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1 Overview
Overview to World Writer

About World Writer

World Writer is JD Edwards World’s general report writing tool for the IBM iSeries. This flexible tool consists of a series of easy-to-use setup screens that create parameters for an IBM Structured Query Language (SQL) statement. You can design a brand new report that meets your specific needs, or you can copy an existing report and modify it to fulfill your requirements. Each time a World Writer version is submitted, up-to-date information is retrieved from the iSeries and displayed on the report.

World Writer is designed to let you retrieve and format data stored on the iSeries into reports that you design. You do not need to know a programming language to work with World Writer. However, World Writer is a powerful tool. It can seem complicated until you become familiar with all the features and functions that make World Writer perform.

This section contains the following:

- Comparing World Writer, DREAM Writer, FASTR, and STAR
- Creating and Modifying Versions
- Runtime Programs
- Data Files

What You Should Know About

Using up to 32 different files

You can include up to 32 different files when designing your World Writer version. The file or files you choose can be JD Edwards World or non-JD Edwards World files. If these files are on your iSeries, they already comply with IBM’s standards and are available for you to use.

Selecting fields and determining use

- Sequence fields to be printed as columns on the report in the order you determine.
- Select the data through the use of standard Boolean Logic.
- Sort and group the data to make viewing the information easier.
- Specify totaling functions such as: summary, average, minimum, maximum, or count.
- Create both detail and summary reports.
| **Efficient handling of numeric data** | World Writer uses Data Dictionary to automatically display numerical data on your report. Formatting includes decimal position, use of commas and negative signs. You can modify these types of information on the report as well as determine if the data should be rounded. Dates stored as Julian in the file appear in the Gregorian format on the output. Further formatting for MDY and separator character is recognized from System defaults or User Preferences. |
| **Automatic descriptions** | Data Dictionary helps when developing column titles. Many times the fields you want on your report are already appropriately named and these names are preloaded for you on your report. This speeds your design time dramatically. |
| **Presumptive join fields** | World Writer automatically links associated descriptions or information attached to a field in your report. This feature allows you to include more meaningful information on your report than just a code or number. User Defined Codes as well as Address Number, Business Unit, and Company Number are examples of fields that have presumptive joins. |
| **Calculated fields** | Create new fields by performing calculations using other fields or literal values. Calculated fields can be printed, used to select data, and used for sorting and totaling purposes. |
| **Levels of security** | World Writer provides five levels of security: |
| | 1. Business Unit |
| | 2. User Exclusive |
| | 3. Group Level |
| | 4. File/Field Level |
| | 5. IBM Object Authority |
| **Ease of learning** | World Writer is similar to DREAM Writer and FASTR. Being familiar with DREAM Writer makes learning World Writer easier but is by no means a prerequisite. You will find that, once you grasp the basic concepts of designing a report, World Writer becomes both a functional and productive tool. |
| | JD Edwards World supplies prototypes of reports. You can often copy an existing report and customize it to your needs. These prototypes give you a head start with designing your own reports. |
| **Previewing reports online** | As you create your World Writer report, you can preview the layout on your workstation. This allows you to check format, column titles, spelling, spacing, and other report elements while designing your report. |
| **Creating physical files** | World Writer has the ability to create a physical file that resides in a library on the iSeries. The file can be used in another World Writer report, in a program, or downloaded to the PC for use in PC applications such as Excel. |
| **Updating fields in a file** | Use World Writer to update a field in a file. This is a powerful |
Comparing World Writer, DREAM Writer, FASTR, and STAR

JD Edwards World software provides several report creating tools. All are easy-to-use, with some common functionality and some unique features.

- World Writer is a general-purpose report writer that can be used with any file(s) on the iSeries. You determine the purpose of the report and design it either from the beginning or by copying and modifying an existing version.
- DREAM Writer is a data extraction tool, used within all systems of the software. Versions are predefined for specific purposes.
- FASTR is designed to retrieve data from the General Accounting system in a spreadsheet format.
- STAR uses data from either the Fixed Asset or Plant Management system.

This chart compares the set up screens for each report writer:

<table>
<thead>
<tr>
<th>World Writer</th>
<th>DREAM Writer</th>
<th>FASTR</th>
<th>STAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version Title &amp; Files</td>
<td>Version Identification</td>
<td>Version Identification</td>
<td>Version Identification</td>
</tr>
<tr>
<td>File Join Relations</td>
<td>Additional Parameters</td>
<td>Additional Parameters</td>
<td>Additional Parameters</td>
</tr>
<tr>
<td>Additional Parameters</td>
<td>Processing Options</td>
<td>Override Default Information</td>
<td>Override Default Information</td>
</tr>
<tr>
<td>Field Selection List</td>
<td>Data Selection</td>
<td>General Specifications</td>
<td>General Specifications</td>
</tr>
<tr>
<td>Output Field Specifications</td>
<td>Data Sequence</td>
<td>Column Specifications</td>
<td>Column Specifications</td>
</tr>
<tr>
<td>Data Selection</td>
<td>Printer File Overrides</td>
<td>Row Specifications</td>
<td>Conditioned Variance Reports</td>
</tr>
<tr>
<td>Data Sort &amp; Totaling</td>
<td></td>
<td>Cell Specifications</td>
<td>Journal Entry Specifications</td>
</tr>
<tr>
<td>Summary Functions</td>
<td>Override Rows/Columns</td>
<td></td>
<td>PC Download Processing Options</td>
</tr>
<tr>
<td>Printer File Overrides</td>
<td>Conditioned Variance Reports</td>
<td></td>
<td>Printer File Overrides</td>
</tr>
<tr>
<td>Batch PC Export</td>
<td></td>
<td>Journal Entry Specifications</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work File Save</td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>World Writer</td>
<td>DREAM Writer</td>
<td>FASTR</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------</td>
</tr>
<tr>
<td>Files</td>
<td>Any, up to 32</td>
<td>Predefined</td>
<td>F0901</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>F0902</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>F0006</td>
</tr>
<tr>
<td>Report Layout</td>
<td>Columns,</td>
<td>Predefined,</td>
<td>Columns,</td>
</tr>
<tr>
<td></td>
<td>Break Level</td>
<td>fixed</td>
<td>rows,</td>
</tr>
<tr>
<td></td>
<td>functions</td>
<td></td>
<td>cells</td>
</tr>
<tr>
<td>Selection &amp;</td>
<td>Separate</td>
<td>Separate</td>
<td>Combined</td>
</tr>
<tr>
<td>Sequence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC Download</td>
<td>Yes – Batch</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>PC Export</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Update</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>File Create</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### Creating and Modifying Versions

The creation and modification of a World Writer version populates the World Writer files. A SQL statement is also built during this process. When a version is submitted and becomes active in the job queue, the SQL statement is used to select the files and fields, and retrieve and sort the records. The World Writer files format the resulting report details or physical file.

### World Writer Master Menu

The World Writer master menu organizes versions by system or application.
Versions List

The Versions List allows you to:

- Create a new report.
- Copy an existing report.
- Change an existing report.
- Submit a version for processing.
**Version Title & Files**

Use Versions Title & files to assign a Version Name and Title, Report Title, and to specify the files to use in the query.
File Relations

If two or more files are selected, the link between the files must be described. The following examples illustrate two methods to do this:

**File Relations – Match Fields**

*Image of File Relations – Match Fields screen*

**File Relations – Enter Fields**

*Image of File Relations – Enter Fields screen*
**Additional Parameters**

The following screen example shows default information and how to process the query at run time.

![Additional Parameters Screen](image1)

**Field Selection List**

The Field Selection List screen is used to establish printing, selection, total levels and summary functions to create a “tag list” that simplifies the remaining steps.

![Field Selection List Screen](image2)
**Output Field Specifications Field Selection List**

Output Field Specifications is where you create most of the report design and layout. It is also the starting point for creating a calculated field.
Data Selection

You select the data that you want to appear on the report. If you do not enter anything here, all records from the files are included.

Data Sort & Totaling

Use Data Sort & Totaling to set up how to sort and group the report data.

Total Level Summary Functions
Access the Summary Functions screen from the Data Sort & Totaling screen. You can specify up to five summary functions per total level.

Printer File Overrides

Set up standard IBM printing specifications on this screen.
Runtime Programs

When a version is submitted, these are the main programs used by World Writer to process the version specifications:

- P82001 – World Writer uses this program at runtime to create a report based on the setup specifications of the query version.
- P82151 – World Writer uses this program at runtime to create a database file based on the setup specifications of the query version.

Data Files

<table>
<thead>
<tr>
<th>Data File</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F82000LA</td>
<td>Query Fields by File ID</td>
</tr>
<tr>
<td>F8201</td>
<td>Query Group Security File</td>
</tr>
<tr>
<td>F82013</td>
<td>Multi-currency File</td>
</tr>
<tr>
<td>F82100</td>
<td>Query Header File</td>
</tr>
<tr>
<td>F82100E</td>
<td>Query Header File – Prompt for Data Selection</td>
</tr>
<tr>
<td>F82101</td>
<td>Query Data File Selections</td>
</tr>
<tr>
<td>F82102</td>
<td>Query Data File Join Fields</td>
</tr>
<tr>
<td>F82103</td>
<td>Query Output Print Fields</td>
</tr>
<tr>
<td>F82104</td>
<td>Query Output Print Field Calculations</td>
</tr>
<tr>
<td>F82105</td>
<td>Query Data Selection Fields</td>
</tr>
<tr>
<td>F82106</td>
<td>Query Data Selection Values</td>
</tr>
<tr>
<td>F82107</td>
<td>Query Sort Fields</td>
</tr>
<tr>
<td>F82108</td>
<td>Query Field Summary Functions</td>
</tr>
<tr>
<td>F82109</td>
<td>Query File Update Specification</td>
</tr>
<tr>
<td>F9401</td>
<td>File/Field Level Security</td>
</tr>
</tbody>
</table>
2 Basic Functions
About the World Writer Menu

The World Writer menu organizes versions by system or application. Each menu selection represents a group or list of versions.

JD Edwards World sends you predefined reports, or “DEMO” versions, that you can preview before creating your own reports. In some cases, you can copy and modify an existing version to suit your needs.

To determine what group in which to create a version, think about the data that your version will contain. If you are creating a report with employees’ information, you may want to place it under the Payroll or Human Resources group. Reports dealing with the financial system would be created in the General Ledger or Financial Planning group. Your organization may have standards regarding the placement of versions. You can also create custom groups with your own naming conventions.

To begin the process of creating a version, take the menu selection where you want your version to reside. Regardless of which selection you take, you will be presented with the Versions List. The Versions List is the starting point in designing and maintaining queries.
You can access the World Writer menu in any of three ways:

- Selection 24 from the Master Directory (G)
- Menu travel to menu G82
- Fast Path WW
About the World Writer Versions List

The World Writer Versions List is similar to the DREAM Writer Versions List in several ways:

- Many of the same options and functions
- The version name is 10 characters and user-defined
- Versions are listed alphabetically by name
- The version description is the longer explanation of the version name
- The version is identified by the user who either created the version or who last modified it
- The version date is the date the version was either last changed or last executed. Use F2 to toggle between the two dates.

Each World Writer version is unique and not a variation of a predefined template as in DREAM Writer.

The Versions List is the starting point in designing and maintaining queries.

When you make a menu selection from the World Writer Menu, G82, the system displays the Versions List. Regardless of which selection you make, the functions of the Versions List are identical.

The fields at the top of the screen can be used to search for specific versions:

- Group – Used to relate and list similar versions; can be attached to a menu selection
- User ID – Displays the ID for the user who created or last modified the version.
- File ID – Searches for queries using a specific file

You use one or more of the Group, User ID and File IDs to narrow the list of versions, or use:

- Skip to Version - Enter the first few characters of the version name to jump to that location in the list of versions.

Options

1 – Run, submit the version for processing
2BWorld Writer Versions List

2 – Change an existing version
3 – Add a new version or copy an existing version
4 – Specify report distribution
5 – View cover page outline
6 – Access printer file overrides
7 – Display SQL statement
9 – Delete a version

Function Keys

You can use function keys to do the following:

- F2 - Toggle Change/Execution Date column

To add a new version

Follow these steps to create a new version that is not based on an existing version.

On the Versions List screen (for any program)

1. Locate the first blank line after the last version, paging down if necessary.
2. Enter 3 (Add/Copy Query) in the following field:
   - OP

The set up screens display in order.
3. Complete each screen, as needed, to create the version.

**To revise an existing version**

When you revise a version and make changes to any of the setup screens, the existing version is modified. These steps can also be used to review any of the version specifications.

On the Versions List screen

1. Locate the version.
2. Enter 2 (Change Query) in the following field:
   - OP

   The Selective Change Prompt window displays.

3. Enter 1 next to any of the set up screens to review or change the screen.

**To copy an existing version**

When you copy an existing version, you are adding a new version, based on the specifications of another version. The original version is not modified.

On the Versions List screen

1. Locate the version.
2. Enter (Add/Copy Query) in the following field:
   - OP

   The Query Version Copy Window displays.
3. Change the Version Title, if needed.
4. Press Enter to assign the New Version name, and return to the Versions List screen.
5. To review or modify any of the setup screens, access the Selective Change Prompt window.

**Note:** Unlike DREAM Writer, there are no recursive versions in World Writer. Utilize Add/Copy to create unique versions.

The following table compares the characteristics of the Revise and Copy functions:

<table>
<thead>
<tr>
<th>Revise</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 2 - Change Query</td>
<td>Option 3 - Add/Copy Query</td>
</tr>
<tr>
<td>Same Version Name</td>
<td>Same &amp; New Version Names - 2 versions</td>
</tr>
<tr>
<td>Original version is modified</td>
<td>Original version not modified and new version created</td>
</tr>
<tr>
<td>Choose only setup screens needed</td>
<td>Choose only setup screens needed</td>
</tr>
</tbody>
</table>

**To delete a version**

When you delete a version, it cannot be retrieved. However, you are given a chance to cancel the deletion.

On the Versions List screen

1. Locate the version.
2. Enter 9 (Delete/Cancel) in the following field:
   - OP

   The system displays the Confirm Record Deletion window.
3. Do one of the following:
   - Choose F6 to delete the version.
   - Choose F3 to cancel the delete process.

To print a distribution list

On the Versions List screen
1. Locate the version.
2. Enter 4 (Distribution List) in the following field:
   - OP
3. On Query Distribution List, enter the users who should receive this report.
   There are a total of 45 blank spaces to enter user information such as name, phone, email, and office location.
   This information prints as part of the Cover Page. To specify to print the cover page, see Additional Parameters.

