	During data entry, automatically moves the cursor to the next field when the current field is filled.
	Auto Select	Selects the contents of a field for replacement when the cursor moves to that field.
	Always Dock Scrollbar	Prevents the scrollbar from appearing and disappearing when the mouse pointer moves near the right side of a scrolling region.
	Show Gridlines	Shows row and column gridlines.
Help	About	Displays version and client information regarding your current APPX session.
System	Various	Optionally displays a list of the system level direct processes that can be accessed instantly from anywhere. Click to run.
Application	Various	Optionally displays a list of the current <u>application's</u> direct processes that can be accessed instantly from anywhere within the current application. Click to run.
Process	Various	Optionally displays a list of the current <u>process'</u> optional processes. Click to expand or run.

Table 1. Menu Bar Options

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Tool Bar

The Tool Bar contains icons that are used to perform standard functions throughout your BCIS session. These icons and their functions are:



ENTER

When you enter or modify any items, select the **ENTER** icon to complete your action, indicating that all items on the screen were entered. Alternatively, you can select the button on the window, or you can press the **ENTER** or **RETURN** key on your keyboard.



CANCEL

The **CANCEL** option, activated by selecting the **CANCEL** icon, has a similar effect to the **END** option, but normally takes you further back in the processing cycle without saving any data entry you may have performed on the current screen. Where you return to depends on how the processes are designed in the application.



ADD

The **ADD** option allows you to add new records to an existing file



CHANGE

The **CHANGE** option allows you to modify data for existing records.



INQUIRE

The **INQUIRE** option allows you to examine (but not modify) existing records in a file.



DELETE

The **DELETE** option allows you to delete existing records from a file.



CONFIRM DELETE

This option confirms the deletion of a record from a file. A record selected for deletion is not deleted until confirmed.

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Status Bar

The status bar contains five areas which contain the following information (from left to right):

- ◆ *Messages* displays informational, warning, or error messages that generate as you run your applications. The specific message depends on events that happen as you run your application. This line may often be blank, indicating that no message currently applies.
- ◆ *User* displays the user ID of the person who is signed on to BCIS.
- ◆ *Database* displays the database you are currently using.
- ◆ *Application* displays the current application (three characters) and version (two characters).
- ◆ *Mode/Interactive Phase* There is four modes: add, delete, inquire, or change, which you can select with the Mode options. Interactive phase represents a finer breakdown of the mode. For example, you may be in change mode, at the point where you are about to specify the key value of a record you want to change. The mode/interactive phase at this point indicates Chg/Key. After a record has been retrieved and displayed on the screen, only Chg displays. For further information about modes and interactive phases, refer to those sections.

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Standard Cursor Movement Keys

As you navigate through various BCIS applications, you will make frequent use of many of the standard cursor control keys that allow you to move up and down, tab from field to field, and erase data in a screen field. You need to become familiar with all of the navigational keys on your keyboard.

Please refer to Appendix A for a complete list of the APPX keys and their functions. If you have any questions, contact your system manager

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Menu Options

As described previously, you initiate any action in the BCIS by selecting an option button. On a menu each button represents an option. An option may be a report, a file maintenance input process, or other predefined task.

The option key is the accent key (`) next to the numeric one (1) key.

In addition, there are several predefined options in the BCIS that you may select at any time to initiate a particular action. These options are represented by the icons located on the Tool Bar. Some of these options cause you to move between or into processes in your application or to perform specific tasks. Some of the options are applicable only to specific types of processes, while others are always available. The remaining sections of this manual describe these options, including when you might use them and exactly what the result will be.

301408

Running Processes

Beginning with the main menu, you may encounter many different processes as you navigate through your application. By selecting a specific option button from a menu, you may be presented with yet another menu that contains several other options. In turn, you may eventually invoke other types of processes, including input and output processes.

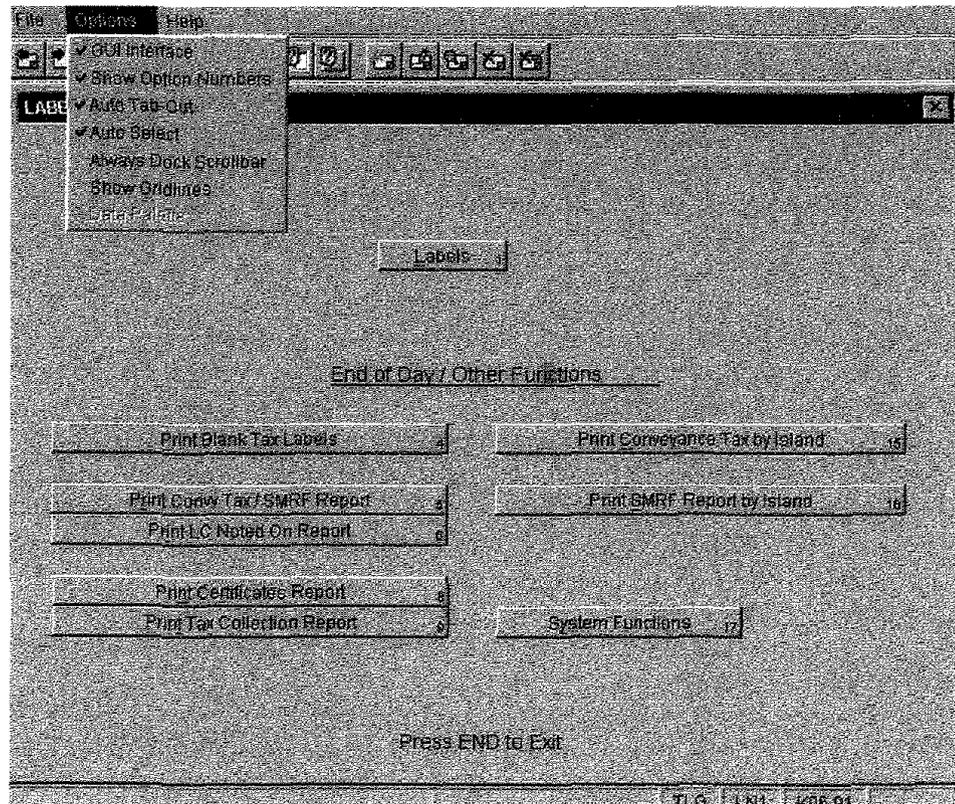
The following sections describe the unique features of each type of process and discuss how you can take advantage of these features.

301409

A Typical Menu Process

A menu is normally the first type of process you encounter after you enter BCIS, although your system manager can specify another type of screen if appropriate. From this initial or main menu, you select one of several menu options. As soon as you select the option, it invokes the corresponding process associated with the option. This process may be another menu, or another type of process that you use, for example, to perform data entry, generate a report, or post transactions.

The Labels Menu utilizing buttons to represent options is shown in below. This type of menu usually consists of a “main” menu from which you can access other sub-menus containing a variety of options. Another kind of menu uses pull-down menus so that the options are accessed from the pull down list. Note that all the sub-menus appear from the title bar at the top of the menu. Clicking any of the menus displays a drop-down list of options available within that category (Show Option Numbers, for example). These options may include menus or other types of processes. Simply click on any option to initiate the process listed.



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A Typical Input Process

An input process allows you to look at records in a file (inquire mode), or to perform file maintenance activities (add new records, delete old records, or change existing records). You choose the mode you want by selecting the appropriate option (*Add, Delete, Change, Inquire*).

When you first invoke the input process, it will default to one of the four modes, depending on how the application was designed. You can change the mode at any time, as described later in this chapter.

An input process screen contains one or more highlighted items, each identified with a corresponding label (such as *Apt/Lot#*). An item that allows user input is enclosed in a field box. Some items may be displayed but not allow user input; this is controlled by the design of the application. A sample input process is shown below.

The screenshot shows a window titled "DLNR / Bureau of Conveyances / LCATS" with a sub-header "Enter / Update Encumbrance Glossaries". The form contains several input fields and labels:

- Document No.:** A text box containing "0".
- Document Class Code & Description:** A dropdown menu with "M" selected and "MTG" displayed.
- Releases Document:** A text box.
- Released By Document:** A text box.
- GL:** A text box containing "AM".
- In Favor Of:** A dropdown menu with "AMFAC Financial Corp....." selected.
- Apt/Lot#:** A text box.
- Int:** A text box.
- Segment:** A text box.
- Dupl? (Y/N):** A checkbox.
- Reg:** A text box containing "MM/DD/CCYY".
- Name:** A text box containing "AMFAC FINANCIAL CORP".
- Address:** Two empty text boxes.

At the bottom right of the window, there are status fields: "TLO", "LN", "K03 01", and "Chg".

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Input Item Types

There are five types of items found in the BCIS applications. Each one has its own set of rules regarding what characters you are allowed to enter, as follows:

- ◆ **Alphanumeric** allows entry of any combination of letters, numbers, or characters, in general. Depending on the application, a variety of edit checks may be performed. Alphanumeric fields may span multiple lines on the screen. See the *Name* field in the sample above.
- ◆ **Numeric** allows entry of one number or a contiguous string of numbers. A leading or trailing minus sign and decimal point are treated as valid characters. Commas (to separate thousands) or currency symbols (such as \$) are not considered valid characters.
- ◆ **Date/Time** allows entry of up to eight date/time components: century (cc), year (yy), month (mm), day (dd), hour (hh), minute (mm), second (ss), and tenths and hundredths (th) of a second. Most date/time items typically include some combination of year/month/day, but the exact components in each item depend upon the design of your application. You are prompted as to which parts to enter at which position in each date/time item, by the presence of the corresponding two-character abbreviation listed above. Only valid components (such as minutes from 00 through 60) are accepted after you select *Enter* . See the *Reg* field in the sample above.
- ◆ **Logic** answers the question “yes” or “no” and is usually represented by a checkbox. This allows you to click the checkbox and toggle it to represent “yes” or “no”. A check mark means “yes” and a blank checkbox means “no”. In some cases, you can often leave a logic item with a question mark inside , meaning that you do not know the answer yet. For example, you may not know whether a particular customer wants to receive special mailings, so you leave the question mark until you find out. Some logic items require you to set the checkbox to “yes” or “no”. Logic fields, however, may sometimes be seen as a single character field with values of “Y” or “N” to represent “yes” and “no” respectively. See the *Dupl?* field in the sample above.
- ◆ **Text** is a free-form alphanumeric field for entering comments or other information in paragraph format. You can indicate the end of each paragraph so that the next sentence automatically begins the new paragraph on a new line. Word wrapping is employed so that your text wraps from one line to another, breaking the text between words. See the *In Favor Of* field in the sample above.

