



Software Development Utilities Manual

Version 8.0

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This document has been prepared to conform to the current release version of OPEN SYSTEMS Accounting Software. Because of our extensive development efforts and our desire to further improve and enhance the software, inconsistencies may exist between the software and the documentation in some instances. Call your customer support representative if you encounter an inconsistency.

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CONTENTS

Chapter 1	Introduction	1-1
	Software Development Utilities	1-3
	Starting OSAS	1-7
	Navigating OSAS	1-11
	Reports	1-25
Chapter 2	System File Maintenance	2-1
	Create xxMN File	2-3
	Create xxCNVT File	2-9
	Create xxCNVT.HDR File	2-11
	Create xxMB File	2-13
	Create xx.PTL File	2-15
	Create Change Fields Files	2-17
	Create GENERAL Data Dictionary Files	2-19
	Split OSMN to xxMN Files	2-21
	Tables	2-23
Chapter 3	Database Maintenance	3-1
	Custom Field Maintenance	3-3
	Data File Information	3-5
	Data File Information List	3-9
	Define Vkeyed Files	3-11
	Edit Data File Contents	3-13
	Merge Data Files	3-15
	Create Merge File	3-17
	Export Custom Field Definitions	3-19
Chapter 4	Software Audit	4-1
	Print CRCs	4-3
	Compare CRCs	4-5
	Compare Programs	4-7
	Audit Programs	4-9

CONTENTS

Audit Installation Files	4-13
Audit BBx Version Level.....	4-15
Audit Signature Lines	4-17
Audit Line Labels	4-19
Audit Program/Data File Names	4-21
Audit Program Remarks	4-23
Audit Template Usage	4-25
Audit Graphical Resource Files.....	4-27
Chapter 5 System File Conversion	5-1
Convert 4.xx xxWIND File to 4.5x+.....	5-3
Convert 4.5x+ xxWIND File to 5.0x+.....	5-5
Convert 4.5x+ xxHELP File to 5.0x+	5-7
Convert 7.0x xxDATA.yyy File to 7.5x.....	5-9
Convert 7.0x xxMN File to 7.5x	5-11
Chapter 6 Data Dictionary	6-1
Edit CONFIG.TPM	6-3
Create Data Dictionary	6-5
Copy File(s) to Dictionary.....	6-7
Files	6-9
Fields	6-15
Indexes	6-21
File Layouts.....	6-27
Field/File Cross-Reference List.....	6-31
Create/Update Template File	6-33
Create File(s) from Data Dictionary	6-35
Add/Change Reserved Words	6-37
Audit Field Names for Reserved Words	6-39
Reserved Words List	6-41
Chapter 7 Maintenance Build Report	7-1

CHAPTER 1

1

Software Development Utilities	1-3
Starting OSAS	1-7
Navigating OSAS	1-11

Introduction

The OPEN SYSTEMS Accounting Software® (OSAS®) Software Development Utilities application provides you with a number of tools to help in the production of modifications or applications, the auditing and testing of your code, and the production of distribution media.

The Software Development Utilities application plugs into Resource Manager, the foundation of OSAS. Consult the Resource Manager guide for more information on basic OSAS functionality and details on how Resource Manager works within the OSAS system.

About This Guide

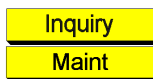
This guide describes the functions that make up the Software Development Utilities application and gives details on how to use the utilities. This guide is divided into these sections:

- Chapter 1 introduces OSAS and the Software Development Utilities application, and describes the basics of the application and how to navigate around OSAS.
- Chapters 2 through 6 contain function descriptions organized by menu. These chapters mirror the order that appears on the Software Development Utilities menu.

- The Index is a topical reference to the information in the rest of the chapters, and concludes this guide.

Conventions

This guide uses the following conventions to present information.



When the **Inquiry** or **Maintenance** commands (or both) are available for a field, the Inquiry and Maint flags appear in the margin. See page 1-18 and page 1-22 for more information on these commands.

When you see the phrase “use the **Proceed (OK)** command” in this guide, press **Page Down** in either text or graphical mode to continue. In graphical mode, you can also click **OK** to proceed.

Software Development Utilities

The following chapters describe the Software Development Utilities delivered with the Software Developer's Kit (SDK). These utilities are installed through Resource Manager like any other application.

The Software Development Utilities application, a collection of programs written by Open Systems staff programmers, is used in developing and testing OSAS products. To use these utilities, you must have a complete set of the PRO/5 or BBJ Supplemental Utilities installed on your development system.

Software Development Utilities Menus

Use the functions on the **System File Maintenance** menu to update the system files required for installable OSAS applications. You can maintain application version information for conversion programs and create mergeable installation files for the **Change Fields** function and for GENERAL Report Writer. You can also create, maintain, merge, and store information about your data files.

Use the functions on the **Software Audit** menu to check BBx programs and graphical resource files for violations of OSAS standards and common errors in programming, such as unused or invalid line labels and string template names.

Use the functions on the **System File Conversion** menu to upgrade your application system files from past versions of OSAS to current versions.

Use the functions on the **Data Dictionary** menu to create and maintain the BASIS Data Dictionary files used in OSAS. The process of defining a BASIS Data Dictionary is divided into three parts: file, field, and index definitions.

Note: The OSAS system keeps only certain drives enabled. Some utilities enable new drives and may not disable them before returning to the menu.

Also included in the utilities are GENLIB.xx files for each version of OSAS from 4.0x to 8.0 and several modified PRO/5 and BBJ supplemental utilities. GENLIB contains the general routines for use with the BASIS library manager, which is used to update programs with the current general routines discussed in the OSAS Development Standards Manual.

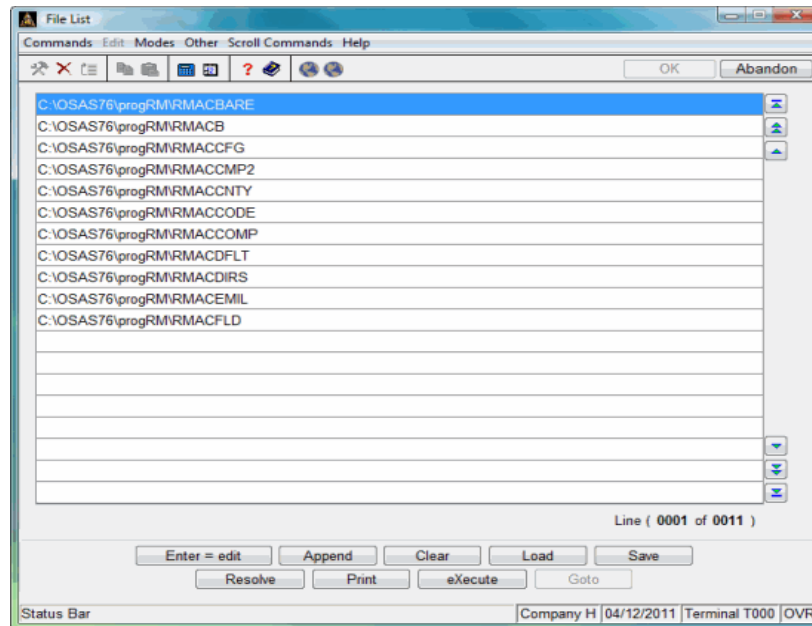
Using the File List Editor

Several of the Software Audit functions require you to create a file list before you use them. You can also use a previously defined file list. The file list can be saved at any time in the file list editor.

A file list is a list of programs or data files upon which you want to perform an operation. The utilities that require a file list call **SDFLIST.PUB** upon invocation.

Note: See the PRO/5 or BBJ documentation for more information about this utility. To exit the file list editor, use the **Execute** command or press **Tab**.

Here is a sample of the file list editor used in some Software Development Utilities functions:



Note: Wildcards follow UNIX operating system wildcard rules. To search all programs beginning with “AP” in the progAP directory, enter `<./progAP/AP* - p>`. If you use `(AP*.*)`, only programs with an extension are selected. The `-p` includes only program files in the search.

Use the commands to work with the information on the screen:

- Press **Enter** to edit the selected line.
- Press **A** to add a line to the end of the list.
- Press **C** to clear the screen of all entries.
- Press **L** to load a file list you have saved.

- Press **S** to save a file list, then enter the path and file name for the list. Do not enter an extension; the system automatically saves the list with an extension of **.FL**.
- If you used wildcards to search for files, press **R** to begin the search and list all files matching your criteria.
- Press **P** to print the file list.
- Press **X** to close the file list editor and proceed to the function screen that requires a file list.
- Press **G** to go to a specific line in the file list, then enter the line number. This command is available only when there is more than one screen of entries.

Starting OSAS

OSAS runs on an operating system supported by 150 MB of permanent storage and 4 MB of RAM. You may need additional space or memory, depending on the size of your data files and the operating system you use. Consult your reseller for more information.

In Windows To start OSAS on a computer running Windows, double-click the OSAS shortcut on the desktop or access the program from the **Start** menu.

In Other Operating Systems To start OSAS on an operating system other than Windows, enter **osas** at the operating system prompt. If your operating system has graphical capabilities, you can also use the OSAS shortcut to start OSAS.

Using Parameters You can use the **-u**, **-c**, and **-t** parameters in OSAS shortcut properties or after the **osas** command so that the system automatically uses the appropriate user ID and company ID to save time logging in.

In Windows, open the OSAS shortcut's properties and enter these parameters after the path in the **Target** field (as in the example below; be sure to use the correct directories for your system).

```
C:\basis\bin\bbj.exe osasstr.txt -q -tT00 -cD:\osas80\progrm\config.bbx -uSam -cH
```

Note: In Windows, the **-u** and **-c** parameters must follow the separation dash.

In other operating systems, enter the parameters after the **osas** command, as in this example:

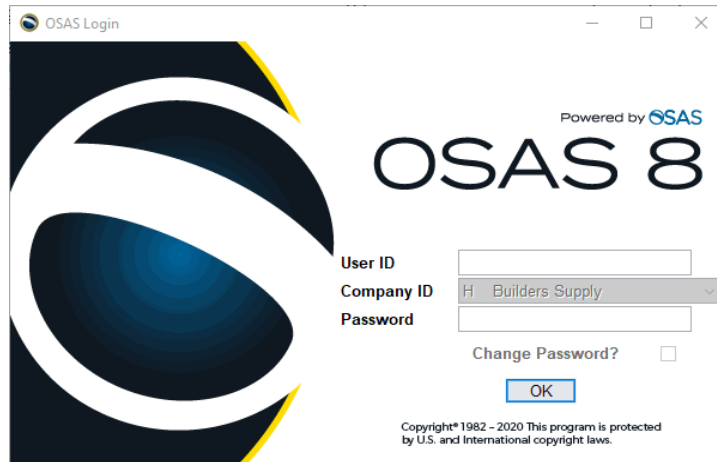
```
osas -t T2 -c B
```

Note: You can enter these parameters in any order, but you must leave a space between the parameter mark (**-t** or **-c**) and the parameter itself.

Refer to the *Resource Manager Guide* for more information on these parameters.

Logging In

After you start OSAS, the login screen appears.



To log in to OSAS, enter your **User ID**, the **Company ID** you want to work with, and your **Password**. If you want to save your password so that you do not need to enter it again, select the **Save Password?** check box (or enter **Y** in text mode) to save your information. This check box appears only if the **Remember Password?** option is selected for your user ID in the **Users** function in Resource Manager.

Check the **Change Password?** box to change your password upon logging in. You will be prompted to enter and confirm your new password.

Finally, press **Enter** or click **OK** to log in.

This screen appears only after you have set up the system, including setting up users. See the *Resource Manager Guide* for information on setting up users and roles.

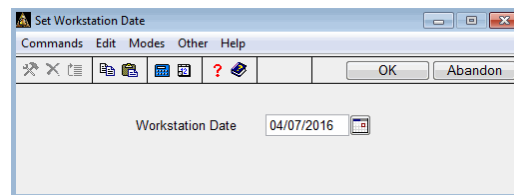
Roles

Roles limit use of the system and protect sensitive information. Each role allows access to specific applications, menus, and functions. If you cannot select a menu or function, your assigned role is not authorized for it. Use the **Roles** function in Resource Manager to set up roles.

Workstation Date



To change the workstation date, select **Workstation date** from the **File** menu, click the **Change Date** button on the toolbar, or press **F6**.



When the Workstation Date box appears, use the button or your keyboard to enter the date and press **Enter**.

Navigating OSAS

OSAS menus and functions are available in two modes: graphical and text. The graphical mode allows both keyboard and mouse commands and uses data entry fields and buttons similar to those found in any graphical software program. The text mode presents information in a simpler text format and uses keyboard commands to access functions and move around the screen. If you use an operating system that does not have graphical capabilities, the text mode is the only mode available.

You can use either text or graphical function screens independently of the main menu. For example, you can use text function screens while using the graphical main menu, and vice versa. Select **GUI Functions** from the **Modes** menu or press **Shift+F6** to toggle between the text and graphical modes for function screens.

When available, press **Shift+F5** to switch between graphical and text menu modes, or press **Shift+F6** to switch between modes on function screens. You can also use the Resource Manager **Defaults** function to select the default mode to use for the main menu and function screens.

In text mode, use the **Page Up**, **Page Down**, arrow, and **Enter** keys to move between menus, select and enter functions, and move around function screens. When a list of commands appears at the bottom of a function screen, press the highlighted letter to use a command. These methods also work in graphical mode, or you can use the mouse to click on fields and command buttons.

Graphical Mode

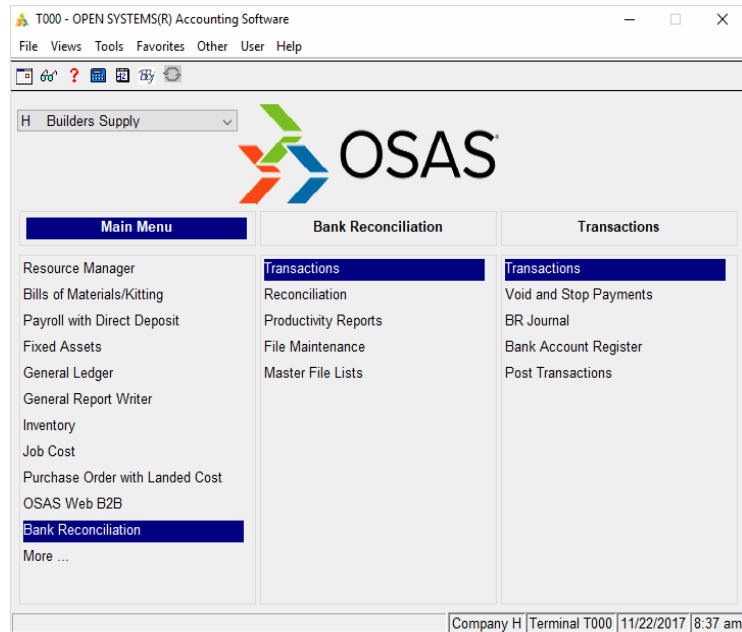
If you are familiar with other graphical software programs, you will find it easy to navigate around the OSAS graphical mode, which uses buttons, toolbars, text entry boxes, and menus to help you move through your tasks.

Main Menu

If you use graphical mode, the main menu is available in two flavors: graphical and MDI. To switch between the two styles, press **Shift+F5**.

Graphical Main Menu

The graphical main menu is shown below.



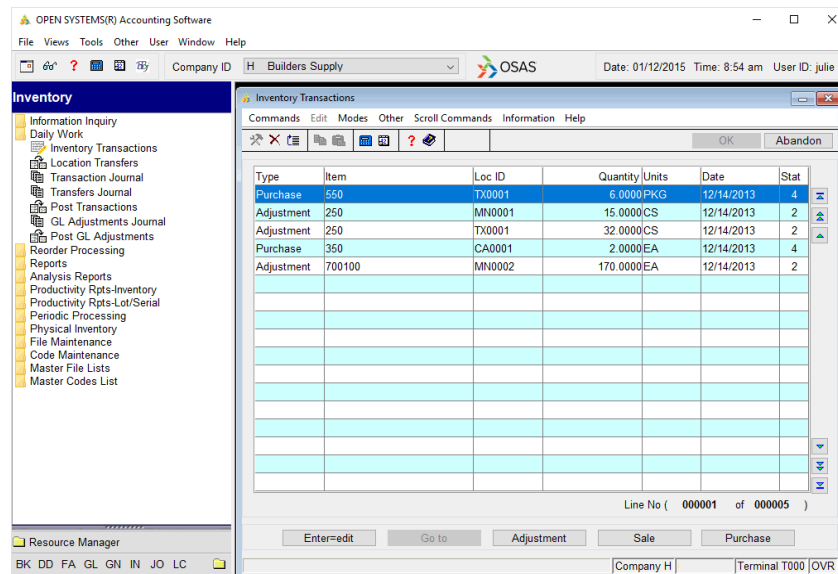
You can move around the graphical menu in these ways:

- Click an application to view that application's menu. Click a menu item to view its functions. Double-click a function name to enter that function.
- To exit from the graphical menu, click a different application or menu name or press **Tab** to return to the main menu.
- To exit from OSAS, click the **Close** box in the upper-right corner of the screen, press **F7**, or select **Exit** from the **File** menu.

MDI Main Menu

The MDI menu centralizes all OSAS functionality in one location: applications, menus and functions appear in a navigation pane on the left side of the screen, and function screens appear in the large pane on the right.

Using this menu, you can open more than one function screen at a time and move or minimize screens as needed. However, you cannot open two functions that lock the same data file at the same time.



You can move around the MDI menu these ways:

- To view an application’s menus, click that application’s tab.
- To view the functions a menu contains, click the menu name. The menu expands to list the functions it contains. Click the function name to enter the function. The function screen appears in the right pane.
- To exit from a menu, click a different menu name or application tab. To exit from OSAS, click the **Close** box in the upper-right corner of the screen, press **F7**, or select **Exit** from the **File** menu.

Function Screens

Graphical screens contain the same functionality as text screens, presented in a graphical format that includes easy access to commands via the mouse.

Total
 1307.00 | .00 |Calculated
 1307.01 | .00 |Over/Short
 -.01 | .00 |

You can move around the screen in these ways:

- Use the mouse or press **Tab** to move from field to field. Use the scroll buttons to move from line to line in scrolling regions.
- If a screen appears prompting for the kind of information to enter or maintain (such as on File Maintenance or Transactions screens), select the appropriate option and click **OK** to continue.
- Press **Page Down** if prompted to move to the next section.
- Click **Header** when it appears to return to the screen's header section.
- Press **F7** to exit the screen and return to the main menu.

Menus

Both the graphical main menu and graphical function screens contain drop-down menus that give you access to additional commands without using the function keys. While you can use the function keys to access commands in graphical mode, you may find it easier to access command through these menus.

To access a menu's commands, click a menu title. The commands for that menu appear, followed by any associated hot key combinations in brackets <>. To use a command, click the command name or press the hot key combination.

Refer to the *Resource Manager Guide* for more information on the menus available in OSAS and their commands.

Shortcut Menu

OSAS gives you quick access to commands relating to the screen you are using via a shortcut menu. The commands that are available depend on the function and the field you are currently using. To use these commands, click the right mouse button and select the command from the menu that appears.

On the main menu, the shortcut menu gives you access to commands that help you manage your **Favorites** menu, switch between sample and live data, perform certain setup tasks, and view function information. On function screens, this menu helps you access help documentation, move around the function screen, work with EIS dashboards, and so on.

Other Commands Menu

The **Other Commands** (or **F4**) menu is available on both graphical and text menu and function screens and gives you access to additional utilities and commands not directly related to the function you are currently using. Among other things, these commands open calculators or allow you to view or enter additional information. In text mode, press **F4** twice on the menu or once on function screens to access this menu.

Consult Appendix A in the *Resource Manager Guide* for more information on the commands available on the **Other Commands** menu.

Information Menu

The **Information** (or **Shift+F2**) menu is available in some graphical or text function screens in certain applications and gives you access to additional information about a customer, vendor, item, job, bill of material, or employee. The commands available on the **Information** menu are determined by the applications you have installed, and can include:

- General Information
- Comments
- History
- Documents
- Address Lookup

Not all of the commands above appear on every **Information** menu; instead, commands are available only as they are relevant to the task you are performing. For example, if you are entering a transaction in Accounts Receivable, you can access comments or documents about items or customers but not about employees or vendors.

Consult Appendix A in the *Resource Manager Guide* for more information on how to use the functions on the **Information** menu.

Favorites Menu

The **Favorites** menu gives you quick access to the OSAS functions you use most by allowing you to add selections for entire menus or particular functions to a custom menu. After you have set up the menu, select **Change to Favorites** from the graphical **Favorites** menu or press **F2** to access the functions.

The **Favorites** menu saves you time by eliminating the need to switch between applications. You can add functions from several different applications to the **Favorites** menu and access them all there rather than switching between applications on the main menu to access the functions you need.

To add a function to the **Favorites** menu, select the function you want to add and press **F10**. Press **F2** to switch to the **Favorites** menu to confirm that your selection was added.

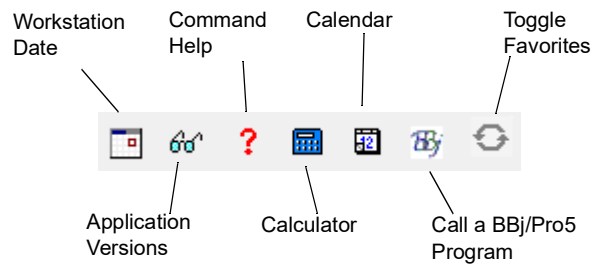
To remove a function from the menu, select the function on the **Favorites** menu that you want to remove and press **F10** again.

Toolbars

As with menus, graphical screens also contain toolbars that give you fast access to the most frequently used OSAS commands. The toolbar for the main menu differs slightly from that of function screens.

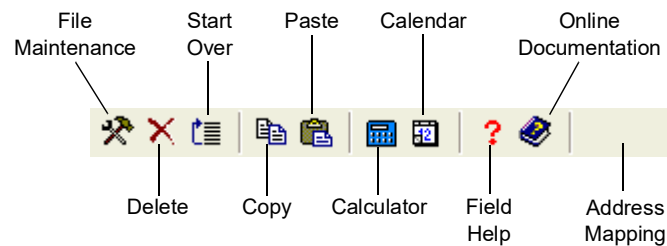
Main Menu Toolbar

The toolbar for the main menu is shown below. Click a button to access that command.




Function Screen Toolbar

The toolbar for function screens is shown below. Click a button to access that command.



Date Fields

-  If you use graphical mode, click the **Calendar** button when it appears next to date fields to open a calendar so that you can select the date you want to enter into that field.

Browse



If you use graphical mode, you can use the **Browse** button when it appears next to fields to navigate to directories and files and automatically enter file paths into that field. Click the **Browse** button to open the Select Directory/File screen, then navigate to the directory or file and click **Open** to automatically enter the file path in the field.

Inquiry



The Inquiry command helps you look up and select valid entries for fields that are connected to master file records. For example, when you use the Inquiry command in a **Batch ID** field, OSAS lists all batches you have set up so that you can select the one you want to enter in that field. When the **Inquiry** button appears next to a field, you can either click the button or press **F2** to open the Inquiry screen and search for valid entries.

Maintenance



The Maintenance command allows you to enter or edit master file records on the fly from within functions. For example, you can use the Maintenance command to add a new customer or item from within the **Transactions** function. The Maintenance command is available when the **Maintenance** button appears on the toolbar. Click the button or press **F6** to open the File Maintenance function associated with that field and enter or edit a new master file record.

Address Mapping



When you are working with a screen that contains an address, you can use the **Address Mapping** command to view a map of that address. This command combines address information with the URL and search variables in the Resource Manager **Web Setup** function and the **Map Lookup ID** in the **Company Setup** function to direct your web browser to a mapping website and generate the map.

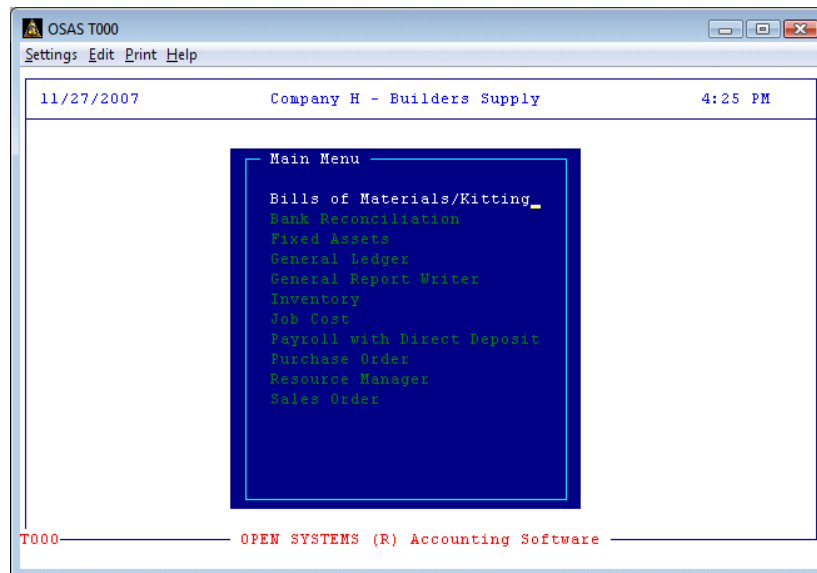
Note: Before you can view maps, you must set up mapping website information in the Resource Manager **Web Setup** function, select the **Map Lookup ID** to use in the Resource Manager **Company Information** function, and enter the path to your workstation's web browser in the Resource Manager **Defaults** function.

Text Mode

The OSAS text mode is available on all operating systems. If you use OSAS on an operating system that does not have graphical capabilities, the text mode is the only mode available. In text mode, all screens are presented in an easy-to-use textual interface that you navigate through using keyboard commands.

Main Menu

The text main menu is shown below.



When you select an application, the application's menu is superimposed over the main menu. Selecting an entry on an application menu opens a function screen or a submenu.

You can move around the text main menu in these ways:

- Use the arrow keys to move the cursor up and down to highlight the application you want. Then press **Enter** to select it.

- Press the first letter of the application you want to move the cursor to the first application beginning with that letter. Continue to press the letter key or the down arrow until the application you want is highlighted, then press **Enter** to select it.
- Use the mouse to click an application to view that application's menu.
- To move to the first application on the menu, press **Home**. To move to the last application on the menu, press **End**.
- On an application menu, press **Page Up** to move to the menu immediately behind it. If you are several levels away from the main menu, you can return to the main menu by pressing **Page Up** repeatedly or by pressing **Tab** once.
- To exit from OSAS, press **F7**.

Function Screens

Like the text menu, OSAS text function screens can be used on all operating systems and in combination with graphical menus.

The screenshot shows a terminal window titled "OSAS T000" with a menu titled "Orders". The menu is divided into "Header Information" and "Transaction Type".

Header Information:

Batch ID	000002	Date	11/27/2007	Status	New
Our Order No					
Loc ID	MN0001				

Sold to:

Sales Rep 1	Percent	100.0
Sales Rep 2	Percent	
Cust Level		
Terms Code		
Terms Desc	Type	
Terms %	.0 Days	Net Days
Order No		
Order Date		
Inv No	Date	

Transaction Type:

1. New Order
2. Shipped Order
3. Change Order
4. Verify Order
5. Miscellaneous Credits
6. Price Quote
7. Blanket Order

At the bottom of the screen, there are two buttons: "Company H" and "Verify".

You can move around the screen these ways:

- Press **Enter** or the down arrow to move from field to field.
- To use a command that is listed in the command bar, press the highlighted letter.
- Use hot key commands to access information screens or to toggle commands on and off. Refer to Appendix B in the *Resource Manager Guide* for more information on these commands and their corresponding hot keys.
- If a screen contains more than one section, press **Page Down** when prompted to move to the next section.
- If a menu appears prompting you for the kind of information to enter or maintain (such as in the example and on Transaction and File Maintenance screens), select the appropriate option and press **Enter**.
- To exit the screen and return to the menu, press **F7**.