**Note:** An entry made on this screen does not affect the number of copies of the report that will print. This can be specified on Printer File Overrides.
To display the version cover page

The set up specifications for a version is known as the Cover Page. The layout of the cover page is similar but not exactly the same as the set up screen layouts. This is a quick way to view the information about a version.

On the Versions List screen

1. Locate the version.
2. Enter 5 (Display Cover Page) in the following field:
   - OP
3. Use the Page Up/Page Down functions to scroll through all of the pages of information.

To print the version cover page

Use any of the following methods to print the cover page:

1. On the cover page, capture screen prints of all of the pages.
2. On Additional Parameters, enter Y in the Print Cover Page field. The cover page prints before the report.

**Note:** If outputting to a physical file, the cover page does not print, regardless of the value in this field.

3. Call the program from a long JD Edwards World command line. The program requires two parameters:
To display the SQL statement

SQL is used to retrieve files and fields and to select and sort the data. Business Unit Security ranges for a user are built into the SQL statement. Numeric fields are formatted for proper decimal precision.

It is not necessary to understand SQL to work with World Writer. However, if you are familiar with SQL, this can be a helpful tool for troubleshooting.

On the Versions List screen

1. Choose the version.
2. Enter 7 (Display SQL statement) in the following field:
   - OP

3. Use the Page Up/Page Down functions to scroll through all of the pages of information.

**Note:** You cannot modify the SQL statement directly. Making changes through the set up screens will change the SQL statement.
Find Files and Fields

Finding Files and Fields

When working with World Writer, you will need at least one database file where the information resides. Before creating a version, you will want to know what fields contain the information you are interested in for printing, selecting records and sorting the data.

When you design a report, think about how the report should look and consider the following:

- Will some fields wrap to the next line?
- Should there be a break between groups of similar records?
- Is totaling to be performed on any fields?

It may help to design the report on paper first, so you have a general idea of what functions and features of World Writer you will need to perform during the setup process.

Similarly, if modifying or copying a version you may need additional files and fields to complete your version.

Determining What Files to Use

If you are familiar with the application you are creating a version for, you may already know what files you need. If not, there are some tools and tips for determining which file and fields to use.

To determine what file is being used by a specific screen

1. From the screen where you see information you need for the report, access the System Request menu.
2. Choose Display Current Job, and then Display Open Files.
3. The first files listed are security and menu files. Page down past these files until the applications file are shown.

Caution: The above method is not always reliable since some files are accessed through server files and will not be listed.
To determine what file contains a specific data item

1. On any screen, place the cursor on a field and press F1 (Field Sensitive Help).

   **Note:** The item name of the field displays in the upper right corner of the screen. In some cases, the data item is not shown, but can be found by choosing Functions, then Glossary.

2. On Data Dictionary, inquire on this data item.
4. Change the P to F in the following field:
   - To Display
   The system displays a list of all the files where the data item resides.

To determine what fields are contained in a specific file

1. On a menu command line, enter 40.
2. Enter the name of the file in the following field:
   - File ID
   The system lists the fields in the order they appear in the file.
3. Toggle to alphabetical order by choosing Functions, then Sort Order Switch.
4. To obtain a list of fields in a file, go to menu G91.
5. Choose 9 to run DREAM Writer P98DDSP.

Version Layout Worksheet

After you determine what files and fields are needed and how they will be used, you may want to write down this information before actually creating the version. A worksheet can help in designing version specifications. The worksheet can be referenced during the set up process.

You can use the following worksheet sample to create a report that lists the employee number and name, annual salary and date started. The system selects records from the file where the pay class field is equal to ‘S’ for salaried employees. The data is then sorted first by date started, and then by employee name. There will be a grand total for the annual salary.
### File Name | Field Description | Field Name in File | Print | Select On | Sort By | Totals for | Total Type
--- | --- | --- | --- | --- | --- | --- | ---
F060116 | Employee Number | YAAN8 | X | | | | |
F060116 | Employee Name | YAALPH | X | | X | | |
F060116 | Annual Salary | YASAL | X | | X | Sum | |
F060116 | Date Started | YADST | X | | X | | |
F060116 | Pay Class | YASALY | X | | | | |

A blank worksheet is provided to assist with designing and creating your World Writer versions.

### Version Layout Worksheet

<table>
<thead>
<tr>
<th>File Name</th>
<th>Field Description</th>
<th>Field Name in File</th>
<th>Print</th>
<th>Select On</th>
<th>Sort By</th>
<th>Totals For</th>
<th>Total Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</tr>
</tbody>
</table>

About World Writer Setup

World Writer consists of a series of setup screens used to enter the version specifications.

If you are creating a brand new version, the setup screens are presented in the order that they should be completed.

If you are modifying or copying an existing version, the Selective Change Prompt window is presented and you can choose only those screens that need changing or reviewing.

As you go through the setup screens, press Enter to capture your changes and review the screen. If you make more changes, press Enter again to update with the changes. When you are ready for the next step, press Enter once again to advance to the next screen.

This chapter contains the following:

- Assigning Version Titles and Files
- Understanding Joining Files
- Using File Relations – Match Fields
- Using File Relations – Enter Fields
- Using Additional Parameters
- Using Field Selection
- Using Output Field Specifications
- Using Field Detail Specifications
- Creating Calculated Fields
- Using Data Selection
- Using Data Sort & Totaling
- Using Total Level Summary Functions
- Using Report Layout Display
- Using Printer File Overrides

Assigning Version Titles and Files

Use Version Titles & Files to assign the version name and title, the report title and to specify the files to be used in the query.
<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>You cannot enter information into this field. The Group ID defaults from either the Versions List or from the version that was copied.</td>
</tr>
<tr>
<td>Version</td>
<td>A ten-character code identifying an individual query within a given query group (see QRYG). It is similar in function to DREAM Writer’s Screen ID, but in World Writer this field is user-defined.</td>
</tr>
<tr>
<td>Version Title</td>
<td>A description that further describes the nature of the query. Both the Version and Title also display on the Versions List. The version title is different from the report title.</td>
</tr>
<tr>
<td>Report Title</td>
<td>The title that displays at the top of the report. It can include up to three lines with 40 characters each. The lines are automatically centered on the report. After you enter the Version and Report Title, press Enter and specify file names.</td>
</tr>
<tr>
<td>File Name</td>
<td>The name of a database file from which data is retrieved for the version. The first file listed is considered the primary file.</td>
</tr>
<tr>
<td>Description</td>
<td>You cannot enter information into this field. The file name displays after you press Enter.</td>
</tr>
</tbody>
</table>

**Note:** Press F4 to display more details in the fold area.
### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library</td>
<td>The name of the library that contains the specified query file. Defaults to &quot;LIBL.&quot;</td>
</tr>
<tr>
<td>Member</td>
<td>The name of the file member to use for the version. You can select only one member. The default is to query the first (*FIRST) member in the file. Most data files contain only one member.</td>
</tr>
<tr>
<td>File ID</td>
<td>Identifies all the fields in a file if more than one file is selected in a query. In the case of duplicate field names in two or more files, the file ID is used to determine which occurrence of the field is being referred. The query program automatically assigns file IDs sequentially.</td>
</tr>
<tr>
<td>JD Edwards World</td>
<td>Indicates whether a file follows the JD Edwards World standards for field naming. The default is Y. This assumes that all the fields exist in Data Dictionary. If N is specified World Writer uses the external File Field Descriptions.</td>
</tr>
</tbody>
</table>

### Options

9 - Deletes a previously selected file.

### Function Keys

F5 – Exit to Printer Overrides
F8 - Exit to the File Relations Join Criteria screen; only available when two or more files are indicated.

Understanding Joining Files

A file join allows files that share common elements to be connected so that data from two or more files can be used. The files are joined by defining the relationship between one or more fields in each file.

When files are joined, the system compares each record in one file to each record in the other file(s). The records are tested against the join and data selection criteria. If the record passes the test, it will appear on the output.

Joining

World Writer retrieves records where “Matching” records are found in each file, based on the joined fields.

The types of joins to obtain either “Matched with Primary file” or “Unmatched with Primary file” are not available with World Writer.

Typically, matching field names from each file are joined. For example: The join between F060116 and F0101 is the Address Book Number field, AN8. If an Address Book Number exists in F0101 but there is no matching number in F060116, then that number does not appear in the output.

Indirect Join

Occasionally, you may need data from two files that do not have like fields. You may need a third file that has fields common with both.

For example, there may be no direct join fields between F0101 and F0016 (Generic Text). F00163 (Generic Text Key Index) has fields common to F0101 and F0016. Even though no fields from F00163 are being used elsewhere in the report setup, F00163 must be included for the purpose of joining the other two files.

Soft Join

The World Writer File Join screen allows fields with the same data type to be joined, such as alpha to alpha and numeric to numeric. In some instances, you may need to perform a Soft Join. This is joining two files that have like data in fields but one field is alpha and the other field is numeric.

For example, you may join the Address Book Number (AN8), a numeric field, to the Subledger field (SBL), an alpha field.

See Appendix B for the Soft Join procedure.

Guidelines

The following list details some helpful guidelines and information:

- Only join files when necessary. World Writer’s presumptive join feature might provide the fields you need.
Look for a joined logical file. The join criteria are predefined and eliminate the need to include more than one file.
Example: F0101JC is a joined logical file using F0101, F0116 and F0401. Join fields that contain identical data.
See Appendix A for a list of joined logical files available for use in World Writer.

The most effective way to join files is by the fields that are unique keys to the files. One way to find the unique keys is by viewing the file through Hidden Selection 40. Key fields are noted with K01, K02 etc. between the file field name and the description. If no keys are shown in HS 40, view a logical file, such as F4211LA.

At least one field must be joined and some files will require more than one field to be joined to achieve a one-to-one relationship.

There are two direct join methods:

- File Relations – Match Fields
- File Relations – Enter Fields.

These screens are only available when two or more files have been specified on Version Title & Files.

**Using File Relations – Match Fields**

This screen allows you to search for matching fields in each file and assign matching sequence numbers to complete the join.

This screen is only available when two or more files are listed on Version Title & Files.

The screen is split into two sections:

- Fields from the first file are listed on the top half of the screen.
- Fields from the second file display on the bottom half of the screen.

To view all the fields, position the cursor in the appropriate portion of screen and use page down or roll.
4BWorld Writer Setup

Field Explanation

From File To File The names of the database files specified on the Version Title & Files screen.

Description The field description. If displayed in order of field name, the name of the field is appended after the description. See Function Key F14.

Seq Links the sequenced field in the first file to the field with the same sequence number in the second file. Use 1, 2, and so on, for each field needed in sequence.

Relation Describes the test to perform between two fields. This should always be EQ (equal), which is the default.

Function Keys

F6 – Display the next file on the top or bottom half of the screen, based on the cursor position.

F8 – Exit to File Relations – Enter Fields. A fast path method of specifying the join relations.

F14 – Toggle between the three different sort options for fields on the screen: Field position, field name, and field description. File affected is based on cursor position.
Using File Relations – Enter Fields

If the field data item names are known, use this screen to enter the matching fields. This is a short-cut method.

This screen is also a good place to review the join criteria for all files.

**Note:** This screen is only available when two or more files are listed on Version Title & Files.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Field</td>
<td>The name of the data field from one of the specified files. If possible, start with a field from the 1st file.</td>
</tr>
<tr>
<td>File ID</td>
<td>The file ID associated with the From Field. You may skip this field. When enter is pressed, the program will locate the first File ID found that matches the From Field name and populate this field. If identical field names exist in the files, you should determine the correct File ID and enter it.</td>
</tr>
<tr>
<td>Relation</td>
<td>The system displays a default value of EQ. Leave this default.</td>
</tr>
<tr>
<td>To Field</td>
<td>The name of the data field from another file to link to the From Field. The From and To Fields should have identical data and must have the same characteristics, i.e. alpha vs. numeric.</td>
</tr>
</tbody>
</table>
Field ID

The file ID associated with the To Field. You may skip this field. When enter is pressed, the program will locate the first File ID found that matches the From Field name and populate this field. If identical field names exist in the files, you should determine the correct File ID and enter it.

Function Keys

F8 – Exit to File Relations – Match Fields.

Using Additional Parameters

Use the Additional Parameters screen to group together many of the options for processing the query at runtime, such as:

- Default column and line spacing
- Prompt for data selection
- Detail or Totals Only report
- Report or output to a file
- Batch and job queue overrides
<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Exclusive (0/1/2/3)</td>
<td>Allows you to restrict user access for a report version. For JD Edwards World, the valid values are:</td>
</tr>
<tr>
<td></td>
<td>0   No security. Anyone can change, copy, delete, or run the version. This is the default when adding a new version.</td>
</tr>
<tr>
<td></td>
<td>1   Medium security. Only the “last modified by” user can change or delete the version. Anyone can copy or run the version. This is how the JD Edwards World DEMO versions are delivered.</td>
</tr>
<tr>
<td></td>
<td>2   Medium-to-full security. Only the “last modified by” user can change, delete, or run the version. Anyone can copy the version.</td>
</tr>
<tr>
<td></td>
<td>3   Full security. Only the “last modified by” user can change, delete, copy, or run it.</td>
</tr>
<tr>
<td></td>
<td>4   Medium security – extended. Only the “last modified by” user can change or delete the version. Anyone can copy or run the version.</td>
</tr>
<tr>
<td>Print Cover Page (Y/N)</td>
<td>A code that controls whether to print the cover page for the version. The cover page shows setup criteria.</td>
</tr>
<tr>
<td></td>
<td>Y   Print cover page</td>
</tr>
<tr>
<td></td>
<td>N   Do not print cover page</td>
</tr>
<tr>
<td>Hold on Job Queue (Y/N)</td>
<td>A code used to indicate whether to hold the submitted job in the job queue. Values are:</td>
</tr>
<tr>
<td></td>
<td>Y   Hold in job queue</td>
</tr>
<tr>
<td></td>
<td>N   Job will process through the job queue</td>
</tr>
<tr>
<td>Batch Job Queue</td>
<td>The computer waiting line that particular job passes through. If blank, it defaults to the job queue specified in the user’s job description.</td>
</tr>
<tr>
<td>Prompt for Data Selections</td>
<td>A code that displays the Data Selection screen when a version is submitted. This allows users access to modify the record selection criteria without changing the basic structure of the version. This also ensures that record selection is reviewed and/or changed before the version is submitted.</td>
</tr>
<tr>
<td></td>
<td>Y   Display Data Selection at runtime.</td>
</tr>
<tr>
<td></td>
<td>N   Version is submitted without displaying Data Selection.</td>
</tr>
<tr>
<td>Query Detail (or Totals Only)</td>
<td>A code indicating whether to print detail lines on a report, or just the total lines.</td>
</tr>
<tr>
<td></td>
<td>D   Print detail and total lines</td>
</tr>
<tr>
<td></td>
<td>T   Print totals only</td>
</tr>
<tr>
<td>Field</td>
<td>Explanation</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Default Line Spacing</td>
<td>The number of lines to advance before printing the next detail line. When a print line is wrapped, the wrapped lines are all single-spaced. The number of lines to space before a total line can be changed when defining the total line on Data Sort &amp; Totaling.</td>
</tr>
<tr>
<td>Default Column Spacing</td>
<td>The number of blank spaces before the next column prints. The default spacing can be overridden on a field-by-field basis on Output Field Specifications.</td>
</tr>
<tr>
<td>Maximum Form Width</td>
<td>Indicates the width of the form on which the requested report is to be printed. The range of values is 1 through 378, with a default of 132. If the width of the report columns is greater than this number, either the remaining columns will wrap to the next line or be truncated, based on the Line Wrap setting (see below). Use the Report Layout F13 to view the results of changing this field.</td>
</tr>
<tr>
<td>Line Wrap (Y/N)</td>
<td>Allows line wrapping caused by selecting more output fields than will fit on a print line.</td>
</tr>
<tr>
<td>Y</td>
<td>If the width of the report columns is greater than the Maximum Form Width, then the remaining fields wrap to the next print line(s).</td>
</tr>
<tr>
<td>N</td>
<td>Line wrapping will not occur and remaining fields are truncated.</td>
</tr>
<tr>
<td>Note:</td>
<td>You must specify Y to print all Summary Functions.ian</td>
</tr>
<tr>
<td>One Line per Page (Y/N)</td>
<td>Prints each data record on a separate page when this option is set to Y.</td>
</tr>
<tr>
<td>Total Level Text in Header</td>
<td>Used with software that must detect a change in data in order to perform a function, usually involving a page skip. If this field is set to Y, the text from Total Level Hdr field in Data Sort &amp; Totaling will print above the column headings. Only one total level should contain Hdr text if this feature is in use.</td>
</tr>
<tr>
<td>Y</td>
<td>Y prints Total Header text above column headings. The default is No.</td>
</tr>
<tr>
<td>Maximum records to query</td>
<td>Indicates the maximum number of records to fetch from the database and print. Any selected records after this count are not output. The default value is *NOMAX (no maximum). The value specified will not exceed the number of records specified for the Create Physical File command (CRTPF) or maximum spooled output records for printer file QSYSQRT. Use this feature to verify the print format of a new query or when a sample of the data is desired.</td>
</tr>
</tbody>
</table>
### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print Queue</td>
<td>A designation of a specific print queue, such as QPRINT. If left blank, this field defaults to the print queue specified in your user profile.</td>
</tr>
</tbody>
</table>
| Output Media           | Destination of the version output. The following codes are valid:  
  P  | Printed Output  
  F  | Disk File  
  X  | Rydex Fax Output. Print output is routed to output queue QFAX for use with FAX/400 supported by IBM.                                        |
| Packed to Zoned        | Flag used to assist the user in preparing files that contain numeric data and are intended for transfer to a PC or other non AS/400 system. Enter a "1" to cause World Writer to convert all packed fields to zoned decimal when creating a file. This flag has no impact on reports. |
| Output File            | Name of the output file to be created. Specify F in the Output Media field. The file does not need to be created on the iSeries; it will be created for you when the version is submitted and completes normally. |
| Output Library         | The name of the output library where the file will be created. Specify F in the Output Media field. This library must already exist on the iSeries. |

### Function Keys

- **F6** - Exit to the Batch PC Export Parameters
- **F13** - Display Report Layout

### Using Field Selection

The Field Selection List indicates what fields to use for printing, data selection, sort, and total functions. This step serves as a type of scratch pad to select fields for subsequent steps. You can use the Version Layout Worksheet (see Finding Files and Fields) you completed when planning your report to help you on this screen.

All fields in each selected file are listed. Scroll Up and Down to view all the fields. If two or more files have been specified on the Version Title & Files screen, you can also use the Skip to File field to jump to a specific file.
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To select fields

On Field Selection List

1. Choose one of the following methods for selecting fields:
   - Enter X in the appropriate column or columns (Print, Select On, Sort By, and so on) to select the fields and their function.
   - Enter 1 in the Option field to select the field for Print, Select On and Sort By. The field will appear on all three setup screens, but can easily be removed if not needed.

   **Note:** This is the easier method, particularly if the exact specifications have not been pre-defined (n List-26\* screen-26°).

2. If creating a new version, review the fields “tagged” on the Field Selection List that display on each subsequent screen.

3. If modifying or copying a version, choose F15 on each subsequent screen to display the “tagged fields.”

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Represents the field text specified in the Data Dictionary.</td>
</tr>
<tr>
<td>Print</td>
<td>Displays on the Output Field Specifications screen. (V82104) when selected.</td>
</tr>
<tr>
<td>Select On</td>
<td>Displays on the Data Selection Screen (V82107) when selected.</td>
</tr>
<tr>
<td>Sort By</td>
<td>Displays on the Data Sort and Totaling Screen (V82108) when selected.</td>
</tr>
</tbody>
</table>
### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum</td>
<td>Sum or total the values in this field. This is only valid for numeric fields.</td>
</tr>
<tr>
<td>Avg</td>
<td>Calculates the average value of this field. This is only valid for numeric fields.</td>
</tr>
<tr>
<td>Min</td>
<td>The minimum or lowest value of this field. Negative numbers are considered lower than zero or any positive number. Character fields are compared according to the standard EBCDIC collating sequence.</td>
</tr>
<tr>
<td>Max</td>
<td>The maximum or highest value of this field. Negative numbers are considered lower than zero or any positive number. Character fields are compared according to the standard EBCDIC collating sequence.</td>
</tr>
<tr>
<td>Cnt</td>
<td>Count and print the number of records printed. In World Writer the count function is not a distinct count. This value will be the same no matter what field is selected.</td>
</tr>
</tbody>
</table>

**Field Name**
The data item name of the field.

---

**Caution:** The Field Selection list is valid only for the current session. Once you complete setup steps or press F3 to exit, the Field Selection list is deleted. You can create a new list if you return to add fields to this version later.

---

### Presumptive Join Fields

Presumptive Join Fields are additional fields made available for printing purposes within the World Writer application. They contain data related to a field that resides in the file you are using in your World Writer version, but the presumptive join fields are stored in a different file. Without the use of presumptive join fields, you would be required to join both files in order to retrieve the related information.

On the Field Selection List screen, presumptive join fields are named with the file field name plus a 2-digit extension. The fields are indented directly below the file fields. These fields are only available for print.

For example:

- GLKCO is a file field.
- GLKCO01 is a presumptive join field that contains the company name.
- GLDCT is a file field.
- GLDCT01 and GLDCT02 are presumptive join fields with the description lines for document type.
Using Output Field Specifications

The Output Field Specifications screen is where most of the report design and layout functions are done.

You can:
- Sequence the order of the printed columns.
- Adjust the size of the columns.
- Wrap lines.
- Change the column headings.
- Adjust spacing.
- Perform several editing and display functions.

The Output Field Specification screen is also the starting point in creating calculated fields.

### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Width</td>
<td>Width calculated for you by adding together the length of fields and column spacing.</td>
</tr>
<tr>
<td>Seq No</td>
<td>A number that defines the relative order of the output fields. For example, a sequence number of 10 will come before 20, and so on.</td>
</tr>
</tbody>
</table>

**Screen-specific information**

Fields that have a Print When code of N (never), do not affect the print sequence and therefore can have any sequence number.
<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Represents the field text specified in the Data Dictionary.</td>
</tr>
<tr>
<td>Size</td>
<td>Print size of the field. This can be reduced from the actual size of the field to allow for truncating the printed output or enlarged to allow for numeric editing characters. The actual number of characters taken up for printing is the larger of either the output size or the column heading.</td>
</tr>
<tr>
<td>W L (Wrap Line)</td>
<td>Wraps this field down to the next print line. Enter Y to activate this wrap feature. Line spacing is always single-spaced. This is used to make this line of data appear directly below the data in the prior line. Take care to properly calculate the number of spaces to enter in the Col Sp (Column Spacing) field.</td>
</tr>
<tr>
<td>P W (Print When)</td>
<td>Code identifying when to print a field value. Valid codes are: A Always print the value (this is the default). C Print each time the value changes. N Never print the value. Used for derived or sort fields that you do not want printed.</td>
</tr>
<tr>
<td>Col Sp (Column Spacing)</td>
<td>Number of spaces before a column will print. The default for *DF is determined from the value entered on Additional Parameters (V82109) Default Column Spacing. Use with the Wrap Line feature to align columns.</td>
</tr>
<tr>
<td>Sup Hdg (Suppress Heading)</td>
<td>Suppresses Heading. Enter a Y to Suppress the Column Headings for this field. This is typically used with the Wrap Line feature.</td>
</tr>
<tr>
<td>Edt Cde</td>
<td>Defaults from Data Dictionary. Use Field Sensitive Helps (F1) to determine how numeric data is formatted when printed, such as: Whether a separator character prints Whether zero or blank prints when data = 0 The character and position of negative numbers</td>
</tr>
<tr>
<td>Prt Dec</td>
<td>The number of decimal positions to show in the edited print field.</td>
</tr>
</tbody>
</table>
4BWorld Writer Setup

Field Explanation

Num Scl
The scale code is used to truncate quantity fields. This allows you to show a quantity expressed in 100s, or 1,000s and so on.

Valid codes are:
0 No scaling. This is the default.
1 Divide by 10.
2 Divide by 100.
3 Divide by 1,000.
4 Divide by 10,000.
5 Divide by 100,000.
6 Divide by 1,000,000.

Output Field
The name of the field in the file.

Note: Press F4 to display more details in the fold area.

Field Description

Chain Field
The name of the field for presumptive join fields used to retrieve a related description field.

Server File
The name of the file for presumptive join fields used to retrieve a related description field.
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Field Description

From File File ID assigned when files are specified in Version Title & Files. If blank, this is either a presumptive join field or a calculated field.

---

**Note:** You must press Enter once to update the Total Width field and enable the F13 key for Report Layout. Whenever you make a change to the Output Field Specifications, you may impact the Total Width. A highlighted field Description indicates where line wrapping occurs.

**Options**

1 - Work with Calculation
5 - Work with Field Detail Specifications
7 - Query File Update. Available when one file specified on Version Title & Files. See Update Files for details.
9 - Delete a field. You cannot delete a field if it is being used on Data Sort & Totaling.

**Function Keys**

F13 - Displays the Report Layout.
F15 - Displays fields tagged on the Field Selection List. The tag list is active only for the current session.
F16 - Displays all fields in the selected files.
F18 - Data Field Update. Available when one file specified on Version Title & Files. See Update Files for details.

**About Presumptive Join Fields**

Presumptive Join Fields are additional fields made available for printing purposes within the World Writer application. They contain data related to a field that resides in the file you are using in your World Writer version, but the presumptive join fields are stored in a different file. Without the use of presumptive join fields, you would be required to join both files in order to retrieve the related information.

On the Output Field Specifications screen, presumptive join fields are named with the file field name plus a 2-digit extension. When no fields are sequenced or when F16 is pressed, these fields are located directly below the file field. Assign a sequence number to include these fields on the report.

For example:

- GLKCO is a file field
- GLKCO01 is a presumptive join field that contains the company name
- GLDCT is a file field
GLDCT01 and GLDCT02 are presumptive join fields with the description lines for document type.

**About Date Fields stored in the Julian format: CYYYDDD**

The Size and Edit Code of a Julian date field determines formatting. The examples in the table are shown in MM/DD/YY or MM/DD/YYYY format. Your System Values or User Preference will determine the order of month, day, year, and separator character used.

<table>
<thead>
<tr>
<th>Size</th>
<th>Edit</th>
<th>Printed Output</th>
<th>Output to File</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>W</td>
<td>MM/DD/YY</td>
<td>MM/DD/YY</td>
<td>Alpha</td>
</tr>
<tr>
<td>8</td>
<td>Other than W</td>
<td>Julian</td>
<td>Julian</td>
<td>Numeric</td>
</tr>
<tr>
<td>6</td>
<td>W</td>
<td>MMDDYY</td>
<td>MMDDYY</td>
<td>Alpha</td>
</tr>
<tr>
<td>6</td>
<td>Other than W</td>
<td>Julian</td>
<td>Julian</td>
<td>Numeric</td>
</tr>
<tr>
<td>10</td>
<td>W</td>
<td>MM/DD/YYYY</td>
<td>MM/DD/YYYY</td>
<td>Alpha</td>
</tr>
<tr>
<td>10</td>
<td>Other than W</td>
<td>Julian</td>
<td>Julian</td>
<td>Numeric</td>
</tr>
</tbody>
</table>

World Writer converts Julian date fields to Gregorian if the Edit Code is equal to W:

- If the size is equal to or less than 6, no separator character is used.
- If the size is greater than 8, the 4-digit year is used.
- Sizes less than 6 or equal to 9 will truncate the data, both in printed output and output to file.

World Writer uses the Julian value if the Edit Code is other than W:

- Printed output - Use an Edit Code that does not print a comma, such as C, D, L, or M.
- Output to File - If the Size is less than 6, the version will end in a job log with the error “MCH1210 Receiver value too small to hold result.” The size must be at least 6 if outputting to a physical file with an Edit Code other than W.

**Using Field Detail Specifications**

This screen is used primarily to modify the default column heading for file fields. For calculated field, you will want to add a column heading if the field is a printing field.

Some of the fields also appear on Output Field Specifications and can be modified from either screen.