301412

Text Editing Options

In addition to the standard cursor movement keys (cursor left, cursor right, tab, etc.) there are several text editing functions that allow you to manipulate alphanumeric and text fields in your application, including the following:

- ◆ *Delete Character (DELETE)* allows you to delete one character at a time.
- ◆ *Delete Previous Character (BACKSPACE)* allows you to delete one character at a time to the left of the cursor position.
- ◆ *End Paragraph (CTRL+ENTER)* allows you to insert a character that will cause a new paragraph to be started, for multi-line alphanumeric items. To exit a text field, press **ENTER** twice, click on the title bar or tab out of the field and then press **ENTER**.
- ◆ *Move to Item Beginning (HOME)* allows you to move the cursor to the beginning of the current line of text in the item.
- ◆ *Move to Item End (END)* allows you to move the cursor to the end of the current line of text in the item.

301413

Mode Options

When you are in an input process, you can be in any of four modes, depending on the activities you intend to perform. You may switch between the four modes by clicking on the corresponding mode icon on the tool bar:



Add Mode allows you to add new records to a file.



Change Mode allows you to modify data for existing records.



Inquire Mode allows you to examine (but not modify) existing records in a file.



Delete Mode allows you to remove existing records from a file (note that there is a separate *Confirm Delete* option that you must select to complete the deletion action on a particular record; this option is discussed in the following section).

Each input process has a default mode, so that when you first enter the process you are set to one of the four modes automatically. The default mode is controlled by the design of your application but you can change the mode at any time by selecting the desired mode option. In some cases, the application may be designed so that some of the modes are not available.

301414

Deleting A Record

To delete a record from a file, you need to perform the following actions:



1. If you are not already in delete mode, select *Delete* mode .
2. Identify the record you want to delete by entering its key value and select *Enter* . Verify that the displayed record is the correct one.



3. Select *Confirm Delete* . Until you perform this final step, the record is not deleted from the file.

301415

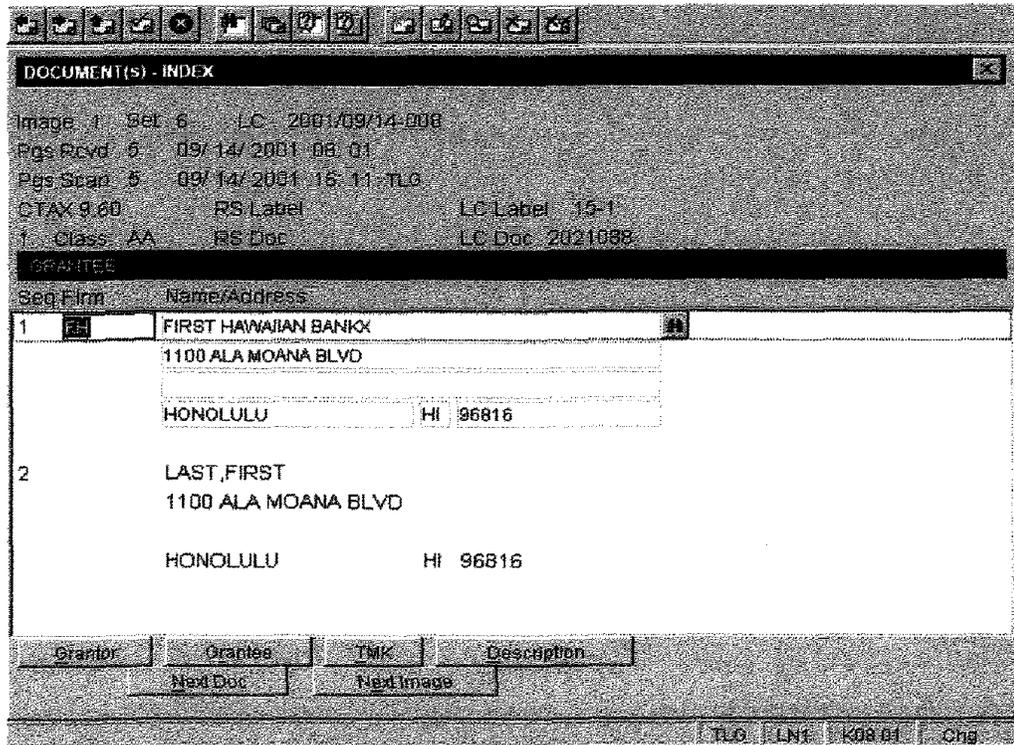
Scrolling Input Processes

Some input processes are *scrolling*, like that of the GRANTEE shown below. A scrolling input process displays several records at a time on the screen, and allows you to “scroll” through the records in the designated key path sequence.

The record you are currently on is highlighted, and you can move successively through the list of records one record at a time, by using the scroll buttons (located in the right edge of scrollable areas). You can also press the **F5 (NEXT RECORD)** key on your keyboard.

If you reach the last record on the screen and there are more records in the file, pressing the **PAGE DOWN** key or using the scroll buttons or slide bar causes the screen to scroll, displaying the next group of records while removing the current group from the display.

You can also select any record displayed on the screen by clicking on it, and selecting a mode option to make that the current record. For example, in inquiry mode you may have displayed a scrolling list of records on the screen. Then you can select a specific record, select change mode, and apply any changes to the selected record. Key sequence 1, which is FH, is ready to be CHG – Changed



301416

Interactive Phase

The interactive phase describes the type of activity you are performing while maintaining a file in an input process. The interactive phase is meaningful in the context of the mode you are in. For example while in add mode, you may add an order record and a number of associated line items. At this point, you may want to return to the order record and modify a field you previously entered. When the order record displays on the screen, you are still in add mode (because you have not changed the mode), but you are in *modify* interactive phase. The mode on the status surface shows "Add/Mod," indicating that you are in add mode and *modify* interactive phase.

A second example demonstrates another combination of mode and interactive phase. While in change mode, if you retrieve a record that another user already retrieved in change or delete mode, you can display the record but you are not allowed to change it. The mode on the status surface shows "Chg/Inq" to indicate the status of the record.

In most cases, you will be in an activity that displays only the mode, because the activity you are performing is the same as the mode. For example, after selecting inquire mode, you proceed to display records one after the other. In this case, only "Inq" displays for mode on the status surface.

301417

Data Entry Options

In the BCIS, there are several options you will want to become familiar with that will help you enter data more efficiently. Some of them are:

Tab and Backtab Functions

During data entry, **TAB** and **SHIFT+TAB** functions work together to allow you to move between items on a screen. Pressing the **TAB** key allows you to move from one item to the next on an input screen. Pressing **SHIFT+TAB** allows you to move back to the previous item.

Next Record (F5)

The **NEXT RECORD** option, activated by pressing **F5**, allows you to move through all of the records in a file, one record at a time. In the orders/line items example, if you were positioned on the first order record and selected **NEXT RECORD**, you would move to the second order record. Unlike selecting **ENTER**, you do not go “down” to the line items that are associated with each order. If you come to the last record in the order file, you are placed in “key entry,” in which you can enter a key to retrieve a specified record.

Previous Activity (F4)

The **PREVIOUS ACTIVITY** option, activated by pressing **F4**, allows you to recall the screen that immediately preceded the current one. In our example, if you select **PREVIOUS ACTIVITY** while on a line item, you redisplay the order record for that line item. Even if you are in a scrolling line item process, selecting **PREVIOUS ACTIVITY** while positioned on any of the line items returns you to the order record. This option allows you to step back one screen at a time.

Direct Process 1 (CTRL+1) and Direct Process 2 (CTRL+2)

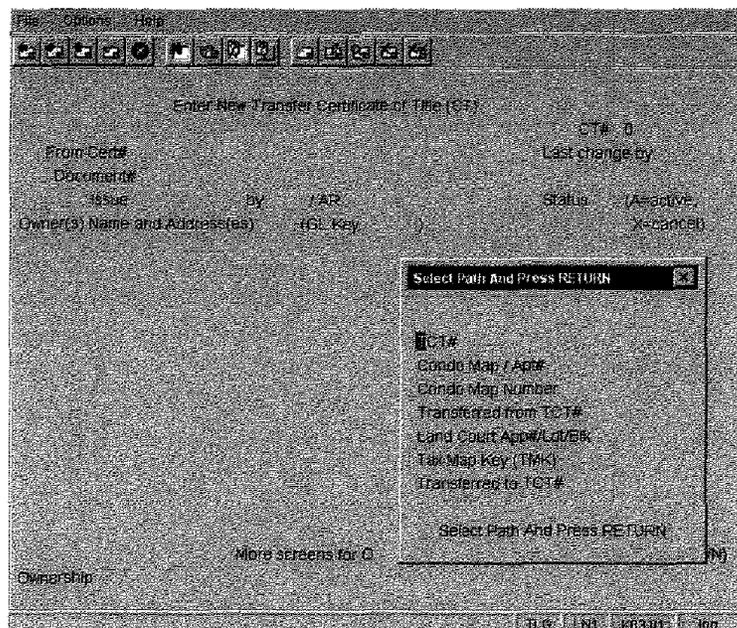
The **DIRECT PROCESS 1** and **DIRECT PROCESS 2** options may or may not be included in your application, depending on whether your system manager specified a direct process for your installation (**DIRECT PROCESS 1**), and whether your designer specified a direct process for your application (**DIRECT PROCESS 2**). If included, selecting the **DIRECT PROCESS 1** or **DIRECT PROCESS 2** options, invoked by pressing either **CTRL+1** or **CTRL+2**, allows you to move directly to a designated process. This feature provides rapid access to frequently used processes. When you are done, you return directly to the process you were running when you selected the *Direct Process*. **DIRECT PROCESS 1** processes, when available, can also be run

by selecting **System** from the menu bar and clicking on the desired process. **DIRECT PROCESS 2** processes, when available, can be run by selecting **Application** from the menu bar and clicking on the desired process.