Menus

Like the graphical mode, the text mode also includes menus that give you access to commands that open additional utilities, show additional information about the task at hand, or set up a custom menu that contains frequently-used commands.

Refer to Appendix A in the *Resource Manager Guide* for full details about the menus available in OSAS.

Other Commands

The **Other Commands** (or **F4**) menu gives you access to additional utilities and commands not directly related to the function you're currently using. In text mode, press **F4** twice on the menu or once on function screens to access this menu. See page 1-15 for more information on this menu.

Information Menu

The **Information** (or **Shift+F2**) menu gives you access to additional information about a customer, vendor, item, job, bill of material, or employee. In text mode, this menu is available when the Info flag appears at the bottom of a function screen.

The commands on the menu are available only as they are relevant to the task you are performing. For example, if you are entering a transaction in Accounts Receivable, you can access comments or documents about items or customers but not about employees or vendors. See page 1-15 for more information.

Favorites Menu

The **Favorites** menu allows you add the OSAS menus or functions you use most frequently to a custom menu. After you have set up the menu, select **Change to Favorites** from the graphical **Favorites** menu or press **F2** to access the functions.

To add a function to the **Favorites** menu, select the function you want to add from the main menu and press **F10**. To remove a function from the menu, select the function on the **Favorites** menu that you want to remove and press **F10** again. See page 1-16 for more information on this menu.

Commands and Flags

Both the text menu and text function screens let you use commands to drill down to more information, change companies or access codes, switch to sample data, and perform tasks related to the function you are using. These commands are analogous to the commands contained on drop-down menus in graphical mode.

You access commands by pressing the hot key combination for the command you want to use. If you are working with a keyboard that lacks function keys (labeled with an **F** followed by a number) or if you're working with an emulator in UNIX (which can cause function keys to become unavailable), press the appropriate alternate key combination to access the command.

Refer to Appendix B in the *Resource Manager Guide* for a list of all OSAS commands and their associated hot keys.

Not all commands are available for every function or field; when a command is available, a flag appears at the bottom of the function screen. Common flags include **Quick**, **Info**, **Maint**, **Inquiry**, and **Verify**.

- The **Quick** flag reminds you that you are using the Quick Entry mode to skip fields that are not required. Press **Ctrl+F** to toggle quick entry on and off.
- When the **Info** flag appears, press **Shift+F2** to access the **Information** menu to access additional information about a customer, vendor, item, job, bill of material, or employee. See page 1-15 for more information on this menu.

Maint

- When the **Maint** flag appears, press **F6** to launch the appropriate File Maintenance function to edit a master file record or enter a new one “on the fly.” When you finish, press **F7** to return to the function you were using.

Inquiry

- When the **Inquiry** flag appears, press **F2** to use the **Inquiry** command to look up additional information and select valid entries for the field you are in.
- The **Verify** flag reminds you that you are using verification. When this flag appears, you must provide verification when you press **Page Down** or use the **Proceed (OK)** command. Press **Ctrl+V** to toggle verification on and off.

Command Bar

The command bar appears at the bottom of function screen and gives you access to commands that allow you to move around the screen, add or edit information, change settings for selected lines, or select output devices.

Enter = edit, Append, Header, Totals, View, Online, Next trans

The commands that are available depend upon the function you are using, and are analogous to the command buttons available on graphical screens. Press the highlighted key to use a command.

Messages

Messages appear at the bottom of the screen when a command is unavailable or when OSAS needs information to continue.

Verification _____
Press <PgDn> to proceed

Address Mapping

When you are working with a screen that contains an address, you can use the **Address Mapping** command menu to view a map of that address. This command combines address information with the URL and search variables in the Resource Manager **Web Setup** function and the **Map Lookup ID** in the **Company Setup** function to direct your web browser to a mapping website and generate the map.

The **Address Mapping** command is available when the **Map** flag appears at the bottom of the screen. To view a map of the first address on the screen, press **Shift+F4**. To view a map of the second address (if present), press **Shift+F5**. The second command is not available when there is only one address.

Note: Before you can view maps, you must set up mapping website information in the Resource Manager **Web Setup** function, select the **Map Lookup ID** to use in the Resource Manager **Company Information** function, and enter the path to your workstation's web browser in the Resource Manager **Defaults** function.

Reports

OSAS applications contain a variety of reports that help you make the best decisions for your business. With reports, you can view transaction summaries, print audit trails of activity managed through OSAS functions, make lists of your basic master file information for reference, and analyze all aspects of your company's cash flow.

This section summarizes the basics of using reports. For detailed information on a specific report, see that report's description in the appropriate section.

Selecting a Range of Information

To produce a report, you must specify what information you want to include in the report.

- To produce a report that includes all information available, leave the **From-Thru** fields on the report screen blank. For example, if you want to include information about all the vendors you work with in a report, leave the **Vendor ID From** and **Thru** fields blank.
- To limit the amount of information in the report, enter a range in the **From-Thru** fields. For example, if you want a report to include information only about vendor ACE001, enter **ACE001** in both the **Vendor ID From** and **Thru** fields. If you want the report to include information only about vendors that start with CO, enter **CO** at **From** and **COZZZZ** at **Thru**.
- You can also choose a non-contiguous list of values for inclusion in the report using the **Inquiry (F2)** command at the **From** field. In the inquiry window, you can select the **Tag** check mark next to any selection you want to include. In fields where you've tagged individual choices, the selection will appear as an asterisk in the From/Thru fields after the selection.

Each field where you enter information on a report screen usually restricts the overall output of the report. For example, if you leave the **Vendor ID From** and **Thru** fields blank, the report contains information about all the vendors. But if you enter invoice **100** in the **Invoice Number From** and **Thru** fields, and invoice **100** is assigned only to vendor ACE001, the report includes information only about vendor ACE001.

Sorting

Information for reports is sorted first by a space (), then by special characters, then by digits, then by uppercase letters, and finally by lowercase letters. No matter what you enter in the **From** and **Thru** fields, however, your entries are sorted in alphabetical order (unless the function provides an option to sort the information differently).

Sorting by alphabetical codes or IDs is easy. For example, the ID **ACL** comes before the ID **BB** because A comes before B.

Use caution when you enter codes or IDs consisting of characters other than letters; the order might not be what you expect. For example, if 20 items are labeled 1 through 20, and all are included in a report, you might enter **1** at **From** and **20** at **Thru**, expecting them to be listed 1, 2, 3 . . . 19, 20. However, since OSAS sorts in alphabetical order, rather than numerical order, the numbers are listed in this order: 1, 10–19, 2, 20. In this example, numbers 3 - 9 are not included in the sort since they fall after 20 in an alphabetical sort. To prevent this situation, pad extra spaces in codes and IDs with zeros so that numbers in alphabetical order are also in numerical order. In the example above, the items could be labeled 000001 through 000020.

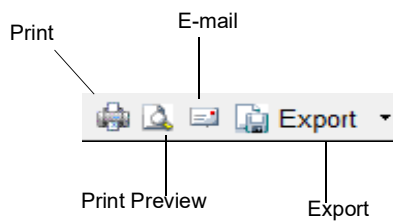
Outputting Reports

You can output reports in a variety of ways, including printing, previewing the report on the screen, emailing the document to a recipient of your choosing, or exporting the report or form to certain file formats. The screen mode you use, either graphical or text-based, controls which output options are available to you.

Choosing Output Types

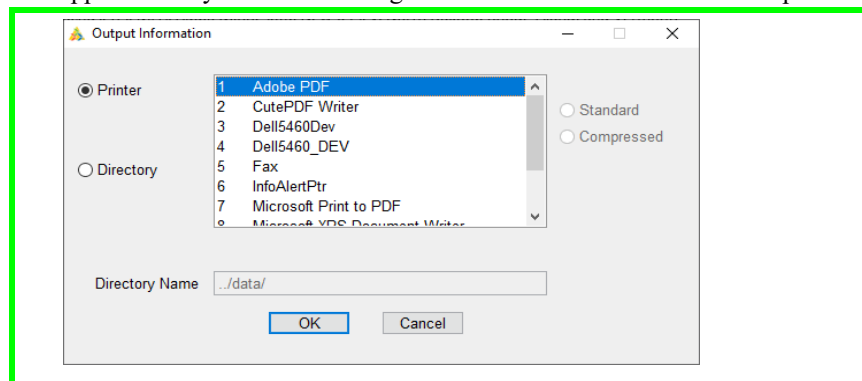
The type of report output available depends on whether you are generating a report, or a form such as an invoice, purchase order, packing slip, etc.

- If you use graphical screens to generate a report (as opposed to a form), the reports toolbar appears on the report criteria screen.



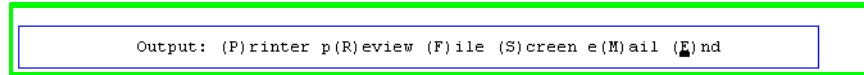
Once you finish making your selections on the report criteria screen, click your desired output option to begin generating the report. Alternatively, you can output to your default method based on your user preference settings.

- If you use graphical screens, and you are printing a form (such as an invoice, purchase order, packing slip, and so on), the Output Information dialog box appears after you select the range of information to include in the report.



Select the radio button next to the type of output you want. Select a printer from the list, and specify a file name if necessary. Click **OK** to complete the process.

- If you use text screens, the options available to you appear at the bottom of the screen after you select what to include in the report and how to organize it.



The options available to you may vary depending on the specific report or form you are producing. Press the letter corresponding to your output choice, then press **Enter** to generate the report.

Print the Report

Follow these steps to print a report:

1. Select **Printer** (in graphical screens) or enter **P** (in text screens).
2. If multiple printers are available for the terminal, either select the printer from the list or enter the appropriate code for the printer and press **Enter**.

Use the **Devices** function in Resource Manager to add printers to the terminal for certain forms, or use your operating system to set up printer connections for reports.

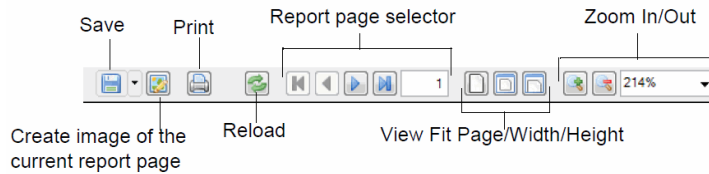
3. When available, select either **Standard** (or enter **S**) to print the report in standard width or **Compressed** (or enter **C**) to print it in compressed width.
4. Click **OK** or press **Enter** to begin printing the report.
5. Click **OK** or press **Enter** to continue.

Preview the Report

The Print Preview option is available only on workstations with graphical display capabilities.

To view a report using Print Preview, click the **Print Preview** icon (in graphical screens) or enter **R** (in text screens).

The preview displays the report in a JasperReports print preview window. This window has its own toolbar.



The **Save** command pull-down offers these options:

- The **Save** and the **Save As...** commands will open the operating system save file dialog box. Navigate to the desired location for the saved file. Change the report name from the system-generated default, if desired, in the file name field. By default, the report will be saved in PDF format. To change the file type, use the **Files of Type** pull-down to select a different file type from the list. Click the **Save** button to save the report file.
- The **Save as Google Document...** command will open a Google Login dialog box. Enter your Google Docs e-mail address and password. A Save Google Document screen will open, and you can select the Google folder in which to store the file, and set the name and type of file. Click the **Save** button to save the report to your Google Drive.

The **Create image of the current report page** command allows you to save the displayed report page as a PNG (Portable Network Graphics) image.

The **Print** command opens a print dialog box to allow you to print the report to the selected printer.

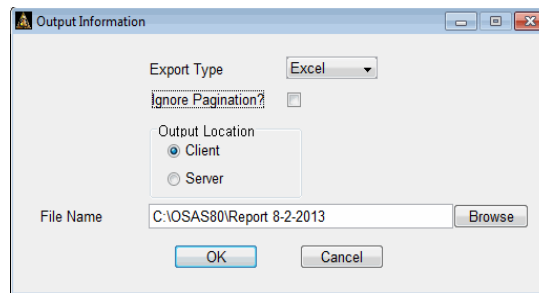
The **Reload** command reloads the report in the print preview window.

To navigate through the report, use the **Report page selector**. To adjust the view of the report in the preview window, use the **View** or the **Zoom** options.

Export the Report

To export the report to one of the available file types, select the type from the pull-down **Export** list on the report toolbar on graphical screens, or enter **X** on text screens, then enter the letter for the desired format.

The **Export** command will open an Output Information dialog box. The **Export Type** pull-down allows you to select the type of file to export. The **Ignore Pagination** check box, if marked, will result in one continuous report without page breaks. The **Output Location** option determines where the exported file will be stored. Use the **Browse** button to navigate to the location where the report file will be saved. Enter the desired file name in the **File Name** field. Click **OK**. The report file will be saved in the selected location.



In text mode, you will have the same types of prompts. Follow the on-screen instructions to export the report in the desired format and location.

E-mail the Report

Before you can e-mail reports, you must enter details about your e-mail system using the **E-Mail Setup** function on the Resource Manager **Installation and Configuration** menu. You can e-mail only selected reports. In general, any report or form that makes up part of your audit trail cannot be e-mailed.

Follow these steps to e-mail a report:

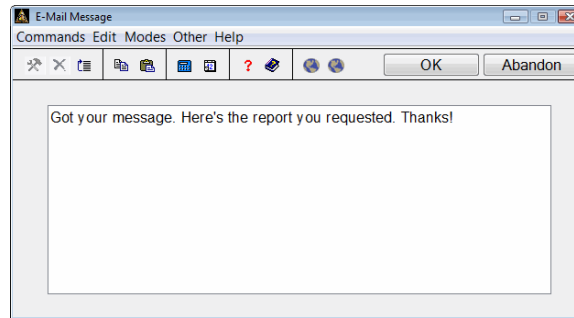
1. Select **E-mail** or enter **M**. The **E-Mail Information** screen appears.

The screenshot shows the 'E-Mail Information' dialog box. The 'E-Mail From' field is set to 'samd@builders_supply.com'. The 'To' field is set to 'Customer' and 'ACE001', with email addresses 'bhumphrey@aceplumbingsupply.com' and 'garrydeacon@bigmail.com'. The 'CC' field is set to 'Employee' and 'BOU001', with email address 'lbourne@builders_supply.com'. The 'BCC' field is set to 'Employee' and 'STO001', with email address 'asotckard@builders_supply.com'. The 'Subject' field is 'AR Analysis Report'. The 'Attachment Type' is 'YES'. An 'Attachment File' list contains 'C:/OSAS76/data/0npqq79x005.TXT'. At the bottom are buttons for 'Enter = Edit', 'Append', 'Go to', 'Header', and 'Done'. The status bar shows 'Company H | 10/26/2010 | Terminal T000 | OVR'.

2. The **E-Mail From** field displays the originating e-mail address. Change it if you want the return e-mail address to be different from the one set up in the **E-Mail Setup** function in Resource Manager.

Inquiry

3. In the **To**, carbon copy (**CC**), and blind carbon copy (**BCC**) fields, select **Other** and enter the e-mail address, or select **Vendor**, **Customer**, or **Employee** and choose from the e-mail addresses on file for those respective categories (depending upon installed applications), or select **None** to leave the field blank (you must choose at least one **To**, **CC**, or **BCC** address).
4. The name of the report appears in the **Subject** field. Change the subject line, if necessary.
5. Select **Yes** in the **Attachment** field to send the report as a text file attachment to the e-mail message, select **No** to send the report in the body of the e-mail, or select **PDF** to attach the report as a PDF file.
6. The E-Mail Message dialog box appears.



Enter the message you would like included in the body of the e-mail, and use the **Proceed (OK)** command. You are returned to the E-Mail Information Screen.

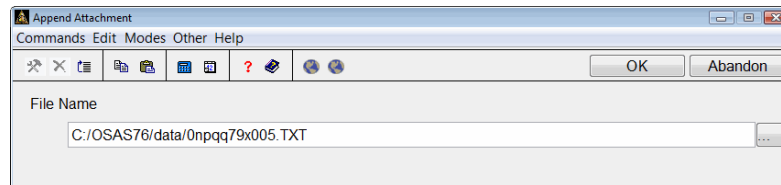
7. Use one of the following commands in the Attachment File scroll region:
 - Press **Enter** to edit the highlighted attachment (if any). Browse to or enter the name of the file you would like to attach in the **Edit Attachment** dialog box (see “Edit/Append Attachment dialog box” on page 1-33).
 - Press **A** to add an attachment to the e-mail. Browse to or enter the name of the file you would like to attach in the **Append Attachment** dialog box (see “Edit/Append Attachment dialog box” on page 1-33).


- Press **G** to go to a specific attachment line item (this command is only available if there are more than six attachments to the e-mail).
 - Press **H** to change the header information of the e-mail, including the **E-Mail From** field, the recipient(s), the subject line, and the attachment type.
 - Press **D** when done entering the e-mail information, and you are ready to process the e-mail.
8. If you choose **No** in the **Send E-Mails Immediately?** option in the Resource Manager Options and Interfaces, the e-mail will be held in the E-Mail Queue for processing. Consult the *Resource Manager Guide* for more information. Otherwise, the e-mail will be sent immediately.

Note: To preserve formatting, view e-mailed reports (or e-mail attachments) with a fixed-width or monospaced font (Courier or Lucida Console, for example).

Edit/Append Attachment dialog box

The Edit/Append Attachment dialog box appears when you press **Enter** or **A** in the Attachment File scroll region of the E-Mail Information screen.



1. Enter the File Name of the file you want to attach to the e-mail, or click the browse button () to navigate to the file.
2. Use the **Proceed (OK)** command to add the attachment to the e-mail, and return to the E-Mail Information Screen.

View the Report on Screen (Text Screens Only)

If you use text screens without any graphical display capability, you can view selected reports directly on the OSAS screen.

Follow these steps to view the report on screen:

1. Enter **S** to select **(S)creen**.
2. When available, enter **S** if you want to view the report in standard width or **C** if you want to view it in compressed width.
3. When the report appears, press the **Up, Down, PgUp, PgDn, Home,** and **End** keys to navigate through the report.

Form Preview Commands

Use the following commands when a form appears on the screen (these commands do not apply to the JasperReports-generated reports):

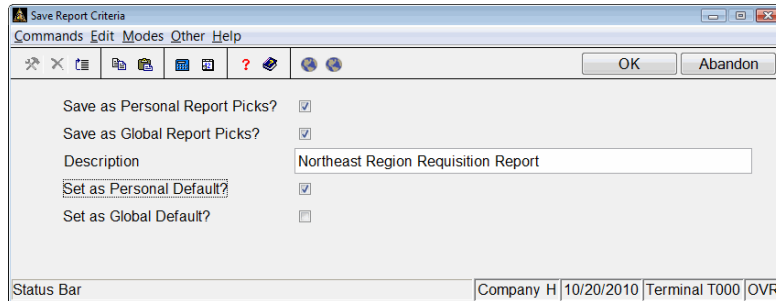
Key	Operation
PgUp	Moves to the previous page of the report.
PgDn	Moves to the next page of the report.
Home	Moves directly to the top of a group of pages.
End	Moves directly to the bottom of a group of pages.
F7	Exits to the menu from any point in the report.
Left	Moves left one character.
Right	Moves right one character.
Tab	Toggles between the left and right halves of a report.
Up/Down	Moves a line up and down the screen to line up information when you toggle between halves of a report.

Loading and Saving Report Criteria

You can save the pick criteria from any report screen to make it easier to run reports without redefining the criteria each time.

You must set the Resource Manager option **Use Report Defaults?** to **Yes** to use this functionality.

After you choose to print a report, the Save Report Criteria screen appears.



- In the **Save as Personal Report Picks?** field, check the box (or enter **Y** in text mode) to save the selection criteria for use at a later time on your workstation, or uncheck the box (or enter **N** in text mode) to skip saving the criteria.
- In the **Save as Global Report Picks?** field, check the box (or enter **Y** in text mode) to save the selection criteria for use by anyone in your organization who has access to this report, or uncheck the box (or enter **N** in text mode) to keep the criteria private.
- Enter a **Description** for these report defaults for identification.
- If you check the **Set as Personal Default?** box (or enter **Y** in text mode), these pick criteria will be automatically applied on the report screen the next time you run the report from the menu.
- If you check the **Set as Global Default?** box (on enter **Y** in text mode), these pick criteria will be automatically applied on the report screen whenever anyone in your organization runs the report from the menu.

Whether or not you set saved criteria as a default, you can load any report criteria you have saved for a report by clicking in any field on the selection criteria screen, pressing **Shift+F3**, and then choosing the description you want to use.

Consult the [Resource Manager Guide](#) for more information about reports.

Create xxMN File	2-3
Create xxCNVT File	2-9
Create xxCNVT.HDR File	2-11
Create xxMB File	2-13
Create xx.PTL File	2-15
Create Change Fields Files	2-17
Create GENERAL Data Dictionary Files	2-19
Split OSMN to xxMN Files	2-21
Tables	2-23

System File Maintenance

Overview

Use the functions on the **System File Maintenance** menu to set up and maintain OSAS system files and files required for application installation. You can also print lists of these files.

- Use the **Create xxMN File** function to create an xxMN file in your sysfil folder if it does not exist. The xxMN file allows you to change the OSAS main menu or the menus for any application that is installed for the current company.
- Use the **Create xxCNVT File** and **Create xxCNVT.HDR File** utilities to create the files needed for application conversions. The resulting files will be merged into the OSCNVT and OSCNVT.HDR system files during installation.
- Use the **Create xxMB File** function to create an application-specific installation that contains special keystroke commands for functions that need them (such as the **Inquiry Lookup** commands in INITEM.PUB).
- Use the **Create xx.PTL File** function to create program templates for report pick screens.

- Use the **Create Change Fields Files** function to create the application-specific installation files **OSFD.xx** and **OSFH.xx** for the application you specify. These files are created by pulling the application-specific records from your OSFD and OSFH system files. The files are merged into the user's OSFD and OSFH files when the application is installed through Resource Manager.
- Use the **Create GENERAL Data Dictionary Files** function to create the application-specific installation files **GEN4MST.xxD** and **GEN4MST.xxR** for the application you specify. These files are created by pulling the application-specific records from your GEN6MST system file. The files are merged into the user's GEN6MST file when the application is installed through Resource Manager.
- Use the **Split OSMN to xxMN Files** function to split the OSMN file into application-specific menu files. The files contain the menu layout data for each application and can be edited using the Create xxMN File function.
- Use the **Tables** function to build the system tables.

Create xxMN File

Use the **Create xxMN File** function to create an xxMN file in your sysfil folder if it does not exist. The xxMN file allows you to change the OSAS main menu or the menus for any application that is installed for the current company. You can change the order of menu selections, add descriptive information to a menu, or add other programs to a menu.

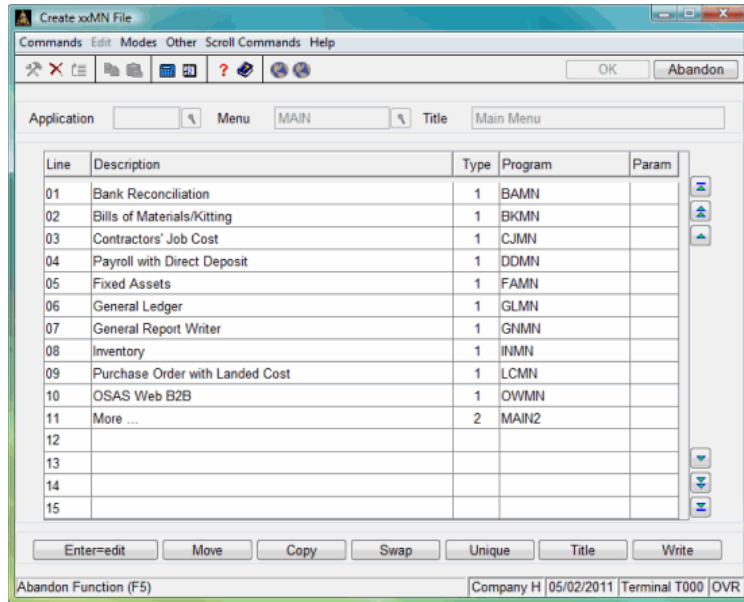
You can also use this function to add documents (word processing documents, spreadsheets, graphic files, and so on) to a menu so that users can open them directly from OSAS. When you add a document to a menu using a **Type of A**, OSAS uses the associations you set up in the Resource Manager **File Types** function to launch the appropriate software application and open the file.

Note: When you use add a document to the OSAS menu, you must store the file you link to the menu in the location listed for the Resource Manager **DocumentShare** directory in the Resource Manager **Directories** function, and you must make sure the document's file name is no more than eight characters, not including the extension (as in **osadocs.txt**).

Starting with version 7.6, these files get merged into the OSMN file.

Create xxMN File Screen

Select **Create xxMN File** from the **System File Maintenance** menu. The function screen appears.

**Field****Descriptions****Inquiry****Application**

Enter the application for which you want to create the **xxMN** file, or use the **Inquiry (F2)** command to select an ID from the list that appears.

To work with the main menu, leave this field blank and press **Enter**. OSAS automatically enters **MAIN** in the **Menu** field and moves you to the **Title** field.

Menu

Enter the menu you want to customize or enter a new one. If you entered **OS** in the **Application** field, enter **MAIN** in this field.

Title

Enter the title, if necessary, and press **Enter** to move to the menu listing in the scrolling region. The scrolling region is available only after you have entered a title.

Use the commands to work with the information on the screen:

- Press **Enter** to edit the selected line. The Edit Menu screen appears.
- Press **M** to move the selected line to a different line. When the Move Line prompt appears, enter the line number to which to move the line to and press **Enter**. The other lines move up to fill the vacant space.
- Press **C** to copy a line to a selected blank line. When the Copy Line prompt appears, enter the line number you want to copy to the blank line and press **Enter**. You cannot use this command on a line that already contains an entry.
- Press **S** to swap the selected line with another, then enter the line number to swap with this one and press **Enter**.
- Press **U** to enter a letter of the alphabet before each line item, making each one unique. This command lets you move through the menu faster by entering the letter of the item you want to select from the menu.
- Press **T** to return to the **Title** field to change the title of the menu.
- Press **W** to save your changes. When the verification message appears, enter **Y** to save your changes or **N** if you do not want to save.

Editing a Menu Item

To edit a menu item, select the line to edit on the Menus screen and press **Enter**. The Edit Menu screen appears.

Line	01
Description	Bank Reconciliation
Short Description	Reconciliation
Type	1
Path	
Program	BAMN
Parameter	
Function Type	

Edit the menu item's **Description**, if necessary. This description can be the name of the menu, function, or an information line.

If you use the MDI menu, enter a **Short Description** for the item. This short description appears as the name of the application (if you are editing the main menu) or as the name of the function within a menu. If the **Short Description** field is blank, the system uses the information in the **Description** field on the MDI menu instead.

Select the menu item's **Type**:

- Enter **0** to indicate that the line contains only descriptive comment information.
- Enter **1** to indicate that the line is the main menu from another menu file.
- Enter **2** to indicate that the line is another menu from the current file.
- Enter **3** to indicate that the line executes an application program.

- Enter **4** to indicate that the line calls or executes a public program.
- Enter **5** to indicate that the line executes an operating system command.
- Enter **6** to indicate that the line executes a public program directly.
- Enter **7** to indicate that the line opens an EIS dashboard.
- Enter **8** to indicate that the line opens a GENERAL Report Writer report.
- Enter **9** to indicate that the line starts an ODBC function.
- Enter **A** to indicate that the line uses file type associations to launch an application and open the file indicated in the **Program** field.

Enter the full path to the ODBC function or user-defined function in the **Path** field.