On Output Field Specifications, type 5 in the Option Column next to the field you wish to work with.
### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Size</td>
<td>Displays on Output Field Specifications and can be modified from either screen. See Output Field Specification (V82104) for field descriptions.</td>
</tr>
<tr>
<td>Print Decimal</td>
<td>Displays on Output Field Specifications and can be modified from either screen. See Output Field Specification (V82104) for field descriptions.</td>
</tr>
<tr>
<td>Edit Code</td>
<td>Displays on Output Field Specifications and can be modified from either screen. See Output Field Specification (V82104) for field descriptions.</td>
</tr>
<tr>
<td>Numeric Scale</td>
<td>Displays on Output Field Specifications and can be modified from either screen. See Output Field Specification (V82104) for field descriptions.</td>
</tr>
<tr>
<td>Column Spacing</td>
<td>Displays on Output Field Specifications and can be modified from either screen. See Output Field Specification (V82104) for field descriptions.</td>
</tr>
<tr>
<td>Column Title</td>
<td>Column headings defaulted from Data Dictionary. You can change the values on the screen. The three lines are 20 characters each and are automatically centered within the first 20 characters of the column. The third line should be reserved for dashes. If 20 dashes are entered, the line of dashes extends the full length of the column.</td>
</tr>
<tr>
<td>Field Size</td>
<td>Actual field size, as defined in the file. This is for reference only; not input capable.</td>
</tr>
</tbody>
</table>
Creating Calculated Fields

At some point while designing a World Writer report, you may need a field that contains information that is not available in the files selected for the query.

You can create a new field with a calculation that uses data from existing fields or literal text. When the version is submitted, the calculation is performed.

You can then place the new field on Output Field Specification, use it for selecting data and for sorting and totaling. You could also use it in another calculation.

Calculated fields can be used to update the value in another field. See Update Files.

To create a calculated field

Define the field attributes on the Output Field Specifications screen (V82104).

On Output Field Specifications

1. Enter 1 in the following field on a blank row:
   - OP

2. Assign the Sequence Number where the field should display, and enter a brief field description.

3. Complete the following fields, as needed:
   - Output Size
   - Edit Code
   - Print Decimal
   - Numeric Scale
   - Column Spacing
   - Column Title

4. Enter a unique name in the following field:
   - Field Name

5. Press Enter. The Query Result Field Definition window displays.
### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Value defaults from Output Field Specifications. You can modify this field from this screen.</td>
</tr>
<tr>
<td>Size</td>
<td>Value defaults from Output Field Specifications. You can modify this field from this screen. For example, you may determine that the size is not large enough to hold the result of calculation.</td>
</tr>
<tr>
<td>Print Decimal</td>
<td>Value defaults from Output Field Specifications. You can modify this field from this screen.</td>
</tr>
<tr>
<td>Expression</td>
<td>Used to enter the calculation. You can enter up to four lines with 60 characters each. Enter a single value or use as many operands and operators that will fit in the lines provided. You can split values and field name at the end of a line and continue it on the next line. In most cases, you do not need a space between fields, values, and operators.</td>
</tr>
</tbody>
</table>

### Operands for Calculations

The following chart shows the valid mathematical and special operators that can be used to create an expression. Operators can be used with file field names and/or literal values.

- You can use literal values in place of field names, such as:
  - Alpha literal or constant values are entered in single quotes. ‘ABC’
  - Numeric literal or constant values are entered without quotes. For example, 25.00.
- You cannot use presumptive join fields in a calculation.
- Operators can be entered in upper or lower case.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Description</th>
<th>Syntax</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Add field values</td>
<td>field1 + field2</td>
</tr>
</tbody>
</table>
### Operator Description Syntax

<table>
<thead>
<tr>
<th>Operator</th>
<th>Description</th>
<th>Syntax</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Subtract field values</td>
<td>field1 - field2</td>
</tr>
<tr>
<td>*</td>
<td>Multiply field values</td>
<td>field1 * field2</td>
</tr>
<tr>
<td>/</td>
<td>Divide field values</td>
<td>field1 / field2</td>
</tr>
<tr>
<td>Decimal</td>
<td>Obtain a packed representation of a numeric value</td>
<td>Decimal(field1 * field2,15,2)</td>
</tr>
<tr>
<td>Integer</td>
<td>Obtain a whole number from a numeric value</td>
<td>Integer(field)</td>
</tr>
<tr>
<td>Substr</td>
<td>Obtain a sub-string from an alphanumeric value</td>
<td>Substr(field,3,4)</td>
</tr>
<tr>
<td>Digits</td>
<td>Convert a numeric value to alphanumeric</td>
<td>Digits(field)</td>
</tr>
<tr>
<td></td>
<td>Concatenate or join together alphanumeric fields</td>
<td>field1</td>
</tr>
</tbody>
</table>

### Examples of Calculations

The following are examples of calculations using the available operators.

<table>
<thead>
<tr>
<th>Calculation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBAN01 + GBAN02 + GBAN03 + GBAN04 + GBAN05 + GBAN06</td>
<td>Adds the Net Posting fields from F0902</td>
</tr>
<tr>
<td>YASAL * 2.5</td>
<td>Multiples the Annual Salary from F060116 by 2.5</td>
</tr>
<tr>
<td>Integer(YADSI / 1000 + 5)</td>
<td>Adds 5 to the year portion of the Original Start Date from F060116</td>
</tr>
<tr>
<td>GLMCU</td>
<td></td>
</tr>
<tr>
<td>Substr(YASSN,1,3)</td>
<td></td>
</tr>
<tr>
<td>Substr(Digits(ABAN8),3,5)</td>
<td></td>
</tr>
</tbody>
</table>
### Calculation Description

<table>
<thead>
<tr>
<th>Calculation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decimal((SDUORG * COUNCS),15,2)</td>
<td>Creates a packed field multiplying the Quantity Ordered from F4211 by the Unit Price from F4105. This field is defined as fifteen packed characters with two decimal places</td>
</tr>
</tbody>
</table>

A calculated field can be used just like a file field, as follows:

- In another calculation
- For sorting purposes
- To select data
- In Total Level Hdr and Total Line Text

## Using Data Selection

Regardless of the amount of information contained in the files selected, you can selectively print only the data you wish to see on the report. For instance you may want only records within a certain date range.

If no data selection is entered all records will be output, unless restricted by Business Unit Security.

Data selection lets you specify fields in the database that are compared to the values that you are interested in. Only those records that match all of your criteria will be included in the query output. Fields can be tested against constants (numbers or strings), fields in the database or calculated fields that you created.

The Data Selection screen requires an equation for selecting data. This equation involves the following information:

- And/Or logic
- The field you want to base your selection on
- The Boolean Logic test operand resulting in specific information being selected for your report
- The value parameter, specifying the data against which you want to compare the parameter
### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>And/Or</td>
<td>A code that determines whether compound data selection logic is based on an AND condition or an OR condition.</td>
</tr>
<tr>
<td></td>
<td><strong>AND</strong> Combines and continues selection criteria. This is the default.</td>
</tr>
<tr>
<td></td>
<td><strong>OR</strong> Begins a new condition that consists of the OR line and consecutive AND lines.</td>
</tr>
<tr>
<td>Description</td>
<td>The description of the field that contains the data you want to select on. The test field name is found in the fold area of this screen.</td>
</tr>
<tr>
<td>Selection Test</td>
<td>Specifies the Boolean Logic test to perform between the data field and selection value. Use Field Sensitive Help F1 for a list of valid values, also described in the Boolean Logic section.</td>
</tr>
</tbody>
</table>
### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection Value</td>
<td>Contains the values to compare against.</td>
</tr>
<tr>
<td></td>
<td>Field Sensitive Help F1 is useful in to obtain a list of valid values if the field is attached to a User-defined Code table or a Search window.</td>
</tr>
<tr>
<td></td>
<td>Use F1 to determine the correct field formatting for length and type.</td>
</tr>
<tr>
<td></td>
<td>You do not need to know the Julian date format. Enter these date fields as MMDDYY (or User Preference/System format). The program will edit the entry for a valid date and format the field correctly.</td>
</tr>
<tr>
<td></td>
<td>You can use a field name to compare with another field. The exception is comparing a date field to another date field. See Appendix D for this procedure.</td>
</tr>
<tr>
<td></td>
<td>Numbers will be edited and displayed with the same decimal positions as the field.</td>
</tr>
<tr>
<td></td>
<td>Alpha field entries must be enclosed in single quotes (’) and cannot be longer than the selection field length. Shorter strings are compared as if the missing positions are blank.</td>
</tr>
<tr>
<td></td>
<td>If a character field is specified in Data Dictionary as having a Data Display Rule of ‘*RAB’, the field is right-justified with leading blanks (see MCU as an example).</td>
</tr>
<tr>
<td></td>
<td>To select on a blank numeric field, type 0 (zero).</td>
</tr>
<tr>
<td></td>
<td>To select on a blank alpha field, type “” (2 single quotes). See Appendix D for the procedure to select on a blank Julian date field.</td>
</tr>
</tbody>
</table>

**Note:** Press F4 to display more details in the fold area.
Field | Explanation
--- | ---
Sequence | Assigned by the program. If it is necessary to insert a line, assign the sequence number so that it lies between the sequence numbers of the lines before and after the selected fields.
BU Edit (Y/N) | Indicates that the data field is a Business Unit and may be subject to Business Unit Security. Input incapable.
Field Name | Used if you need to data select on a calculated field. Enter the name of the field. Leave the File ID field blank.
File ID | Assigned when files are specified in Version Title & Files. If blank, this is a calculated field.

**Options**

5 – If any of the value or range tests are specified, a “+” in the option column indicates that there are more values. Use Option 5 to display the Query Selection Values screen to review or change the selections.

9 – Deletes a previously selected field.

**Function Keys**

F9 – Replicate selected fields. This enables you to quickly set up an OR condition using the same fields with different values.

F15 – Display the fields tagged on the Field Selection List. The tag list is active only for the current session.
F16 – Displays all fields in the selected files.

**Query Selection Values**

When selecting data using VALUE, NVALUE, RANGE, NRANGE, the first value or beginning range is entered and shown on the Data Selection screen (V82107). The remaining values or ending range are entered and shown on the Query Selection Values screen:

- For RANGE or NRANGE tests, only two entries can be made.
- For VALUE or NVALUE tests, at least two entries are required. (If only one value is needed, use the EQ or NE test)
- Separate the entries by at least one space.
- Duplicate entries will cause an error and must be removed.
- Field Sensitive Help F1 is useful here to obtain a list of valid values if the field is attached to a User-defined Code table or Search window.
- Alphanumeric fields must be enclosed in single quotes (’).

**About AND/OR**

This condition is used with more than one equation. Connect multiple equations with an AND condition or an OR condition.

- You use AND when all the conditions in the equation must be met before a record is written.
- You use OR when only one condition must be met, or when you want to begin a new set of selection criteria.
Boolean Logic Available for Data Selection

You can use these Boolean logic arguments to select your data.

<table>
<thead>
<tr>
<th>Test</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQ (Equal to)</td>
<td>Amount EQ 5000 retrieves only those records with amounts equal to 5000</td>
</tr>
<tr>
<td>LT (Less than)</td>
<td>Amount LT 5000 retrieves only those records with amounts less than 5000</td>
</tr>
<tr>
<td>LE (Less than or equal to)</td>
<td>Amount LE 5000 retrieves only those records with amounts equal to or less than 5000</td>
</tr>
<tr>
<td>GT (Greater than)</td>
<td>Amount GT 5000 retrieves only those records with amounts greater than 5000</td>
</tr>
<tr>
<td>GE (Greater than or equal to)</td>
<td>Amount GE 5000 retrieves only those records with amounts equal to or greater than 5000</td>
</tr>
<tr>
<td>NE (Not equal to)</td>
<td>Amount NE 5000 retrieves only those records with amounts not equal to 5000</td>
</tr>
<tr>
<td>NL (Not less than)</td>
<td>Amount NL 5000 retrieves only those records with amounts not less than 5000</td>
</tr>
<tr>
<td>NG (Not greater than)</td>
<td>Amount NG retrieves only those records with amounts not greater than 5000</td>
</tr>
<tr>
<td>Test</td>
<td>Example</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>LIKE (A certain part of an</td>
<td>Name LIKE - __TIN retrieves those names that have two characters followed by TIN.</td>
</tr>
<tr>
<td>alphanumeric field containing the same characters as the test value pattern</td>
<td>Name LIKE - %TIN% retrieves those names that contain TIN, no matter what characters are before or after it.</td>
</tr>
<tr>
<td>NLIKE (A certain part of the</td>
<td>Name NLIKE - __TIN retrieves only those names that do not have two characters followed by TIN.</td>
</tr>
<tr>
<td>field that does not contain</td>
<td>Name NLIKE - %TIN% retrieves those names that do not contain TIN no matter what characters are before or after it.</td>
</tr>
<tr>
<td>the same characters as the</td>
<td></td>
</tr>
<tr>
<td>test value pattern)</td>
<td></td>
</tr>
<tr>
<td>RANGE (No less than the first value and no greater than the second value)</td>
<td>Amount Range 5000 7000 retrieves records with amounts between 5000 and 7000. 5000 and 7000 would be included.</td>
</tr>
<tr>
<td>NRANGE (Less than the first</td>
<td>Amount Range 5000 7000 retrieves records with amounts that are less than 5000 and greater than 7000. 5000 and 7000 would not be included.</td>
</tr>
<tr>
<td>value and greater than the</td>
<td></td>
</tr>
<tr>
<td>second value)</td>
<td></td>
</tr>
<tr>
<td>VALUE or VALUES</td>
<td>Selects multiple items.</td>
</tr>
<tr>
<td>(Retrieve the items listed)</td>
<td></td>
</tr>
<tr>
<td>NVALUE (Do not retrieve items listed)</td>
<td>Omits multiple items.</td>
</tr>
</tbody>
</table>

### Using Data Sort & Totaling

The Data Sort & Totaling screen is used to sort the data into meaningful groups. Without any sorting, sequence of the data will not be in any particular order.

Total levels can be assigned to initiate a break between groups of data. A level break is used to setup special processing, such as printing subtotals, skipping to a new page, skipping multiple lines, or printing related text.

### To Sort Data

On Data Sort & Totaling

1. Complete the following fields:
   - Seq (Sequence)
   - A/D (Ascending and descending)
2. Assign sequence numbers by 10s to the fields used for sorting.
Note: The highest sort field has the lowest sequence number. For example, sort the data first by company. Within each company, the system sorts the data by business unit, and within each business unit, by object account. For example, the sequence numbers include 10 Company, 20 Business Unit, and 30 Object.

3. If the grand total does not display on the screen, choose F15. The grand total should always be the last sequence number.

Note: All sorting fields must also display on the Output Field Specifications screen, although they do not have to be printed columns. If a field is used on the Data Sort & Totaling screen that does not appear on Output Field Specifications, the program will add it as a non-printed field by assigning it the next sequence number.

Total levels

Total levels and the additional functions associated with them are for printed output. Only detail records can be output to a physical file.

If the report requires break levels, the next step is to assign Total Levels for the fields where additional functions will be performed.