301419

Select Access Path (F3)

As you use an input process to examine the records in a file, there is a “predefined” sequence that the process uses to retrieve records. For example, the Option 1) Enter/Update CT & Encumbrance is sequenced by CT# in ascending order. As you read through CT records, you will start with the lowest CT number and proceed to progressively higher numbers. There may be times, however, when you want to retrieve records from the file using the TRANSFER FROM CT#, so that this field is used instead. To change the order of retrieval, you can select an alternate, predefined access path by selecting **SELECT ACCESS PATH** or **F3** while in Key Entry Mode. You are presented with a list of the alternate, predefined access paths that are available for the file you are reading. See below for an example. Select the desired “path” for the file and then select **ENTER** or **RETURN**. You are returned to your input process, and you can step through the file in the desired sequence.



The **SELECT ACCESS PATH** option is also used to create temporary access paths in any input process. These temporary access paths are called *dynamic indexes*. For example, CUSTOMER records can be accessed using predefined access paths for the Customer Number or Customer Name fields. You, however, want to access all customers in a particular State when there is currently no predefined access path for the State field. To create a new access path, position the cursor to the State field and select **SELECT ACCESS PATH**. Note that you cannot be in Key Entry Mode (check the right side of the status line) when activating this feature. The State field is added to the list of available keys and a message appears in the status area of your screen to indicate this. Then, return to Key Entry Mode (by pressing **F12**, for example) and you can move through the file in State order. Selecting **SELECT ACCESS PATH** again on this field will

toggle the key to descending order. You can build a multi-field access path by repeating this process on multiple fields. Note that the dynamic index will not reflect any records added by other users after the index was built but you can rebuild the dynamic index to get an up-to-date view by repeating this process.

301421

Set Entry Attributes (CTRL+F3)

The **SET ENTRY ATTRIBUTES** option, shown in *Figure 8*, is activated by selecting the **CTRL+F3** keys. This option allows you to designate the following four attributes that pertain to input processing:

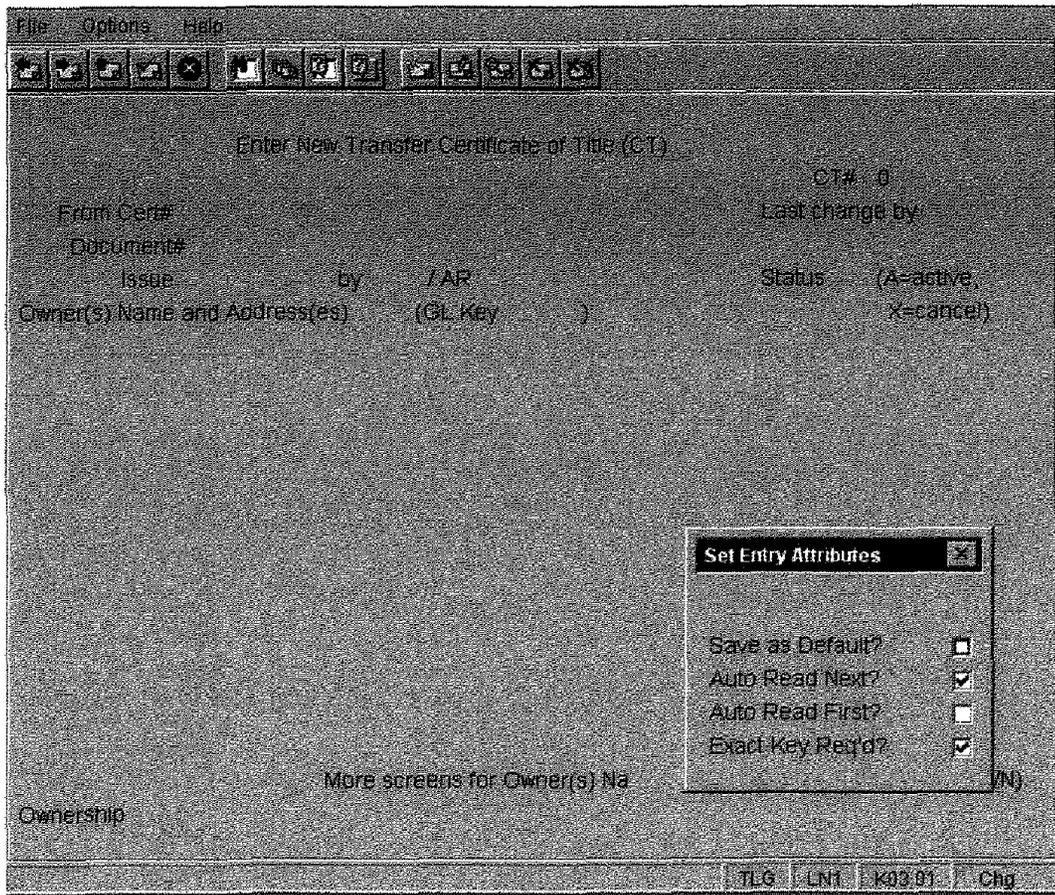
- ◆ **Save as Default** allows you to designate whether you want to re-display on each subsequent screen, the value that you entered on the prior input process screen. For example, if you are entering customer information and have a number of customers from the same city, you could save yourself keying time by redisplaying the city as you begin to enter each subsequent customer record. You can change the city name if you want, but if it stays the same you do not need to re-enter the value each time.
- ◆ **Auto Read Next** allows you to control which record will be read and displayed after you are done modifying, deleting, or displaying a record. If you select *Auto Read Next* and complete a change to the record on the screen, the next record automatically displays.
- ◆ **Auto Read First** allows you to control which record will be read and displayed if you try to call up a record without specifying a key value. If you select *Auto Read First*, the first record in the file automatically displays.
- ◆ **Exact Key Required** allows you to specify whether or not a complete key must be entered when accessing a record from a file. For example, if the specified key path to the CUSTOMER file is CUSTOMER NAME, you can designate whether you must enter the entire name to retrieve a record, or whether it is OK to use a partial key value (e.g., the letters "SMI") to retrieve a record. If you set *Exact Key Required* to *No*, entering "SMI" would retrieve the first customer name beginning with these three letters ("SMILEY," for example). This partial key feature is helpful because it can minimize the number of keystrokes you need to enter.

To set or modify these options, position the cursor on the desired item and select the **SET ENTRY ATTRIBUTES** option. You see the four **SET ENTRY ATTRIBUTES** options display on the screen. Note that the *Save as Default* value applies to the item you positioned the cursor on; the other three values apply to the input process as a whole. Examine the values and change them by clicking on the appropriate checkbox to toggle it from "yes" to "no" .

301422

Below is a sample of the Enter New Transfer Certificate of Title. When a user first enters the screen, the cursor is at the CT# field waiting for key entry. Because the *Exact Key Required* is checked, the user must enter a CT# that exist in the TCT file.

As an exercise: If the *Exact Key Required* is left unchecked, and instead the *Auto Read First* is checked, the user can simply press the ENTER key and the system will scan to the first record in the TCT file.



301423

Scan (F2)

The **SCAN** option, activated by selecting the **SCAN** icon located to the right of a field box or by selecting **F2**, allows you to look up information from a file when you do not know or cannot remember specific key values. For example, as you enter a new document, you cannot remember the Class Table. With your cursor positioned at the CLASS field, select the **SCAN** icon directly to the right of the item as shown in *Figure 9*. You are immediately taken to a display of records in the Class Table file (where Class Code is the key), and can step through the records in the file until you find the desired record. Double-click on the line displaying the desired Class code description and the selected Class Code is automatically entered into CLASS field on the screen.