If the menu item uses another menu or calls a program or command, enter the program name, menu file name, menu record name, or operating system command to execute in the **Program** field. If you selected a type of **0**, leave this field blank. If you are attaching a document to a menu, enter the document's file name in the **Program** field. When you attach documents, remember to store the file in the file path listed for the **DocumentShare** directory in the **Directories** function, and to keep the file name to 8 characters or less. If the file is located in a different directory or if it has a long file name, OSAS cannot open it.

Enter a **Parameter** for the menu selection. If you selected a type of **0** for the line or if you do not need a parameter, leave this field blank.

Select a **Function Type** for the menu selection. The type selected determines the icon in the MDI menu and whether reports, forms, and posts are archived.

Use the **Process (OK)** command to save your changes and return to the Menus screen.

Create xxCNVT File

Use the **Create xxCNVT File** function to create an installation file for each application. The file contains a record for each data file that exists for the specified application code. During installation, the application-specific file is merged into the **OSCNVT** file.

This file is accessed when a function needs to verify the version number.

Create xxCNVT File Screen

Select **Create xxCNVT File** from the **System File Maintenance** menu. The function screen appears.

The screenshot shows a dialog box titled "Create xxCNVT File". The dialog has a menu bar with "Commands", "Edit", "Modes", "Other", and "Help". Below the menu bar is a toolbar with icons for back, forward, and help. The main area contains the following fields:

- Application Code: AP
- Version: 7.60
- File Name: APVEx
- F3 to Delete:

Buttons for "OK" and "Abandon" are located in the top right corner. The status bar at the bottom of the dialog shows "Compa... 04/12/2... Terminal ... O..."

	Field	Descriptions
Inquiry	Application Code	Enter the ID of the application for which you want to create the xxCNVT file, or use the Inquiry (F2) command to select an ID from the list that appears.
	Version	Press Enter to accept the most recent version that is installed, or enter a different version number to which the file will be converted.
Inquiry	File Name	Enter the name of the file you want to add to the xxCNVT file, or use the Inquiry command to look up and select a file from the list that appears.
	F3 to Delete	Use the Delete (F3) command to delete the selected file. If you do not want to delete the file, press Enter .

Check your entries. If you find mistakes, change the fields that are in error, or use the **Abandon (F5)** command to start again from the top of the screen.

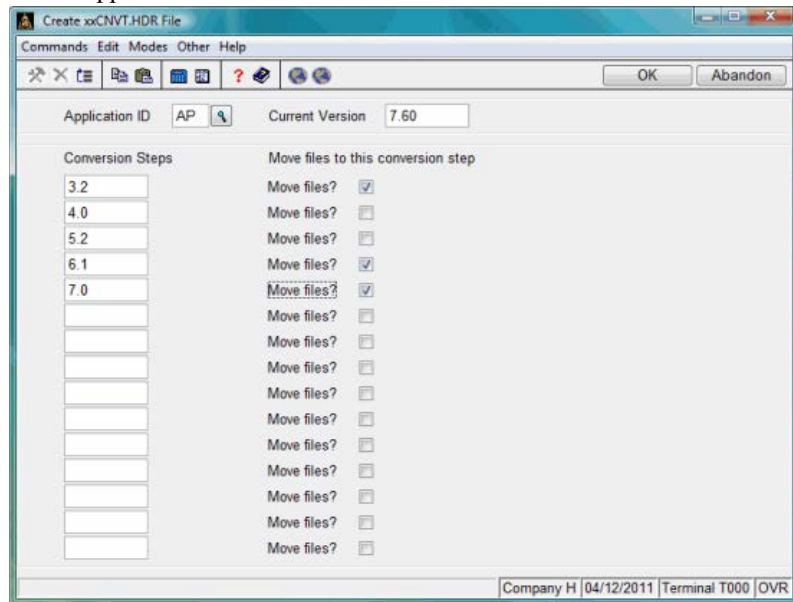
When everything is correct, use the **Proceed (OK)** command to save the record. Then enter another file or use the **Exit (F7)** command to return to the menu.

Create xxCNVT.HDR File

Use the **Create xxCNVT.HDR File** function to create a conversion header file containing all the conversion steps for this application.

Create xxCNVT.HDR File Screen

Select **Create xxCNVT.HDR File** from the **System File Maintenance** menu. This screen appears:



Inquiry

Enter the application ID for which you want to create the **xxCNVT.HDR** file, or use the **Inquiry (F2)** command to select an application from the list that appears. Next, enter the version number of the application to which the files will be converted.

Conversion Steps

Converting your data from older versions of OSAS to 8.0 is a multi-step process. When converting files from older versions to 8.0, the conversion process moves the data to subdirectories at each step, depending on the **Move Files** setting in the **OSCNVT.HDR** file.

1. Enter each version number that has a step in the conversion process.
2. Select the **Move Files** check box (or enter **Y** in text mode) to move the data to the appropriate subdirectory during installation; clear the check box (or enter **N** in text mode) to leave the file in its current location. You must select the check box (or enter **Y**) for the last version in the chain.

Saving and Exiting

Check your entries. If you find mistakes, change the fields in error, or use the **Abandon (F5)** command to start again from the top of the screen.

When your entries are correct, use the **Proceed (OK)** command to save the information and create the **xxCNVT.HDR** file for the application. After the file is created, the **System File Maintenance** menu appears.

Create xxMB File

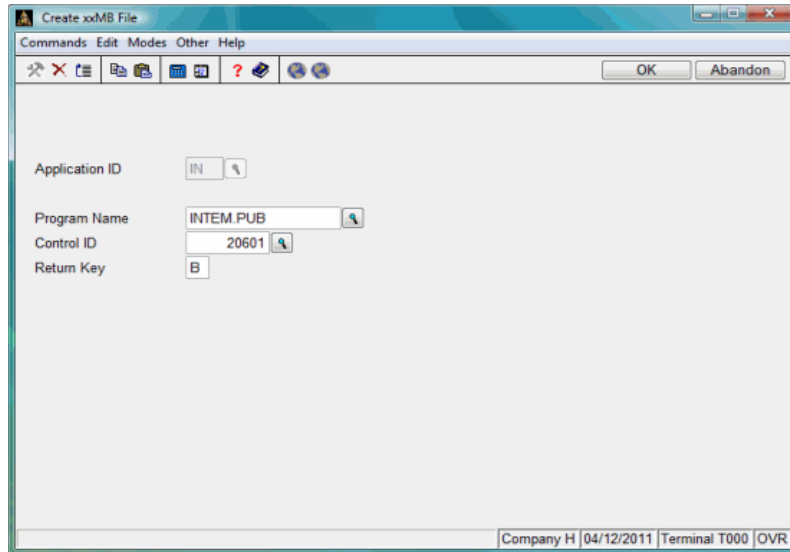
Some functions in OSAS use special commands to invoke unique processes within the programs (for example, the **INITEM.PUB** program uses the **Shift+F3** function key to perform various item lookups). These commands are handled within the code based on the commands returned from **GENINPUT.PUB** in the **Y\$** variable (in the case of **INITEM.PUB**, it is **B**, which in text mode is mapped to the **Shift+F3** function key).

In graphical mode, these functions build pull-down menus that the user can use to invoke the special commands. The **Y\$** commands that are associated with these menu controls are stored in a system file called **OSMB**. The **OSMB** file is populated during the installation of the applications that contain special commands by merging the application-specific **xxMB** files.

Use the **Create xxMB File** function to create the installation file containing the special keystroke commands within the graphical screens in an application, if any.

Create xxMB File Screen

Select **Create xxMB File** from the **System File Maintenance** menu. The Create xxMB File screen appears.



	Field	Descriptions
Inquiry	Application ID	Enter the application ID for which you want to create the xxMB file, or use the Inquiry (F2) command to select an application from the list that appears.
Inquiry	Program Name	Enter the name of the program that contains the special commands.
Inquiry	Control ID	Enter the control ID associated with the menu choice (or any other GUI control).
	Return Key	Enter the value you want GENGUINP.PUB to return in the Y\$ variable when the control is activated.

When your entries are correct, use the **Proceed (OK)** command to save the information to the **xxMB** file. The cursor returns to the **Application ID** field.

Enter the application ID of the next command you want to define, or use the **Exit (F7)** command to return to the **System File Maintenance** menu.

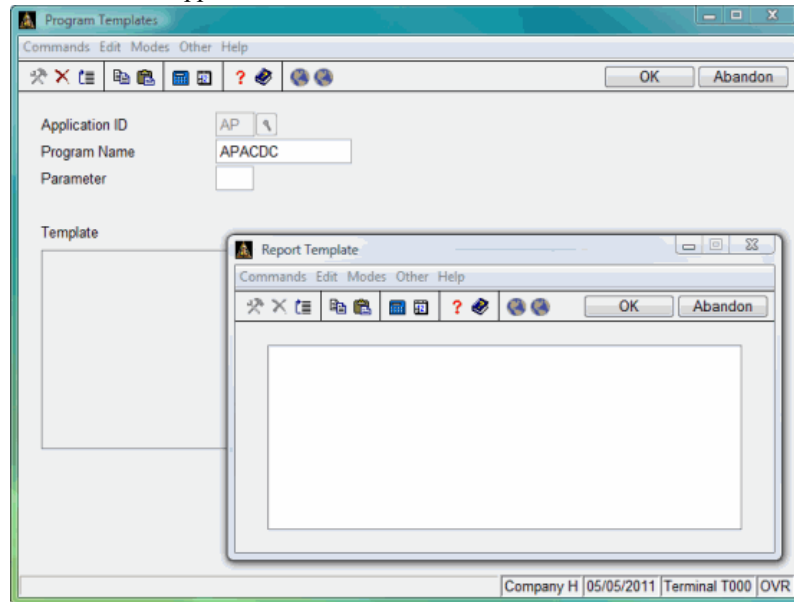
Create xx.PTL File

Use the **Create xx.PTL File** function to create program templates for report pick screens. The xx.PTL file merges with the OSPTL file when an application is installed. These entries are then used by report pick screens, and if developed properly, will eventually retrieve and react to report defaults users have saved.

The xx.PTL file will hold all pick screen definitions and the templates for each screen for which you want to use report defaults.

Create xx.PTL File

Select **Create xx.PTL File** from the **System File Maintenance** menu. The Create xx.PTL screen appears.



	Field	Descriptions
Inquiry	Application ID	Enter the application ID for which you want to create the xx.PTL file, or use the Inquiry (F2) command to select an application from the list that appears.
	Program Name	Enter the name of the program for which you want to create the xx.PTL file.
	Parameter	Enter, if applicable, the parameter associated with the selected program.
	Report Template	Enter template strings to create the program template.

Check your entries. If you find mistakes, change the fields that are in error or use the **Abandon (F5)** command to start again from the top of the screen.

Your **xx.PTL** file is created if the system cannot locate the **xx.PTL** file after the application ID is entered. Entries are added to the newly created file when you use the **Proceed (OK)** command to save each item. Once all entries are saved, use the **Exit (F7)** command to return to the **System File Maintenance** menu.

Create Change Fields Files

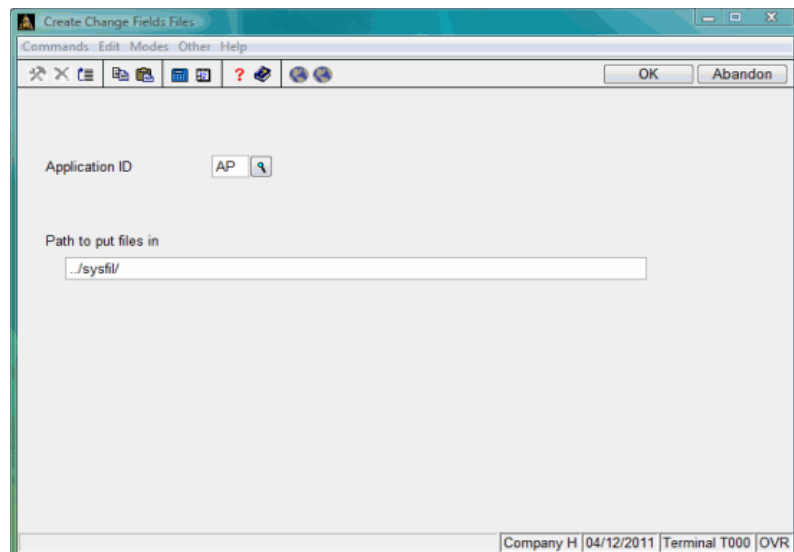
Use the **Create Change Fields Files** function to create the application-specific installation files for use with the **Change Fields** functions in OSAS. The files contain information on the key fields that can be changed for the application and the files throughout OSAS where those fields are stored.

The utility creates the **xxFD** and **xxFH** files using data for the application you specify from the **OSFD** and **OSFH** files in your system files directory. You can add data to these files using the **Change Fields** function in Resource Manager.


When the application is later installed through Resource Manager, the **xxFD** and **xxFH** files are merged into the user's **OSFD** and **OSFH** files.

Create Change Fields Files Screen

Select **Create Change Fields Files** from the **System File Maintenance** menu. This screen appears:



The screenshot shows a dialog box titled "Create Change Fields Files". The dialog has a menu bar with "Commands", "Edit", "Modes", "Other", and "Help". Below the menu bar is a toolbar with several icons and two buttons: "OK" and "Abandon". The main area of the dialog contains two input fields. The first is labeled "Application ID" and contains the text "AP" followed by a search icon. The second is labeled "Path to put files in" and contains the text "./sysfil/". At the bottom of the dialog, there is a status bar that reads "Company H | 04/12/2011 | Terminal T000 | OVR".

	Field	Descriptions
	Application ID	Enter the application ID for which you want to create the installation files, or use the Inquiry (F2) command to select an application from the list that appears.
	Path to put files in	Press Enter to accept the current path or enter a different path in which you want the installation files created. If the files already exist, a warning message appears. To leave the existing installation files intact, select No (or enter N in text mode) and enter a different path. To overwrite the existing files with newly created ones, select Yes (or enter Y in text mode) to continue.

Check your entries. If you find mistakes, change the fields that are in error or use the **Abandon (F5)** command to start again from the top of the screen.

To create the files, use the **Proceed (OK)** command. After the files are created, the **System File Maintenance** menu appears.

Create GENERAL Data Dictionary Files


Use the **Create GENERAL Data Dictionary Files** function to create the application-specific installation files for use with the GENERAL Report Writer. The files contain data file and predefined report definitions for the application you specify.

The utility creates the **GEN4MST.xxD** and **GEN4MST.xxR** files by extracting data for the application you specify from your **GEN6MST** (GENERAL Report Writer Master) file. When the application is installed through Resource Manager, these files are merged into the user's **GEN6MST** file.

Create GENERAL Data Dictionary Files Screen

Select **Create GENERAL Data Dictionary Files** from the **System File Maintenance** menu. This screen appears:

The screenshot shows a dialog box titled "Create GENERAL Data Dictionary Files". It features a menu bar with "Commands", "Edit", "Modes", "Other", and "Help". Below the menu bar is a toolbar with several icons and two buttons: "OK" and "Abandon". The main area of the dialog contains two input fields. The first is labeled "Application ID" and contains the text "AP" followed by a search icon. The second is labeled "Path to put files in" and contains the text "./sysfil/". At the bottom right of the dialog, there is a status bar displaying "Company H | 04/12/2011 | Terminal T000 | OVR".

	Field	Descriptions
	Application ID	Enter the application ID for which you want to create the installation files, or use the Inquiry (F2) command to select an application from the list that appears.
	Path to put files in	Press Enter to accept the current path, or enter a different path in which you want the installation files created. If the files already exist, a warning message appears. To leave the existing installation files intact, select No (or enter N in text mode) and enter a different path. To overwrite the existing files with newly created ones, select Yes (or enter Y in text mode) to continue.

Check your entries. If you find mistakes, change the fields that are in error or use the **Abandon (F5)** command to start again from the top of the screen.

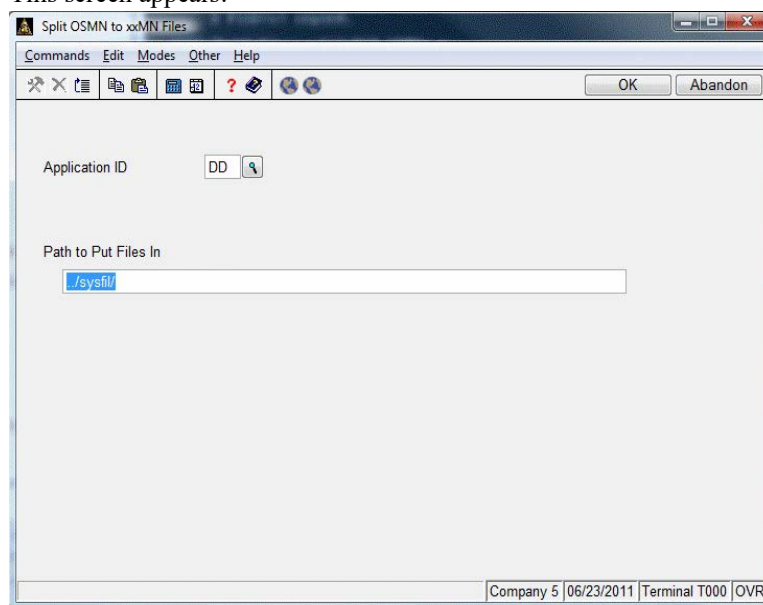
To create the files, use the **Proceed (OK)** command. After the files are created, the **System File Maintenance** menu appears.

Split OSMN to xxMN Files

Use the **Split OSMN to xxMN Files** function to split the OSMN file into application-specific menu files. The files contain the menu layout data for each application and can be edited using the Create xxMN File function.

Split OSMN to xxMN Files Screen

Select **Split OSMN to xxMN Files** from the **System File Maintenance** menu.
This screen appears:



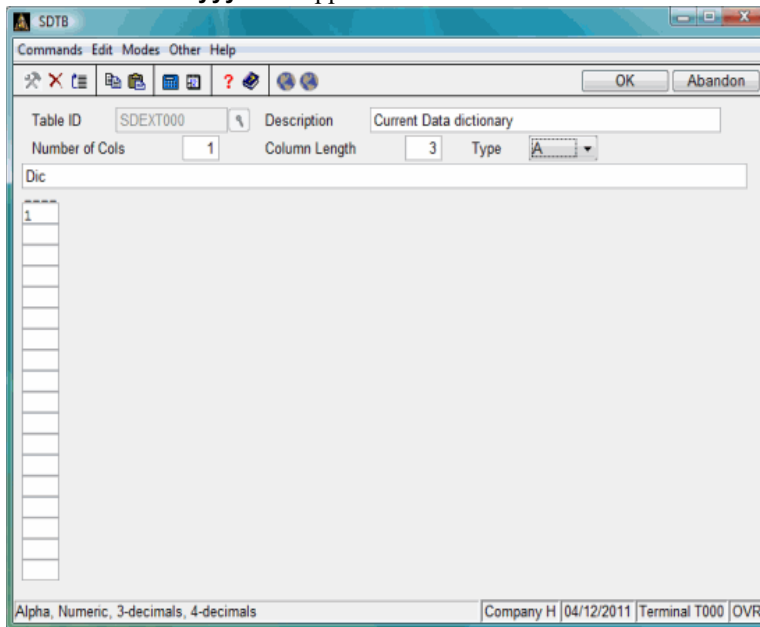
	Field	Descriptions
Inquiry	Application ID	Enter the application ID for which you want to create the menu files, or use the Inquiry (F2) command to select an application from the list that appears.
	Path to put files in	Press Enter to accept the current path, or enter a different path in which you want the menu files created. If the files already exist, a warning message appears. To leave the existing menu files intact, select No (or enter N in text mode) and enter a different path. To overwrite the existing files with newly created ones, select Yes (or enter Y in text mode) to continue.

Check your entries. If you find mistakes, change the fields that are in error or use the **Abandon (F5)** command to start again from the top of the screen.

To create the files, use the **Proceed (OK)** command. After the files are created, the **System File Maintenance** menu appears.

SDEXTyyy Table

These tables are created and updated automatically when you use the **Setup (F9)** command on the **Software Development Utilities** menu. You do not need to set up or maintain the tables using this function. When you enter the table ID, the rest of the **SDEXTyyy** table appears.



The extension of the current data dictionary for terminal **Tyyy** appears.

Saving and Exiting

When your table entries are correct, use the **Proceed (OK)** command to save the table. When you finish working with tables, use the **Exit (F7)** command to return to the **System File Maintenance** menu.

When you are satisfied with your entries, select the output device to save your entries and print the labels. See “Reports” on page 1-25 for more information on output devices.

Custom Field Maintenance	3-3
Data File Information	3-5
Data File Information List	3-9
Define Vkeyed Files	3-11
Edit Data File Contents	3-13
Merge Data Files	3-15
Create Merge File	3-17
Export Custom Field Definitions	3-19

Database Maintenance

Overview

Use the functions on the **Database Maintenance** menu to set up and maintain OSAS database files.

- Use the **Custom Field Maintenance** function to create and edit special fields that allow you to store video files, graphics, documents, and audio files in the database.
- Use the **Data File Information** function to maintain the **xxDATA.yyy** file for an application.
- To produce a list of data files by version number for a range of applications, print the **Data File Information List**.
- Use the **Define Vkeyed Files** function to define/redefine and store single or multikeyed Vkeyed file definitions and to create files based on these definitions.
- To view, edit, delete, or add records in a data file, use the **Edit Data File Contents** function. This function lists each field in a data file and the contents of the field.
- Use the **Merge Data Files** function to merge two or more separate files into one.

- Use the **Create Merge File** function to compare two mkeyed files and produce a file containing data that is different between the two files.
- Use the **Export Custom Field Definitions** function to export your custom fields for use in a different company.

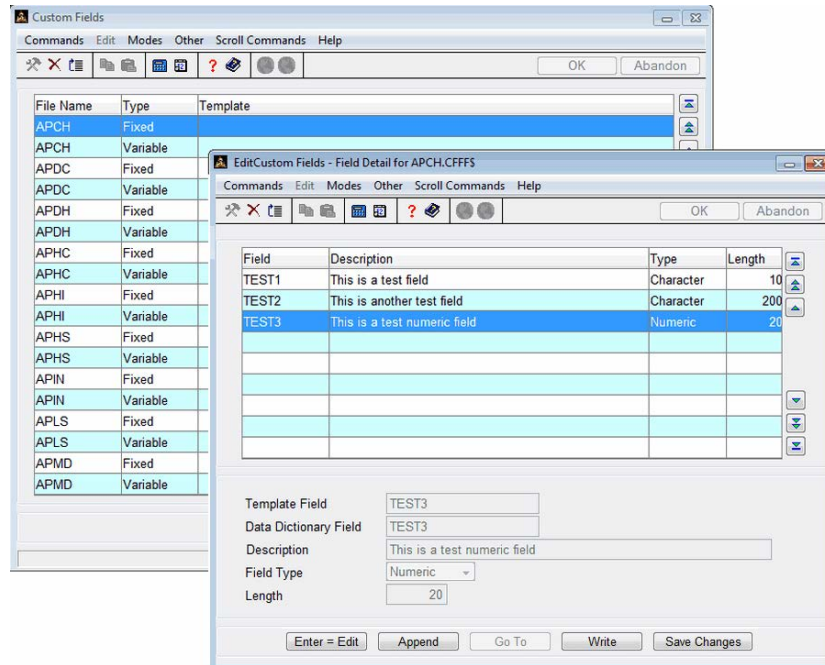
Custom Field Maintenance

You can expand the usability and functionality of OSAS by using the **Custom Field Maintenance** function to create special fields allowing you to store video files, graphics, documents, and audio files in the database. Custom fields can also be utilized by the Jasper reporting engine to enhance custom reports.

Two types of custom fields are available: fixed and variable. Fixed fields are a set length, and data is padded to that fixed length. This makes adding alternate keys for reports and sorting easier. Variable fields store information that does not have a consistent size, such as numbers and multimedia files.

Your software provider can use the custom field maintenance function to define custom fields through OSAS itself, rather than through code. You can add as many custom fields as you like, but once fields are saved, they cannot be deleted, nor can they be moved in the database. The custom field function stores the field definitions, creates or updates the custom field templates for the file, converts data files if needed, and updates the data dictionary to reflect the new or changed fields. Once the changes are saved, your software provider can use the new fields for custom reports or modifications to OSAS.

The following is a brief overview of the custom field function.



Select the **Custom Fields** function from the **Database Maintenance** menu. The Custom Fields screen opens, and displays a list of all files to which you can add custom fields. Each file has a fixed custom field type and a variable field type.

Select a file and type, then press **E** or the **Enter** key. The Edit Custom Fields screen opens. Use **E** to edit an existing field, or **A** to add a new field. The **Template** field holds the name of the custom field as it is referred to in programs. The **Data Dictionary** field is the name of the field when looking at the data through an ODBC connection. Enter a **Description**, select a **Field Type**, and enter a **Length** for the custom field. When complete, press **W** to save your changes and update the database by changing the physical file, updating the system OSTPL file that holds the template definitions for all data files, and updating the data dictionary to reflect the new or changed fields. Press **S** to save your changes without updating the database.

For more information, or to utilize the custom field functionality of OSAS, contact your software provider.

Data File Information

Use the **Data File Information** function to update the **xxDATA.yyy** file (where **xx** is the application ID, and **yyy** is the version for the application). This file contains data file information for file creation and conversion.

Data File Information Screen

Select **Data File Information** from the **System File Maintenance** menu. This screen appears:

The screenshot shows a window titled "Data File Information" with a menu bar (Commands, Edit, Modes, Other, Help) and a toolbar with various icons and "OK" and "Abandon" buttons. The main area contains the following fields:

- Application ID: AP
- Version: 8.00
- File Name: APBTx
- Create Flag: I
- File Type: VKEYED
- Logical Key Size: 128
- Number of Records: 2
- Active Keys: 2
- Key Definitions: [1:1:6~U],[2:1:4]+[1:1:6]
- Description: Batch Control File
- Header:
- Encrypt Flag: 0

The status bar at the bottom shows "0=don't create 1-9=create" and "Company H | 01/21/2014 | Terminal T000 | OVR".

Field

Descriptions

Inquiry

Application ID

Enter the application ID.

Field	Descriptions
Version	Enter the version number of the application to update file information. There is a separate xxDATA.yyy file for each version (yyy) of an application (xx).
File Name	<p>Enter the name of the file you want to view or edit. If the file is company-specific, enter a lowercase x to indicate the placement of the company ID.</p> <p>When you enter the file name, the system looks for a file with this name in the current company. The file information is then updated and listed, using the existing file as a template.</p> <p>If no file exists, use the Define Vkeyed Files function (page 3-11) to create it. Then select that file in this function to update the key definition information.</p>
Create Flag	<p>If you want this file to be created during the Create Data Files function in Resource Manager, enter a number (1-9). If not, enter 0.</p> <p>If this file exists, the file type, bytes per record, active keys, and key definitions appear.</p>
Description	Enter a description of the data file. This description appears in the Data File Information List and in Inquiry windows.
Header	<p>If this file is not an indexed file, this field is skipped. If the file is indexed, enter one of these codes to describe the header record used in the file:</p> <p>0 = no header is used 1 = the standard OSAS header is used 2 = a nonstandard header is used</p>
Encrypt Flag	Enter 0 to create the file normally (without encryption) or enter 1 to create the file using AES 128 encryption.

Check your entries. If you find mistakes, change the fields in error, or use the **Abandon (F5)** command to start again from the top of the screen.

When everything is correct, use the **Proceed (OK)** command to save the record. Then enter another file or use the **Exit (F7)** command to return to the menu.

Data File Information List

The **Data File Information List** function shows the data files that are defined in the **xxDATA.yyy** files.