You must then define the additional functions to include when a break level occurs. The following require you to assign a Total Level:

- Summary Functions
- Page Skip
- Line Spacing
- Total Level Text in Header
- Total Line Text

A level break occurs when the value of the field changes from one record to the next. Assign level breaks in the same order as sequence numbers, but in increments of one.

For example, the following represents a total level at the Company and Object levels.

- 10. Company – total level 1
- 20. Business Unit – no total level
- 30. Object – total level 2

Note: You do not have to assign a total level to a Grand Total Level, but you do have to specify a sequence number to include it.
<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seq</td>
<td>Assigns a sequence number to order the sort fields. The lower the number, the higher the sort priority. That is, a field with a sequence of 20 will sort within the values of a field with a sequence of 10. A sequence number must be assigned to select a field for sorting, and all sequence numbers will be renumbered in increments of 10.</td>
</tr>
<tr>
<td>Description</td>
<td>The field text specified in the Data Dictionary</td>
</tr>
<tr>
<td>A/D</td>
<td>The code that specifies the ordering of the data in the sort field. A Ascending - data is sorted from lowest to highest D Descending - data is sorted from highest to lowest</td>
</tr>
<tr>
<td>Tot Lvl (Total Level)</td>
<td>Used to define report break fields. A report break occurs every time the contents of a break field change from one record to the next. Break fields are tested from highest priority to lowest (highest priority is the break field with the lowest number). A report break at a given level will cause a break at all the lower priority levels as well. Break levels should be assigned in the same relative order as the sort levels. That is, the highest assignable break level (level 1) should be assigned to the highest sort priority (the sort field with the lowest sequence number). The next break level should be assigned to some lower priority sort level and so on.</td>
</tr>
<tr>
<td>Field</td>
<td>Explanation</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Page Skip | Y Indicates that a new page should be started when the value of this field changes  
S Indicates printing summarized information on this field level  
A total level must be specified for a page skip to occur. Normally only one total level should specify page skipping. |
| Line Spc  | Indicates the number of lines to advance after printing this total line. The default value (*DF) is the line spacing specified in Additional Parameters.  
A total level must be specified for this line spacing to occur. |
| Sum Fnc   | The code that specifies whether to print any summary functions associated with this total level as entered on the Total Level Summary Functions screen.  
If N is entered, no total line data will print for this level, but any page or line spacing will occur. |
| Sort Field| This is the name of the field in the file. |
| From File | The File ID identifies which file contains the requested field. |

*Note:* Press F4 to display more details in the fold area.
### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Level Hdr</td>
<td>Contains 60 characters to enter a subheading comprised of literal text and/or field values that print before a group of data. Use an &amp; (ampersand) before a field name to initiate printing the field value, i.e. &amp;ABALPH. On the Report Layout screen, literal text is shown and any fields denoted with the ampersand (&amp;) will appear as the letter H.</td>
</tr>
<tr>
<td>Total Line Text</td>
<td>Contains 60 characters to enter literal text and/or field values that print after a group of data and before the summary functions line. The Row Description from Data Dictionary defaults on this line. This can be modified to desired text or removed. Use the &amp; (ampersand) before a field name to initiate printing the field value, i.e. &amp;ABALPH. On the Report Layout screen, literal text is shown and any fields denoted with the ampersand (&amp;) will appear as the letter D.</td>
</tr>
</tbody>
</table>

### Options

1 – When you initially set up a Total Level, you are automatically taken to the Total Level Summary Functions screen. Option 1 also takes you to this screen to review or change the selections.

9 – Delete a previously selected field.

### Function Keys

F13 – Display the Report Layout screen.

F15 – Display the fields tagged on the Field Selection List. The tag list is active only for the current session. Also used to retrieve the Grand Total Level.

F16 – Displays all fields in the selected files.

### Using Total Level Summary Functions

One of the main reasons for assigning a Total Level is to add summary functions when a break in the data occurs.

You can specify up to five summary functions per total level and grand total level.

On the Data Sort & Totaling screen (V82108), if you initially assign a Total Level to a field or a sequence number to the Grand Total Level field, you can then press Enter to automatically display the Total Level Summary Functions screen. You can also enter 1 in the Option field to display the Total Level Summary Functions screen.

The text for summary functions is stored in UDC table 82/GR. If the text is changed in this table, it is changed for all World Writer reports.
At the top of the screen the system displays the Total Level number, Field Name and Description. Assign summary functions to each Total Level one at a time, including the Grand Total. If you have three total levels and a Grand Total and your report requires summary functions at all four levels, you will need to access this screen four times.

Only the fields that display on Output Field Specifications (V82104) are available for summary functions. If a calculated field does not display on this screen, it can be added manually by typing the field name on a blank line.

The following is an example of the summary functions:

<table>
<thead>
<tr>
<th>Function</th>
<th>Amount (numeric field)</th>
<th>Name (alpha field)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50.00</td>
<td>Smith, John</td>
</tr>
<tr>
<td></td>
<td>150.00</td>
<td>Jones, Mary</td>
</tr>
<tr>
<td></td>
<td>75.00</td>
<td>Torres, Jose</td>
</tr>
<tr>
<td></td>
<td>225.00</td>
<td>Wu, Ann</td>
</tr>
<tr>
<td></td>
<td>100.00</td>
<td>Brown, David</td>
</tr>
<tr>
<td>Sum</td>
<td>600.00</td>
<td>N/A</td>
</tr>
<tr>
<td>Avg</td>
<td>120.00</td>
<td>N/A</td>
</tr>
<tr>
<td>Min</td>
<td>50.00</td>
<td>Brown, David</td>
</tr>
<tr>
<td>Max</td>
<td>225.00</td>
<td>Wu, Ann</td>
</tr>
<tr>
<td>Cnt</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
To select summary functions

The Total Level number, Field Name and Description are displayed at the top of the Total Level Summary Functions screen, indicating the current break level.

On Total Level Summary Functions

1. Assign summary functions to each Total Level one at a time, including the Grand Total.
   
   If you have three total levels and a Grand Total, and your report requires summary functions at all four levels, you will need to access this screen four times.

   **Note:** Only the fields that appear on Output Field Specifications (V82104) are available for summary functions. If a calculated field does not appear on this screen, it can be manually added by typing the field name on a blank line.

2. Enter X in the column(s) for each type of total to calculate.

3. To choose all summary functions, enter 1 in the following field:
   - OP

   **Note:** Up to five summary functions can be specified for a numeric column, three for an alpha column. Sum and Average cannot be used with alphanumeric fields.
### Field Explanation

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Represents the field text specified in the Data Dictionary.</td>
</tr>
<tr>
<td>Sum (Summary)</td>
<td>Totals all values; valid for numeric fields only.</td>
</tr>
<tr>
<td>Avg (Average)</td>
<td>Totals all values, then divides by the number of records; valid for numeric fields only.</td>
</tr>
<tr>
<td>Min (Minimum)</td>
<td>Prints the lowest value in the group for numeric fields. Negative numbers are considered lower than zero or any positive number.</td>
</tr>
<tr>
<td></td>
<td>For alpha fields, print the first alphabetical value. Character fields are compared according to the standard EBCDIC collating sequence.</td>
</tr>
<tr>
<td>Max (Maximum)</td>
<td>Prints the highest value in the group For numeric fields. Negative numbers are considered lower than zero or any positive number.</td>
</tr>
<tr>
<td></td>
<td>For alpha fields, print the last alphabetical value. Character fields are compared according to the standard EBCDIC collating sequence.</td>
</tr>
<tr>
<td>Cnt (Count)</td>
<td>Prints the number of records in the group. This value will be the same no matter which field is selected at the total level.</td>
</tr>
<tr>
<td>Field Name</td>
<td>The name of the field in the file.</td>
</tr>
<tr>
<td>File ID</td>
<td>The File ID identifying which file contains the requested field.</td>
</tr>
</tbody>
</table>

### Options

1 – Marks all summary functions with an X.

9 – Deletes a previously selected field.

### Function Keys

F13 – Display the Report Layout. Use this periodically to determine what additional changes you might need to make.

F15 – Display the fields tagged on the Field Selection List. The tag list is active only for the current session.

F16 – Display all fields in the selected files. You cannot assign summary functions to any fields that do not appear as printed columns on Output Field Specifications.

### Using Report Layout Display

Although the Report Layout screen is not part of the setup process, it is available from many of the setup screens. It is an easy way to see how your report will look.
without having to actually run the version. It contains the column headings, one
detail line and any total levels and summary functions you may have specified.

This feature is available using F13 from all of the setup screens that can affect the
layout of your report, such as Output Field Specifications and Data Sort & Totaling.
It is also available from the Versions List (cursor position sensitive).

When making changes involving line wrapping, column spacing, header text, etc.
use this feature frequently to view the changes and determine any additional
changes.

Approximately 80 characters are displayed on the screen. Function keys 19 and 20
scroll to the left and right. Or, you can enter a character position in the Window
Column field to automatically move to that character space.
Using Printer File Overrides

The Printer File Overrides screen provides a way to change the default attributes of printer output.

World Writer uses the system printer file called QSYSPRRT. If no overrides are entered, the attributes of QSYSPRRT are used.

These are standard IBM override options. A similar screen is used with DREAM Writer, FASTR and STAR reporting tools.

Many of the available options are dependent on the type of printer you have and your printer must support the entries you make.

It is best to initially leave the default attributes until a sample of the report has been printed and reviewed. Then make any adjustments if needed.

To access Printer File Overrides

You can access the Printer File Overrides screen by doing any of the following:

- Enter 6 in the Option field on the Versions List (V82100).
- Enter 1 in the Option field on the Selective Change Prompt.
- Choose F5 on the Version Title & Files (V82101).

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print Queue</td>
<td>A designation of a specific print queue, such as QPRINT. If left blank, this field defaults to the print queue specified in your user profile.</td>
</tr>
<tr>
<td>Field</td>
<td>Explanation</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hld in Prt Queue(Y/N)</td>
<td>A flag used to determine whether to hold the print file in the print queue rather than printing it. Valid values are: Y Hold on the print queue, N Do not Hold on the print queue, S Hold and Save on the print queue, T Do not Hold, but Save on the print queue. Note: You can use 1 for Y and 0 (zero) for N.</td>
</tr>
<tr>
<td>Number of Report Copies</td>
<td>The number of copies of this report to be printed. One copy is the default.</td>
</tr>
<tr>
<td>Save Spool File</td>
<td>Indicates whether the spool file should be set to a SAV status after printing.</td>
</tr>
<tr>
<td>Char./Inch (10/15)</td>
<td>The horizontal printing density. This should be entered as the number of characters per inch and must be supported by your printer.</td>
</tr>
<tr>
<td>Form Type</td>
<td>Specifies the type of forms to be used in the printer.</td>
</tr>
<tr>
<td>Lines/Inch (4/6/8/9)</td>
<td>The line spacing should be entered as the number of lines per inch and must be supported by your printer.</td>
</tr>
<tr>
<td>Location of Page Overflow</td>
<td>A field used in the definition of a report version to indicate the number of lines to be printed on a specific form before page overflow is detected.</td>
</tr>
<tr>
<td>Maximum Form Length</td>
<td>A field used in the definition of a report version to indicate the length of the form on which the requested report is to be printed. This is expressed in lines per page.</td>
</tr>
<tr>
<td>Maximum Form Width</td>
<td>A field used in the definition of a report version used to indicate the width of the form on which the requested report is to be printed. This is the same field found on the Additional Parameters screen (V82109). It can be changed from either screen.</td>
</tr>
<tr>
<td>Printer Device Name</td>
<td>Specifies the name of the printer device.</td>
</tr>
<tr>
<td>Intelligent Printer</td>
<td>Specifies the type of data stream to create for a printer file.</td>
</tr>
<tr>
<td>Print Text</td>
<td>The Print Text field specifies a character string that will be printed at the bottom of each page of the specified report. A maximum of 30 characters are allowed. Refer to “PRTTXT” keyword of the “OVRPRTF” command on the iSeries.</td>
</tr>
</tbody>
</table>
3 Advanced Topics
Work with Groups

World Writer has many functions and can be used with all of your JD Edwards World application files, as well as non-World files. As a result, you will likely develop a large number of World Writer versions.

Groups provide a way to manage reports by allowing you to view a limited list of World Writer reports that have something in common. Some ways that you can group reports are:

- By user ID
- By application
- By frequency of use. For example, daily and monthly reports.
- By department
- By level of sensitivity for security purposes
- Any combination of the above

You can attach a group to a menu selection so that the list of reports appears when the user makes that selection. You can also set up menu security and/or group level security to prevent unauthorized access.

A group name is alphanumeric and can be up to ten characters in length. A suggested method for creating group names is QSSnnnnnnn, where:

- Q = Query
- SS = System Code
- nnnnnnn = Unique name

A variety of groups have already been set up for you and you can access them from menu G82. These groups contain the sample reports that are provided with the software. You can use the pre-defined groups to arrange your versions. Or you can organize your World Writer versions by creating your own groups, using a naming convention that suits your needs.

To create a group

World Writer groups are stored in User Defined Code table System Code 82, UDC GR.

You can access this User Defined Code table a number of ways:

- From the World Writer Versions List, in the Group field, press F1, and then press F10.
- Type Fast Path UDC on a command line. Or from Menu G00 take selection 14. Inquire on System Code 82, User Defined Code GR. screen-2

The first 11 lines of the table are suggestions for group naming conventions, followed by the existing group names.

On General User Defined Codes

![General User Defined Codes Table](image)

Complete the following:
- Code – a unique group name
- Description – a short description of the group
- Action Code – Use C

The update to the table is immediate. When you return to the versions list and press F1 on the Group field, you should be able to skip to and select your new group name from the User Defined Codes table.

**See Also**

- Copy Versions & Groups
- Menu Set Up
- Sleeper Setup
Work with Security

World Writer provides you with the following levels of security:

- **Group Level Security**
- **Field Level Security**
- **Version Level Security**
- **Business Unit Security**
- **IBM Object Level Security**

**Group Level Security**

Using Group Level Security, you can determine what functions a specific group or specific user is allowed to perform.

Group refers to the World Writer Group, not User Group.

- By default access to all Groups for all users is allowed for the Add, Change, Execute and Delete functions, provided the Version Level Security allows the access. To restrict users from these functions, access will need to be secured.
- By default access is not allowed for the file update function. To allow users access to submit versions in the update mode, access will need to be added.

See Advanced Operations Menu for details.

**Field Level Security**

Field Level Security is used to identify which fields in a file a user is permitted to view and update.

The defaults are:

- All the fields in a field can be viewed and
- No fields can be updated.