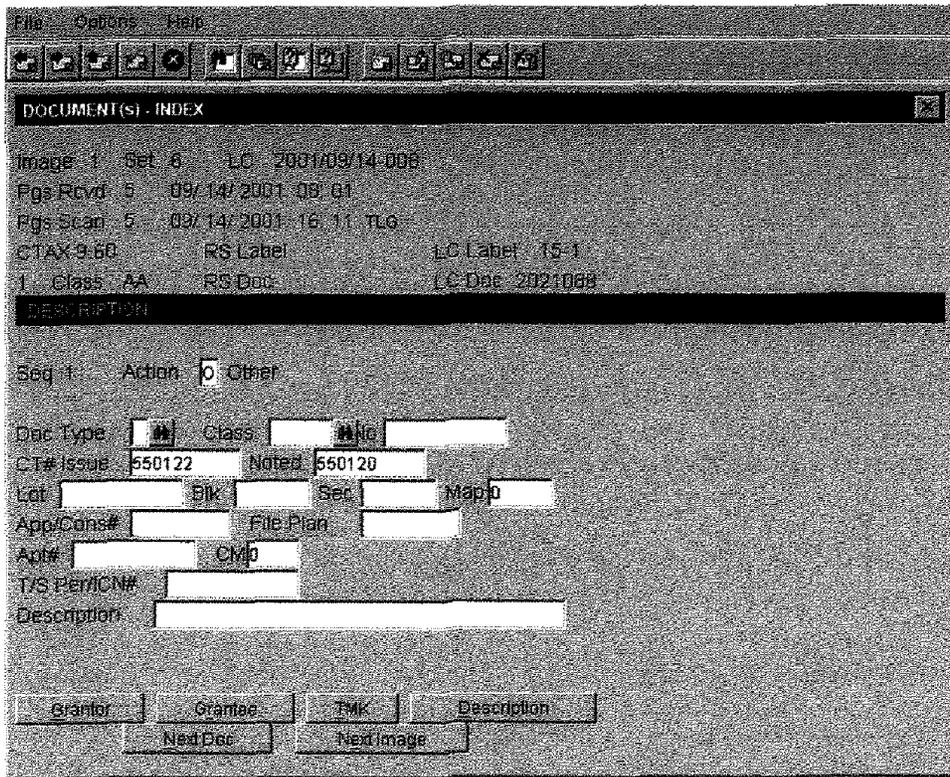


Figure 9. An Input Process With Scan Fields – Initiating a Scan Operation

In this example, you can also constrain the scan operation by providing a starting or partial key value once the operation starts. In this case, the records that display after you select **SCAN** begin with the lowest key value in the file. For example, if you know that the Class begins with an "L", say for, LETTERS OF..., you could enter then enter "L" in the *Scan* overlay's account number field (as shown in *Figure 10*). Just press the **TAB** key, which places you in the **ENCUMBRANCE CLASS CODE** field at the top, and type "L" in the key field box. Then select **ENTER** to display the constrained *Scan* display as shown in *Figure 11*. 301424

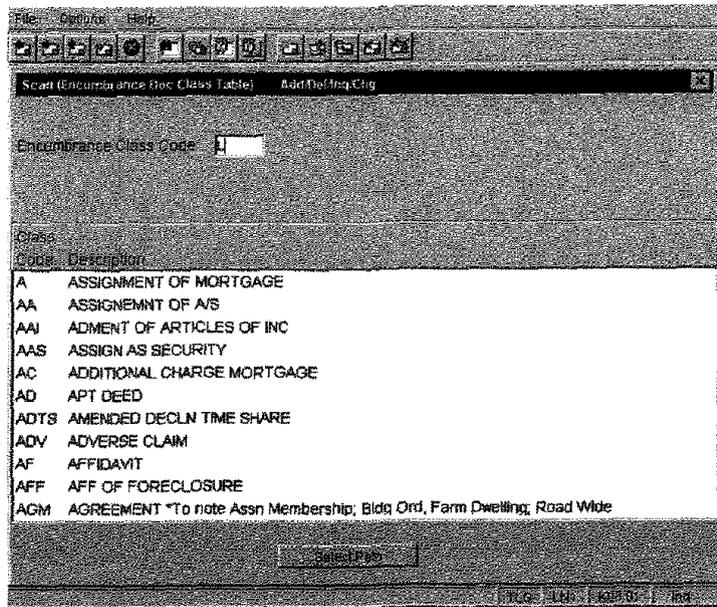


Figure 10. Constraining the Scan Operation

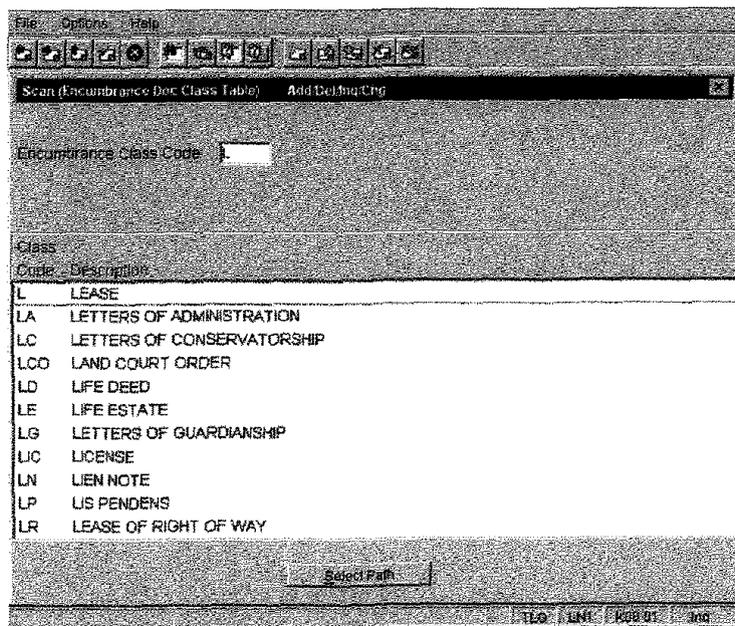


Figure 11. A Constrained Scan Display

The SCAN option will “remember” the choices you make when you scan an item. The system will record which file you choose to scan as well as which access path you decide to use. This means that once you scan an item during data entry, you will no longer have to specify which file

you want to access and which key path you want to use the next time you need to scan again. When you are viewing the list of record choices you will have the following options:

- ◆ Choose a new file to scan (if more than one file is available).
- ◆ Re-specify the access path. This is done by selecting the Paths option at the bottom of the *Scan* display.
- ◆ Select one of the file maintenance modes (Add, Change, Inquire, or Delete) to perform maintenance on the file being scanned. This option is available only on files selected by your application designer. Upon completing file maintenance in the scanned file, select **END** to return to the original process.

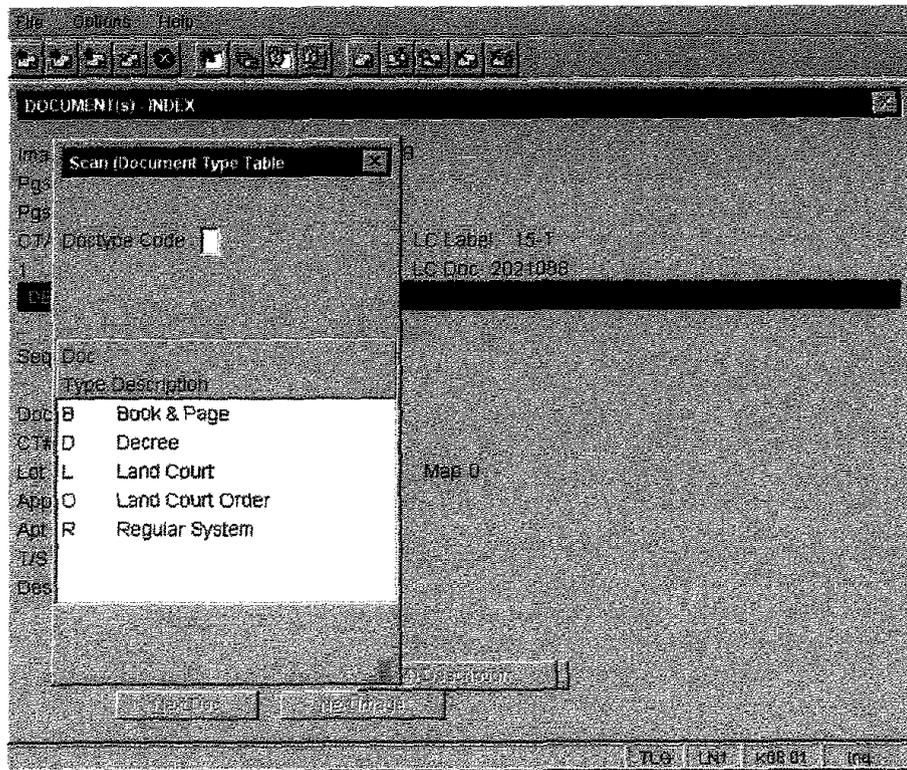
301426

List Values

Clicking the list icon to the right of a field box displays a list of allowable field values as shown below. Click on the desired value to select it and place it into the field box automatically.

Below is an example of the Document Type List in the Abstractors Documents – Index screen.

Instead of selecting the appropriate value from the list with your mouse, you may also enter the first letter of the value you wish to select. In the case where more than one list value begins with the same letter, press the same letter again to select the next value in the list, which begins with that letter.

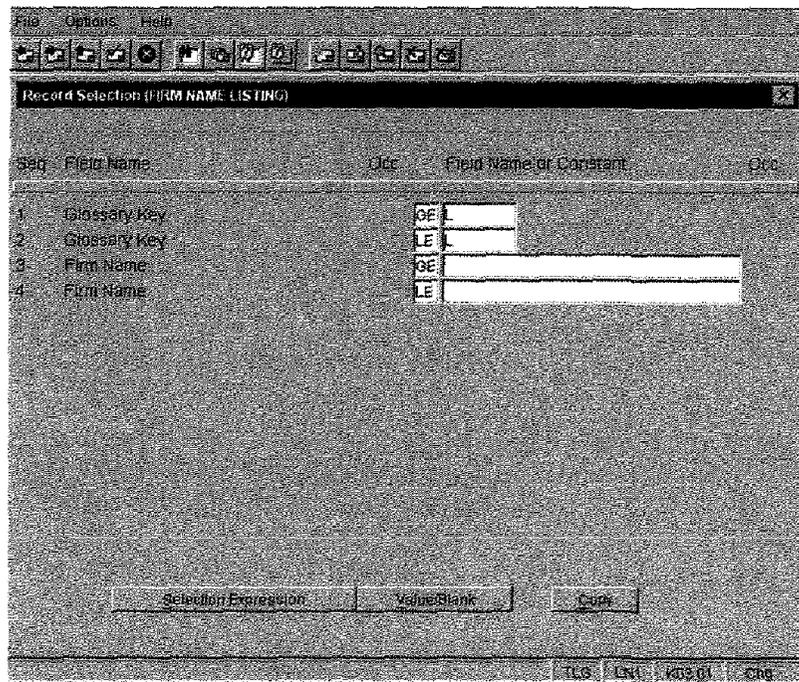


301427

A Typical Query Process

In its most common use, a query process allows you to select which records are to appear in a report, and to specify the sequence of data in the report. For example, you may have a report that contains information about Firm Names. You may want to include all Firm Names in one version of the report, and limit the next report to Glossary Keys beginning with an "L". You control this factor by specifying different selection criteria when you run the report. In addition, you may want the report sorted by Firm Name for one purpose and, on another occasion, sorted by Glossary Key. You could run the same report twice, specifying a different sequence each time.