Data File Information List Screen

Inquiry

Select **Data File Information List** from the **System File Maintenance** menu. This screen appears:

The screenshot shows a window titled "Data File Information List" with a menu bar (Commands, Edit, Modes, Other, Help) and a toolbar. The main area contains input fields for "Application" (From: AP, Thru: SQ) and "Version" (8.00). Buttons for "OK" and "Abandon" are at the top right. The status bar at the bottom shows "Company H | 01/22/2014 | Terminal T000 | OVR".

Inquiry

1. Enter the range of applications you want to include in the list.
2. Enter the version number of the applications you want to include in the list.
3. Select the output device to produce the list. See "Reports" on page 1-25 for more information on output devices. After the list is produced, the **System File Maintenance** menu appears.

Data File Information List

File Name	Create	Type	Key	Records	Size	Description	Header	Encrypt Flag

APETx	1	HR Mkeyed	(Dynamic)	128		Batch Control File		0
			Key 1:	[1:1:6]				
			Key 2:	[2:1:4]+[1:1:6]				
APCLx	1	HR Mkeyed	(Dynamic)	192		Checks File - Invoice Record		0
			Key 1:	[1:1:6]				
			Key 2:	[2:1:1]+[3:1:6]+[3:31:15]+[3:15:6]+[1:1:6]				
			Key 3:	[2:1:1]+[3:22:1]+[3:1:6]				
			Key 4:	[2:1:1]+[4:1:3]+[3:1:6]+[1:1:6]				
			Key 5:	[2:1:1]+[3:1:6]+[4:1:3]				
APCMx	1	HR Mkeyed	(Dynamic)	64		Requisition Control File		0
			Key 1:	[1:1:12]+[2:1:3]				
			Key 2:	[3:1:1]+[3:2:8]+[1:1:12]+[2:1:3]				
			Key 3:	[4:1:6]+[1:1:12]+[2:1:3]				
APCTx	1	HR Mkeyed	(Dynamic)	64		Control File		0
			Key 1:	[1:1:12]+[2:1:3]				
			Key 2:	[3:1:1]+[3:2:8]+[1:1:12]+[2:1:3]				
			Key 3:	[4:1:6]+[1:1:12]+[2:1:3]				
APDCx	1	HR Mkeyed	(Dynamic)	128		Distribution Codes		0
			Key 1:	[1:1:2]				
			Key 2:	[2:1:30]+[1:1:2]				
APDEx	1	HR Mkeyed	(Dynamic)	64		AP Additional Desc File	None	0
APHCx	1	HR Mkeyed	(Dynamic)	128		Payment History File		0
			Key 1:	[1:1:6]				
			Key 2:	[7:1:12]+[3:1:7]+[1:1:6]				
			Key 3:	[3:1:7]+[1:1:6]				
			Key 4:	[10:1:1]+[1:1:6]				
			Key 5:	[11:1:6]+[7:1:12]+[1:1:6]				
			Key 6:	[2:1:6]+[4:1:7]+[1:1:6]				
			Key 7:	[12:1:4]+[12:5:2]				
APHDX	1	HR Mkeyed10	(Dynamic)	64		Additional Descriptions Histor		0
APHIX	1	HR Mkeyed	(Dynamic)	512		Detail History File		0
			Key 1:	[1:1:8]				
			Key 2:	[3:1:20]+[2:1:6]				
			Key 3:	[3:21:6]+[3:1:20]				
			Key 4:	[3:71:6]+[2:1:6]				
			Key 5:	[3:37:12]+[26:1:4]+[3:49:2]				
			Key 6:	[26:1:4]+[3:49:2]+[3:37:12]				
			Key 7:	[3:51:8]				

Define Vkeyed Files

Use the **Define Vkeyed Files** function to define/redefine and store single or multikeyed Vkeyed file definitions and to create files based on these definitions.

Define Vkeyed Files Screen

Select **Define Vkeyed Files** from the **Database Maintenance** menu. This screen appears:

Key	Segments
0	[1:1:6]
1	[3:68:10]+[1:1:6]
2	[5:4:2]+[1:1:6]
3	[2:1:30]+[1:1:6]
4	[5:26:6]+[1:1:6]
5	[6:1:3]+[1:1:6]
6	[4:1:10]+[1:1:6]
7	[3:66:2]+[3:51:15]+[1:1:6]
8	
9	
10	
11	
12	
13	
14	
15	

Field

Descriptions

Inquiry

FILE ID

Enter the ID of the file you want to create or update, or use the **Inquiry (F2)** command to select an ID from the list that appears.

	Field	Descriptions
Inquiry	Copy From	<p>If the file ID does not exist, you can create the file definition by copying from an existing file ID.</p> <p>To copy from an existing file, enter the ID, or use the Inquiry (F2) command to look up and select an ID from the list that appears.</p> <p>To define a file from scratch, leave this field blank.</p>
	Description	<p>Enter a description for the file. The description appears in Inquiry windows and on the Data File Information List.</p>
	# of Records	<p>If the file is dynamic, leave this field blank; if it is not, enter the maximum number of records the file can contain.</p>
	Record Size	<p>Enter the maximum number of bytes one record in the file can contain. Each record in the file will be padded automatically to reach this record size.</p>

Use the commands to work with the information on the screen:

- Press **Enter** to enter or edit the key definitions for the current key number.
- Press **M** to move the contents of the current key definitions to a new key.
- Press **C** to copy the key definitions for the specified key number to the current key number.
- Press **S** to swap the contents of the current key definitions with another key.
- Press **R** to create a file for this company with the specified key definitions.
- Press **D** to move to the **Description** field in the header.
- Press **W** to write the key definitions to **SDFILES**.

When you finish, use the **Exit (F7)** command to return to the menu.

Edit Data File Contents

Use the **Edit Data File Contents** function to add or change records for files defined as string templates in the OSAS data dictionary.

Edit Data File Contents Screen

Select **Edit Data File Contents** from the **Database Maintenance** menu. This screen appears:

The screenshot shows the 'Edit Data File Contents' window. At the top, there is a menu bar with 'Commands', 'Edit', 'Modes', 'Other', 'Scroll', 'Commands', and 'Help'. Below the menu bar is a toolbar with various icons and buttons for 'OK' and 'Abandon'. The main area contains a form with the following fields:

- File Name: ARCU
- Editing File: ARCUH
- Key: ACE001
- Key Number: 0
- Precision: 2

Below these fields is a table with two columns: 'Field' and 'Value'. The table contains the following data:

Field	Value
	12345678901234567890123456789012345678901234567890123456789012345
CUST	<ACE001>
NAME	<ACE BUILDERS >
ADD1	<1588 SE 31ST STREET >
ADD2	< >
ADD3	< >
CITY	<PADUCAH >
ST	<KY >
ZIP	<28655-7865 >
CTRY	<US>
ATTN	<ACCOUNTS PAYABLE >
CONT	<BRIAN >
PHONE	<5055551646 >
FAX	<5025551566 >

At the bottom of the window, there is a status bar that reads 'Line No (001 of 095)'. Below the table is a set of control buttons: 'Enter = edit', 'Add', 'pRecision', 'Key', 'knUm', 'Goto', 'Delete', 'Next', 'Previous', and 'Write'. The bottom right corner of the window shows 'Company H | 04/12/2011 | Terminal T000 | OVR'.

To edit records within a data file, follow these steps:

1. Enter the name of the data file. When you press **Enter**, the first record of the file appears.

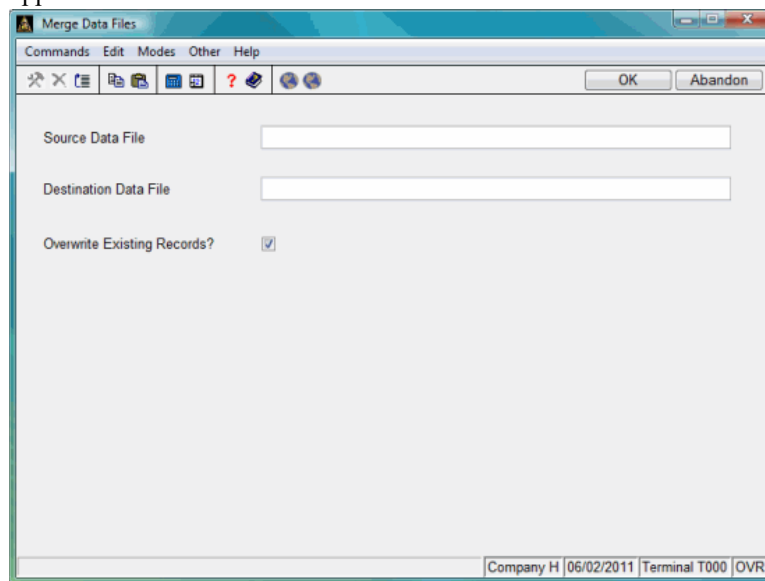
2. Use these commands to move through the records in the file; to change the precision of the data; to change the key chain being used to display the data; or to edit, add, or delete records in the file.
 - Press **Enter** to edit the selected line.
 - Press **A** to add a record to the file.
 - Press **R** to change the precision on numeric fields without a user-defined mask.
 - Press **K** to return to the **Key** field to search for and update a different record in the file.
 - Press **U** to return to the **Key Number** field to search for and update a different key number.
 - Press **G** to go to a specific line in the selected file, then enter the line number.
 - Press **D** to delete the current record.
 - Press **N** to view the next record in the file.
 - Press **P** to view the previous record in the file.
 - Press **W** to save the changes you've made to the current record.
3. When you finish editing files, use the **Exit (F7)** command to return to the **Database Maintenance** menu.

Merge Data Files

Use the **Merge Data Files** function to merge two data files into a single file.

Merge Data Files Screen

Select **Merge Data Files** from the **Database Maintenance** menu. This screen appears:



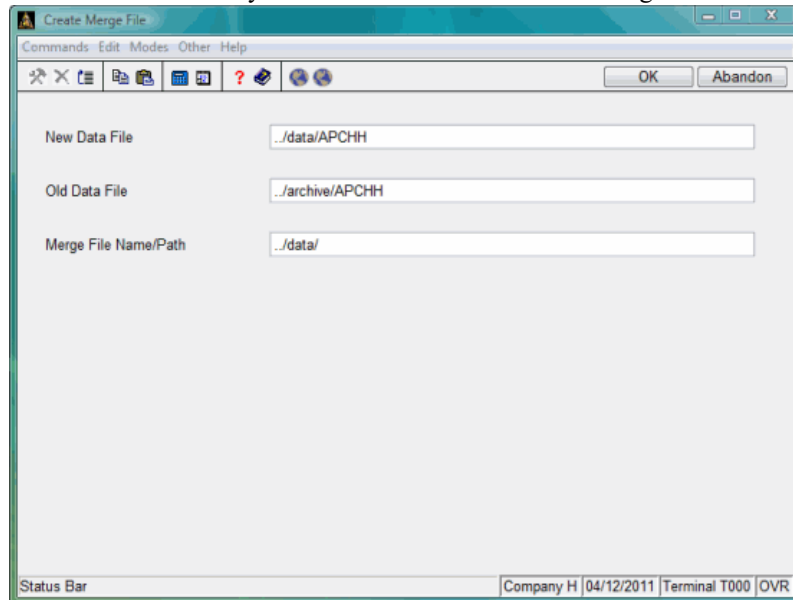
Enter the name of the file you want to merge in the **Source Data File** field, then enter the name of the file into which you want to merge the source file in the **Destination Data File** field.

Select the **Overwrite Existing Records?** check box to overwrite existing records; otherwise, if you uncheck it, records that have the same primary key in the destination file will not be overwritten by records of the same key in the source file.

Use the **Proceed (OK)** command to begin the merge process. After the files are merged, the cursor returns to the **Source Data File** field so you can enter more files to merge or use the **Exit (F7)** command to return to the **Database Maintenance** menu.

Create Merge File

Use the **Create Merge File** function to compare two VKeyed files and produce a file containing data that is different between the two files. Records that have been added to the new VKeyed file will also be saved to the merge file



The screenshot shows a 'Create Merge File' dialog box with the following fields and values:

Field	Value
New Data File	./data/APCHH
Old Data File	./archive/APCHH
Merge File Name/Path	./data/

Enter the name of the newer file you want to compare in the **New Data File** field, then enter the name of the older file into which you want to compare in the **Old Data File** field. Enter the name of the output file containing the differences between the two files in the **Merge File Name/Path**.

Use the **Proceed (OK)** command to begin the merge process. After the files are merged, the cursor returns to the **New Data File** field so you can enter more files to merge or use the **Exit (F7)** command to return to the **Database Maintenance** menu. Navigate to the merge file folder to view the merge file you created.

Export Custom Field Definitions

The intent for the export is that a developer could make custom field changes at their office, then perform the **Export Custom Field Definitions** function. Take that file to a client and perform the **Import Custom Field Definitions** function at the client site where they may not have software development utilities.

After you create custom fields using the **Custom Field Maintenance** function, open the **Export Custom Field Definitions** function from the Software Development Utilities **Database Maintenance** menu.

Export Custom Field Definitions

Commands Edit Modes Other Help

Export File C:\EXPORTCF.OSA

Application ID AP

File Name APVE

Company H | 02/20/2015 | Terminal T000 | INS

For each custom file you want to export, perform the following steps. using the same file name will keep all of the files together.

1. Enter the path and file name for a file to hold your exported custom field definitions in the **Export File** field.

2. Enter or select the application for which you created the custom fields in the **Application ID** field.
3. Enter or select the file name for which you created the custom fields in the **File Name** field.
4. Use the **Proceed (OK)** command to export the custom fields.

Print CRCs	4-3
Compare CRCs	4-5
Compare Programs	4-7
Audit Programs	4-9
Audit Installation Files	4-13
Audit BBx Version Level	4-15
Audit Signature Lines	4-17
Audit Line Labels	4-19
Audit Program/Data File Names	4-21
Audit Program Remarks	4-23
Audit Template Usage	4-25
Audit Graphical Resource Files	4-27

Software Audit

Overview

Use the functions on the **Software Audit** menu to check programs for violations of OSAS standards and for common programming errors, such as unused line labels and invalid string template names.

- Use the **Print CRCs** function to print and calculate CRC (Cyclic Redundancy Check) numbers for all the files in a volume or round. This information should be sent to a file in order to run a compare from one version to another.
- Use the **Compare CRCs** function to print the differences between the CRCs calculated for each volume. To compare CRCs, enter the names of the output files (from the CRC reports) that you want to include in the compare. Only the names of programs with differences are printed in the Compare CRCs report.
- Use the **Compare Programs** function to compare one or more programs and print the program changes. This function is a modified version of the **_compare** utility from BASIS International, Ltd.

- Use the **Audit Programs** function to scan programs for potential programming problems, such as ESCAPE, SETTRACE, and other debugging verbs in the program. In addition, this audit will look for GOTO or GOSUB statements that use nonexistent line numbers.
- The **Audit Installation Files** function performs a cross-reference check of the files in the **xxFILES.TXT** file and the files on the distribution media.
- Use the **Audit BBx Version Level** function to check the last level of BBx underwhich each program in the selected directory/drive was last saved.
- The **Audit Signature Lines** function compares program lines against a text file containing the lines you want to validate. The primary intent of this utility is to verify that signature lines are correct before running a global update.
- Use the **Audit Line Labels** function to produce a report showing unused and missing line labels in programs (available on PRO/5 platforms only).
- Use the **Audit Program/Data File Names** function to produce a report showing possible conflicts in program and file naming (for example, a program named **ARINV0** could conflict with the **ARINxxx** file for company **V0**).
- Use the **Audit Program Remarks** function to produce a report showing possible extraneous remarks left in application programs. Specifically, this program looks for REM statements followed by executable code.
- Use the **Audit Template Usage** function to produce a report showing possible invalid string template variables in application programs (available on PRO/5 platforms only).
- Use the **Audit Graphical Resource Files** function to print a list of the forms and controls in the graphical resource (.BRC and .ARC) files for an application. The report also audits for nonstandard font settings in your graphical resource files.

Print CRCs

The **Print CRCs** function calculates the CRC (Cyclic Redundancy Check) numbers for all the files in a volume. You can also use this function to create output files to be used later in the **Compare CRCs** function. The **Print CRCs** report generates a unique hexadecimal checksum for each file. The CRC number is used as a fingerprint for version control. Any change in a file—the addition or deletion of a character or substituting a comma for a semicolon—will change the CRC number.

You will generally use the **Print CRCs** report in conjunction with the **Compare CRCs** function. By producing the **Print CRCs** report and storing it in a file, you can do bulk comparisons of media and let the system highlight the differences.

Print CRCs Screen

Select **Print CRCs** from the **Software Audit** menu. This screen appears:

Print CRCs

Commands Edit Modes Other Help

Application ID: AP

Version Number: 7.60

QA Round: 4

Disk Size: CD-ROM

Directory Name: F:\OSAS\MEDIA\AP\760

OK Abandon

Company H | 04/12/2011 | Terminal T000 | OVR

1. Enter the ID of the application for which you want to print CRCs.
2. Enter the version and the QA round of the application media. This information appears on the list and, if you choose **File** as the output device, in the file you save for future CRC comparisons.
3. Press **Enter** to accept the default media type, or enter a different format.
4. Enter the directory where the files can be found. All subdirectories under the path you specify are included in the CRC list.
5. Select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices.

Print CRCs List

Filename	CRC	Size	Type	Directory
AP1099.PUB	5BEA	13,910	Prg	C:/OSAS76/progAP/
APACDC	9A9C	48,210	Prg	C:/OSAS76/progAP/
APACDCFM.PUB	4F97	52,773	Prg	C:/OSAS76/progAP/
APACEMDF	3BD8	24,124	Prg	C:/OSAS76/progAP/
APACHADV	24C1	46,004	Prg	C:/OSAS76/progAP/
APACHCCD	DA29	47,771	Prg	C:/OSAS76/progAP/
APACHCTX	D544	49,450	Prg	C:/OSAS76/progAP/
APACHPPD	C480	47,771	Prg	C:/OSAS76/progAP/
APACMOP	CB1C	60,229	Prg	C:/OSAS76/progAP/
APACTC	46BE	66,442	Prg	C:/OSAS76/progAP/
APACTCFM.PUB	88EE	45,716	Prg	C:/OSAS76/progAP/
APACV	8F9B	77,024	Prg	C:/OSAS76/progAP/
APACV1	9E34	91,533	Prg	C:/OSAS76/progAP/
APACV2	A284	96,788	Prg	C:/OSAS76/progAP/
APACV3	0A33	56,564	Prg	C:/OSAS76/progAP/
APACVFM.PUB	7364	148,138	Prg	C:/OSAS76/progAP/
APAGE	1F6C	86,761	Prg	C:/OSAS76/progAP/
APAGE1	A06D	62,506	Prg	C:/OSAS76/progAP/
APAPPL.TXT	2EE2	755	Str	C:/OSAS76/progAP/

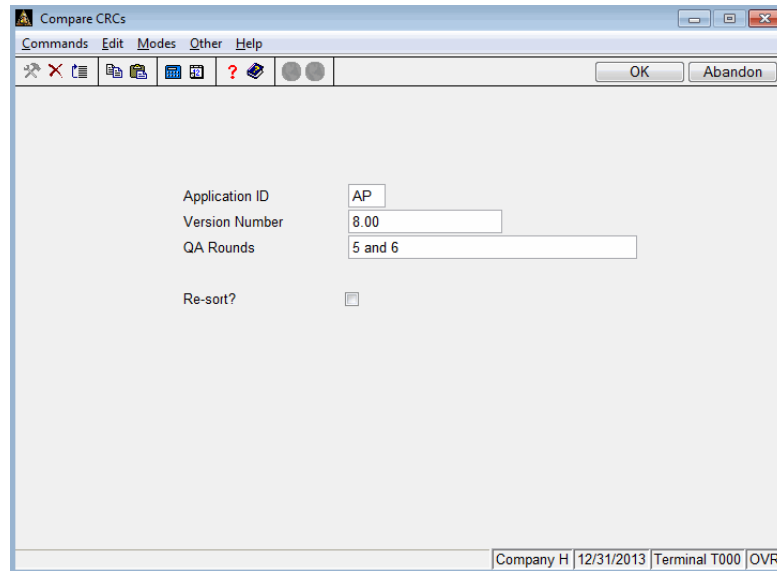
Compare CRCs

The **Compare CRCs** function prints the differences between the CRCs calculated for a volume. Only the names of programs with differences print in the **Compare CRCs** report. If even one version of the same file name is missing or different, all occurrences of the file are printed.

Before running the **Compare CRCs** function, you must run the **Print CRCs** report for each volume, sending the output from each volume to a file with a unique file name.

Compare CRCs Screen

Select **Compare CRCs** from the **Software Audit** menu. This screen appears:



1. Enter the ID of the application for which you want to compare CRCs.

2. Enter the version and QA rounds for the application. This information will print on the compare list.
3. If you want the program to re-sort the file names for the report, select the check box (or enter **Y** in text mode). If you want to print the file names in their original order, clear the check box (or enter **N** in text mode).
4. The File List Editor screen appears when you press **Enter** or use the **Proceed (OK)** command to continue. Use the File List Editor (page 1-4) to enter the names of the **Print CRCs** output files that you want to include in the compare process.
5. Select the output device. See “Reports” on page 1-25 for more information on output devices.

Compare CRCs Report

Filename	CRC	Size	Type	Source Directory & CRC file
APACDC	9A9C	48,210	Prg	C:/OSAS76/progAP/ (C:\OSAS76\data\APCRC
APACDC	8A7C	48,210	Prg	C:/OSAS76/progAP/ (C:\OSAS76\data\APCRC
APAGE	1F6C	86,761	Prg	C:/OSAS76/progAP/ (C:\OSAS76\data\APCRC
APAGE	13R5	86,761	Prg	C:/OSAS76/progAP/ (C:\OSAS76\data\APCRC
APCNVT.650	EF42	45,613	Prg	C:/OSAS76/progAP/ (C:\OSAS76\data\APCRC
APCNVT.650	X8RC	45,613	Prg	C:/OSAS76/progAP/ (C:\OSAS76\data\APCRC
APDTL1	3209	63,767	Prg	C:/OSAS76/progAP/ (C:\OSAS76\data\APCRC
APDTL1	13NH	63,767	Prg	C:/OSAS76/progAP/ (C:\OSAS76\data\APCRC

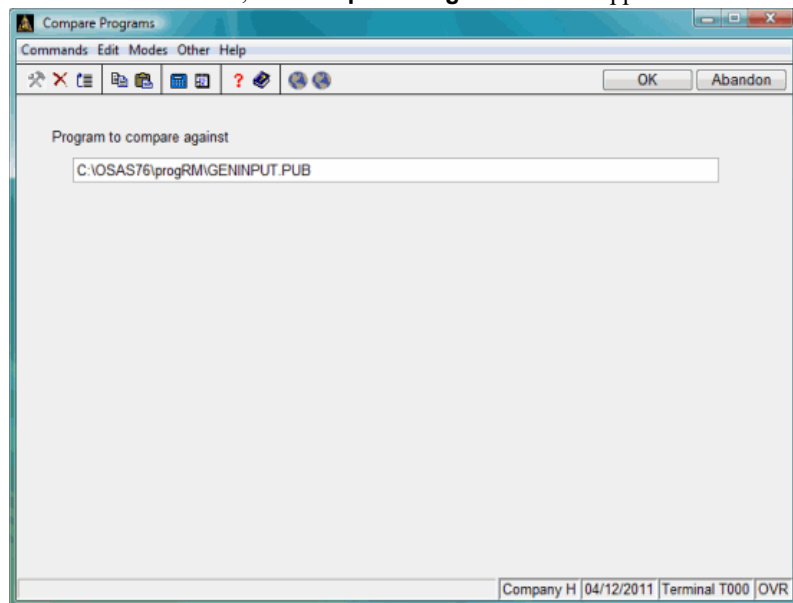
* * End of Report * *

Compare Programs

Use the **Compare Programs** function to compare changes between two programs. If you select more than one program for comparison, you are prompted to enter the directory to search. Only the programs that exist in both directories are compared.

Compare Programs Screen

Select **Compare Programs** from the **Software Audit** menu. The File List Editor screen appears. Use the editor (see “Using the File List Editor” on page 1-4 for information) to specify the programs you want to compare. Use the **Execute** command to continue; the **Compare Programs** screen appears.



If you entered a single program in the File List Editor, enter the name of the program to which you want that program compared. If you entered a list of programs in the editor, enter the directory that contains the programs to which you want the programs in your file list compared.

Select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices.

Compare Programs Report

```

10:31 am                                     Builders Supply                               Page 1
                                           Compare Programs
-----
change 0010 REM 0 "AFACV - 11/23/2010 - ADD/CHANGE VENDOR INFORMATION|
      |
      to 0010 REM 0 "AFACV1 - 10/31/2010 - AP add change vendors - scre|
      en 1"
change 0011 REM 0 "Authors - DSL,DJB,MLS"|
      to 0011 REM 0 "Authors - DSL,JTM,DJB,MLS"|
delete 0012 REM PTS: 7021|
delete 0030 REM "SELECTION SCREEN"|
delete 0050 IF POS("CJ"=STBL("CAPPS"),2) AND O2$(5,1)="1" THEN LET CJ|
      INST=1; REM "CJC"|
delete 0055 IF POS("BA"=STBL("CAPPS"),2) AND O2$(15,1)="1" THEN LET B|
      AINST=1; REM "----- Banking"|
add    0090 LET TITLE$=" General Information "|
add    0095 GOSUB PROMPTS|
delete 0100 REM "Entry Initialization"|
delete 0130 LET TITLE$=" Vendors "|
delete 0140 IF P9=1 THEN GOSUB PROMPTS; GOTO 1000|
delete 0150 IF X9$="" THEN GOTO 0180|
delete 0160 GOSUB GENERATOR|
delete 0170 GOTO QUIT|
delete 0180 GOSUB PROMPTS|
change 0200 REM 200 "Open Files"|
      to 0200 LET Z21$="No form IndividualBusiness "|
delete 0202 IF O2$(9,1)="1" THEN LET P0=9,F0="APH1"+STEL("CID"); GOSU|
      B GENOPEN|
change 0205 IF O2$(17,1)="1" THEN LET P0=9,F0="AFHS"+STEL("CID"); GOS

```

Audit Programs

The **Audit Programs** function scans programs for potential programming problems and standards violations. These problems may include the use of verbs such as **ESCAPE** or **SETTRACE** in your programs, or **GOTO** or **GOSUB** statements that use nonexistent line numbers.

The audit looks for the words listed in the table below. The audit also looks for color mnemonics. Some of these verbs and mnemonics are used by special programs in the Software Development Utilities and the Resource Manager, but they are limited to system structure setup and program maintenance functions. They should not be used in OSAS accounting programs:

BEGIN	DISABLE	EXECUTE	RESET	SETOPTS	BYE
DUMP	MERGE	RMDIR	SETTIME	CHDIR	ENABLE
PREFIX	SAVE	SETTRACE	CLEAR	ESCAPE	RELEASE
SETDAY	START	COPY	ESCOFF	SETERR	RENAME
STOP	DELETE	ESCON	RENUM	SETESC	

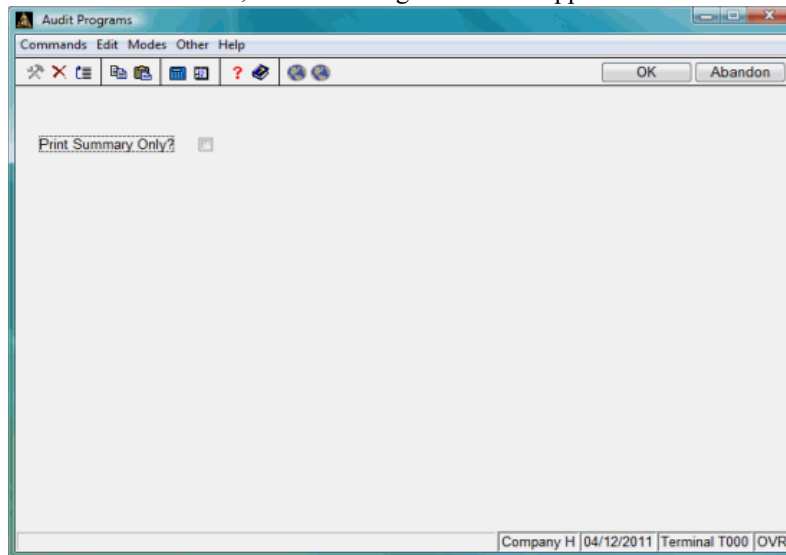
The audit may also detect these words when they are used as variables or line labels. While your programs function normally under PRO/5 in these cases, to ensure compatibility in BBJ and in future language versions, you should change any variables and line labels that are the same as the verbs in the language.