The primary purpose is to set up the access to allow a user to submit a version that updates a field. You can also prevent a user from viewing fields that contain sensitive data, such as salary.

See Advanced Operations Menu for details.
Version Level Security

Use Version Level Security to restrict users from executing, changing, copying, or deleting a specific version.

Enter the access level in the User Exclusive field on the Additional Parameters screen.

The Report Version Security program allows you to update the User Exclusive field by User ID, by Group or for all versions.

See Advanced Operations Menu for details.

Business Unit Security

Business Unit Security uses the JD Edwards World global technique of securing certain users from reporting on, or updating records within a specific range of business units.

See Appendix E - World Writer and Business Unit Security for details.

IBM Object Level Security

Use standard IBM object authority commands and security levels to secure users from specific files and libraries.
About Creating a File

You can set up World Writer to write to a physical file rather than a spool file. You can use the newly created physical file in any way that a file on the iSeries can be used:

- Downloaded as an ASCII file to a PC application, such as Excel. You need access to a data transfer utility, such as Client Access or ftp.
- In another World Writer version or in IBM Query
- In a program

This feature is also useful to create a subset of a large file to improve the processing time of subsequent reports.

To create a file

On Additional Parameters

1. Change the Output Media field to F for file output.
2. Specify the name of the file in the Output File field. You do not need to create the file first.
3. Specify the library where the file will reside. The library needs to exist on the iSeries.
4. Enter a 1 in the Packed to Zoned field to convert all packed fields to zoned decimal.

The Packed to Zoned field is used with creating files. This flag may be needed in preparing files that contain numeric data and are intended for transfer to a non-iSeries system. The default value is blank which indicates that packed fields will output as packed.

Technical Considerations

- For first-time version runs, World Writer compiles the physical file and then loads data into the file.
- For subsequent runs of the version or if the file already exists, World Writer deletes and recompiles the file. Then the data is added into the file.
- World Writer cannot append records to an existing file.
- When the file is created, the CRTPF command is used.
World Writer will not create a file with more records than indicated in the Member Size (SIZE) fields.

Access to the file is determined by the Authority (AUT) field.

The file does not have imbedded delimiters when downloaded as an ASCII file.

The dates are formatted according to the edit code and the length of the field. See Output Field Specifications - About Date Fields stored in the Julian format: CYYDDD.

You cannot output column headings, total line text, or summary functions to the file. World Writer will output only detail records to a file.

Presumptive Fields and Calculated field can be output to a file.

You cannot have duplicate field names listed in Output Field Specifications. If the same field name is needed, create a calculated field for one of the fields so that it has a unique name.

On Output Field Specifications, the first character of any field name must be A through Z, #, @, or $. The characters after the first character of any field name must be A through Z, 0 through 9, #, @, $, or _ (underscore).

World Writer checks the Software Versions Repository to prevent you from inadvertently overwriting an existing JD Edwards World production file.

Avoid changing the size of fields to be smaller than how they are defined in Data Dictionary. This will cause data to be truncated and in some cases will result in the version ending abnormally with a “Receiver Value too small to hold result” error.
About Updating Files

With World Writer you can update a field in a file with either user-defined values or with values from another field within the file. Multiple fields can be updated at one time.

Before You Begin

- JD Edwards World recommends that you back up the file that you are updating.

  **Caution:** It is easy to update fields with World Writer, but it may not be easy to undo the changes if an error is made. Use the steps in the following sections to verify the records that will be updated with the new value of the field.

- Read through the entire chapter, so that you are familiar with the update process.
- Practice the update procedure in a test environment before impacting your production data.

Creating World Writer Versions

This section describes the following steps to update a field:

- To create a World Writer Version
- To apply group level security
- To apply field level security
- To select the update mode
- To verify the updated records
- To update multiple fields at one time
To create a World Writer version

Only one file can be specified on Version Title and Files. The update function cannot be performed if more than one file is entered or if the file is a joined logical file.

On Output Field Specifications, select fields that will help to identify the records that will be updated. This is for your benefit and for an audit trail. For instance, if F0911 is the file to be updated, you might want to choose the Document Number, Document Type, GL Date, and Batch Number.

You will also include the field to be updated, known as the TARGET or TO field. You need a field that holds the value to be moved into the target field. This is known as the SOURCE or FROM field. The SOURCE field can be either an existing field in the file or a calculated field. In either case the SOURCE field should have the same attributes as the TARGET field, i.e., alpha or numeric, size, decimal places. Both the TARGET and SOURCE fields must be printing fields.

1. On Data Selection, enter the criteria to select only the records to be updated.
   You do not need to set up any Data Sort & Totaling or Summary Functions. If you want to do some sorting, the only rule is that you cannot sort on the field being updated.

2. Verify the data to be updated.

3. Submit the version and verify the data appearing on the report are the records to be updated.
   The version is just a report at this stage; we have not put it in update mode. All of the records you see on the report are the ones that will be updated.

4. Verify that the value in the SOURCE or FROM field is the value to be placed in the TARGET or TO field.
To apply group level security

World Writer does not automatically allow a version to be run in the update mode. Security must be set up by user to allow this access.

On Query Group Level Security

1. Inquire on the User ID that will be submitting the World Writer version for file update.
2. If the User ID highlights, add the user and type the Group ID from the World Writer Version in the subfile portion of the screen.
3. In the Fupd column, enter Y to allow update access, and press Enter.
4. Inquire on the User ID to ensure the record was added.
5. If the User ID already exists, change the record accordingly.
To apply field level security

<table>
<thead>
<tr>
<th>From World Writer (G82), enter 27</th>
</tr>
</thead>
<tbody>
<tr>
<td>From World Writer Advanced Operations (G8231), choose Field Level Security</td>
</tr>
</tbody>
</table>

On Field Level Security

1. Inquire on the User ID that will be submitting the World Writer version for file update.
2. If the User ID is highlighted, complete the following fields:
   - User ID
   - File ID
3. If the User ID already exists, change the record to include the file for update.
4. If the file already appears in the list, enter Option 1 next to the file to review the field for update.
5. Press Enter. All the fields from the file ID you entered will display.
6. Find the field to be updated and enter Y in the Upd column. You can also type the Field Name on a blank line.
7. Press Enter.
8. Inquire on the User ID and File ID to ensure the record has been added.
9. If the User ID and File ID exist, choose F16 to include the field for update.
To select the update mode

On Output Field Specifications

1. Enter Option 7 next to the field you want to update (TARGET).
2. On the Query File Update Spec screen, update the To Field Name field.
3. Enter the SOURCE field name in the From Field Name field. This is either the calculated field or existing file field that contains the value to be moved to the TARGET field.

The system places the version in update mode. The update will take place when you submit it. Submitting the version generates a report, however it will give no indication that the update took place. World Writer writes the record as it currently exists in the file, then runs the field update.

4. To take the version out of update mode, enter Option 7 next to the TARGET field and remove the SOURCE field name.

**Note:** It is good practice to take the version out of update mode so that it doesn’t get submitted accidentally.

**To verify the updated records**

Verify that the update took place in any one of the following ways:

1. Take the version out of update mode and submit it. The report generated should now show the new value in the TARGET field.

2. Check a sampling of the records online.

3. Review the file directly using RUNQRY or another utility that displays the records in a database file.

**To update multiple fields at one time**

1. Create the World Writer version and submit to verify the results are as expected.

2. Set up Group Level and File Level security for all the fields to be updated.

3. From Output Field Specifications, choose F18 to access the Query File Update Specs screen, V82117.

   This screen allows you to enter multiple TARGET and SOURCE field names at one time. Using this screen takes the place of using Option 7 and puts the version in update mode.

4. Submit the version in update mode, and then verify that the records were updated.
5. To take the version out of update mode, access V82117 again and enter Option 9 to delete the fields.

Key Update Tips

- You can perform data file updates only on single files. Reports that have joined files or that used joined logical files will not allow the update function.
- Always run the version first before putting in the update mode. This ensures that the correct data is selected for the update.
- You cannot sort by a field that is being updated.
- You cannot include a presumptive join for a field that is being updated.
- You cannot include the field that is being updated more than once on Output Field Specifications.
- Target is the field that is being updated.
- Source is the field that the update is coming from.
- Both Target and Source must be printed fields.

What You Should Know About

**Updating Julian date fields**

The value must be entered in the Julian format, for example 103131 for May 11, 2003. See Appendix C for a Julian calendar conversion chart.

**Updating an alphanumeric field to Blank**
Enter two single quotes (" ) as the expression.
You do not need a space between the quotes.
**Updating a numeric field to Blank**

Enter a zero (0) as the expression. If the field to be updated has decimal places, enter the expression as 0.00 with the correct number of decimal places shown.

**Error 2929 - 'Join files cannot use file update' when putting option 7 next to a field to be updated**

You cannot use World Writer for a field update if the version has more than 1 file that it has written over. You cannot use a joined logical file and perform a field update.

**Error 1778 - 'Field must be selected for query output' when typing a field name in the From Field Name field on the Update Spec window**

The field entered must be defined as a printing field on Output Field Specifications.

**Error 1761 - 'End of expression expected, not found' when typing a field name in the From Field Name field on the Update Spec window**

An attempt is being made to update an alphanumeric field with a numeric value or vice versa. Check either the expression on your calculated field or the field attributes if you are using a field within the file for the SOURCE field.

**Error 1737 - 'Not authorized to version' when attempting to run the version in update mode**

Press F18 on the Output Field Specification screen. The field(s) under the To Field column includes fields used for updating and must be in Field Level Security. If you have copied a version that also performed an update, you may have copied the Update Specs as well. Delete the field(s) that are not going to be updated using Option 9.

**No field update even when the version runs successfully (no job log) in update mode**

Check to see if you have a presumptive join field for the field you are updating. A presumptive join field will have the same field name with a numeric extension. For example, GLMCU is the field you are updating. If you have GLMCU01 on the Output Field Specifications screen, the update will not take place. Delete the presumptive join field and submit the version again.

Also, if the field you are updating appears more than once on Output Field Specifications, the update will not take place. Delete all but one occurrence of the update field.

**Updating non-JD Edwards World files**

The file must be in your library list before Field Level Security can be set up.
The results of the calculated field look as expected on the report. However when verifying the updated records, the new value in the field contains the wrong data.

One reason this may occur is how the field being updated is defined in Data Dictionary. The Data File Decimal field describes the decimal places actually stored in the field. This is normally 00 (zeros). The Display Decimals field contains a number of decimals that this field will display on videos and reports.

There are some exceptions; one being when the value in the Data File Decimals field is greater than 0 and the Display Decimals field is blank.

To successfully update these types of numeric fields, change the Prt Dec field on the Output Field Specifications screen to 0 for both the field to be updated and the calculated field. The expression of the calculation should contain the correct number of decimal places.

In the example below, the CRR field is defined in Data Dictionary with 7 in the Data File Decimals and the Display Decimals is blank. In order for this field to be updated correctly, change the 7 to 0 on Output Field Specifications - Prt Dec column. The calculated field, NEWCRR, is also set to 0 in Prt Dec column and the expression contains the decimal places desired. When this version is submitted, the TDCRR field would be correctly updated with a value of 23.8500000. However the report will look incorrect because without decimal places, the value is rounded. In the example, the value on the report would be 24.
Menu Setup

About Menu Setup

A menu selection can be set up to submit a World Writer Version or to display a World Writer Versions List.

When you add a World Writer version as a menu selection, the version is submitted to batch. If the version is set to Prompt for Data Selections, the Data Selection screen is displayed before it is submitted. This ensures that the criteria can be reviewed and changed.

You can add a World Writer Group as a menu selection. The World Writer menu is set up to take the user to a list of versions related to that Group. Each menu selection on G82 represents a different group of versions.

A World Writer version can be set up in a Job Stream so that it is one of several jobs that are submitted, one at a time, when the menu selection is taken.

More information on Menu Revisions setup can be found in the Technical Foundations Guide.

To submit a version from a menu

On Menu Revisionsscreen-17"

1. Inquire on the Menu ID and navigate to the Selection where you want to add the version.
2. Enter the Description that will appear next to the selection number.
3. Enter the fields as indicated below:
   - Job to Execute = J82001
   - Batch = 1
   - Option Code = 1 or 2  *see chart below
   - Option Key = World Writer Group ID
   - Version = World Writer Version Name

When the menu selection is taken, what happens is determined by value in the Prompt for Data Selection field (See Additional Parameters) of the version.

- If Prompt for Data Selections is blank or N, the version is submitted automatically to batch.
If Prompt for Data Selection is Y, the Data Selection screen is presented to the user. The user can make changes on the screen, if necessary. This ensures that record selection is reviewed before the version is submitted. When the enter key is pressed, the changes are saved and version is submitted to batch with the new selection criteria.

**Note:** The User Exclusive field for the version must be either 0 or 1 in order for Prompt for Data Selections to be available.

The Option Code determines what happens when the Menu Selection and F18 are pressed. The table below is for World Writer versions only:

<table>
<thead>
<tr>
<th>Option Code</th>
<th>Result of pressing F18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prompt for Data Selection = Y. The Data Selection screen displays, version is not submitted to batch.</td>
</tr>
<tr>
<td>1</td>
<td>Prompt for Data Selection = blank or N = function invalid</td>
</tr>
<tr>
<td>2</td>
<td>Version List is displayed, starting with the version indicated on Menu Revisions.</td>
</tr>
<tr>
<td>Blank, 3, 4</td>
<td>F18 locked out. Invalid Selection or Security Violation error message received.</td>
</tr>
</tbody>
</table>

**To display a World Writer version list from a menu**

On Menu Revisionsscreen-18"

1. Inquire on the Menu ID and navigate to the Selection where you want to add the version list.
2. Enter the Description that will appear next to the selection number.
3. Enter the fields as indicated below.
   - Job to Execute =J82000
   - Batch = 0
   - Option Code = 1
   - Option Key = World Writer Group ID
   - Version = Leave blank or enter a version name.

If blank, the entire version list is displayed. If a version name is entered, the list is displayed starting with that version.
To set up a World Writer version on a Job Stream menu

A job stream menu (%) is used to submit multiple jobs by taking a single menu selection. See more information in the Technical Foundations guide.

Setting up job stream menus is a two-step process.