You can also use a query in conjunction with an update process to select and/or sort a set of records that are to be used or updated. Although the examples in this section are limited to queries that are used with an output process, the information applies to any queries, regardless of the type of process they are used with.



Sample of Record Selection by Glossary Key beginning with the letter "L"

301428

Record Selection

After you select a menu option that invokes a specified report, if the report has a user-modifiable query associated with it, you are presented with a Record Selection screen. The Record Selection screen lists all of the fields that you are allowed to place constraints or limitations on. A sample Record Selection screen is shown in below for the K06 Receiving Company Codes Master List.

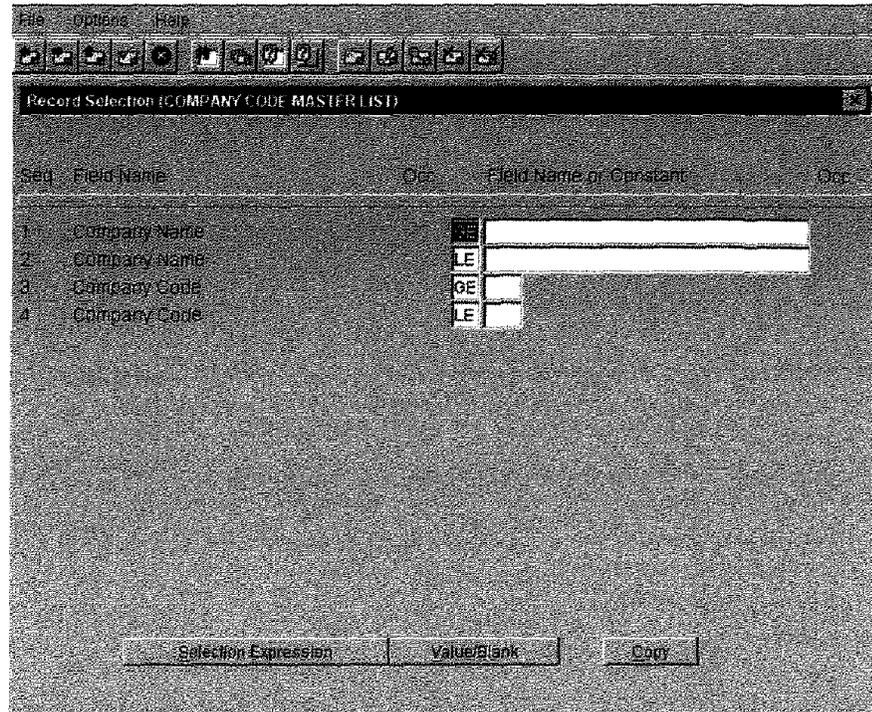


Figure 16. Record Selection Screen

Each line in the upper portion of the Record Selection screen contains a field name (and occurrence number, if applicable), a relation (such as EQ for equal, LT for less than), and a place to enter a specific field value. The Record Selection screen lists along the left side all of the fields on which you can place constraints. Each line specifies a separate constraint and, unless you specify otherwise as described below, all of the constraints must be met for a record to be included. For example, you may want to generate a report that includes only Company's whose name begins with an "L". Assuming that the field that you want to constrain by is listed on the left side of the Record Selection screen, you can generate the report you want.

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A **relation** defines the comparison you want to perform. Valid relations are:

EQ (equal),
GT (greater than),
GE (greater than or equal),
LT (less than),
LE (less than or equal),
NE (not equal),
IN (includes),
EX (excludes).

The two-character relation field is highlighted to indicate that you can change the value to any of the allowable values.

A **constant value** is used in conjunction with a relation to define a record selection constraint. In the example described earlier, the two fields are compared with constant values (Glossary Key GE and Glossary Key LE "L"). Constants can also be alphanumeric, such as names or parts of names. For example, you could specify that GLOSSARY KEY must be GE (greater than or equal to) S to include all Firm Names whose key code begin with the letters S through Z

When a field is a key field or is linked to the key field of another file, you can position your cursor in the *constant value* field box and select the Scan icon to the right of the field box. This allows you to "view" the field contents to determine valid values then return a selected value to the Record Selection screen. Just select the value you want to return by double-clicking the row on which it is displayed. Note that other scan options, such as selecting a different file or access path, are also available here

In some cases, the right-hand field may already be filled in with the name of another field. For these lines, you are allowed to specify the relationship between the two fields.

If no value is entered in either the relation or the constant field, the system ignores the line as a constraint.

There are three options available on the bottom of the Record Selection screen.

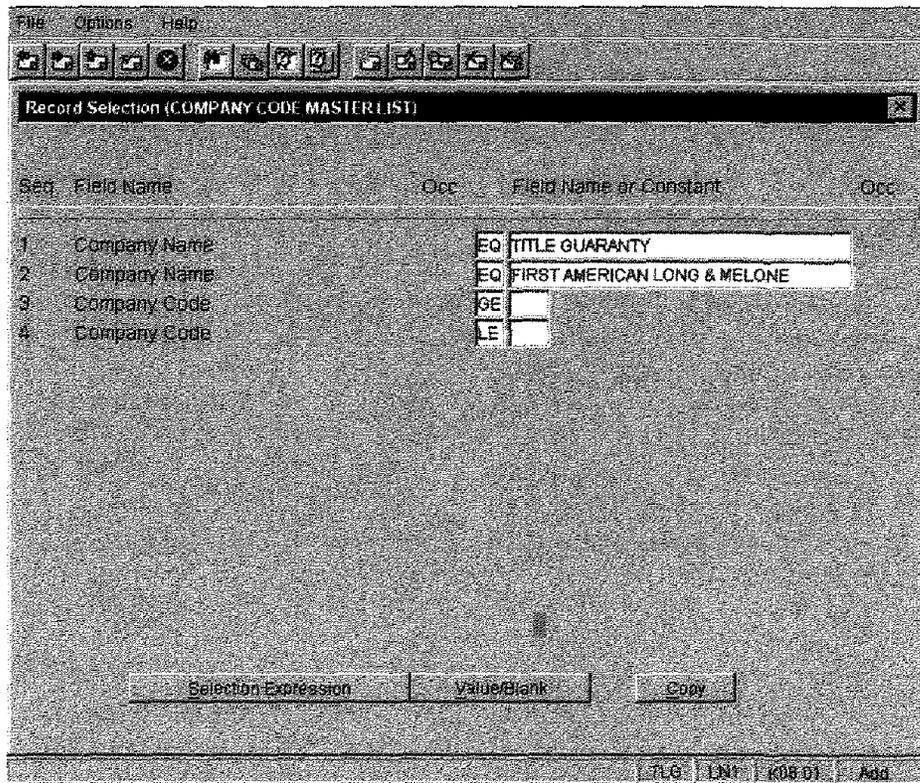
- ◆ **Selection Expression** For a record to be selected, it must meet all of the separate constraints you specified. There may be times when you would like to combine constraints so that a record is selected if either of two constraints were met. The Selection Expression overlay provides a number of blank lines on which you can specify combinations of selection constraints, using AND, OR, AND NOT, OR NOT, and various levels of parentheses. Note that each line on the Record Selection screen has a unique number displayed at the far left side. You use these line numbers to specify combined selection criteria in the selection expression. You can specify as many combinations as you want to achieve the desired set of

constraints, such as:

(1 OR 2) AND (3 OR 4)

In some cases, the application may be designed so that the selection expression is not modifiable.

- ❖ **Value/Blank** allows you to toggle between entering a constraining value for a field, and leaving the constraining value blank. When you place the cursor on the *Value* field, select *Value/Blank*, and the editable field will be replaced by “ ”. Select *Value/Blank* again to return to an editable value.
- ❖ **Copy** inserts another copy of the constraint that the cursor is resting on into the list of constraints. It also attempts to create an appropriate selection expression, and prompts you to review that expression. For example, the current record selection might consist of only two lines to select Company Name. If you need to select three Company Names, you would select one of the two Company Names then click the *Copy* button to create a third Company Name selection line.



301431

The Sort Order Screen

After you specify your record selection criteria, you are presented with a Sort Order screen. The screen lists all of the fields that you are allowed to designate for sequencing. You have a number of choices for each field. Below is a sample Sort Order screen.

A default sort order is designated when you see the Sort Order screen. The first column may have numbers starting with 1, listed in the designated sequence. You can change the sort sequence, designate other fields as sort fields, or remove fields from the sort sequence, by using the options available at the bottom of the screen.

To redefine the sort order, first click the **CLEAR SORT LEVELS** button. This erases all of the sort level numbers. Then, place the cursor on the item you want to be first in the sort order, and type "1" in the *Sort Level* column. To choose the second sort level, position the cursor on the item you want second in the sort order, and type "2" for the *Sort Level*. Continue in this manner until all desired sort levels are defined. Lines without a sort level designated will be ignored.