All programs must have an error trapping section. If the program allows user input, it should have the **GENERROR** routine. If the program has no user input, it should have the **GENLOCK** routine. The audit will check for the existence of one of these routines in your programs.

After you print the report, analyze the list, determine which items are problems, and repair the programs.

Audit Programs Screen

Select **Audit Programs** from the **Software Audit** menu. The File List Editor screen appears. Use the editor (see “Using the File List Editor” on page 1-4 for information) to specify the programs you want to audit. Use the **Execute** command to continue; the Audit Programs screen appears.



If you want to produce a report that details the anomalies found in the program, clear the check box (or enter **N** in text mode). If you want to summarize the results of the audit on the report, select the check box (or enter **Y** in text mode).

Select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices. After the report prints, the **Software Audit** menu appears.

Audit Programs Report

```

                                Builders Supply                Page 1
10:33 am                        Audit Programs
-----
                                Cross reference of C:\OSAS76\progAP\AFACDC
-----
*** Reserved Verbs in use: SETERR ***
0001 SETERR GENERERROR

*** Reserved Verbs in use: RESET SETERR ***
0452 LET SPREC=PCB(14); RESET; PRECISION SPREC; SETERR GENERERROR

*** Reserved Verbs in use: CLEAR ***
18210 IF GUI THEN LET DUMMY%=STEL("CLEAR", "DESTID", ERR=18215)

C:\OSAS76\progAP\AFACDC done.  3 anomalies
=====

End of Report
```


Audit Installation Files

The **Audit Installation Files** function performs a cross-reference check of the files in the **xxFILES.TXT** file and on the distribution media.

Audit xxFILES.TXT Screen

Select **Audit xxFILES.TXT** from the **Software Audit** menu. This screen appears:

The screenshot shows a dialog box titled "Audit Installation Files". It features a menu bar with "Commands", "Edit", "Modes", "Other", and "Help". Below the menu bar is a toolbar with icons for back, forward, search, and help, along with "OK" and "Abandon" buttons. The main area contains two input fields: "Application ID" with the value "AP" and a search icon, and "Location" with the value "G:\Media\OSAS76". Below these are two large empty text areas labeled "File list for" and "Exceptions". At the bottom right, there is a status bar showing "Company H | 04/12/2011 | Terminal T000 | OVR".

Inquiry

1. Enter the application ID for which you want to audit the **xxFILES.TXT** file, or use the **Inquiry (F2)** command to select an application from a list.
2. Enter the path that contains the distribution media you want to compare to the **xxFILES.TXT** file.

3. Select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices. After the report prints, the **Software Audit** menu appears.

Audit xxFILES.TXT Report

```
10:36 am                               Builders Supply                               Page 1
                                      Audit Installation Files
-----
Missing files from media:
RWDATA/APRWDATA.ZIP
DATA/APDATA.ZIP
GUI/APRES.ZIP
PROGAP/APPROGAP.ZIP
DOCUMENT/APPROD.ZIP
PROGRAM/APPROGM.ZIP
SAMPLE/APSAMPLE.ZIP
SYSFIL/APSYSFIL.ZIP
DOCUMENT/APDOC.PDF
Files on media not included in APAPPL.TXT
AP1099.PUB
APACDC
APACDCFM.PUB
APACEMDF
APACHADV
APACHCCD
APACHCTX
APACHPPD
APACMOP
APACTC
APACTCFM.PUB
APACV
APACV1
APACV2
APACV3
APACVFM.PUB
APAGE
APAGE1
APCFL
APCFL1
APCHGBAT
APCHGBT1
APCHKOPT.PUB
APCMNT.PUB
APCNVT.400
APCNVT.410
```

Audit BBx Version Level

Use the **Audit BBx Version Level** function to check the version level of BBx (or BBj) under which each program in the selected directory/drive was last saved.

Audit BBx Version Level Screen

Select **Audit BBx Version Level** from the **Software Audit** menu. This screen appears:

The screenshot shows a window titled "Audit BBx Version Level" with a menu bar (Commands, Edit, Modes, Other, Help) and a toolbar (back, forward, search, help, OK, Abandon). The main area contains the following fields:

Application ID	RM
Version Number	7.60
QA Round	3
Disk Size	CD-ROM
Directory Name :	C:\OSAS76\progRM

The status bar at the bottom displays: Company H | 04/12/2011 | Terminal T000 | OVR

Inquiry

1. Enter the application ID that you want to audit, or use the **Inquiry (F2)** command to select an ID from the list that appears.
2. Enter the version, QA round, and media type. This information appears on the list for memo purposes.
3. Enter the directory that contains the files you want to audit.

- Select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices.

After the report prints, the cursor returns to the **Application ID** field. Enter another application to audit, or use the **Exit (F7)** command to return to the **Software Audit** menu.

Note: Programs saved under BBJ will show as **BBj** on the report.

Audit BBx Version Level Report

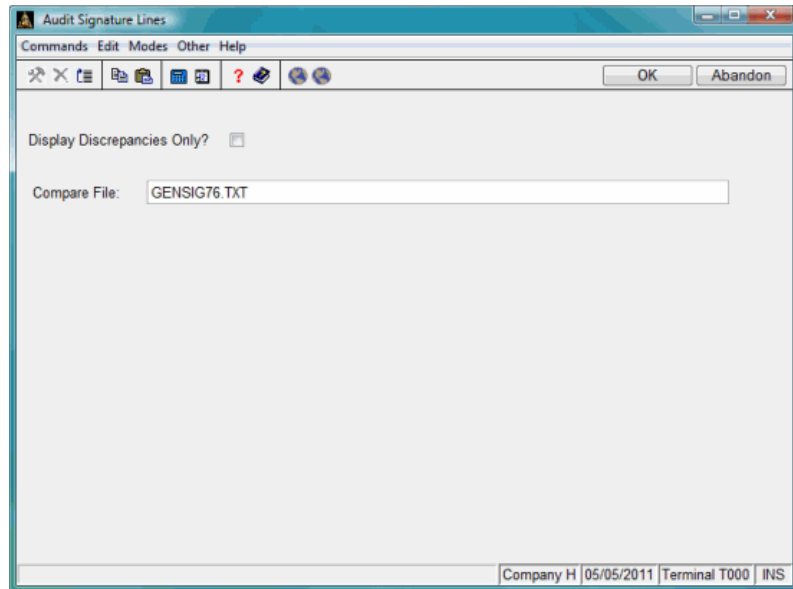
Filename	Level	Size	Type	Directory
ACCEXBBJ.MDB	String	358,400	Str	C:/OSAS76/progrM/
ACCEXBBX.MDB	String	358,400	Str	C:/OSAS76/progrM/
APAGE.PUB	BBj	35,375	Prg	C:/OSAS76/progrM/
APAGED.FNC	BBj	21,990	Prg	C:/OSAS76/progrM/
APAUDDOC.PUB	BBj	18,523	Prg	C:/OSAS76/progrM/
APAUDIT.PUB	BBj	45,704	Prg	C:/OSAS76/progrM/
APAUDPD.PUB	BBj	14,837	Prg	C:/OSAS76/progrM/
APBLDQTY.PUB	BBj	19,929	Prg	C:/OSAS76/progrM/
APCHECK.FNC	BBj	17,889	Prg	C:/OSAS76/progrM/
APFCST.FNC	BBj	19,043	Prg	C:/OSAS76/progrM/
APHCDAY.FNC	BBj	18,610	Prg	C:/OSAS76/progrM/
APHCFPTD.FNC	BBj	21,504	Prg	C:/OSAS76/progrM/
APHCYTD.FNC	BBj	21,400	Prg	C:/OSAS76/progrM/
APHIDAY.FNC	BBj	19,056	Prg	C:/OSAS76/progrM/
APHIPTD.FNC	BBj	21,630	Prg	C:/OSAS76/progrM/
APHIYTD.FNC	BBj	21,858	Prg	C:/OSAS76/progrM/
APMREQ.FNC	BBj	17,843	Prg	C:/OSAS76/progrM/
APOPEN.FNC	BBj	19,522	Prg	C:/OSAS76/progrM/
APTRAN.FNC	BBj	18,191	Prg	C:/OSAS76/progrM/
APVOID.PUB	BBj	55,979	Prg	C:/OSAS76/progrM/
APVOID1.PUB	BBj	90,200	Prg	C:/OSAS76/progrM/
APVTOFP.FNC	BBj	18,954	Prg	C:/OSAS76/progrM/
APVTOFPY.FNC	BBj	18,954	Prg	C:/OSAS76/progrM/
ARAGE.PUB	BBj	14,279	Prg	C:/OSAS76/progrM/
ARAGED.FNC	BBj	22,762	Prg	C:/OSAS76/progrM/
ARAUDDOC.PUB	BBj	18,202	Prg	C:/OSAS76/progrM/
ARAUDIT.PUB	BBj	45,371	Prg	C:/OSAS76/progrM/
ARAUDPD.PUB	BBj	24,696	Prg	C:/OSAS76/progrM/
ARBLDQTY.PUB	BBj	23,450	Prg	C:/OSAS76/progrM/
ARCASH.FNC	BBj	19,559	Prg	C:/OSAS76/progrM/
ARCTOPPL.FNC	BBj	19,395	Prg	C:/OSAS76/progrM/
ARCTOPPP.FNC	BBj	19,385	Prg	C:/OSAS76/progrM/
ARCTOPPY.FNC	BBj	19,364	Prg	C:/OSAS76/progrM/
ARCTOPSL.FNC	BBj	19,393	Prg	C:/OSAS76/progrM/

Audit Signature Lines

The **Audit Signature Lines** function compares program lines against a text file containing the lines you want to validate. The primary intent of this utility is to verify that signature lines are correct before running a global update.

Audit Signature Lines Screen

Select **Audit Signature Lines** from the **Software Audit** menu. The File List Editor screen appears. Use the editor (see page 1-4) to enter the program(s) you want to audit. Use the **Execute** command to proceed; the Audit Signature Lines screen appears:



1. If you want the audit list to contain only the programs that contain signature lines that do not match those in the compare file, select the check box (or enter **Y** in text mode). To list all programs, clear the check box (or enter **N** in text mode).
2. Enter the name of the compare file that will be used to check the signature lines in the program. Default text files (**GENSIG45.TXT**, **GENSIG51.TXT**, **GENSIG61.TXT**, and **GENSIG76.TXT**) containing signature lines for all versions from 4.5 and higher are provided with the Software Development Utilities.
3. Select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices. After the report prints, the **Software Audit** menu appears.

Audit Signature Lines Report

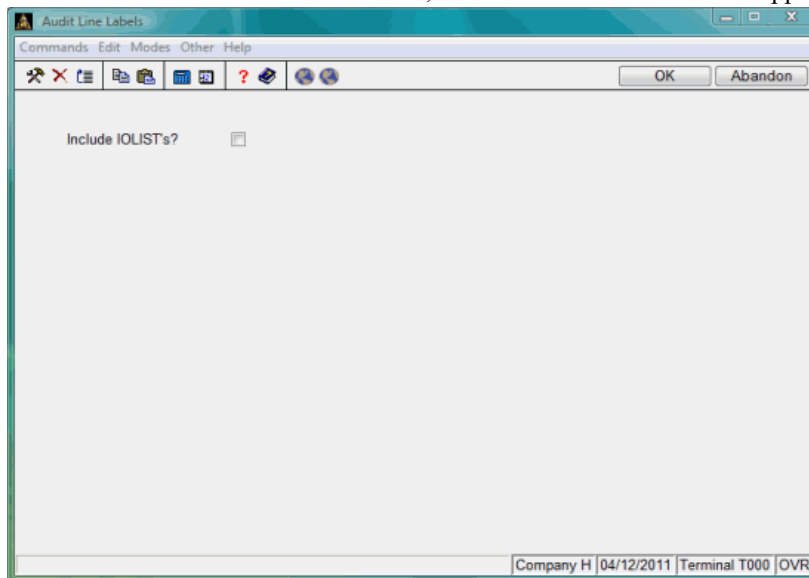
```
1:23 pm                      Builders Supply                      Page 1
                             Audit Signature Lines
-----
                             Cross reference of C:/OSAS76/progAP/AP1099.PUB
-----
9300 REM 0 - (GENLOCK) 9300-9350
10000 REM 0 - (GENNUM) 10000-10099
-----
                             Cross reference of C:/OSAS76/progAP/APACDC
-----
6000 REM 0 - (GENINPUT) 6000-6190
8300 REM 0 - (GENOPEN) 8300-8345
8400 REM 0 - (GENERROR) 8400-8452
8490 REM 0 - (GENERROR2) 8490-8499
-----
                             Cross reference of C:/OSAS76/progAP/APACDCFM.PUB
```

Audit Line Labels

The **Audit Line Labels** function produces a report showing unused and missing line labels in programs. This function is not available on BBj implementations.

Audit Line Labels Screen

Select **Audit Line Labels** from the **Software Audit** menu. The File List Editor appears. Use the editor (see page 1-4) to enter the program(s) you want to audit. Use the **Execute** command to continue; the **Audit Line Labels** screen appears:



1. If you want the report to include IOLIST line labels that are not used within the program, select the check box (or enter **Y** in text mode). To exclude IOLIST line labels from the report, clear the check box (or enter **N**).

2. Select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices. After the report prints, the **Software Audit** menu appears.

Audit Line Labels Report

```

                                auditlinelabels.txt
                                Page    1
                                Builders Supply
2:15 PM                                Audit Line Labels
-----
                                Cross reference of
C:/OSAS/76CJBBX3/progSD/./progap/AP1099.PUB
-----
**** Line references
*** None ***
                                Cross reference of
C:/OSAS/76CJBBX3/progSD/./progap/APACDC
-----
**** Line references
*** None ***
                                Cross reference of
C:/OSAS/76CJBBX3/progSD/./progap/APACDCFM.PUB
-----
**** Line references
PROCESS .....*** No References Found ***
                                Cross reference of
C:/OSAS/76CJBBX3/progSD/./progap/APACEMDF
-----
**** Line references
READ_PURCHASEORDER_TABLE .....*** No References Found ***
                                Cross reference of

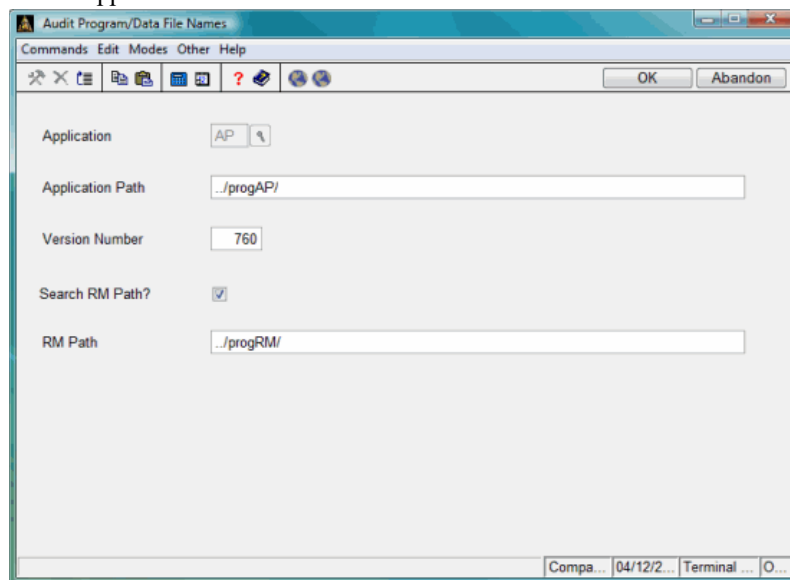
```


Audit Program/Data File Names

Use the **Audit Program/Data File Names** function to produce a report showing possible conflicts in program and file naming (for example, a program named **ARINV0** could conflict with the **ARINxxx** file for company **V0**).

Audit Program/Data File Names Screen

Select **Audit Program/Data File Names** from the **Software Audit** menu. This screen appears:



The screenshot shows a dialog box titled "Audit Program/Data File Names". The window has a menu bar with "Commands", "Edit", "Modes", "Other", and "Help". Below the menu bar is a toolbar with icons for back, forward, search, and help, along with "OK" and "Abandon" buttons. The main area contains the following fields:

- Application: A text box containing "AP" with a dropdown arrow.
- Application Path: A text box containing "../progAP/".
- Version Number: A text box containing "760".
- Search RM Path?: A checked checkbox.
- RM Path: A text box containing "../progRM/".

At the bottom right of the dialog, there is a status bar with the text "Compa... 04/12/2... Terminal ... O...".

Inquiry

1. Enter the application ID you want to audit, or use the **Inquiry (F2)** command to select an ID from the list that appears. When you enter the ID, the path and version information appears.

2. Press **Enter** to accept the application path and version number that appear, or enter different values in these fields.
3. If you want the audit to search Resource Manager for programs that belong to this application, select the check box (or enter **Y** in text mode) and verify the current Resource Manager path. If you want the audit to look only in the application's programs directory, clear the check box (or enter **N** in text mode).
4. Select the output device to produce the report. See "Reports" on page 1-25 for more information on output devices. After the report prints, the **Software Audit** menu appears.

Audit Programs/Data File Names Report

```
04/22/2011                Audit Program/Data File Names                Page    1
11:37 am                   AP - Accounts Payable

File Prefix                Program Name
-----
APCH                       ../progAP/APCHGBAT
APCH                       ../progAP/APCHGBT1
APDE                       ../progAP/APDELETE
APHC                       ../progAP/APHCICON
APHI                       ../progAP/APHINCON
APIN                       ../progAP/APINQCON
APIN                       ../progAP/APINQINI

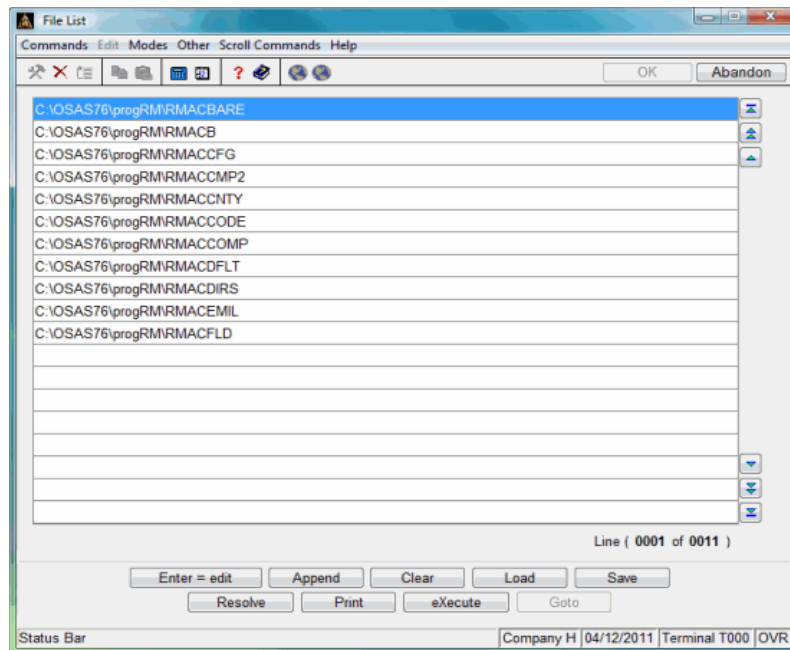
End of Report
```

Audit Program Remarks

Use the **Audit Program Remarks** function to produce a report showing possible extraneous remarks left in application programs. Specifically, this program looks for REM statements followed by executable code.

Audit Program Remarks Screen

Select **Audit Program Remarks** from the **Software Audit** menu. The File List Editor screen appears. Use the editor (see page 1-4) to enter the program(s) you want to audit.



When you finish entering program names, use the **Execute** command to proceed, then select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices. After the report prints, the **Software Audit** menu appears.

Audit Program Remarks Report

```

11:43 am                      Builders Supply                      Page 1
                              Audit Program Remarks
-----
                              Cross reference of C:\OSAS76\progRM\RMACCODE
-----
**** Line references ****
111 1265 REM LET TEMP CODE$=CODE CODE$
270 3630 IF MN3$(I)="2" THEN LET OSCODE.MENUPARM$="OSMN"+FILL(12); REM CODE

                              Cross reference of C:\OSAS76\progRM\RMACDFLT
-----
**** Line references ****
164 1600 REM IF GUI THEN PRINT (OSGUI.CHAN)'DISABLE'(4020,14020)
265 3215 REM IF Y$="U" THEN IF WINDOWS THEN IF STBL("INTTYPE")="BBJ" AND DF4
266 3220 REM IF WINDOWS=0 THEN GOTO WHSEID
279 3420 REM LET STRING1$="Text, Graphical",STRING2$='SF'+ "T"+'SB'+ "ext, "+
283 3440 REM IF X$="MDI" AND STBL("INTTYPE")<>"BBJ" THEN LET X$="Text"
303 3610 REM IF DF3$(13)="OFF" THEN GOTO WHSEID
482 5115 REM IF STBL("INTTYPE")="BBJ" AND O1$="RMEXITOS" THEN LET X9$="You m
781 17780 REM IF STBL("INTTYPE")<>"BBJ" AND DF4$(10)="1" THEN LET DF4$(10)="

                              Cross reference of C:\OSAS76\progRM\RMACDIRS
-----
**** Line references ****
437 5310 REM LET O7=2; GOSUB GENEROR
438 5315 REM IF Y$="U" THEN GOTO INFOGUI
439 5320 REM IF Y$<>"P" THEN GOTO SAVEREC
440 5325 REM LET PATH$=INFOPROG$
441 5330 REM GOSUB CHECKPATH
442 5335 REM LET PATH$=INFODATA1$
443 5340 REM GOSUB CHECKPATH
444 5345 REM LET PATH$=INFODATA2$
445 5350 REM GOSUB CHECKPATH
446 5355 REM LET PATH$=INFODATA3$

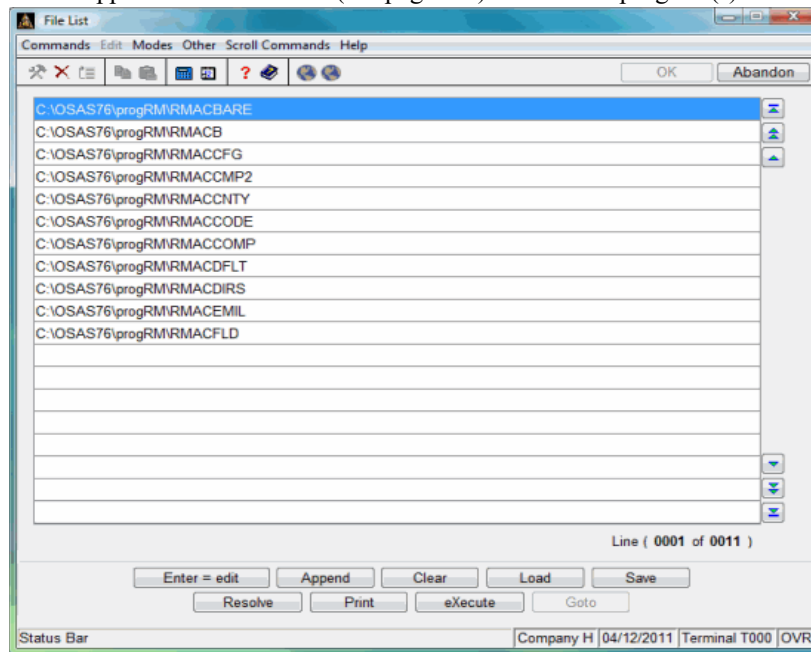
```

Audit Template Usage

Use the **Audit Template Usage** function to produce a report showing possible invalid string template variables in application programs. The program looks for string template references and verifies them against the **OSTPL** files. This function is not available on BBj implementations.

Audit Template Usage Screen

Select **Audit Template Usage** from the **Software Audit** menu. The List Editor screen appears. Use the editor (see page 1-4) to enter the program(s) to audit.



When you finish entering program names, use the **Execute** command to continue, then select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices. After the report prints, the **Software Audit** menu appears.

Audit Template Usage Report

```

                                audittemplates.txt
                                Page    1
                                Builders Supply
2:16 PM                               Audit Template Usage
DATA
-----

                                Cross reference of
C:/OSAS/76CJBBX3/progSD/./progin/INACACON
-----

**** Missing Template Field Names
*** None ***

**** Missing Template Names

COMMENT      2920
GENOPEN     3050, 8300, 8305, 8310, 8315, 8330, 8335,
GENOPEN     8340
INAI3       4520, 4550, 4555, 4560, 4565
INVE2       3630, 3640, 3642, 3660
INVE3       4520, 4525, 4530, 4540, 4555, 4565
OSGUI       1527, 2845, 2917, 2920, 2925, 3015, 3110,
OSGUI       3475, 3516, 3520, 3530, 3590, 3595, 3700,
OSGUI       3985, 5820, 6110, 6711, 8410, 17510, 17515,
OSGUI       17520, 17525, 17527, 17530, 17532, 17535, 17540,
OSGUI       17615, 17625, 17630, 17635, 17710, 17715, 17810,
OSGUI       17811, 17812, 17813, 17814, 17820, 17825, 17830,
OSGUI       17835, 18410, 18920, 19220, 19225, 19230
SAVESCRT    3416, 3575, 3617
SCRT        250, 1016, 1720, 1820, 2325, 2330, 2415,
SCRT        2420, 3030, 3060, 3080, 3085, 3270, 3415,
SCRT        3416, 3417, 3422, 3450, 3475, 3480, 3485,
SCRT        3490, 3505, 3507, 3516, 3520, 3525, 3530,
SCRT        3550, 3555, 3560, 3565, 3575, 3577, 3580,
SCRT        3590, 3595, 3610, 3615, 3617, 3620, 3625,
SCRT        3630, 3645, 3650, 3670, 3675, 3685, 3700,
SCRT        3720, 3725, 3735, 3740, 3760, 3765, 3770,
SCRT        3805, 3810, 3815, 3820, 3870, 3880, 3900,
SCRT        3905, 3910, 4515, 4520, 17812, 17813, 17814,
SCRT        17815, 17820, 17825, 17830, 17835
USER_ACD0C  2925

```

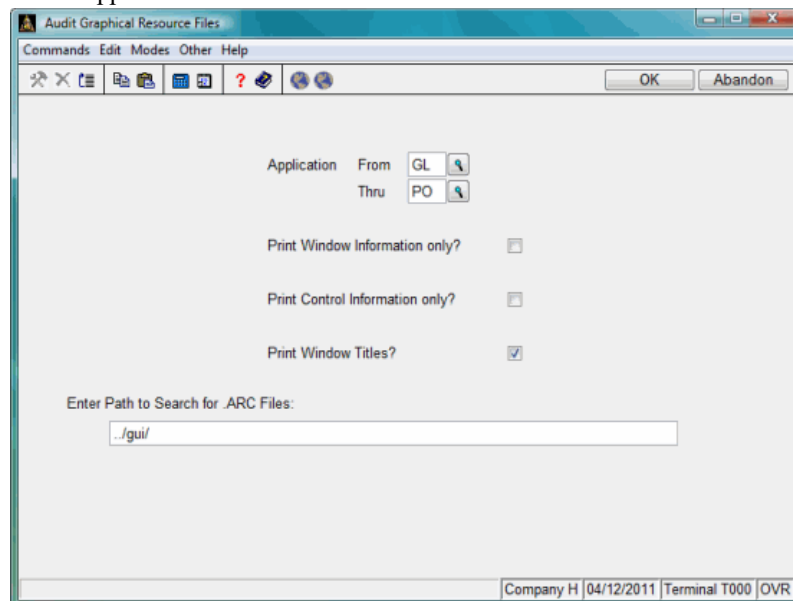
Audit Graphical Resource Files

The **Audit Graphical Resource Files** function produces a report showing the contents of the graphical resource files (.BRC and .ARC) in an application. Use the report to check for consistency in your control and form properties.