On Menu Revisionsscreen-19"

1. Create a % menu containing the jobs you want to submit as a group. For a World Writer version, complete the following fields:
   - Job to Execute = J82001
   - Batch = 1
   - Option Code = 2
   - Option Key = World Writer Group ID
   - Version = World Writer Version name

2. Add the % menu to an existing menu selection. Complete the following fields:
   - Job to Execute = J81900
   - Batch = 1
   - Option Code = 2
   - Option Key = % menu name
   - Version = ZJDE0001

**Note:** Versions placed on a Job Stream menu will be submitted directly. The system ignores Prompt for Data Selections since user interaction is required.
Sleeper Setup

About Sleeper Setup

Sleeper, or Unattended Night Operations, allows you to print reports at specified times without any user interaction. This is especially useful when you want to print reports during non-work hours, overnight, or on weekends.

More information on Sleeper setup can be found in the Technical Foundation Guide.

To set up a World Writer version in Sleeper, you will need the following information.

- Program – J82001
- Program Parameter 1 – World Writer Group, length = 10
- Program Parameter 2 – World Writer Version Name, length = 10

"screen-21"
World Writer Advanced Operations Menu

The World Writer Advanced Operations Menu contains technical and security functions. Access to this menu should be restricted to authorized personnel.

Accessing the World Writer Advanced Operations Menu

- From World Writer menu (G82), choose 27
- From World Writer Advanced Operations (G8231), choose your selection

The menu selections are described below.
Copy Versions & Groups

Use this program to copy versions from one group to another and from one environment to another. screen-24"

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy From Library</td>
<td>The copy source library name.</td>
</tr>
<tr>
<td>Copy To Library</td>
<td>The copy target library name.</td>
</tr>
<tr>
<td>Copy From Group</td>
<td>The copy source group ID</td>
</tr>
<tr>
<td>Copy To Group</td>
<td>The copy target group ID</td>
</tr>
</tbody>
</table>
Field | Explanation
--- | ---
Copy From Name | Specify one of the following:
- Version Name – Copies just that specific version.
- *ALL or *ADD – Replaces versions with the same name, adds any new versions. All remaining versions are left as is.
- *MATCH – Only copies versions that do exist in the To Group, replacing them with the matching versions in the From Group.
- *NEW – Only copies versions that don’t exist in the To Group.
- *REPLACE – Removes all versions in the To Group exist in the To Group, and copy all versions in the From Group to the To Group.

Build Currency Factor File

From World Writer (G82), choose 27
From World Writer Advanced Operations (G8231), choose Build Currency Factor File

The function of this program is to rebuild the Multiple Currency Factor File. The program clears and recreates the file with new data. Usually you should run this program whenever there is a need to refresh data in the Multiple Currency Factor file, like adding new company/new currency or change in display decimals etc.

This is an interactive program. When the menu selection is taken the program clears F82013. Then it reads the Company Constants file (F0010) chained to the Currency File (F0013) by Currency Code (CRCD) to retrieve the display decimal data for currency. Then the multiplication factor is calculated and the records are written to F82013. View the data in the file via IBM Query or another file utility.

Group Level Security

From World Writer (G82), choose 27
From World Writer Advanced Operations (G8231), choose Query Group Level Security

The primary purpose of this program is to set up access to allow a user to submit a version that updates a file. Additional functions can be set up to control the access a user has to the version within a World Writer Group.

Group access is allowed for submitting a version (not in update mode), adding, changing, and deleting a version, if the User Exclusive field on the version allows these functions. No entry in this program is required. For updating a file, however, a user must be added to Group Level Security. Likewise, if you wish to restrict a user from the add, change, submit, and delete options, a record must be added to Group Level Security.
You can do one of the following:

- You can enter a User ID and indicate the Group IDs and associated functions.
- You can enter a Group ID and indicate the User IDs and associated functions.

To set up access by User ID, enter the User ID with a list of Group IDs and allowed access. To set up access by a Group ID, enter the Group ID and list the User IDs with allowed access.

**Note:** *PUBLIC is the only JD Edwards World user group allowed.*

The access detail to define for a user or for a group is:

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exc</td>
<td>The user may execute versions in this group Y or N.</td>
</tr>
<tr>
<td>Add</td>
<td>The user may add versions to this group Y or N.</td>
</tr>
<tr>
<td>Chg</td>
<td>The user may change or modify versions in this group Y or N.</td>
</tr>
<tr>
<td>Dlt</td>
<td>The user may delete versions in this group Y or N.</td>
</tr>
<tr>
<td>Fupd</td>
<td>The user may update files using queries in this group Y or N.</td>
</tr>
</tbody>
</table>

**Functions Keys**

F21 - Print Group Level Security (P82118P).
Field Level Security

This program identifies which fields in a file a user is permitted to view and update. The defaults are:

- All the fields in a file can be viewed.
- No fields can be updated.

The primary purpose of the program is to set up the access to allow a user to submit a version that updates a file. You can also prevent a user from viewing fields that contain sensitive data, such as salary. Since the default for Update is N and the default for Display is Y, you only need to add this security when it’s necessary to override the defaults.

1. The first step in setting up File Field Level Security is to identify the User ID and File ID. When you take the menu selection, V94011 is displayed.
   - Inquire on the User ID.

   **Note:** *PUBLIC is the only JD Edwards user group allowed.

   - If the User ID does not exist, change the action to A and enter the file in the subfile portion of the screen.
   - If the User ID already exists, the file(s) are listed in the subfile. To add an additional file, change the action code to C and enter the file at the bottom of the list.
   - If the User ID exists and you wish to delete access, enter 9 in the Option field next to one or more files.
2. When you have entered valid information on V94011, you are automatically taken to a screen that lists all the fields in the file, V9401. It is only necessary to add records where you wish to change the default access allowed.

- The default for DSP (Display) is Y. Enter N to prevent user access to this field. If the user includes this field on Output Field Specifications for a version, they will not be able to submit the version. The following error is received: "1737 Not Authorized to Perform Opt. on Query."

- The default for UPD (Update) is N. Enter Y to allow the user access to update this field. This allows the user to successfully submit a version that updates this field.

![Screen shot of Field Level Security](image)

**Options**

1 - Display Field Level Security.

9 - Delete Field Level Security.

**Function Keys**

F16 – Display all fields.

F21 – Print File Field Level Security (P9401P).

**Report Version Security**

From World Writer (G82), choose 27
From World Writer Advanced Operations (G8231), choose Report Version Security
Use this program to update the User Exclusive field either on all versions or just versions owned either by a specific user, or versions owned by a specific user within a specific World Writer group.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>User ID</td>
<td>The user id that currently appears as the owner of the version on the Versions List.</td>
</tr>
<tr>
<td>Group ID</td>
<td>The Group where the World Writer versions reside. The ampersand (&amp;) is used to indicate all User IDs and/or all Group IDs.</td>
</tr>
<tr>
<td>Security Code</td>
<td>The new value to be updated for the User Exclusive field for the versions impacted. Use Field Sensitive Help F1 for the allowed values.</td>
</tr>
<tr>
<td>Delete (Y/N)</td>
<td>The default is blank or N. If Y - this will delete records from both Query Group Level Security and the Field Level Security files.</td>
</tr>
</tbody>
</table>

**Function Keys**

F14 – Display Group Level Security (P82118)
F15 – Display File/Field Level Security (P9401)
4 Appendices
Appendix A – Joined Logical Files

A joined logical file can be used in place of two or more of the physical files needed for the report. This is advantageous because the physical files are joined during the creation of the logical. Also, duplicate records may be eliminated from the report and performance may be improved when logical files are utilized.

Below is a partial list of some of the more common joined logical files. This information was obtained from Software Versions Repository.

<table>
<thead>
<tr>
<th>File ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F00147JA</td>
<td>Multi-Tiered Payment Terms Join F00147/F0014/F0411</td>
</tr>
<tr>
<td>F00147JB</td>
<td>Multi-Tiered Payment Terms Join F00147/F0014/F0311</td>
</tr>
<tr>
<td>F0101JA</td>
<td>JF - Address Suppl Data Information (F0101 F01092 F01093)</td>
</tr>
<tr>
<td>F0101JB</td>
<td>JF - Address Mailing Labels (F0101 F0111 F0116)</td>
</tr>
<tr>
<td>F0101JC</td>
<td>JF - Address Mailing Labels (F0101 F0116 F0401 F0301)</td>
</tr>
<tr>
<td>F0101JD</td>
<td>JF - Address Mailing Labels (F0101 F0116 F0115)</td>
</tr>
<tr>
<td>F0101JE</td>
<td>JF - Address Mailing Labels (F0101 F0116)</td>
</tr>
<tr>
<td>F0101JF</td>
<td>JF - Supplier Analysis (F0101 F0401)</td>
</tr>
<tr>
<td>F01133JA</td>
<td>JF - PPAT Message Distribution (F01133 F01131)</td>
</tr>
<tr>
<td>F0301JA</td>
<td>JF - Customer and Address Information (F0101 F0301)</td>
</tr>
<tr>
<td>F0301JB</td>
<td>JF - Customer Mstr &amp; Customer Co/BU Default (F0301 &amp; F03015)</td>
</tr>
<tr>
<td>F0315JA</td>
<td>JF - A/R STATEMENTS ONLY - F0315/F0101/F0301 - Address No.</td>
</tr>
<tr>
<td>F03465JA</td>
<td>JF - AR Netting Workfile (F0101/F03465) ABAN8/ROAN8</td>
</tr>
<tr>
<td>F0411JA</td>
<td>A/P Payment File - JF (F0101/F0411) - ABAN8/RPPYE</td>
</tr>
<tr>
<td>F0411JB</td>
<td>A/P 1099 Join File JF (F0411/F0414)</td>
</tr>
<tr>
<td>F0411JC</td>
<td>A/P Report File - JF (F0101/F0411) - ABAN8/RPAN8</td>
</tr>
<tr>
<td>F0411JD</td>
<td>A/P 'As Of' Build File - JF (F0411/F0414/F0413)</td>
</tr>
<tr>
<td>F0411JE</td>
<td>A/P Payment File - JF (F0101/F0411) - ABAN8/RPPYE</td>
</tr>
<tr>
<td>F0413JA</td>
<td>A/P Matching Doc File - JF (F0101/F0413/F0414) - Payment Id</td>
</tr>
<tr>
<td>F0414JB</td>
<td>A/P - JF (F0413/F0414)</td>
</tr>
<tr>
<td>File ID</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>F0414JC</td>
<td>A/P - JF (F0413/F0414/F09320)</td>
</tr>
<tr>
<td>F04571JA</td>
<td>JF - F04571/F04572 - A/P Payment Information</td>
</tr>
<tr>
<td>F06146JA</td>
<td>Joined Logical file - F060116 and F06146</td>
</tr>
<tr>
<td>F08JA</td>
<td>JF - Applicant Information  (F08401 F08092 F08093)</td>
</tr>
<tr>
<td>F08JE</td>
<td>JF - Employee Information  (F060116 F08092 F08093)</td>
</tr>
<tr>
<td>F08JH</td>
<td>JF - Case Information  (F08601 F08092 F08093)</td>
</tr>
<tr>
<td>F08JJ</td>
<td>JF - Job Information  (F08001 F08092 F08093)</td>
</tr>
<tr>
<td>F08JP</td>
<td>JF - Participant Information  (F08901 F08092 F08093)</td>
</tr>
<tr>
<td>F08JR</td>
<td>JF - Requisition Information  (F08102 F08092 F08093)</td>
</tr>
<tr>
<td>F08JS</td>
<td>JF - FSA Employee Balance   (F08370 F060116)</td>
</tr>
<tr>
<td>F08JT</td>
<td>JF - Pay Grade/Step Workfile Build (F060118 F060116)</td>
</tr>
<tr>
<td>F08320JA</td>
<td>JF - Plans/Options (F083202 F08320)</td>
</tr>
<tr>
<td>F08330JA</td>
<td>JF - Employee Enrollment (F08330 F0101)</td>
</tr>
<tr>
<td>F0901JA</td>
<td>Joined - MCU joined file f0006 and f0901</td>
</tr>
<tr>
<td>F1011JA</td>
<td>JF - F0006/F0901 - Company, Cost Center</td>
</tr>
<tr>
<td>F10430JA</td>
<td>Multi-Site Cons. File - JF (F10430/F0901) AID</td>
</tr>
<tr>
<td>F1201JA</td>
<td>JF - F1201/F1207 - Asset Item Number</td>
</tr>
<tr>
<td>F1201JB</td>
<td>JF - Fx Assets Suppl Data Information (F1201 F12092 F12093)</td>
</tr>
<tr>
<td>F1201JC</td>
<td>JF - Fx Assets Spec Sheet Information (F1201 F1216)</td>
</tr>
<tr>
<td>F1201JD</td>
<td>JF - F1202/F1201 - Item Balance/Item Master Join Logical</td>
</tr>
<tr>
<td>F1201JE</td>
<td>JF - F1201/F4801 - Item Master/Work Order Join Logical</td>
</tr>
<tr>
<td>F1501JA</td>
<td>JF - F1501/F0101 - Address Number</td>
</tr>
<tr>
<td>F1503JA</td>
<td>JF - F1503/F1501 - Lease Number</td>
</tr>
<tr>
<td>F1511JB</td>
<td>JF - (F1511 F0311)</td>
</tr>
<tr>
<td>F1515JA</td>
<td>JF - A/R STATEMENTS ONLY - F1515/F0101/F0301 - Address No.</td>
</tr>
<tr>
<td>F1515WJA</td>
<td>JF - TENANT STATEMENTS ONLY - F1515W/F0101/F0301 - Address</td>
</tr>
<tr>
<td>F1901JA</td>
<td>JF - Service Address/Meter Position (F1901 F1905)</td>
</tr>
<tr>
<td>F1902JA</td>
<td>JF - Service Agreement/Connection (F1902 F1903)</td>
</tr>
<tr>
<td>F1902JB</td>
<td>JF - Serv Agrmt/Connections/Bill Item (F1902 F1903 F1926)</td>
</tr>
<tr>
<td>File ID</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>F3411JA</td>
<td>JF-Planning Message/Branch (F3411/F4102)</td>
</tr>
<tr>
<td>F3460JA</td>
<td>JF Forecast/Branch (F3460 F4102)</td>
</tr>
<tr>
<td>F3911JA</td>
<td>JF- F4111/F3911</td>
</tr>
<tr>
<td>F4072JA</td>
<td>JF-Price key ID. (F4072 F4094)</td>
</tr>
<tr>
<td>F4074JA</td>
<td>JF-Adj. Name / Adj. Control Code (F4074 F4071)</td>
</tr>
<tr>
<td>F4077JA</td>
<td>JF-Price key ID. (F4077 F4094) - Select Approved</td>
</tr>
<tr>
<td>F4101JA</td>
<td>JF-Item Information (F4101 F41092)</td>
</tr>
<tr>
<td>F4101JB</td>
<td>JF-Item Master/ Cost Ledger (F4101 F4105)</td>
</tr>
<tr>
<td>F4101JC</td>
<td>JF-Item Master/Item Location/Cost Ledger (F4101 F4102 F4105)</td>
</tr>
<tr>
<td>F4101JD</td>
<td>JF-Item Master/Item Branch/Item Location (F4101 F4102 F41021)</td>
</tr>
<tr>
<td>F4101JE</td>
<td>JF-Item Master/Item Branch (F4101 F4102)</td>
</tr>
<tr>
<td>F4102JA</td>
<td>JF-Location/Branch (F4102 F41021)</td>
</tr>
<tr>
<td>F41021JA</td>
<td>JF-Location/Branch (F41021 F4102)</td>
</tr>
<tr>
<td>F41021JB</td>
<td>JF-Location/Lot Master (F41021 F4108)</td>
</tr>
<tr>
<td>F41021JC</td>
<td>JF-Location/Item Master (F41021 F4101)</td>
</tr>
<tr>
<td>F4106JA</td>
<td>JF-Location/Branch (F4106 F4094)</td>
</tr>
<tr>
<td>F41112JA</td>
<td>JF (F41112/F4101/F0006)</td>
</tr>
<tr>
<td>F4211JA</td>
<td>Sales Order Detail/Shipmen3nt Detail Join File</td>
</tr>
<tr>
<td>F43090JA</td>
<td>JF-Supplier Item Relationships/Item Master (F43090/F4101)</td>
</tr>
<tr>
<td>F4311JA</td>
<td>JF-SUBCONTRACTS - Cst Ctr, Ord No., Ord Typ, Suffix, Line</td>
</tr>
<tr>
<td>F4450JA</td>
<td>JF-Lot Proceed Entry (F4450 F0006)</td>
</tr>
<tr>
<td>F4456JA</td>
<td>JF-Lot Proceed Entry - F4456 F0006</td>
</tr>
<tr>
<td>F46012JA</td>
<td>JF-Fixed Locations (F46012 F4100 F4102)</td>
</tr>
<tr>
<td>F46029JA</td>
<td>LF for Empty Locations - MCU,BSLN,SRUL,SEQ,DISN,WSQP,LOCN</td>
</tr>
<tr>
<td>F47141JA</td>
<td>JF-PO Acknowledgment Header &amp; Tax Tag - XPI</td>
</tr>
<tr>
<td>F47142JA</td>
<td>JF-PO Acknowledgment Detail &amp; Tax Tag - XPI</td>
</tr>
<tr>
<td>F4801JA</td>
<td>JF-F4801/F3111 - Street Name, Area</td>
</tr>
<tr>
<td>F4801JB</td>
<td>JF-F4801/F48092 - Order Number</td>
</tr>
<tr>
<td>File ID</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>F4801JC</td>
<td>JF - F4801/F3111 - Street Name, Area</td>
</tr>
<tr>
<td>F49211JA</td>
<td>Sales Order Detail Join Logical - DOCO, DCTO, KCOO, LNID</td>
</tr>
<tr>
<td>F49219JA</td>
<td>Sales Order Detail Tag Logical - Doc, Doc Type</td>
</tr>
<tr>
<td>F51901JA</td>
<td>Account Master Extended Details</td>
</tr>
</tbody>
</table>
Appendix B – Soft Join