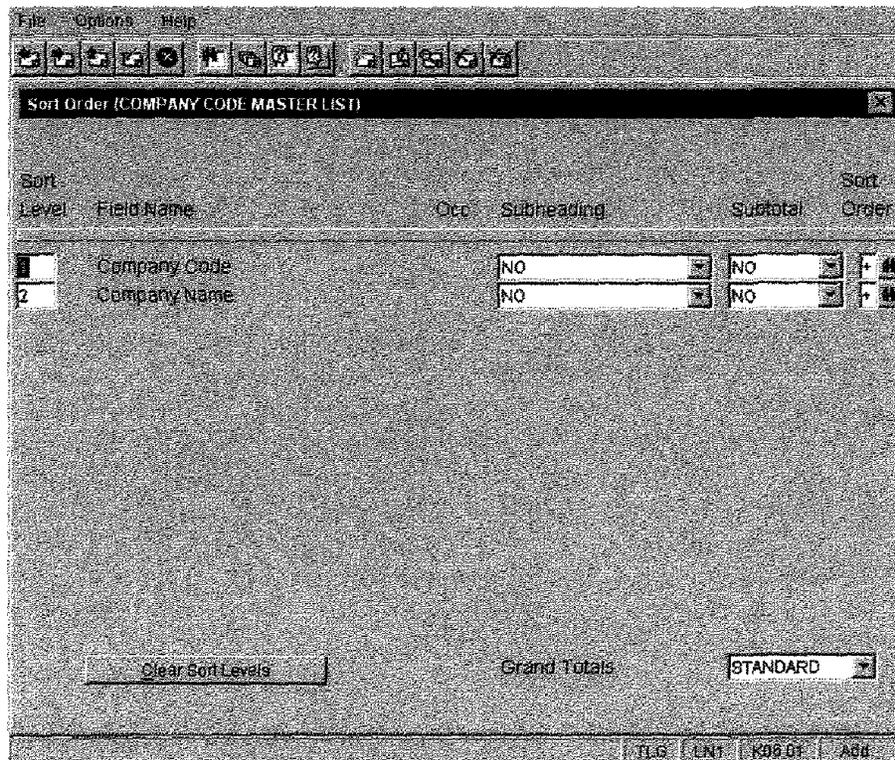


Figure 18. Sort Order Screen

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There are also several other sort-related factors you can control for each sort field, described as follows:

- ◆ **Subheading** allows you to specify whether or not you want a subheading to print on a report each time the value at this level changes and, if so, how it should affect paging. Click the list button to list the valid *Subheading* entries:
 - ◆ **NO** prints no subheading.
 - ◆ **STANDARD** prints a subheading immediately before the record that caused the sort level to change.
 - ◆ **NEW PAGE WITH HDG** skips to a new page before printing the subheading.
 - ◆ **NEW PAGE ONLY** skips to a new page when a range break is encountered but does not print a subheading.

- ◆ **Subtotal** allows you to specify whether you want subtotals to print when the value at this level changes. Click the list button to view the valid *Subtotal* entries:
 - ◆ **NO** prints no subtotals.
 - ◆ **STANDARD** prints a subtotal immediately following the last record in this sort level.
 - ◆ **NEW PAGE** skips to a new page before printing the subtotal.
 - ◆ **Sort Order** allows you to designate if a field should be sorted in ascending (+) or descending (-) order. You can enter your selection or select it from a drop-down list by clicking the respective Scan icon. Ascending is the normal order, which sorts records from low-to-high key values. Descending order is useful when, for example, you want to list numeric amounts from largest to smallest.

At the bottom of the Sort Order screen, you will see a field highlighted for **Grand Totals**. The values for grand totals are similar to the values for subtotals. Specifically, valid *Grand Totals* entries can be viewed by clicking the list button:

- ◆ **NO** prints no grand totals.
- ◆ **STANDARD** prints grand totals immediately after the last record or subtotal prints.
- ◆ **NEW PAGE** skips to a new page before printing the grand totals.

A Typical Output Process

As discussed previously under the query process, you may have a number of output processes in your application. Outputs can range from simple lists of records, to complex reports that have various levels of subtotals, and to printed forms such as checks or labels. In some cases, you can control the sequence and content of a report when you run it by specifying parameters in a query that is associated with the report. In other cases, the structure of a report is fixed, and you simply select the appropriate option to run the report with no further intervention.

301434

Disposition Screen

Many outputs provide you with another screen that you can use to control certain print-related options. This screen is referred to as a “disposition” input process and, although the form of the screen may vary depending on your application, it usually allows you to control the same types of information. Certain fields on the Disposition screen may not have any effect on some computer systems. Check with your System Manager to determine which Disposition features are supported by your computer system. The figure below contains a typical Disposition screen.

The screenshot shows a window titled 'APPX' with a menu bar (File, Options, Help) and a toolbar. The main area is titled 'Disposition' and contains two sections:

- Report Options:**
 - Print On Screen?
 - Print Hard Copy?
 - Browsable?
 - Print Summary Only?
 - Record Limit: []
 - Format: []
 - Report Subheading: []
- Printer/Queue Options:**
 - Printer ID: [LEX] Lexmark
 - Form ID: [LANDSCAPE] Landscape 15 pitch
 - Print Mode: [SPOOL]
 - Print File Disposition: [SCRATCH]
 - Priority: []
 - Print Spool Date/Time: [MMDDYY hh.mm]
 - Number of Copies: [1]
 - Notify User When Done?
 - Print Banner?

At the bottom, there are buttons for 'Select Disposition', 'User Defined Fields', 'Save Disposition', and 'Submit to Background'. A status bar at the very bottom shows 'Enter) Execute Now' and 'TLC LNF K0001 Chg'.

Disposition Screen

The Disposition screen contains the following items that you can specify about a report:

Report Options

- ◆ **Print on Screen?** allows you to specify whether to display the report on the screen to review the information on your terminal. Click to toggle between "yes" and "no" .
- ◆ **Print Hard Copy?** allows you to specify whether you want a printed version of the report. Click to toggle between "yes" and "no" .

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- ❖ **Browsable?** If checked, this field indicates you will be allowed to select a specific detail record from the report while viewing the report on the screen and go directly to a designated process by selecting **OPTION 33** (OPTION OPTION 3 3). This provides you with an immediate means of viewing the record in its entirety for inquiry, modification or deletion purposes. Select **END** to return to the report display.
- ❖ **Print Summary Only?** allows you to specify that you want to print only subheading and subtotal levels, and skip printing any detail records. Click to toggle between "yes" and "no"
- ❖ **Record Limit** allows you to specify how many detail records to include on the report. This feature will allow just a sample of a report to be printed if desired. If left blank, all selected records will be printed.
- ❖ **Format** is reserved for future use and should be left blank.
- ❖ **Report Subheading** (optional) allows you to specify a subheading that prints below the report title on every page if the design of the report supports printing a subheading.

Printer/Queue Options

- ❖ **Printer ID** (optional) allows you to specify the printer on which to print this report. If you leave this field blank, the system's default printer is used. If you enter a printer ID, it is validated against the printer file values that are established by the System Manager. Click the Scan icon to select from a list of available printers.
- ❖ **Form ID** (optional) allows you to specify the form on which this report is to be printed. If you leave this field blank, the form is determined by the printer ID, if your system manager specified a usual form for the printer. If the printer ID is not entered, the form that is used by the default system printer is used. If you enter a form ID, it is validated against the form file values that were established by the system manager. Click the Scan icon to select from a list of available forms.
- ❖ **Print Mode** allows you to specify whether you want to hold, spool, or keep the report file. Click the list button to select from the list of allowable *Print Mode* values:
 - **Hold** indicates you want to queue the report but not print it immediately.
 - **Spool** indicates that you want to print the report.
 - **Keep** indicates that you want to create a print file but not queue it for printing.
- ❖ **Print File Disposition** allows you to specify the disposition of the print file after printing completes. Click the list button to select from the list of allowable *Disposition* values:

- ❖ *Scratch* deletes the print file after it prints.
- ❖ *Save* saves the print file for possible reprinting without requeuing it.
- ❖ *Requeue* puts the print file back in the print queue with a “hold” print mode.
- ❖ *Priority* allows you to assign a specific priority to the background task if supported by the operating system.
- ❖ *Print Spool Date/Time* allows you to designate a future date and/or time to print the report (if supported by your operating system). If left blank, the report will be queued for printing immediately.
- ❖ *Number of Copies* allows you to specify the number of copies to be printed.
- ❖ *Notify User When Done?* indicates whether or not a message should be sent to your workstation when the report is printed (if supported by your operating system). Click to toggle between "yes" and "no" .
- ❖ *Print Banner?* indicates whether the report should printer with a banner (lead page) if this feature is supported by your operating system. Click to toggle between "yes" and "no" .

The button options found at the bottom of the screen are described in the next section, Other Disposition Features.