The report can be printed in two versions: one that lists forms (or windows) only, and one that lists controls on forms.

Audit Graphical Resource Files Screen

Select **Audit Graphical Resource Files** from the **Software Audit** menu. This screen appears:



The screenshot shows a dialog box titled "Audit Graphical Resource Files". The window has a menu bar with "Commands", "Edit", "Modes", "Other", and "Help". Below the menu bar is a toolbar with icons for search, close, print, and help, along with "OK" and "Abandon" buttons. The main area contains the following fields and options:

- Application From: GL [Search]
- Thru: PO [Search]
- Print Window Information only?
- Print Control Information only?
- Print Window Titles?
- Enter Path to Search for .ARC Files:
../gui/

At the bottom right, the status bar displays "Company H | 04/12/2011 | Terminal T000 | OVR".

Inquiry

1. Enter the range of applications you want to audit.

2. If you want the report to show window (or form) information only, select the check box (or enter **Y** in text mode). To exclude forms and include controls only, clear the check box (or enter **N** in text mode).
3. If you want the report to show control information only, select the check box (or enter **Y** in text mode). To show forms only, clear the check box (or enter **N** in text mode).
4. If you want the report to include the titles of the windows, select the check box (or enter **Y** in text mode). To exclude the titles from the report, clear the check box (or enter **N** in text mode).
5. Enter the path where the **.BRC** or **.ARC** files reside.
6. Select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices. After the report prints, the **Software Audit** menu appears.

Samples of both types of reports appear below.

Report Notes

The properties columns of the reports contain an **X** if the corresponding property is set for the form or control in question, with these exceptions:

- The **Justification** column on the control-only report contains an **R**, **L**, or **C**, depending on whether right, left, or center justification was set.
- The **FON** (font) column on the window-only report contains a **space** if the font is set according to OSAS standards (MS Sans Serif, 8 point, regular face for Visual PRO/5 or Arial, 8 point, regular face for BBj), or **E** if any other value is set.

Audit Graphical Resource Files Report—Window Info Only

```

05/05/2011                               Builders Supply                               Page 1
1:05 pm                                   Audit Graphical Resource Files

Flags: AT=Always on Top  CB=Close Box      CP=Custom Color Palette  EB=Dialog Behavior  DO=Dialog Border  DS=Disabled
      ET=Enter as Tab    GR=Gravity      HS=Horz. Scroll Bar     IM=Init. Maximized  ID=Init. Minimized  IN=Invisible
      KN=Keyboard Nav   SE=Syscolor Events  MI=Minimizable          NT=No Title Bar     SC=Sizeable        VS=Vert. Scroll

Events: AC=Activate     CK=Check          CF=Control Focus  EM=Edit Modify  FC=Focus      KP=Key Press  LC=List Click  MDC=Mouse Db
      MD=Mouse Down  MW=Mouse Move    MU=Mouse Up       RS=Resize       SB=Thumb Move  SP=Scroll Pos  SE=System Event

File  ID  Name                                     X  Y  W  H  MNU  -----  Plags -----  -----  Events -----  F
      Title                                     A  C  C  D  D  D  E  G  H  I  I  I  K  S  M  N  S  V  A  C  C  E  F  K  L  M  M  M  R  S  S  S  O
      T  B  F  P  O  S  T  R  S  M  E  N  N  E  I  T  C  S  C  F  P  M  C  P  C  D  C  D  M  U  S  B  P  E  N
-----
APACDC 00001 frmDistributionCodes 015 045 720 480 USR |X| | | |X| | | |X|X| |X| |X| |X|X| | | | | |E
      Distribution Codes
      ***** Window ID 0001 *****

APACDCFM 00001 frmDistributionCodes 015 045 720 480 USR |X| |X| |X| | | |X|X| |X| |X| |X|X| | | | | |E
      Distribution Codes
      ***** Window ID 0001 *****

APACEMDF 00001 frmDistributionAccounts 015 045 720 480 USR |X| | | |X| | | |X|X| |X| |X| |X|X| | | | | |E
      E-Mail Defaults
      ***** Window ID 0001 *****

APACMOP 00001 frmMethodsofPayment 015 045 720 480 USR |X| |X| |X| | | |X|X| |X| |X| |X|X| | | | | |E
      Methods of Payment
      ***** Window ID 0001 *****

APACTC 00001 frmTermsCodes 015 045 720 480 USR |X| | | |X| | | |X|X| |X| |X| |X|X| | | | | |E
      Terms Codes
      ***** Window ID 0001 *****

APACTC 00002 frmEditAppendTermsCode 156 120 510 193 USR |X| |X| |X| | | |X|X| |X| |X| |X|X| | | | | |E
      Terms Code
      ***** Window ID 0002 *****
    
```

Audit Graphical Resource Files Report—Control Info Only

File	Type	ID	Name Title	X	Y	W	H	Lgth/Mark	GENERAL	CHK	INPUTN/INPUTE	GRID
04/22/2011 Builders Supply Page 1 3:05 pm Audit Graphical Resource Files												
Keys: DS=Disabled IN=Invisible CE=Client Edge RE=Raised Edge GP=In Group TL=Text Left CH=Checked PE=Pass Enter FT=Pass Tab HL=Highlight BF=Beep CO=Copy UD=Use Decimal JU=Justify RH=Row Headings CH=Col. Head CL=Col. Lines RL=Row Lines CR=Column Resize HS=Horr. Scroll VS=Vert. Scroll												
***** Window ID 0001 *****												
APACDC	LABEL	01000	lblDistributionCode Distribution Code	018	102	105	020					
APACDC	LABEL	01010	lblDescription Description	018	150	077	020					
APACDC	LABEL	01020	lblGLAccounts: GL Accounts:	018	198	090	020					
APACDC	LABEL	01030	lblPayables Payables	044	222	065	020					
APACDC	LABEL	01040	lblSalesTax Sales Tax	044	246	070	020					
APACDC	LABEL	01050	lblFreight Freight	044	270	052	020					
APACDC	LABEL	01060	lblMiscellaneous Miscellaneous	044	294	094	020					
APACDC	LABEL	02000	txtGLAcctPayablesDesc	352	222	288	020					
APACDC	LABEL	02010	txtGLAcctSalesTaxDesc	352	246	288	020					
APACDC	LABEL	02020	txtGLAcctFreightDesc	352	270	288	020					
APACDC	LABEL	02030	txtGLAcctFreightDesc	352	294	288	020					
APACDC	INPUTE	04000	txtDistributionCode	180	099	035	022	2'UU'		X		
APACDC	TOOLBTN	14000	btnInqDistributionCode BITMAP=OSINQURY.GIF	215	099	022	022			X		
APACDC	INPUTE	04010	txtDescription	180	147	270	022	2'UU'	X	X		
APACDC	INPUTE	04020	txtGLAcctPayables	180	219	144	022		X	X		

Convert 4.xx xxWIND File to 4.5x+	5-3
Convert 4.5x+ xxWIND File to 5.0x+	5-5
Convert 4.5x+ xxHELP File to 5.0x+	5-7
Convert 7.0x xxDATA.yyy File to 7.5x	5-9
Convert 7.0x xxMN File to 7.5x	5-11

System File Conversion

Overview

Use the functions on the **System File Conversion** menu to upgrade your application system files from a past version of OPEN SYSTEMS Accounting Software to a more recent version.

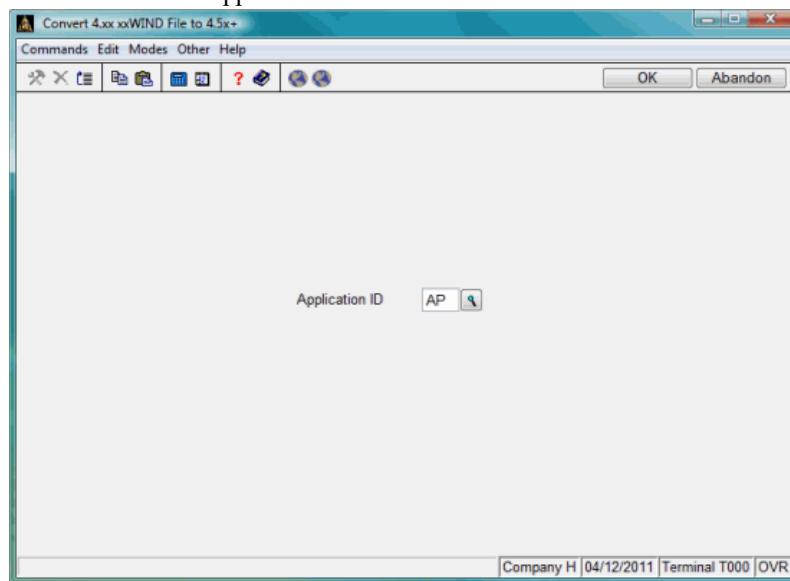
- Use the **Convert 4.xx xxWIND File to 4.5x+** function to convert 4.0x and 4.1x window definitions to a 4.5x+ format.
- Use the **Convert 4.5x+ xxWIND File to 5.0x+** function to convert 4.5x and 4.6x window definitions to a 5.0x+ format.
- Use the **Convert 4.5x+ xxHELP File to 5.0x+** function to convert help files from 4.5x and 4.6x to 5.0x+. Each application contains a help file. The information is stored in the **xxHELP** file (**xx** is the application ID).
- Use the **Convert 7.0x xxDATA.yyy File to 7.5x** function to convert 7.0x data file information files to the 7.5x format (which is used by all higher versions).
- Use the **Convert 7.0x xxMN File to 7.5x** function to convert 7.0x menu files to the 7.5x format (which is used by all higher versions).

Convert 4.xx xxWIND File to 4.5x+

This utility converts 4.0x and 4.1x window definition files to the 4.5x format.

Convert 4.xx xxWIND File to 4.5x+ Screen

Select **Convert 4.xx xxWIND File to 4.5x+** from the **System File Conversion** menu. This screen appears:



Inquiry

Enter the application ID you want to convert or use the **Inquiry (F2)** command to select the application from the list that appears.

If the window file is already at the 4.5x level, a message appears stating that the file does not need to be converted.

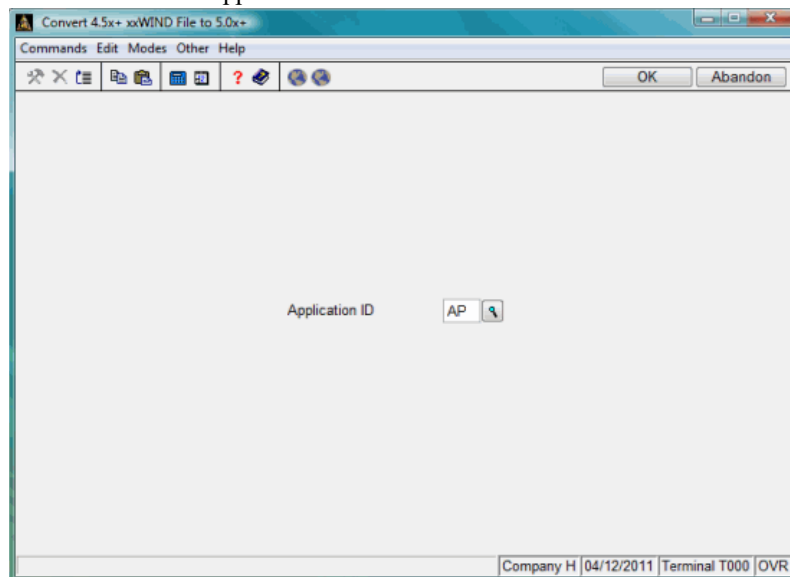
To convert the file, use the **Proceed (OK)** command. Use the **Exit (F7)** command to return to the **System File Conversion** menu.

Convert 4.5x+ xxWIND File to 5.0x+

This utility converts 4.5x and 4.6x window definition files to the 5.0x format (which is used by all higher versions).

Convert 4.5x+ xxWIND File to 5.0x+ Screen

Select **Convert 4.5x+ xxWIND File to 5.0x+** from the **System File Conversion** menu. This screen appears:



Inquiry

Enter the application ID you want to convert or use the **Inquiry (F2)** command to select the application from the list that appears.

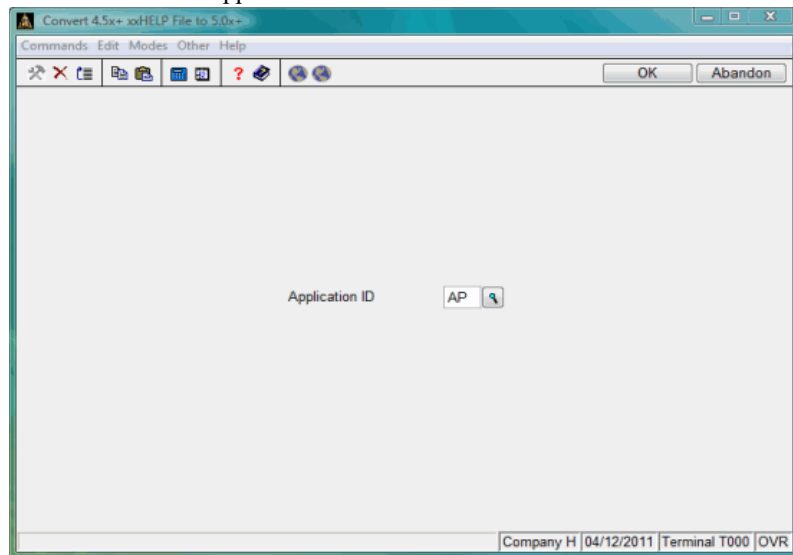
If the window file is already at the 5.0x level, a message appears stating that the file does not need to be converted. To convert the file, use the **Proceed (OK)** command. Use the **Exit (F7)** command to return to the **System File Conversion** menu.

Convert 4.5x+ xxHELP File to 5.0x+

This utility converts help files from 4.5x and 4.6x to the 5.0x format (which is used by all higher versions). Each application contains help text, which is stored in the **xxHELP** file.

Convert 4.5x+ xxHELP File to 5.0x+ Screen

Select **Convert 4.5x+ xxHELP File to 5.0x+** from the **System File Conversion** menu. This screen appears:



Inquiry

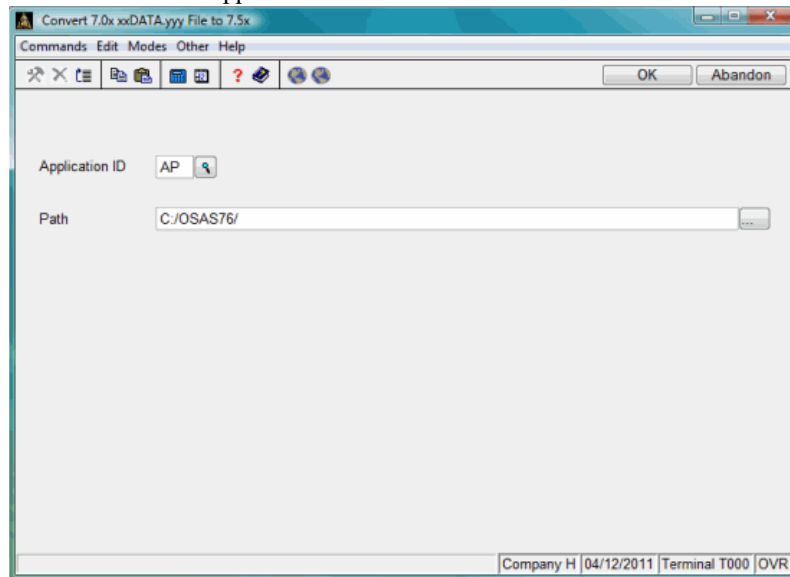
Enter the application ID you want to convert or use the **Inquiry (F2)** command to select the application from the list that appears.

If the help file is already at the 5.0x level, a message appears stating that the file does not need to be converted. To convert the file, use the **Proceed (OK)** command. Use the **Exit (F7)** command to return to the **System File Conversion** menu.

Convert 7.0x xxDATA.yyy File to 7.5x

This utility converts 7.0x data file information files to the 7.5x format (which is used by all higher versions).

Select **Convert 7.0x xxDATA.yyy File to 7.5x** from the **System File Conversion** menu. This screen appears:



Inquiry

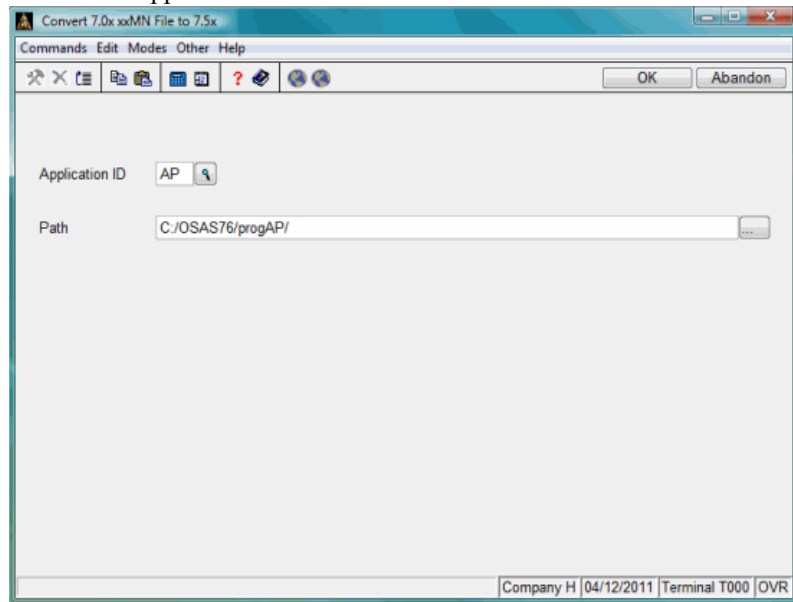
Enter the application ID you want to convert or use the **Inquiry (F2)** command to select the application from the list that appears.

If the data file is already at the 7.5x level, a message appears stating that the file does not need to be converted. To convert the file, use the **Proceed (OK)** command. Use the **Exit (F7)** command to return to the **System File Conversion** menu.

Convert 7.0x xxMN File to 7.5x

This utility converts 7.0x menu files to the 7.5x format (which is used in all higher versions).

Select **Convert 7.0x xxMN File to 7.5x** from the **System File Conversion** menu. This screen appears:



Inquiry

Enter the application ID you want to convert or use the **Inquiry (F2)** command to select the application from the list that appears.

If the window file is already at the 7.5x level, a message appears stating that the file does not need to be converted. To convert the file, use the **Proceed (OK)** command. Use the **Exit (F7)** command to return to the **System File Conversion** menu.

Edit CONFIG.TPM	6-3
Create Data Dictionary	6-5
Copy File(s) to Dictionary	6-7
Files	6-9
Fields	6-15
Indexes	6-21
File Layouts	6-27
Field/File Cross-Reference List	6-31
Create/Update Template File	6-33
Create File(s) from Data Dictionary	6-35
Add/Change Reserved Words	6-37
Audit Field Names for Reserved Words	6-39
Reserved Words List	6-41

Data Dictionary

Overview

Use the functions on the **Data Dictionary** menu to create and maintain the BASIS Data Dictionary files used in OSAS version 5.1x and above. The process of defining a BASIS Data Dictionary is divided into three parts: file, field, and index definitions for each file used by OSAS.

- Use the **Edit CONFIG.TPM** function to edit the config.tpm file.
- Use the **Create Data Dictionary** function to create a set of data dictionary files from the template *.OSI files.
- Use the **Copy File(s) to Dictionary** function to copy file, index and field definitions from one BASIS Data Dictionary to another.
- Use the **Files** function to set up and maintain information about the data files used in OSAS applications.
- Use the **Fields** function to define the fields in the OSAS data files. This information is used to create string templates and build data dictionary files for the ODBC Kit application.
- Use the **Indexes** function to define the keys used in OSAS data files.

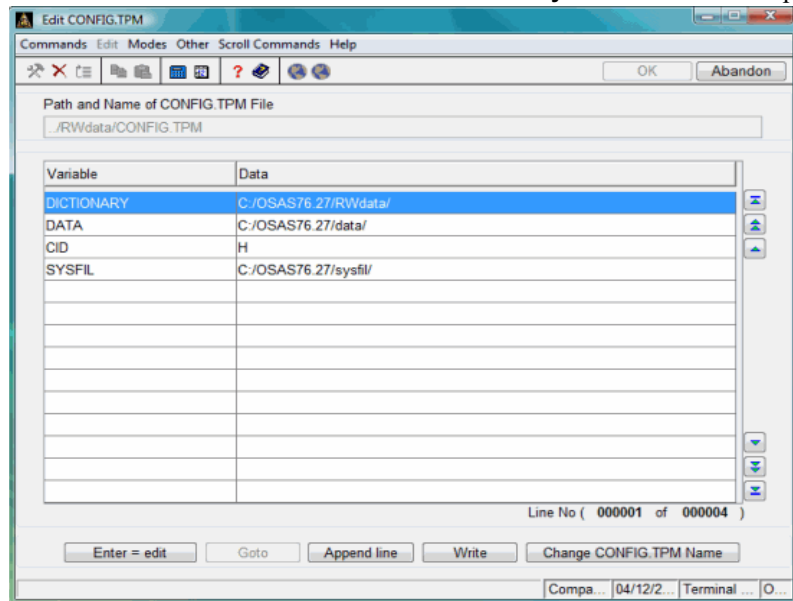
- Use the **File Layouts** function to produce a hard copy of the files in the OSAS data dictionary.
- Use the **Field/File Cross-Reference List** function to produce a printout of all the data dictionary items by field name. Use the list to verify the consistency of field names in related files.
- Use the **Create/Update Template File** function to create or update the string template files **OSTPL** or **xxTPL** (where **xx** is the application ID).
- Use the **Create File(s) from Data Dictionary** function to create a data file or all data files for an application based on the criteria in the OSAS data dictionary.
- Use the **Add/Change Reserved Words** function to add to or update the file of reserved SQL words. This file is used by the **Audit Field Names for Reserved Words** function to check for conflicts with field names in the dictionary.
- Use the **Audit Field Names for Reserved Words** function to check for reserved words used in field names for an application or for all applications.
- Use **Reserved Words List** to print a list of the reserved SQL words on file.

Edit CONFIG.TPM

Use this function to create or edit your database configuration file.

Edit CONFIG.TPM Screen

Select **Edit CONFIG.TPM** from the **Data Dictionary** menu. This screen appears:



Enter the directory path and file name of the database configuration file you want to view or edit. If you enter a new path or file name, the system creates a new file.

The database configuration file contains data and file paths for these variables:

- **DICTIONARY** - The file path to the data dictionary files, followed by a slash (/) at the end of the directory path.

- **DATA** - The path to the company data, followed by a slash (/) at the end of the directory path.
- **CID** - The company ID of the data files you want to access using this database configuration file.
- **SYSFIL** - The file path to the OSAS system files, followed by a slash (/) at the end of the directory path.

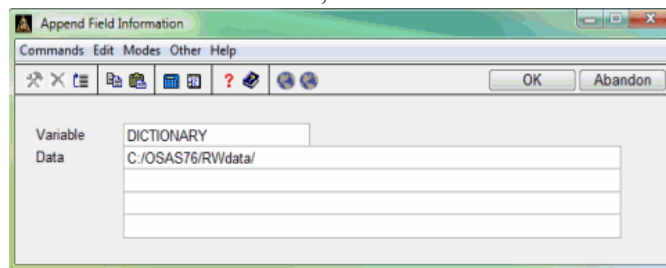
Use these commands to add, edit, and save the data in the file:

- Press **Enter** to edit the selected line using the Edit Field Information screen.
- Press **A** to add a variable to the end of the list. The Append Field Information screen appears.
- Press **W** to save your changes to the current file.
- Press **C** to enter a new configuration file to view or edit.

When you finish viewing or updating entries, use the **Exit (F7)** command to return to the **Data Dictionary** menu.

Append/Edit Field Information Screen

The Append Field Information screen appears when you press **A** to add a new variable. The Edit Field Information screen appears when you edit an existing variable. Other than the titles, these screens are identical.



Enter or edit the variable, then enter or edit the data or file path to associate with the variable. Use the **Proceed (OK)** command to save your changes and return to the Edit CONFIG.TPM screen.

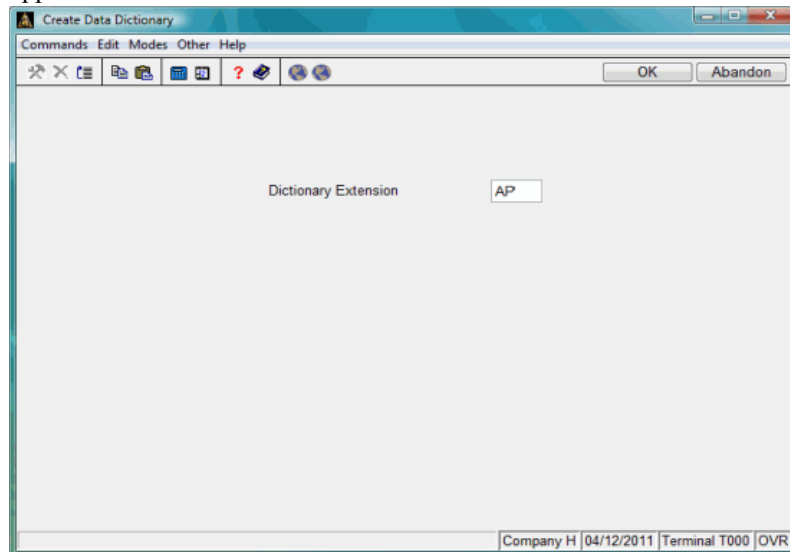
Create Data Dictionary

Use the **Create Data Dictionary** function to create a set of data dictionary files. Each data dictionary uses the same set of file names, but can have any three-character extension for identification purposes.

In order for the data dictionary files to work with the ODBC drivers, the files must have the extension “.1”. However, if you are creating installable media, you must create data dictionary files for each application using the application ID as the extension. These files are merged into the *.1 files during installation.

Create Data Dictionary Screen

Select **Create Data Dictionary** from the **Data Dictionary** menu. This screen appears:



Enter the extension of the data dictionary items you want to create. These files are built from the base data dictionary files (*.OSI).

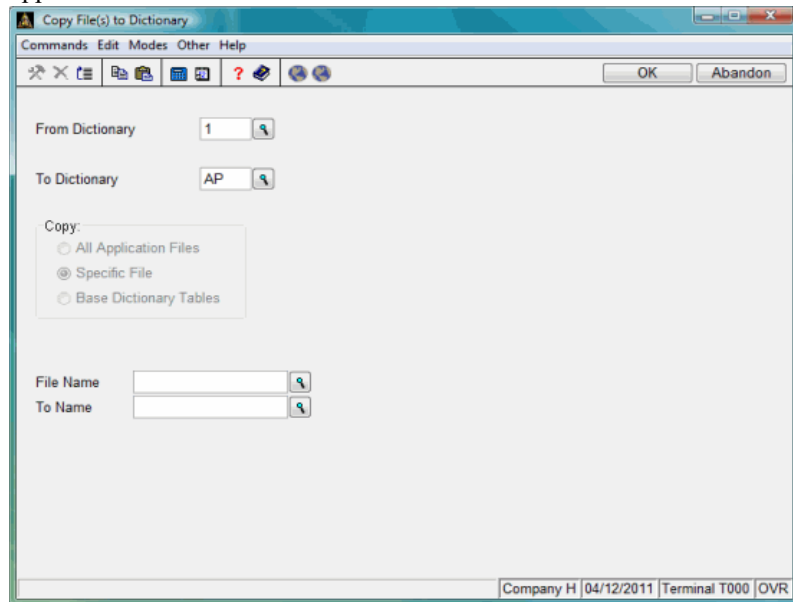
To create the dictionary files, use the **Proceed (OK)** command. After the files are created, the **Data Dictionary** menu appears.