Standard File Join Process

When two or more files are used to create a report using World Writer, the files must be joined by at least one field from each file that contains identical data. World Writer provides two ways to do this:

- V82102 File Relations – Match Fields. Type matching SEQ numbers to relate the fields.
- V82103 File Relations – Enter Fields. Type the related field names directly on this screen.

Choose F8 to toggle from V82102 to V82103.

In order to use either of these methods, the fields from each file must be the same data type as defined in Data Dictionary for the data item. The data type is a characteristic of the data that the field contains. Common types are alphanumeric and numeric. You can join alphanumeric to alphanumeric and numeric to numeric using the standard file join methods.

What is a soft join?

In some cases the data in the two fields is identical, but the data types are different. For example, the subledger field in F0911 can contain an address book number. The field GLSBL in F0911 is an alphanumeric field and the ABAN8 in F0101 is a signed numeric field. If you attempt to join these two fields with either of the above methods, the error message 1500, Field Types Not the Same, is received.

A soft join provides a method to join fields of like data but defined as different data types in Data Dictionary. The procedure is to bypass the join screen (unless other joins are required), create a calculated field that converts the numeric field to alphanumeric and set up the actual join between these fields in Data Selection.

Note: World Writer does not provide a way to convert alphanumeric fields to numeric.
Example One

In this example, the desired join between F0911 and F0101 is GLSBL EQ ABAN8. The order of the fields typed into Data Selection does not matter.

If the data selection is done through an OR statement, this join will need to be placed in each part of the OR statement.

As with all file joins, World Writer only retrieves records where the data matches. In this example, any F0911 record where the subledger field is not an address book number or is blank, will be eliminated from the report.

1. To bypass the File Relations screen, press Enter, as needed.
2. On the Output Field Specifications screen, choose Opt. 1 on a blank line to create a field that converts the numeric field to an alphanumeric field.
3. Assign this field a Seq No. and Description.
   The size should be the same size the field you are converting.
4. Enter N in the PW column. It does not have to be a printing field on the report.
5. Give the field a unique field name in the Output Field column.
6. Press Enter. The Query Result Field Definition is displayed.
   Use the DIGITS operand to convert the numeric field to alphanumeric.
7. Press Enter.
8. If no errors are detected, press enter again to return to Output Field Specifications.
9. Proceed to Data Selection. The actual join is done on this screen.
10. Access the detail area (F4).
11. Page down to a blank line, if needed.
12. Enter the field names to be joined, and press Enter.
Example Two

When a Transfer Order is entered between Branch/Plants, a sales order record is written to the F4211 and a corresponding purchase order record is written to the F4311. The sales order number from F4211 (SDDOCO) is used to populate the related order number field (PDRORN) in F4311. A soft join is required to join SDDOCO to PDRORN. However, more than just this join may be required to get a one-to-one relationship of records between these files. The other fields needed for the join have matching data types and can be entered through the standard file join methods. The following cover page shows an example of a soft join combined with standard joins.
Appendix C – Julian Date Conversion Charts

About the Julian Date Format

Date fields in JD Edwards World files are stored in the Julian format. Program X0028 converts these dates into the Gregorian format so they are easily recognized in World software applications.

If you are performing date calculations in World Writer, you may be required to use the Julian date value. These conversion charts will assist in determining the value to enter.

They are also useful when viewing Julian date fields in applications outside of JD Edwards World that do not convert Julian to Gregorian.

The Julian (*JUL) date format is CYYDDD, where:

C is added to 19 to create the century, i.e. 0 + 19 = 19, 1 + 19 = 20.
YY is the year within the century,
DDD is the day in the year.

Examples

<table>
<thead>
<tr>
<th>Julian Date</th>
<th>Gregorian Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>098185</td>
<td>July 4, 1998</td>
</tr>
<tr>
<td>117001</td>
<td>Jan. 1, 2017</td>
</tr>
</tbody>
</table>
## Julian Dates – Normal Calendar Years

The following chart shows what month the DDD part of a Julian date represents in perpetual calendar years.

<table>
<thead>
<tr>
<th>Julian Date Calendar</th>
<th>Perpetual</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day</strong></td>
<td><strong>Jan</strong></td>
</tr>
<tr>
<td>1</td>
<td>001</td>
</tr>
<tr>
<td>2</td>
<td>002</td>
</tr>
<tr>
<td>3</td>
<td>003</td>
</tr>
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<td>4</td>
<td>004</td>
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<td>26</td>
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</tr>
<tr>
<td>27</td>
<td>027</td>
</tr>
<tr>
<td>28</td>
<td>028</td>
</tr>
</tbody>
</table>
### Julian Dates – Leap Years

The following chart shows what month the DDD part of a Julian date represents in leap years.

<table>
<thead>
<tr>
<th>Day</th>
<th>Jan</th>
<th>Feb</th>
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World Writer Guide (Revised - January 15, 2007)
Appendix D – Data Select on Julian Date Fields

Two common problems in data selection are trying to select records where a date field is blank or trying to compare two date fields. This document explains how to set up data selection for both of these situations.

Julian Date Examples

The following two examples are used to illustrate the solutions to two common problems.

Example 1

Find records in F060116 where the original date of employment field is blank. File: F060116, Field: YADSI

Example 2

Find records in F0411 where the G/L date is not equal to the invoice date. File: F0411, Fields: RPDGJ, RPDIVJ

Because of the editing associated with Julian date fields, the file fields cannot be used for data selection. Error 0004 - Date Invalid or Missing - is received. A calculated field needs to be created and used in place of the file fields. The following cover pages show how to setup the World Writer.

For information on how to create a calculated field, see the section on "Calculations" in the World Writer Guide.
Solution for example 1 - Data Select Blank Dates

Query Cover Page

The calculated field is named ORIGINAL. The expression for the calculated field is DIGITS(YADSI). YADSI is the file field name. This field does not need to be a printed field.

Data Selection

Usually date fields that display as blank on a screen actually contain zeros in the physical file. On the Data Selection screen, press F4 to open the fold area and type the calculated field name in the fold area of a blank line. Type EQ in the Test field and ‘000000’ in the Value field. In this example the Test is EQ (equal to); any single selection tests can be used, i.e. NE, LE, LT, NL, GE, GT, NG.
If this does not produce the desired results, the field may actually contain blanks instead of zeros. Change the Data Selection as shown below to retrieve blank values.
Solution for example 2 - Compare two dates in Data Selection

Query Cover Page

The calculated fields are named ##DIVJ and ##DGJ. The expressions for the calculated fields are the date field names from the file, RPDIVJ and RPDGJ. These fields do not need to be printed fields.

Data Selection

On the Data Selection screen, press F4 to open the fold area. On a blank line, type one of the calculated field names in the fold area. Type NE in the Test field and the other calculated field name in the Value field. In this example the Test is NE (not equal to); any single selection tests can be used, i.e. NE, LE, LT, NL, GE, GT, NG.
Appendix E – World Writer and Business Unit Security

Background Information

World Writer uses SQL (Structured Query Language) to generate a statement that is used to select fields, omit records and sort the resulting records into report format. The SQL statement can be seen by using Option 7 next to the World Writer version.

World Writer incorporates business unit security ranges into the SQL statement with the following syntax:

Where GLMCU Between '1' and '200000'.

In this example, the World Writer is written over the F0911 and the user is set up with a range of 1 - 200000 in Business Unit security.

Before you can understand how World Writer reads Business Unit security, you must first understand how characters are read hierarchically on the iSeries (AS/400).

World Writer Character Hierarchy

- Space (Δ) is the lowest character, followed by special characters like $ and @, then lower case letters from a to z, then upper case letters from A to Z, then finally, 0 (zero) through 9.
- 9 is the highest character.
How It Works

To determine if data qualifies within a range of Business Units, World Writer starts with the beginning or top range. It is read from left to right, character by character. To qualify for the beginning range, the character must meet either an equal to or greater than test. The compare stops when the first greater than test is found.

The ending or bottom range is also read from left to right, character by character. To qualify for the ending range, the character must meet either an equal to or less than test. The compare stops when the first less than test is found.

Review the following examples as this structure is applied to an example in World Writer:

Example #1

Business Unit range is AA400 through ZZ499. How does A1400 fit into this range?

Beginning comparison:

Is A greater than or equal to A? Equal - continue.

Is 1 greater than or equal to A? 1 is greater than A. 1 qualifies for the beginning range. The first compare stops and the compare for the ending range starts.

| A | A | 4 | 0 | 0 |
|   |   |   |   |   |
| A | 1 | 4 | 0 | 0 |
| Z | Z | 4 | 9 | 9 |

Ending comparison:

Is A less than or equal to Z? A is less than Z. A qualifies for the ending range. The compare stops.

A1400 fits within the AA400-ZZ499 range.

Example #2

Selected users are set up with a Business Unit Security range of From: SALARY Thru: SALARY. Users who should not have access to SALARY are set up with a range of From: 1 Thru: 999999. On a World Writer report, these users are seeing records where the Business Unit field is equal to SALARY. How does SALARY fall into the range of 1 thru 999999?

The Business Unit field is an alphanumeric field that is right justified. If one of the fields contains fewer characters than the other, the field with the lesser number of characters is "padded" with leading blanks until the From and Thru fields are the same length. (When an alphanumeric field is left justified, the blanks are placed at the end of the field until the fields are the same length.).

| $ | $ | $ | $ | $ | $ | 1 |
|   |   |   |   |   |   |   |
| S | A | L | A | R | Y |   |
| 9 | 9 | 9 | 9 | 9 | 9 |   |
Beginning comparison: Is S equal to or greater than Δ (blank)? Greater than - S qualifies, compare stops for beginning range.

Ending comparison: Is S equal to or less than 9? Less than - S qualifies, compare stops. SALARY falls within the 1 - 999999 range.

The Δ is seen as smaller than 9, so any business unit that is six alpha characters or less, would be considered in the range between Δ and 9.

For this example, there are two ways around this dilemma:

1. When setting up Business Units that are alphanumeric, make sure to assign them more characters than your highest numeric business unit. SALARYX is one character longer than the 999999. In the beginning compare S qualifies because it is greater than Δ, but in the ending compare S does not qualify because it is not less than Δ.

2. Set up Business Unit Security to make sure that it checks correctly regardless of any alphanumeric/numeric mix of Business Units. Setting up two ranges, 1 thru 999999 and 100000 thru 999999, would allow users access to business units 1 thru 200000 but not to SALARY.

   In the beginning comparison, S qualifies because it is greater than Δ, but in the ending compare S does not qualify because it is not less than Δ.

Other considerations

World Writer looks for the first data item in a file that has COSTCTRSEC. This is set up in Data Dictionary, field Data Item Class. COSTCTRSEC on a field is what triggers World Writer to look for and incorporate business unit security ranges into the SQL statement.

Typically the first field in a file that has COSTCTRSEC is MCU. If the World Writer version is written over more than one file, it will read and incorporate the first data item with COSTCTRSEC for each file.
The SQL statement below was generated from a World Writer written over F060116 and F06116. In both files, MCU is the first field that has COSTCTRSEC attached to it. Business Unit Security is read on this field in both files.

In some files the business unit field may be blank. This is valid. However, if business unit security is in effect, a user would have to have a range of *BLANK to *BLANK
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