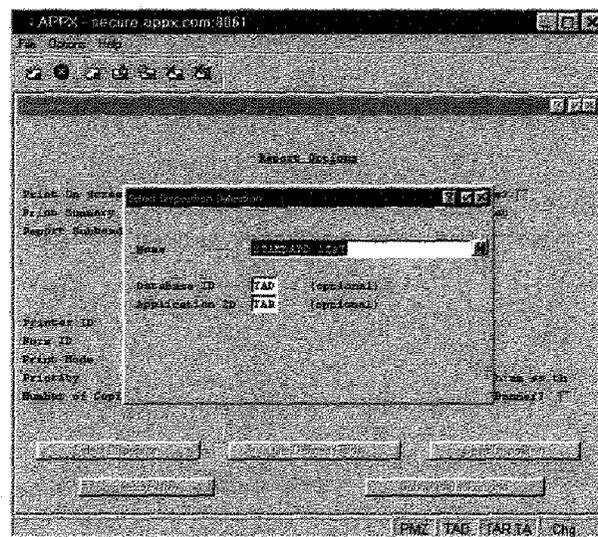
While your report is running, you will see an “In Progress” message on your screen. If you checked *Display on Screen?*, after the report generates, it displays on the screen. When the report is displayed on the screen, you can use the options shown on the screen to view the entire report.

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Other Disposition Features

Other options are available to you before your report is generated and are accessed via the buttons located at the bottom of the Disposition Screen

- ❖ **Select Disposition** allows you to change the current disposition to a disposition that you previously defined and saved. You can scan the disposition name, database ID and Application ID fields to make your selections. See the examples shown in *Figures 20 and 21*.
- ❖ **User Defined Fields** gives you access to the report and log command strings that are not used by the application but are passed to the print spooler for use by the printer in paper selection and formatting. See *Figure 22*.
- ❖ **Save Disposition** allows you to save a disposition you have customized so it can be used in the future without having to modify the standard disposition again. Click this button to assign a name to your disposition as shown in *Figure 23*. The application ID, database ID and user ID are defaulted but can be changed by clicking the respective scan icon and selecting the desired ID. After selecting **ENTER**, either create or cancel the disposition as shown in *Figure 24*.
- ❖ **Execute Now** runs the job as a foreground process. You will not be able to perform any other tasks until the process completes.
- ❖ **Submit to Background** runs the job as a background process. Running a process in background is helpful if you want to continue working in your current BCIS session while the process runs.



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Figure 20. Select Disposition Definition Overlay

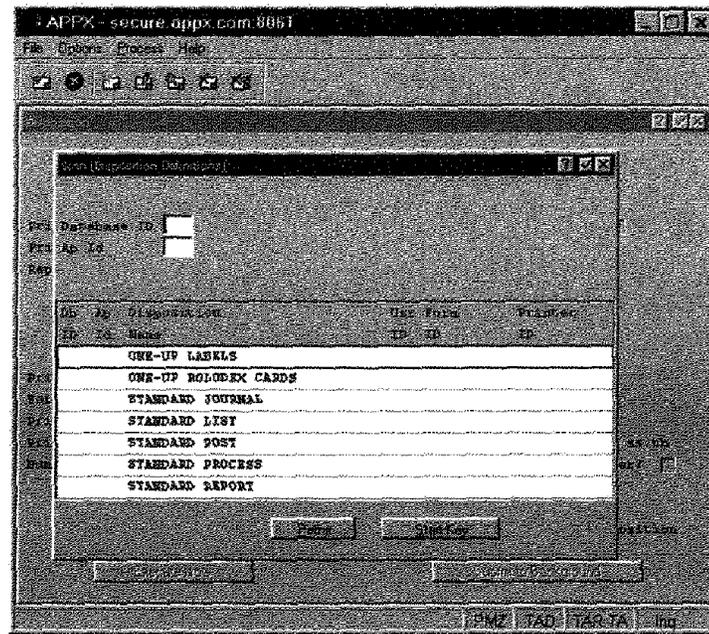


Figure 21. Scan of Available Dispositions

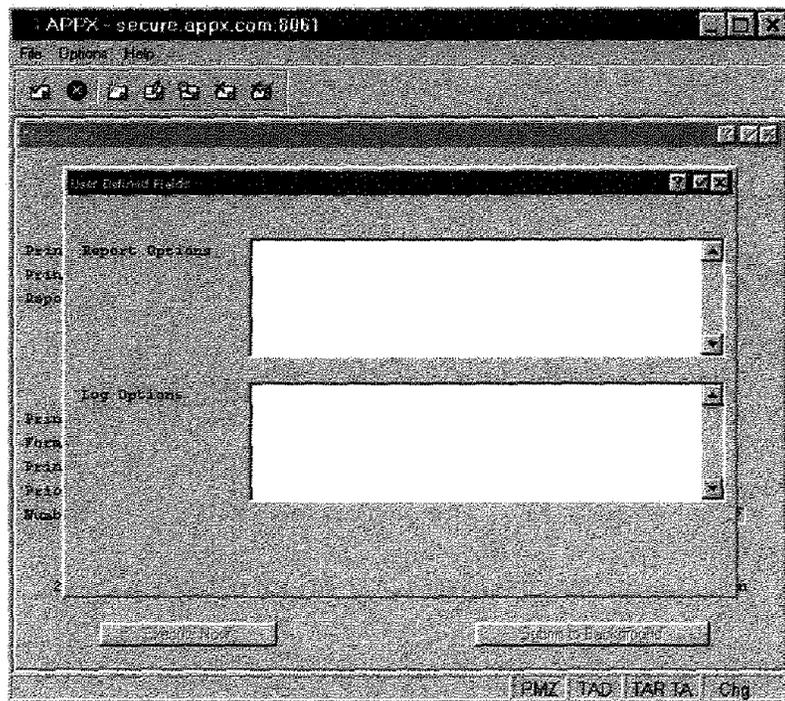


Figure 22. Disposition User Defined Options Overlay

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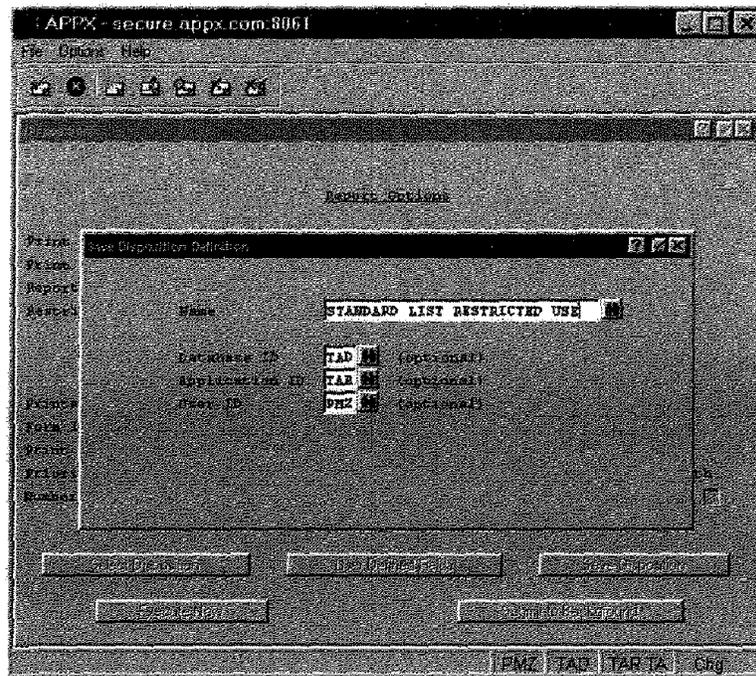


Figure 23. Save Disposition Definition Overlay

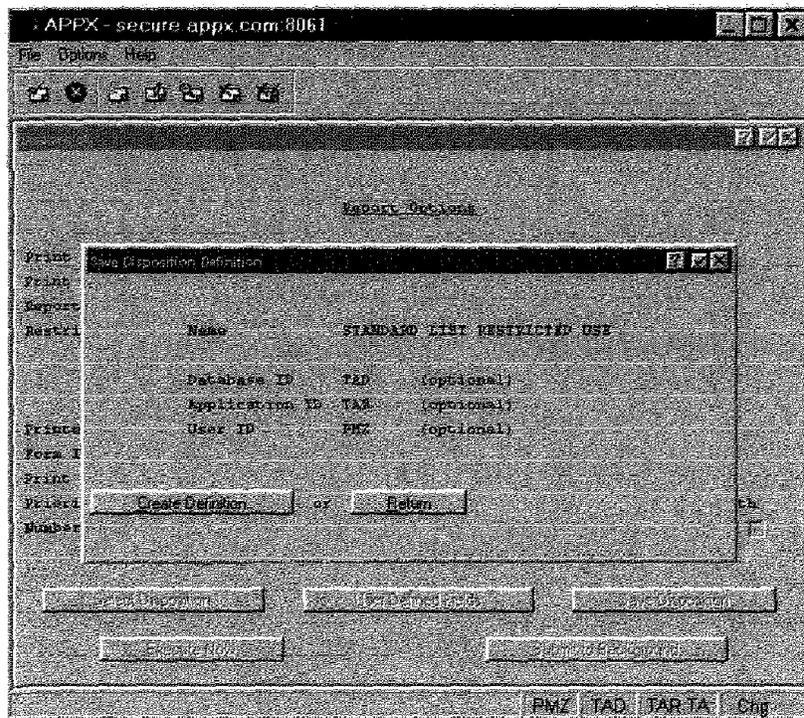


Figure 24. Save Disposition Definition Overlay Options

301440

Printing on Screen

The BCIS *Report Display Facility* allows you to view a report on your screen instead of printing a hard copy or before printing a hard copy. The screen shown in *Figure 25* is an example of how your screen will look when you send a report to the screen.