Copy File(s) to Dictionary

Use the **Copy File(s) to Dictionary** function to copy file, index, and field definitions from one BASIS data dictionary to another.

Copy File(s) to Dictionary Screen

Select **Copy File(s) to Dictionary** from the **Data Dictionary** menu. This screen appears:



Inquiry

1. Enter the extension of the source dictionary from which you want to copy dictionary information in the **From Dictionary** field.

Inquiry

2. Enter the extension of the destination dictionary to which you want to copy the information in the **To Dictionary** field.

3. Select the dictionary entries to copy. You can copy all of an application's file definitions, a specific file definition, or the base dictionary files (to create an empty dictionary).

Inquiry

4. If you selected the **All Application Files** option, the **Application ID** field appears. Enter the application ID that you want to copy. All files, fields, and indexes defined with this application ID are copied to the destination dictionary files.

Inquiry

5. If you selected the **Specific File** option, the **File Name** and **To Name** fields appear. Enter the name of the file from which you want to copy information in the **File Name** field, then enter the name of the file to which you want to copy information in the destination dictionary in the **To Name** field.
6. Check your entries. Change any incorrect information or use the **Abandon (F5)** command to start again from the top of the screen.
7. When all information is correct, use the **Proceed (OK)** to begin the copy process.
8. After the files are copied, the cursor returns to the **From Dictionary** field. Repeat the steps above to copy another dictionary file, or use the **Exit (F7)** command to return to the **Data Dictionary** menu.

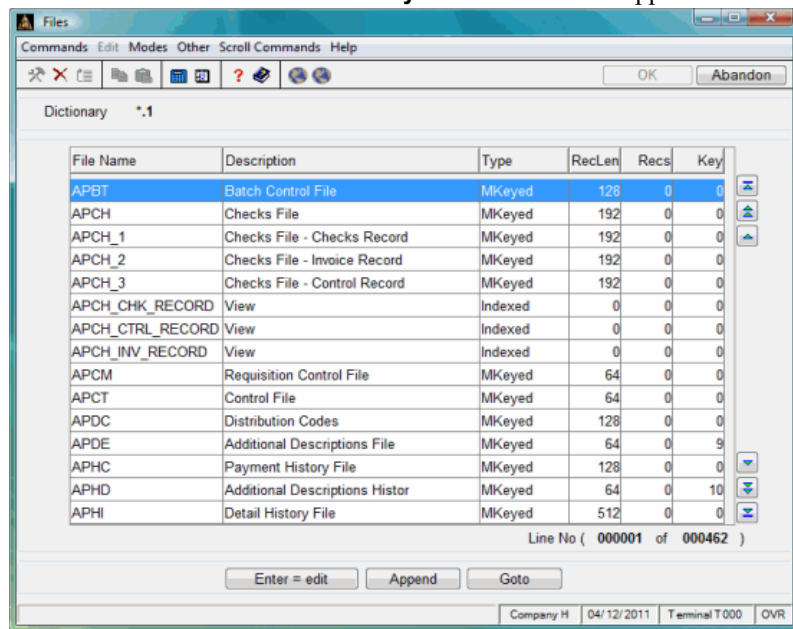
Files

Use the **Files** function to set up and maintain information about the data files used in OSAS programs.

It can also be used to define *views*, which are special file definitions used with the ODBC driver to allow queries into non-normalized data files. Views can be defined to limit the data returned from the file based on, for example, a record type field.

Files Screen

Select **Files** from the **Data Dictionary** menu. This screen appears:



The screenshot shows a window titled "Files" with a menu bar (Commands, Edit, Modes, Other, Scroll, Commands, Help) and a toolbar with icons for search, delete, save, print, help, and refresh. Below the toolbar is a "Dictionary *1" section containing a table with the following columns: File Name, Description, Type, RecLen, Recs, and Key. The table lists various files and views, including APBT, APCH, APCH_1, APCH_2, APCH_3, APCH_CHK_RECORD, APCH_CTRL_RECORD, APCH_INV_RECORD, APCM, APCT, APDC, APDE, APHC, APHD, and APHI. At the bottom of the window, there are buttons for "Enter = edit", "Append", and "Goto", and a status bar showing "Company H", "04/12/2011", "Terminal T000", and "OVR".

File Name	Description	Type	RecLen	Recs	Key
APBT	Batch Control File	MKeyed	128	0	0
APCH	Checks File	MKeyed	192	0	0
APCH_1	Checks File - Checks Record	MKeyed	192	0	0
APCH_2	Checks File - Invoice Record	MKeyed	192	0	0
APCH_3	Checks File - Control Record	MKeyed	192	0	0
APCH_CHK_RECORD	View	Indexed	0	0	0
APCH_CTRL_RECORD	View	Indexed	0	0	0
APCH_INV_RECORD	View	Indexed	0	0	0
APCM	Requisition Control File	MKeyed	64	0	0
APCT	Control File	MKeyed	64	0	0
APDC	Distribution Codes	MKeyed	128	0	0
APDE	Additional Descriptions File	MKeyed	64	0	9
APHC	Payment History File	MKeyed	128	0	0
APHD	Additional Descriptions Histor	MKeyed	64	0	10
APHI	Detail History File	MKeyed	512	0	0

Line No (000001 of 000462)

Enter = edit Append Goto

Company H 04/12/2011 Terminal T000 OVR

The screen lists the file name, description, type, record length, number of records, and key size for definitions in the current data dictionary. To change the dictionary, return to the **Data Dictionary** menu and use the **Setup (F9)** command.

Use these commands to work with the file definitions in the dictionary:

- Press **Enter** to edit the selected file definition. The Edit File screen appears.
- Press **A** to add a file definition. The Append File screen appears.
- Press **G** to go to a specific file in the list, then enter the file name you want to view or use the **Inquiry (F2)** command to select it from the list that appears.

When you finish working with the file definitions, use the **Exit (F7)** command to return to the **Data Dictionary** menu.

Append/Edit File Screen

When you elect to edit or append a file definition, the Edit File screen or the Append File screen appears. Other than the title, these screens are identical.

Inquiry

Field

Descriptions

File Name

Enter or edit the name of the file you are defining. Do not include the company ID in the file name.

Description

Enter or edit the file description.

View Definition

If this definition describes a view, select the check box (or enter **Y** in text mode); if not, clear the check box (or enter **N** in text mode).

Some fields below are unavailable when defining views.

Field	Descriptions
Type	Enter the type of file: I = indexed L = serial P = program D = directory K = keyed (direct) M = multi-keyed (Mkeyed) S = string
Record Length	Enter the size of the records in the file in bytes.
No. of Records	If the file is not dynamic, enter the maximum number of records in the file. If the file is dynamic, press Enter to accept the default value of 0 .
Key Size	If the file is single-keyed (direct), enter the size of the key.
File Index	Enter the FILE[ALL] element on which the file is usually opened.
RW Topic	If the file has an associated Report Writer topic number, enter that topic number. This information is no longer used.
Long File Name	Enter the long file name for the file. Enter xxx at the end of the file name to designate the file as company-specific.
ODBC Path	Enter the path ODBC uses to view the file. Use the variables (DATA) to specify the data path, (SYSFIL) to specify the systems files path, and (CID) to specify a company-specific file. These variables are defined in the CONFIG.TPM file (page 6-3).
Inquiry Application ID	Enter the ID of the application to which the file belongs.

Check your entries. If you find mistakes, change the fields in error or use the **Abandon (F5)** command to start again from the top of the screen.

Use the **Proceed (OK)** command to save the record, or use the **Exit (F7)** command to return to the Files screen without saving your changes.

View Information Screen

If you are adding or editing a view, this screen appears when you save your changes in the Append/Edit File screen.

In the **Where Clause** field, enter a BBx **WHERE** clause that defines the data to be extracted from the file. You can enter up to three lines of **WHERE** clause syntax. See the BBj documentation for more information on **WHERE** clause syntax.

In the **File Name** field, enter the names of the file or files that make up the view. Multiple files can be used with the **WHERE** clause to join data from multiple files for display purposes.

Use these commands to work with the file names in the list:

- Press **A** to add a file to the list.

- Press **G** to go to a specific file in the list. This command is available only when there is more than one screen of files.
- Press **W** to save the definition to the dictionary files.
- Press **S** to return to the **Where Clause** field.

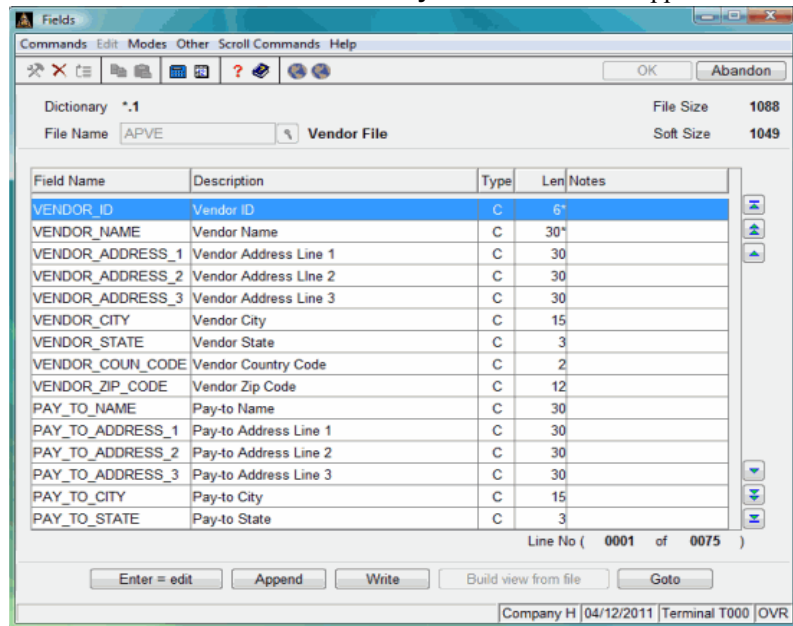
When you are satisfied with the view definition, press **W** to save the definition to the dictionary files and return to the Files screen.

Fields

Use the **Fields** function to define the fields in the OSAS data files. String templates and the GENERAL Report Writer's data dictionary files are built from this data.

Fields Screen

Select **Fields** from the **Data Dictionary** menu. This screen appears:



The current data dictionary selection appears; to change it, return to the **Data Dictionary** menu and use the **Setup (F9)** command.

Inquiry

Enter the file name you want to view or edit in the **File Name** field. The record size from file definition (**File Size**) and the calculated size of the defined fields (**Soft Size**) appear. The screen also lists the fields, descriptions, type, length, and notes for the fields defined in the selected file.

Use these commands to work with the field definitions in the list:

- Press **Enter** to edit the selected field definition. The Edit Field screen appears.
- Press **A** to add a field definition to the list. The Append Field screen appears.
- Press **W** to save changes to the dictionary file.
- Press **B** to create a view definition by copying information the field definitions in an existing file definition. The file must have been set up as a view in the **Files** function before you can use this command.

When the **Enter File to Copy From** field appears, enter the file name from which to copy information, then press **Enter** to begin processing.

- Press **G** to go to a specific field definition, then enter the line number.

When you finish working with the field definitions, press **W** to save your changes. Then use the **Exit (F7)** command to return to the **Data Dictionary** menu.

Append/Edit Field Screen

When you elect to edit or append a field definition, the Edit Field screen or the Append Field screen appears. Other than the title, these screens are identical:

Inquiry

Field

Field ID

Descriptions

Enter or edit the ID you want to use for the field. The ID you enter is checked against the reserved word file (see “Add/Change Reserved Words” on page 6-37). A reserved word is a key word from a third-party SQL language that cannot be used for field names. A message appears if you use a reserved word in the field name.

Description

Enter a description of the field.

Orig. Field

If you are defining fields for a view-type file, enter the string template name of the field from the source file that is used to create the view. Use the full template name including file name (for example, **APCH_2.SEQUENCE_NUMBER**).

Field	Descriptions
Field Type	Indicate the type of data stored in the field: C = Character N = Numeric U = Unsigned Integer I = Signed Integer F = IEEE Float D = BCD Float B = Business Math X = C Float Y = C Double
Numeric Type	If this is a numeric field, specify the type of numeric value: B = Boolean value J = Julian date O = Any other numeric value
Variable Length?	If the field is of variable length and requires a field terminator, select the check box (or enter Y in text mode); if not, clear the box (or enter N in text mode).
Field Terminator	Enter the decimal value of the character that is used to represent a field terminator in the file. All OSAS-standard files use a decimal 10 (hexadecimal \$0A\$) as a terminator.
Field Length	Enter the length of the field in bytes.
Array Elements	If this field is an array, enter the number of array elements. Arrays are always one-based in the definition (even if they are defined in the code as zero-based), so enter 2 if the array has two elements.
RW Name	Enter the field name used in the GENERAL Report Writer.
Variable	Enter the variable used for this field. If the application uses only string templates, leave this field blank.
Template	Enter the variable name to be used in the file's string template.

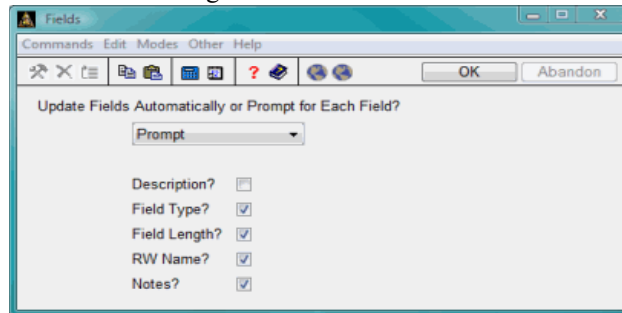
Field	Descriptions
Notes	Enter any descriptive notes you want to appear on the file layouts, such as field masks or valid entries.

Check your entries. If you find mistakes, change the fields in error or use the **Abandon (F5)** command to start again from the beginning of the screen.

Use the **Proceed (OK)** command to save your entries and return to the Fields screen, or use the **Exit (F7)** command to return to the Fields screen without saving your entries.

Update Fields Screen

When you use the **Write** command on the Fields screen, the system scans the other file definitions in the dictionary looking for matching field names. If you have changed any field definitions that are used in other data files, the Update Fields screen appears to give you the chance to automatically update the other files with the changed data.



Select **Prompt** if you want the system to prompt you before updating each field or **Automatic** if you want all fields to be updated automatically. If you enter **Prompt**, each field name is listed on the Update Fields screen when you proceed to the first check box or Yes/No option.

Select the check box (or enter **Y** in text mode) if you want to update that information type for the field in other files with your changes; clear the check box (or enter **N** in text mode) if you do not want to update that information in other files.

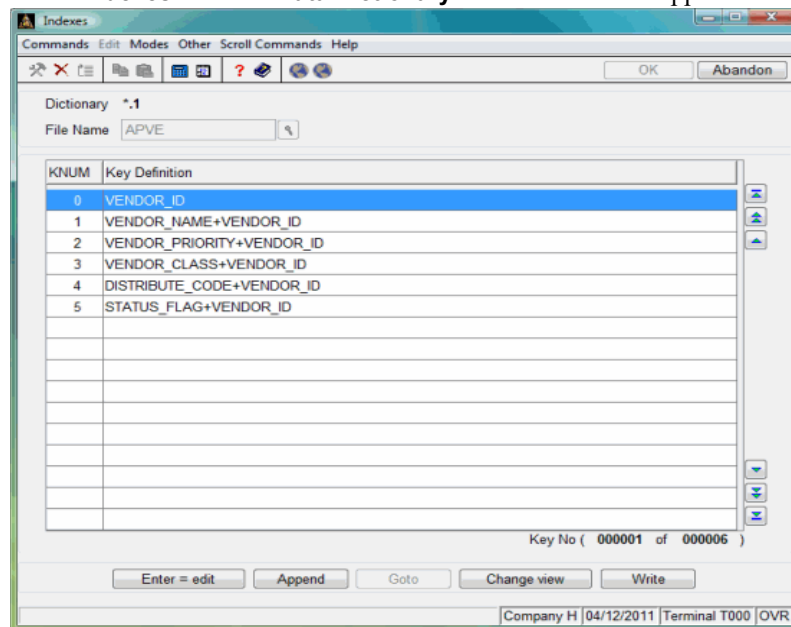
Use the **Proceed (OK)** command to start the update. After the fields in the file definitions are updated, the cursor returns to the **File Name** field on the Fields screen. Enter another file name for which to view or edit field definitions or use the **Exit (F7)** command to return to the **Data Dictionary** menu.

Indexes

Use the **Indexes** function to define the keys used in OSAS Vkeyed data files.

Indexes Screen

Select **Indexes** from the **Data Dictionary** menu. This screen appears:



The current data dictionary selection appears; to change it, return to the **Data Dictionary** menu and use the **Setup (F9)** command.

Inquiry

Enter the file name whose index keys you want to view or edit in the **File Name** field. The screen lists the index key numbers and key fields defined for the selected file.

Use these commands to work with the index definitions in the list:

- Press **Enter** to edit the selected index definition. The Edit Index screen appears.
- Press **A** to add an index. The Append Index screen appears.
- Press **G** to go to a specific index. This command is available only when there is more than one screen of information.
- Press **C** to change the way key definitions appear in the list—by field name (the default) or file definition.
- Press **W** to save the changes to the dictionary.

When the indexes are defined correctly for the file, press **W** to save the changes to the dictionary. Then use the **Exit (F7)** command to return to the **Data Dictionary** menu.

- Press **G** to go to a specific segment in the index definition, then enter the sequence number of the line.

Use the **Exit (F7)** command to return to the Index screen.

Index Segment Line-Item Entry Screen

When you elect to edit or append an index, the Edit Index screen or the Append Index screen appears:

Field

Descriptions

Sequence

The sequence number is automatically assigned to each segment of the key.

Inquiry

Field

If the segment consists of multiple fields, leave this field blank. If the segment consists of a single field, enter the field name.

Description

If you entered a field name, the description appears from the Field Definitions file. If this is a multi-field segment, enter the description of the segment.

Type

Enter **C** if the field contains alphanumeric characters or **N** if the field contains only numeric characters.

For existing segments, **C** appears if the field contains alphanumeric characters, or **N** appears if the field is numeric.

Field	Descriptions
Field No	If you entered a field name, the field number where this field is located in the file appears; if not, enter the number.
Position	If you entered a field name, the starting position of the field appears; if not, enter the starting position of the field in the string you are entering.
Length	If you entered a field name, the length of the field appears; if not, enter the total length of the segment.
Descending?	If the segment is in descending order, select the check box (or enter Y in text mode); if not, clear the check box (or enter N in text mode).
Unique?	If the segment must be unique in the file, select the check box (or enter Y in text mode); if the segment can be duplicated in the file, clear the check box (or enter N in text mode).
Business?	If the segment is a business math type field and must be sorted as such, select the check box (or enter Y in text mode); if not, clear the check box (or enter N in text mode).

Check your entries. Use the **Proceed (OK)** command to save them in the index definition, or use the **Exit (F7)** command to return to the index line-item entry screen.

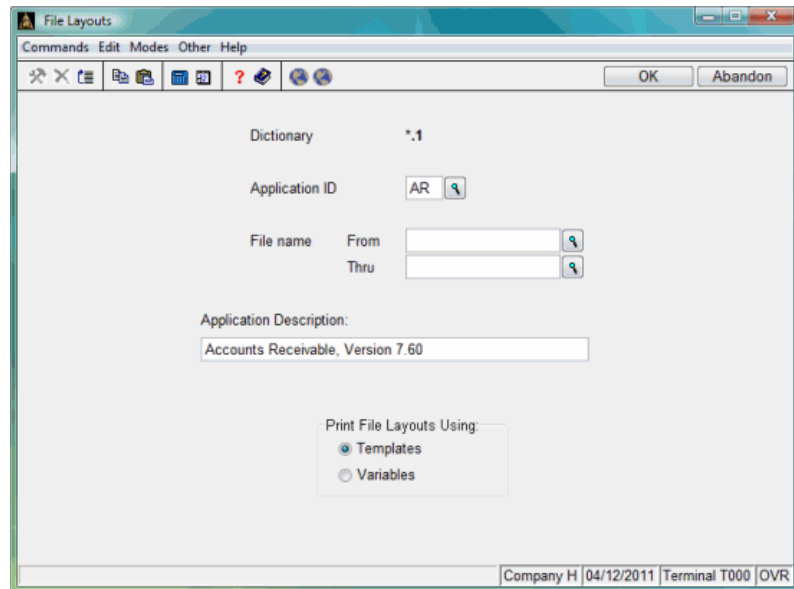
File Layouts

Use the **File Layouts** function to print a listing of file definitions in a printed format you can use for reference.

You can control the horizontal and vertical positioning of the printed layouts by specifying top and side offsets in the **OUTPUT** table.

File Layouts Screen

Select **File Layouts** from the **Data Dictionary** menu. This screen appears:



The screenshot shows a window titled "File Layouts" with a menu bar (Commands, Edit, Modes, Other, Help) and a toolbar with icons for back, forward, search, and other functions. The main area contains the following fields and options:

- Dictionary: *.1
- Application ID: AR
- File name: From [] Thru []
- Application Description: Accounts Receivable, Version 7.60
- Print File Layouts Using: Templates Variables

At the bottom right, the status bar displays: Company H | 04/12/2011 | Terminal T000 | OVR

1. The current data dictionary selection appears. To change it, return to the **Data Dictionary** menu and use the **Setup (F9)** command.

Inquiry

2. Enter the application ID for which you want to print file layouts, use the **Inquiry (F2)** command to select an ID from the list that appears, or leave the field blank to print layouts for all applications in the dictionary.

Inquiry

3. Enter the range of file names you want to include in the layouts.
4. Enter a description of the layouts to print in the footer of the layouts.
5. Select the type of variables you want included in the layouts. You can choose to print string template definitions or BBx variables.
6. Select the output device to produce the list. See “Reports” on page 1-25 for more information on output devices. After the file layouts are printed, the **Data Dictionary** menu appears.

File Layouts Report

APHSxxx AP - Summary History File

Channel Index: 9

Template: DIM APHS\$: "GENA0:C(6),GENA2:C(1),GENA3:C(20),GENA4:C(5),
GENA5:C(4),GENA6:C(2*),GENN1[7]:N(14*),GENN2[7]:N(14*),
GENA7:C(6),GENA8:C(9*),SORT:C(13*),ISVA:C(1*),
ISVN[2]:N(1*)"

RW Topic No.: N/A

KNUM	Segments	Description
0	[1:1:6]	General Alpha 1
	+ [1:7:1]	General Alpha 2
	+ [1:8:20]	General Alpha 3
	+ [1:28:5]	General Alpha 4
	+ [1:33:4]	General Alpha 5
	+ [1:37:2]	General Alpha 6
1	[1:33:4]	General Alpha 5
	+ [1:37:2]	General Alpha 6
	+ [1:1:6]	General Alpha 1
	+ [1:7:1]	General Alpha 2
	+ [1:8:20]	General Alpha 3
2	[17:1:13:"D"]	Purchases Sort String
	+ [1:7:1]	General Alpha 2
	+ [1:8:20]	General Alpha 3
	+ [1:28:5]	General Alpha 4
3	[1:33:4]	General Alpha 5
	+ [1:37:2]	General Alpha 6
	+ [17:1:13:"D"]	Purchases Sort String
	+ [1:1:6]	General Alpha 1
4	[1:33:4]	General Alpha 5
	+ [1:37:2]	General Alpha 6
	+ [16:1:6]	General Alpha 7
	+ [17:1:13:"D"]	Purchases Sort String
	+ [1:1:6]	General Alpha 1

Field/File Cross-Reference List

Use the **Field/File Cross-Reference List** function to produce a list by field name across files. Use the list to verify the consistency of field names in related files.

Field/File Cross-Reference List Screen

Select **Field/File Cross-Reference List** from the **Data Dictionary** menu. This screen appears:

Field/File Cross-Reference List

Commands Edit Modes Other Help

Dictionary *:1

Field ID From ACTUAL_SHIP_DATE Thru ZIP_CODE

File name From Thru

Sort by:

Field Name

File Name

Company H | 04/29/2011 | Terminal T000 | OVR

1. The current data dictionary selection appears. To change it, return to the **Data Dictionary** menu and use the **Setup (F9)** command.

Inquiry

2. Enter the range of field names you want to include in the list.

Inquiry

3. Enter the range of files you want to include in the list.

4. Select the order in which you want to print the list. You can print it by field name or by file name.
5. Select the output device to produce the list. See “Reports” on page 1-25 for more information on output devices. After the list prints, the **Data Dictionary** menu appears.