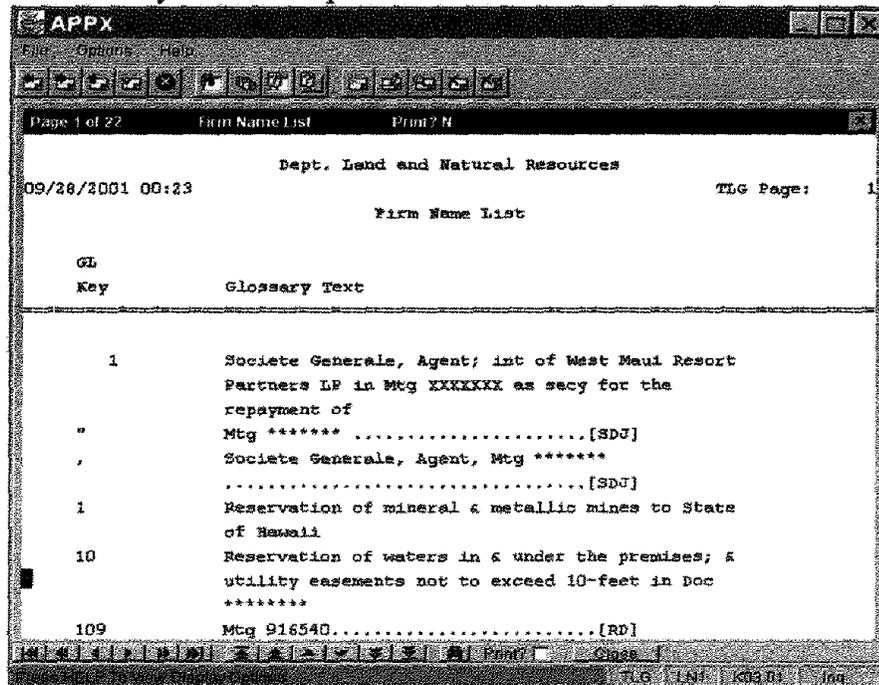


Figure 25. Sample Report Using Print on Screen

On the left-hand side of the first row of the screen, also called the *Report Display Facility Status Bar*, the page count of the entire report and the current page number are displayed. The report title is also on this row. On the right-hand side is a field that indicates whether or not the report will be sent to the printer.

An arrow on the furthestmost right edge of the screen on the *Report Display Facility Status Bar* indicates that the report is wider than the screen. This arrow is called a *Margin Indicator* and will also appear in the left corner of the *Report Display Facility Status Bar* if you have panned so far over to the right of the report that there is additional data to the left that does not fit on the screen.

When you select *Help*, the *Report Display Facility Options* screen, shown in *Figure 26*, appears. All but two of the options listed on this screen are available from both the *Report Display Facility* and the *Report Display Facility Options* screen.

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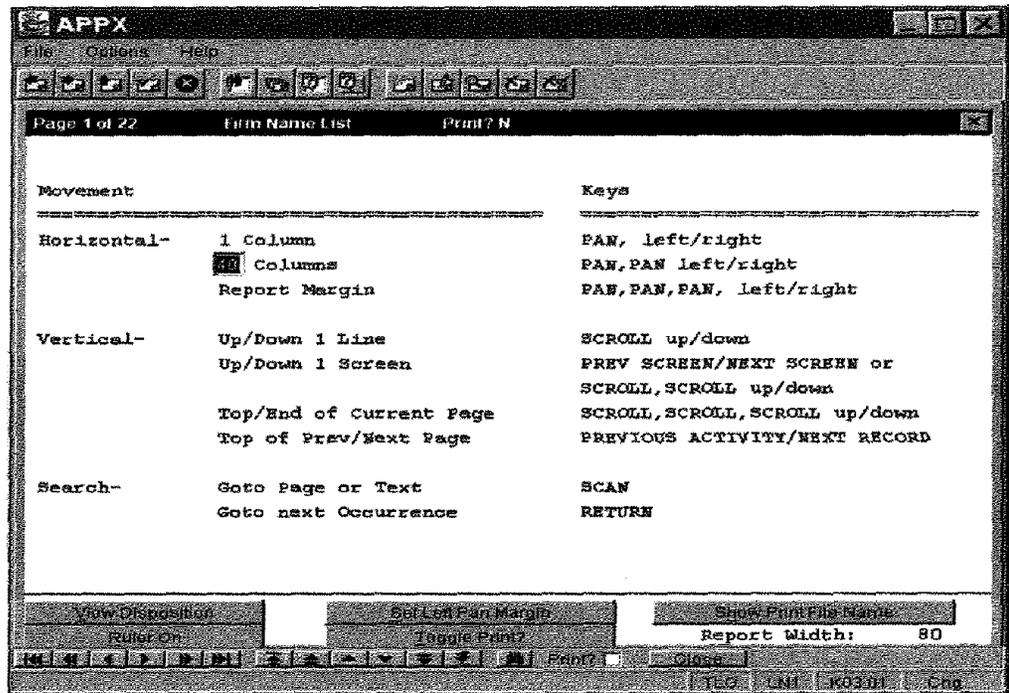


Figure 26. Report Display Facility Options Screen

The *Report Display Facility Options* screen lists the keystrokes that allow you to move horizontally and vertically around your report. You can alternatively use the *Pan* and *Scroll* arrow buttons located at the bottom of the screen. Note that one field on this screen, *Horizontal Columns*, is modifiable and determines how many columns across the PAN command moves your cursor. The default value for this field is half of the screen width, and an entry in this field may not exceed half of the screen width.

Use the *Pan* and *Scroll* control buttons to move from left to right and from top to bottom. The first and last pan buttons move you to the right margin or left margin, respectively. The other pan buttons move you left or right in single or double increments of the horizontal column factor. The first and last scroll buttons move you to the top or the end of the report, respectively, while the others move you up or down a single line or single page.

This screen also lists these options which are available within the *Report Display Facility*:

- ◆ **View Disposition** allows you to see the disposition screen for the report, but does not allow you to modify anything. See the *Disposition Section* for more information about the specifications on the Disposition screen. Select **ENTER** to return to the report screen. *View Disposition* can be invoked either by clicking on the button on this screen or by pressing **OPTION 1** from the report screen.

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- ◆ **Ruler On** activates a ruler at the bottom of your screen so that you will always know which columns you are viewing as you pan across your report. This option turns the ruler off as well. *Ruler On* can be invoked either by clicking on the button on this screen or by pressing **OPTION 2** from the report screen.
- ◆ **Set Left Pan Margin** places a left margin wherever your cursor is at the time. Data that is to the left of this margin locks into place while you pan across the screen. Selecting this option also activates the *Ruler On* option. **NOTE: This option can only be invoked by pressing OPTION 3 from the report screen.** Clicking the button on this screen has no effect. **OPTION 3** turns this feature off as well.
- ◆ **Toggle Print?** turns the *Print?* field in the top right corner of the screen on and off. For example, if the *Print?* field was originally set to *N*, this option will change it to *Y* and vice versa. *Toggle Print* can be invoked either by clicking on the button on this screen or by pressing **OPTION 4** from the report screen.
- ◆ **Show Print File Name** displays the path information and file name on the bottom of the screen.

NOTE: This option can only be invoked from the *Report Display Facility Options* screen, either by clicking on the button above or by pressing **OPTION 5.**

- ◆ **Print?** indicates whether the report is printed or not upon exiting.
- ◆ **Close** closes the Report Display Facility window.

When you have finished viewing your report, select **Close** from the lower title bar to exit the *Report Display Facility* and return to your previous screen.

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Appendix A: GUI Client Keymap

The GUI Client Keymap is used when BCIS is being run as a GUI client on a PC. With the exception of standard data entry, the keyboard is used substantially less in a GUI session because many standard BCIS functions are performed by selecting buttons, icons, and other graphical representations on the GUI screens instead of using the traditional function and option keys. The keys and combinations of keys shown in this table, however, can be used interchangeably with their graphical equivalents if desired.

WANG	DESCRIPTION	PC (GUI & non GUI)
ENTER	Enter	ENTER
TAB	Tab	TAB
SHIFT+TAB	Backtab	SHIFT+TAB
Menu Item PF Keys	User Option 0-99	[0-9] or '[0-9][0-9]
PF 28 (on Field)	Field Help	F1
PF 28 (on Menu)	Option Help	CTRL+F1
PF 1 & PF 2	Scan	F2
PF 3	Select Access Path	F3
PF14 & PF15	Set Item Attributes	CTRL+F3
PF 4	Previous Image	F4
PF 5	Next Record	F5
PF 13 & PF 16	End	F8 or ESC or CTRL+E
PF 32	Cancel	CTRL+F8 or CTRL+ESC
PF 9	Add Mode	F9
PF 10	Delete Mode	F10
PF 1	Acknowledge Delete	CTRL+F10
PF 11	Inquire Mode	F11
PF 12	Change Mode	F12
PF 25	Direct Process 1	CTRL+1
PF 26	Direct Process 2	CTRL+2
	Show Messages	CTRL+M
EXEC	Tab 1 st field each line	(none)
FIELD EDIT CONTROLS:		
INSERT	Insert	INSERT
DELETE	Delete Character	DELETE
	Move to End of Item	END
	Move to Beg of Item	HOME
PF 6	Redisplay Text	CTRL+BACKSPACE
PF 7	Insert Text	(auto insert assumed)
PF 8	End of Paragraph	CTRL+ENTER
	Copy	CTRL+C
	Cut	CTRL+X
	Paste	CTRL+V
PRINTING TO SCREEN CONTROLS:		
PF 4	Page Up	PGUP
PF 5	Page Down	PGDOWN
PF 2	Scroll First	CTRL+PGUP
PF 3	Scroll Last	CTRL+PGDOWN
PF 7	Scroll Up One Line	ALT+PGUP
PF 6	Scroll Dn One Line	ALT+PGDOWN
PF 13 & PF 14	Panning 1 cell	SHIFT+ARROWKEY
PF 11 & PF 12	Panning 1 block	CTRL+ARROWKEY
PF 9 & PF 10	Panning to margin	ALT+ARROWKEY

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