Field/File Cross-Reference List

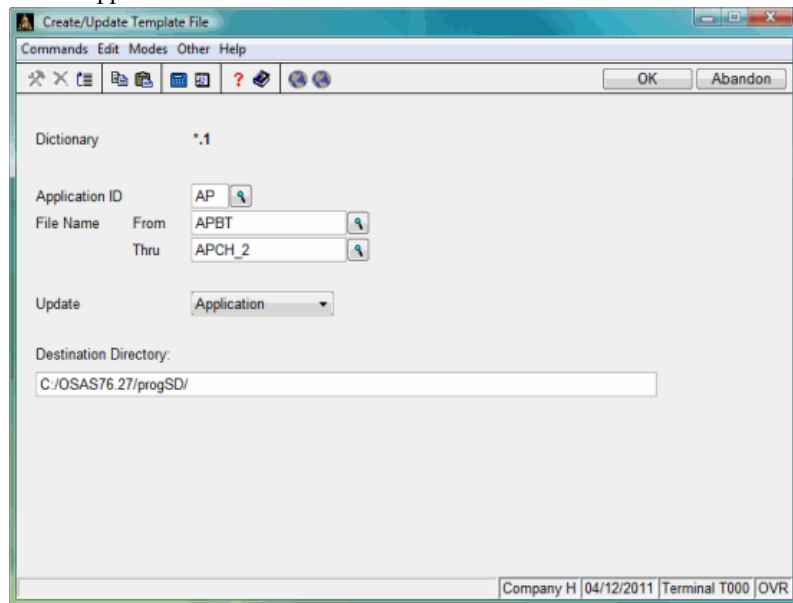
Field	File	Description	Format	Notes	RW Name
ACTUAL_SHIP_DATE	AFMD	Actual Ship Date	N	7 Julian	ACTUAL_SHIP_DATE
ACTUAL_SHIP_DATE	AFMH	Actual Ship Date	N	7 Julian	ACTUAL_SHIP_DATE
ACTUAL_SHIP_DATE	AP_MAT_REQS	View Column	N	20	
ACTUAL_SHIP_DATE	ARHI_1	Actual Ship Date	N	7 Julian	ACTUAL_SHIP_DATE
ACTUAL_SHIP_DATE	ARHI_LINE_ITEM	View Column	N	20	
ACTUAL_SHIP_DATE	SORH	Actual Shipping Date	N	7 Julian	ACT_SHIP_DATE
ACTUAL_SHIP_DATE	SORL	Actual Shipping Date	N	7 Julian	ACT_SHIP_DATE
ACTUAL_SHIP_DATE	SOTD	Actual Shipping Date	N	7 Julian	ACT_SHIP_DATE
ACTUAL_SHIP_DATE	SOTH	Actual Shipping Date	N	7 Julian	ACT_SHIP_DATE
ACTUAL_SHIP_DATE	SO_OPEN_ORDERS	View Column	N	20	
ACTUAL_SHIP_DATE	SO_RECUR_ORDERS	View Column	N	20	
ACTUAL_UNITS	CJBS	Actual Units	N	7	
ACT_EQPT_DLRS	CJBS	Actual Equipment Dollars	N	12	
ACT_FINISH_DATE	CJBS	Actual Finish Date	N	7 Julian	
ACT_LABOR_DLRS	CJBS	Actual Labor Dollars	N	12	
ACT_LABOR_HOURS	CJBS	Actual Labor Hours	N	9	
ACT_MAT_DLRS	CJBS	Actual Material Dollars	N	12	
ACT_MISC_DLRS	CJBS	Actual Miscellaneous Dollars	N	12	
ACT_OVHD_DLRS	CJBS	Actual Overhead Dollars	N	12	
ACT_PO_DLRS	CJBS	Actual PO Dollars	N	12	
ACT_START_DATE	CJBS	Actual Start Date	N	7 Julian	
ACT_SUB_DLRS	CJBS	Actual Subcontract Dollars	N	12	
ACT_TYPE_7_DLRS	CJBS	Actual Type 7 Dollars	N	12	
ACT_TYPE_8_DLRS	CJBS	Actual Type 8 Dollars	N	12	
ACT_TYPE_9_DLRS	CJBS	Actual Type 9 Dollars	N	12	
ADDITIONAL_DESCR	AFMD	Additional Description Line 1	C	35	ADOL_DESCRIPTION_1
ADDITIONAL_DESCR	AP_MAT_REQS	View Column	C	20	
ADDITIONAL_DESCR	INXT	Additional Description Line	C	35	ADOL_DESC_LINE
ADDITIONAL_INFO	OSMP	Additional Information	C	60	ADDITIONAL_INFO
ADDITIONAL_SPACE	GLSLF_2	Additional Spaces	N	3	ADDITIONAL_SPACES
ADDITIONAL_SPACE	GLSLF_COLUMN	View Column	N	20	
ADDITION_BLD_SEQ	BKTM	Additional Build Sequence	C	6	ADDITIONAL_BLD_SEQ
ADDITION_DESCR_2	AFMD	Additional Description Line 2	C	35	ADOL_DESCRIPTION_2
ADDITION_DESCR_2	AP_MAT_REQS	View Column	C	20	
ADDITION_BLD_SEQ	BKTR	Additional Build Sequence	C	6	ADDITIONAL_BLD_SEQ
ADDRESS	OSMP	Address	C	60	ADDRESS

Create/Update Template File

Use the **Create/Update Template File** function to create or update the master string template system file **OSTPL** or the application-specific string template installation file **xx.TPL**.

Create/Update Template File Screen

Select **Create/Update Template File** from the **Data Dictionary** menu. This screen appears:



The screenshot shows a dialog box titled "Create/Update Template File". The window has a menu bar with "Commands", "Edit", "Modes", "Other", and "Help". Below the menu bar is a toolbar with icons for back, forward, search, and help, along with "OK" and "Abandon" buttons. The main area contains the following fields:

- Dictionary: *.1
- Application ID: AP
- File Name: From APBT, Thru APCH_2
- Update: Application
- Destination Directory: C:/OSAS76.27/progSD/

The status bar at the bottom right displays "Company H | 04/12/2011 | Terminal T000 | OVR".

1. The current data dictionary selection appears. To change it, return to the **Data Dictionary** menu and use the **Setup (F9)** command.

Inquiry

2. Enter the application ID corresponding to the files for which you want to create the string templates.

Inquiry

3. Enter the range of file names for which you want to create string templates.
4. In the **Update** field, select the file you want to create or update. Enter **A** to create or update an application-specific (**xx.TPL**) file; enter **O** to create or update the **OSTPL** system file.
5. Enter the directory where the template file exists in the **Destination Directory** field. If the template file does not exist in the specified path, this function creates the path for you.
6. Check your entries. If you find mistakes, change the field that is in error or use the **Abandon (F5)** command to start again from the top of the screen.
7. When everything is correct, use the **Proceed (OK)** command to create or update the file. After the file is created, the **Data Dictionary** menu appears.

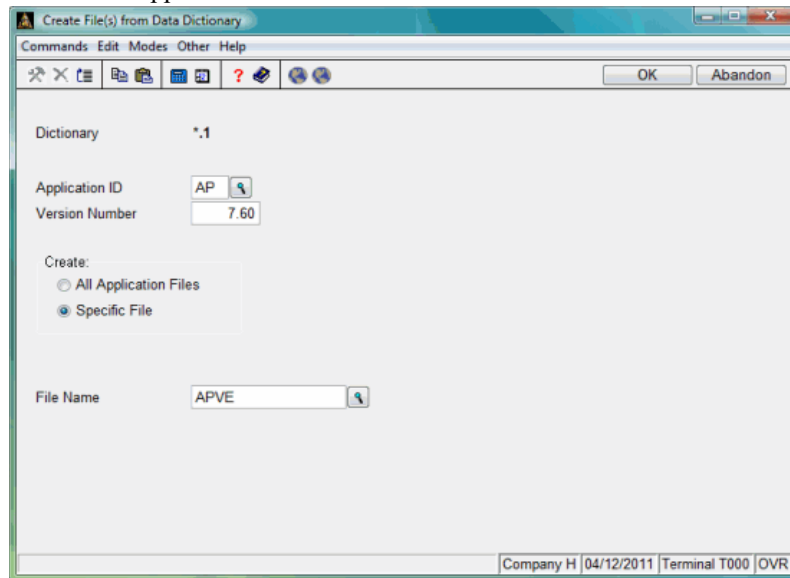
Create File(s) from Data Dictionary

Use the **Create File(s) from Data Dictionary** function to create data files for an application based on the criteria in the OSAS data dictionary.

If the file already exists, the system warns you that continuing with the process will overwrite the file. After each file is created, the **xxDATA.yyy** file is updated with the resulting FID and FIN information.

Create File(s) from Data Dictionary Screen

Select **Create File(s) from Data Dictionary** from the **Data Dictionary** menu. This screen appears:



1. The current data dictionary selection appears. To change it, return to the **Data Dictionary** menu and use the **Setup (F9)** command.

Inquiry

2. Enter the application ID to which the file(s) belong.
3. Enter the version number of the application for which you want to create data files. The number you enter here determines the **xxDATA.yyy** file that is updated (where **xx** is the application ID and **yyy** is the version number).
4. Choose the files to create. You can create all of the files for an application or only one specific file.

Inquiry

5. If you selected the **Specific File** option, enter the name of the file you want to create.
6. Check your entries. If you find mistakes, edit the files in error or use the **Abandon (F5)** command to start again from the top of the screen.
7. Use the **Proceed (OK)** command to create the files. After creating the files successfully, the cursor returns to the **Application ID** field. Enter another application for which to create files or use the **Exit (F7)** command to return to the **Data Dictionary** menu.

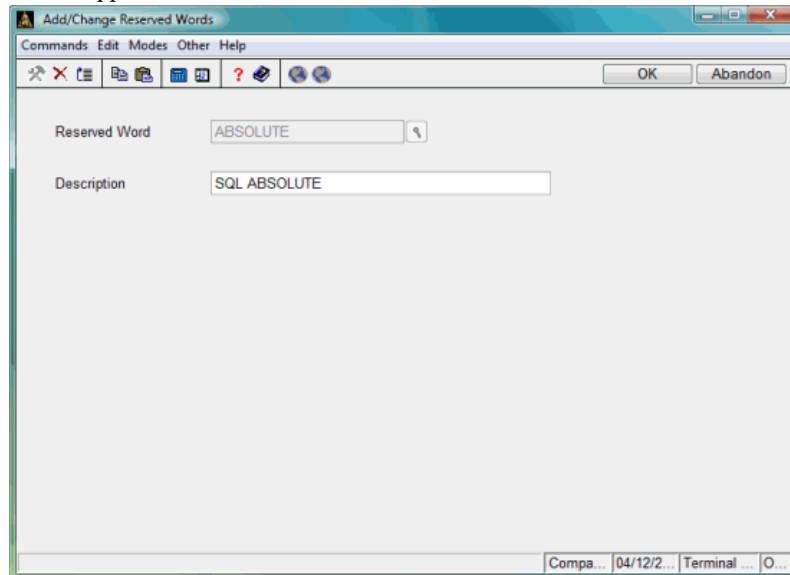
Add/Change Reserved Words

Reserved words are Structure Query Language and other commands that cannot be used when creating field names.

Use the **Add/Change Reserved Words** function to add or edit the reserved words on file. The file is used to check field names you define in the dictionary and is also used when you run the **Audit Field Names for Reserved Words** function.

Add/Change Reserved Words Screen

Select **Add/Change Reserved Words** from the **Data Dictionary** menu. This screen appears:



Inquiry

Enter the reserved word that is used to validate all field names in the dictionary, then enter or edit the description.

When everything is correct, use the **Proceed (OK)** command to save the record. Then enter another reserved word to work with or use the **Exit (F7)** command to return to the **Data Dictionary** menu.

Audit Field Names for Reserved Words

Use the **Audit Field Names for Reserved Words** function to validate an application's files for reserved words.

Audit Field Names for Reserved Words Screen

Select **Audit Field Names for Reserved Words** from the **Data Dictionary** menu. This screen appears:

Dictionary: *.1
Application ID: AP
File Name: From APBT, Thru APCH_INV_RECORD

Company H | 04/12/2011 | Terminal T000 | OVR

1. The current data dictionary selection appears. To change it, return to the Data Dictionary menu and use the **Setup (F9)** command.
2. Enter the application ID for which you want to audit data files, or leave the blank to audit the files from all applications.
3. Enter the range of data file names you want to include in the audit.

Inquiry

Inquiry

4. Select the output device to produce the audit report. See “Reports” on page 1-25 for more information on output devices. After the audit report prints, the **Data Dictionary** menu appears.

Audit Field Names for Reserved Words Report

```
04/29/2011          Builders Supply          Page   1
10:58 am           Audit Field Names for Reserved Words

File ID           Field Name       Description of Reserved Word
-----
APVE              YEAR             SQL YEAR

End of Report
```

Reserved Words List

The **Reserved Words List** produces a report showing all the reserved words in the Reserved Words file.

Reserved Words List Screen

Select **Reserved Words List** from the **Data Dictionary** menu. This screen appears:

Reserved Word	From	Thru
	ABSOLUTE	ANY

Inquiry

1. Enter the range of reserved words you want to include in the list.
2. Select the output device to produce the list. See “Reports” on page 1-25 for more information on output devices. After the list prints, the **Data Dictionary** menu appears.

Reserved Words List

Reserved Word	Description
ABSOLUTE	SQL ABSOLUTE
ACTION	SQL ACTION
ADD	SQL ADD
ALL	SQL ALL
ALLOCATE	SQL ALLOCATE
ALTER	SQL ALTER
AND	SQL AND
ANY	SQL ANY
ARE	SQL ARE
AS	SQL AS
ASC	SQL ASC
ASSERTION	SQL ASSERTION
AT	SQL AT
AUTHORIZATION	SQL AUTHORIZATION
AVG	SQL AVG
BEGIN	SQL BEGIN
BETWEEN	SQL BETWEEN
BOTH	SQL BOTH
BREAK	SQL BREAK
BROWSE	SQL BROWSE
BULK	SQL BULK
BY	SQL BY
BYTE	SQL BYTE
CASCADE	SQL CASCADE
CASCADED	SQL CASCADED
CASE	SQL CASE
CAST	SQL CAST
CATALOG	SQL CATALOG
CHAR	SQL CHAR
CHARACTER	SQL CHARACTER
CHARACTER_LENGTH	SQL CHARACTER_LENGTH
CHAR_LENGTH	SQL CHAR_LENGTH
CHECK	SQL CHECK
CHECKPOINT	SQL CHECKPOINT
CLOSE	SQL CLOSE
CLUSTERED	SQL CLUSTERED
COALESCE	SQL COALESCE
COLLATE	SQL COLLATE
COLLATION	SQL COLLATION
COLUMN	SQL COLUMN
COMMIT	SQL COMMIT
COMMITTED	SQL COMMITTED
COMPUTE	SQL COMPUTE
CONFIRM	SQL CONFIRM
CONNECT	SQL CONNECT
CONNECTION	SQL CONNECTION
CONSTRAINT	SQL CONSTRAINT
CONSTRAINTS	SQL CONSTRAINTS
CONTINUE	SQL CONTINUE

Maintenance Build Report

OSAS version 8.0 introduces online maintenance updates for ease of keeping your OSAS installation current. These updates add new features and enhance current features on a regular basis.

A record of the enhancements and fixes included with each maintenance update is kept in the maintenance update log. The Maintenance Build Report allows you to review the contents of the update log in an easy-to-read format.

Report Selection Screen

Open the Maintenance Build Report selection screen from the menu.

Inquiry

Maint

1. Enter or select applications to appear on the report from the Application ID **From** and **Thru** fields. Leave the fields blank to show all applications.
2. Enter a range of build numbers to show on the report in the Build ID **From** and **Thru** fields. Leave the fields blank to show all build numbers.
3. Enter a range of reference numbers to show on the report in the Reference ID **From** and **Thru** fields. Leave the fields blank to show all reference numbers.
4. Select how you would like the report to be sorted. Select sort options from the drop-down lists at the bottom of the screen. The order in which you select them will determine how the report is sorted.
5. Select the output device to produce the report. See “Reports” on page 1-25 for more information on output devices.
- 6.

Maintenance Build Report

Builders Supply Maintenance Build Report			
Application ID	File Name	Reference ID	Build Number
AP	APPRJ	9206	14106
AP	APPRJ1	9206	14106
AP	APPST	9206	14106
AP	APPST3	9206	14106
AP	APRESTRT.PUB	9206	14106
AP	APTAX	9206	14106
AP	APTAX1	9206	14106
AP	APAGE1	9251	14126
AP	APCNVT.800	9255	14126
AP	APCNVT.800	9255	14126
AP	APDTL.PRC	9255	14126
AP	APDTL.j	9255	14126
AP	APDTL1	9255	14126
AP	APENTHDR	9255	14126
AP	APPRJ	9233	14126
AP	APPRJ.PRC	9233	14126
AP	APPRJ.PRC	9233	14126
AP	APPRJ.j	9233	14126
AP	APPRJB.j	9233	14126
AP	APPROC.TXT	9233	14126
AP	APPRR	9242	14126
AP	APPRR.PRC	9242	14126

APPENDIX A

A

MMRG - v3.2 to v4.0 Conversion Assistance

The **MMRG** program is included in an archive zip file in the Software Development directory, but you cannot run it from the Software Development Utilities menu. Use this program to convert version 3.2 programs to the 4.00 level.

MMRG operates on a program loaded into the BBx workspace. The operations are related to conversion of OSAS 3.2 to 4.00.

You can unzip and then copy **MMRG**, along with the text files **3800**, **7900** and **SCROLL**, to the directory of the application you are converting. Make modifications to **MMRG** that will make your job easier. Here is a summary of the tasks that **MMRG** performs:

SETERR/SETESC

SETERR GENERERROR is inserted if **GENERERROR** is merged.
SETESC 9350; SETERR GENERERROR is inserted if **GENLOCK** is merged.

Copyrights

Enter **Y** at the copyright prompt to move the author line to line 11. **REM 0 - (COPYRIGHT) 15-25** is inserted at line 15.

Output Selection

Enter **Y** at the output selection prompt to merge file **3800**.

Box Routine

Enter **Y** at the box routine prompt to merge file **7900**.

Scroll Routine

Enter **Y** at the scroll routine prompt to merge file **SCROLL**.

GL Interface

Enter **Y** at the GL interface prompt to insert the **CALL "GLJRNL.PUB"...** statement. **MMRG** prompts for a line number for the **CALL** statement.

INDEX

IX

A

- Add/Change Reserved Words, 6-37
- adding
 - data dictionary field definitions, 6-17
 - data dictionary file definitions, 6-11
 - data dictionary indexes, 6-23
 - database configuration variables, 6-4
 - index segments, 6-24
 - reserved words, 6-37
 - variables to CONFIG.TPM file, 6-4
- Address Lookup, 1-18, 1-23
- address mapping, 1-18, 1-23
- addresses, 1-18, 1-23
- application data dictionary files, 6-5
- ARC files
 - auditing, 4-27
- Audit BBx Version Level, 4-15
- Audit Field Names for Reserved Words, 6-39
- Audit Graphical Resource Files, 4-27
- Audit Line Labels, 4-19
- Audit Program Remarks, 4-23
- Audit Program/Data File Names, 4-21
- Audit Programs, 4-9
- Audit Signature Lines, 4-17
- Audit Template Usage, 4-25
- Audit xxFILES.TXT, 4-13
- auditing
 - control property consistency, 4-27
 - CRC differences, 4-5
 - CRC numbers, 4-3
 - form property consistency, 4-27
 - program changes, 4-7

B

- BBx version level, 4-15
- BRC files
 - auditing, 4-27
- Browse, 1-18

C

- calculating CRC numbers, 4-3
- changing data dictionaries, 6-10
- checking
 - reserved word usage, 6-39
- cloud, 1-29
- codes
 - sorting, 1-26
- commands
 - flags, 1-22
 - hot keys, 1-22
 - Proceed (OK), 1-2
- comments in code, 4-23
- Compare CRCs, 4-5
- Compare Programs, 4-7
- CONFIG.TPM file
 - editing, 6-3
- conflicting program and file names, 4-21
- control properties
 - checking consistency, 4-27
- conversion assistance program, A-1
- conversion steps, 2-12
- Convert 4.5x+ xxHELP File to 5.0x+, 5-7
- Convert 4.5x+ xxWIND File to 5.0x+, 5-5, 5-11
- Convert 4.xx xxWIND File to 4.5x, 5-3
- Convert 7.0x xxDATA.yyy File to 7.5x, 5-9
- converting 4.5+ window definition files,

INDEX

- 5-5
 - converting 4.x window definition files, 5-3
 - converting 7.0 menu files, 5-11
 - converting 7.0x data files, 5-9
 - converting files, 2-12
 - converting help files to 5.0x+ format, 5-7
 - Copy Files to Dictionary, 6-7
 - copying
 - field definitions to a data dictionary, 6-7
 - file definitions to a data dictionary, 6-7
 - index definitions to a data dictionary, 6-7
 - CRC numbers, 4-3
 - Create Change Fields Files, 2-17
 - Create Data Dictionary, 6-5
 - Create Files from Data Dictionary, 6-35
 - Create GENERAL Data Dictionary Files, 2-2, 2-19, 2-21
 - Create Merge File, 3-17
 - Create xxCNVT File, 2-3, 2-9
 - Create xxCNVT.HDR File, 2-11
 - Create xxMB File, 2-13
 - Create/Update Template File, 6-33
 - creating
 - CONFIG.TPM files, 6-3
 - conversion header file, 2-11
 - data dictionary files, 6-5
 - data files from data dictionary, 6-35
 - database configuration files, 6-3
 - function key commands, 2-13
 - GENERAL Report Writer installation files, 2-19
 - installation files, 2-3, 2-9
 - special keystroke commands, 2-13
 - Vkeyed file definitions, 3-11
 - xxCNVT file, 2-3, 2-9
 - xxCNVT.HDR file, 2-11
 - Custom Field Maintenance, 3-3
- D**
- data dictionary field definitions, 6-17
 - data types, 6-18
 - updating, 6-19
 - data dictionary file definitions, 6-11
 - types, 6-12
 - data dictionary files
 - application files, 6-5
 - creating, 6-5
 - data dictionary indexes
 - adding, 6-23
 - editing, 6-23
 - segments, 6-24
 - Data Dictionary menu, 6-1
 - Data File Information, 3-5
 - List, 3-9
 - data file keys, 6-21
 - data files
 - converting to 7.5x format, 5-9
 - database configuration file
 - adding variables, 6-4
 - creating, 6-3
 - editing variables, 6-4
 - variables, 6-3
 - date fields, 1-17
 - Define Vkeyed Files, 3-11
 - defining
 - keys in Mkeyed data files, 6-21
 - views, 6-9
- E**
- Edit CONFIG.TPM, 6-3
 - Edit Data File Contents, 3-13
 - editing
 - CONFIG.TPM variables, 6-4
 - data dictionary field definitions, 6-17
 - data dictionary file definitions, 6-11
 - data dictionary indexes, 6-23
 - database configuration file variables, 6-4
 - index segments, 6-24
 - reserved words, 6-37
 - string template file records, 3-13
 - e-mail
 - e-mailing reports, 1-31
- F**
- F2 Inquiry
 - button, 1-18
 - flag, 1-23
 - F6 Maintenance

- flag, 1-23
- icon, 1-18
- field definitions, 6-17
 - data types, 6-18
 - updating, 6-19
- field names
 - verifying consistency, 6-31
- Field/File Cross-Reference List, 6-31
- Fields function, 6-15
 - updating all changed fields, 6-19
- file conversion steps, 2-12
- file definitions, 6-11
 - types, 6-12
- File Layouts function, 6-27
- File List Editor, 1-4
- file names
 - conflicting, 4-21
- Files function, 6-9
- flags, in text mode, 1-22
- form properties
 - checking consistency, 4-27
- from/thru ranges, 1-25

G

- GEN4MST.xxD file, 2-19
- GEN4MST.xxR, 2-19
- GEN6MST file, 2-19
- Google Docs, 1-29
- graphical mode
 - drop-down menus, 1-15
 - function screens, 1-14
 - graphical main menu, 1-12
 - Inquiry button, 1-18
 - Maintenance icon, 1-18
 - MDI menu, 1-13
 - shortcut menu, 1-15
 - toolbars, 1-17
- graphical resource files, 4-27

H

- help files
 - converting to 5.0x+ format, 5-7
- hot keys, 1-22

I

- indexes
 - adding, 6-23
 - adding segments, 6-24
 - editing, 6-23
 - editing segments, 6-24
 - segments, 6-23
- Indexes function, 6-21
- Inquiry (F2)
 - button, 1-18
 - flag, 1-23
- installation files, 2-3, 2-9
- invalid string template variables, 4-25

K

- keys, 6-21

L

- launching
 - OSAS in other operating systems, 1-7
 - OSAS in Windows, 1-7
- line labels
 - missing or unused, 4-19
- Lists
 - Data File Information, 3-9
 - Data File Information List, 3-10
 - Print CRCs List, 4-4
 - Reserved Words List, 6-42

M

- main menu
 - graphical, 1-12
 - MDI, 1-13
 - navigating graphical, 1-12
 - navigating MDI, 1-13
 - navigating text, 1-19
 - text, 1-19
 - toolbars, 1-17
- maintaining
 - data file information, 6-9
- maintaining system tables

INDEX

OUTPUT, 2-23
SDEXTyyy table, 2-23
Maintenance (F6)
 flag, 1-23
 icon, 1-18
mapping, 1-18, 1-23
menu files
 converting to 7.5x format, 5-11
menus
 drop-down menus, 1-15
 graphical main menu, 1-12
 MDI, 1-13
 shortcut, 1-15
 text main menu, 1-19
Merge Data Files, 3-15
merging files, 3-15, 3-17
messages
 in text mode, 1-23
missing line labels, 4-19
MMRG program, A-1
modes
 graphical, 1-11
 text, 1-19

N

navigating
 graphical function screens, 1-14
 graphical main menu, 1-12
 MDI menu, 1-13
 text function screens, 1-21
 text main menu, 1-19
 to directories and files, 1-18

O

OSAS
 MDI menu, 1-13
 modes, 1-11
 graphical, 1-11
 text, 1-19
 starting in other operating systems, 1-7
 starting in Windows, 1-7
OSCNVT file, 2-9
OSCNVT.HDR file

 conversion steps, 2-12
 Move Files setting, 2-12
OSFD file, 2-17
OSFH file, 2-17
OSMB File, 2-13
OSTPL file, 4-25, 6-33
output device
 e-mail, 1-31
 preview, 1-28
 printer, 1-28
 screen, 1-33
OUTPUT table, 2-23, 6-27

P

Print CRCs, 4-3
Proceed (OK) command, 1-2
program names
 conflicting, 4-21

R

ranges
 in reports, 1-25
REM statements, 4-23
remarks, 4-23
Reports
 Audit BBx Version Level Report, 4-16
 Audit Field Names for Reserved Words, 6-40
 Audit Graphical Resource Files Report - Controls, 4-30
 Audit Graphical Resource Files Report - Forms, 4-29
 Audit Line Labels Report, 4-20
 Audit Program Remarks Report, 4-24
 Audit Programs Report, 4-11
 Audit Programs/Data File Names, 4-22
 Audit Resource File properties columns, 4-28
 Audit Signature Lines Report, 4-18
 Audit Template Usage Report, 4-26
 Audit xxFILES.TXT Report, 4-14
 Compare CRCs Report, 4-6
 Compare Programs Report, 4-8
 File Layouts Report, pg 1, 6-29
 File Layouts Report, pg 2, 6-31

reports

- e-mailing, 1-31
- formatting, 1-33
- including information, 1-25
- previewing, 1-28
- printing, 1-28
- ranges, 1-25
- selecting information, 1-25
- sorting information, 1-26
- viewing on screen, 1-33

reserved words, 6-37

- adding, 6-37
- checking for in files, 6-39
- editing, 6-37
- list, 6-41

right-click menu *See* shortcut menu, 1-15

S

save online, 1-29

scanning programs for standards violations, 4-9

screens

- graphical function, 1-14
- graphical main menu, 1-12
- navigating graphical, 1-14
- navigating text function, 1-21
- OSAS MDI menu, 1-13
- text function, 1-20
- text main menu, 1-19

SDEXTyyy table, 2-23

setting File Layout margins, 2-23

shortcut menu, 1-15

signature lines, 4-17

Software Audit menu, 4-1

Software Developer's Kit, 1-3

standards violations, 4-9

starting

OSAS

- in other operating systems, 1-7
- in Windows, 1-7

string template file records

- editing, 3-13

System File Conversion menu, 5-1

System File Maintenance menu, 2-1, 3-1

T

Tables, 2-23

text mode

- command line, 1-23
- commands, 1-22
- flags, 1-22
- function screens, 1-20
- main menu, 1-19
- messages, 1-23

toolbars, 1-17

- function screens, 1-17
- main menu, 1-17

U

updating

- application string template file, 6-33
- data file information, 3-5
- master string template file, 6-33
- OSTPL file, 6-33
- xx.TPL file, 6-33
- xxDATA.yyy file, 3-5

unused line labels, 4-19

V

verifying

- field names, 6-31
- signature lines, 4-17

viewing

- ARC file contents, 4-27
- BRC file contents, 4-27
- data file information, 3-9
- file layouts, 6-27
- graphical resource file contents, 4-27
- reserved words, 6-41
- xxDATA.yyy file information, 3-9

views, 6-9

- adding or editing, 6-13
- View Information screen, 6-13

Vkeyed Files

- defining, 3-11

INDEX

W

WHERE clause, 6-13
window definition files
 converting to 4.5x format, 5-3
 converting to 5.0x format, 5-5
workstation date, 1-9

X

xx.TPL file, 6-33
xxCNVT file, 2-3, 2-9
xxCNVT.HDR file, 2-11
xxDATA.yyy file, 3-5
 creating new files from data dictionary, 6-35
 listing contents, 3-9
xxFD file, 2-17
xxFH file, 2-17
xxFILES.TXT, 4-13
xxHELP file
 converting to 5.0x+ format, 5-7
xxMB File, 2-13
xxWIND file
 converting from 4.xx to 4.5x+, 5-3
 converting to 5.0x+, 5-5

Y

Y\$ commands, 2-13
Y\$ variable, 2-13