

General Report Writer - AdvancedVersion 6.x

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Document Number

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Document Number

This document has been prepared to conform to the current release version of Open Systems Accounting Software. Because of our extensive developments efforts and our desire to further improve and enhance the product, inconsistencies may exist between the software and the documentation in same instances. Contact your customer support representative if you encounter an inconsistency.

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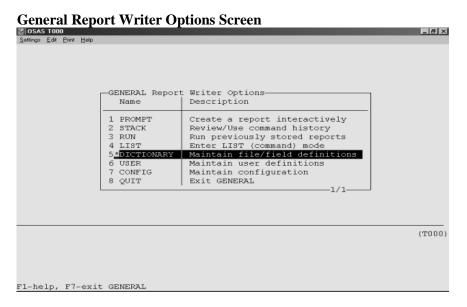
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OVERVIEW

General Report Writer allows you to create customized reports using the OSAS data files. The General Report Writer Advance class is designed to show you how to create and customize data dictionary files and how to create reports using customized data dictionaries.

DICTIONARY

Select Dictionary from the General Report Writer Options menu to add or maintain data dictionary items.

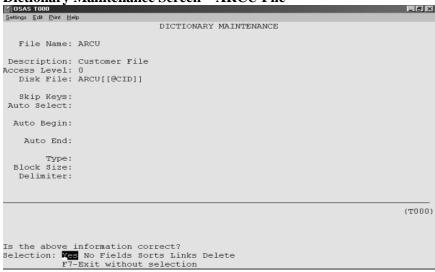


In Dictionary Maintenance you can add or edit existing data dictionary file, add or edit sorts and links to create link fields on reports.

Dictionary Maintenance

Setting up and Maintaining Files

Dictionary Maintenance Screen – ARCU File



Field Description

File Name Enter the name of the file to add or maintain.

The name can be 1 to 20 characters long and cannot contain spaces or symbols. Only letters, numbers, periods, and underscores are allowed.

The name entered here is used by General Report Writer and does not

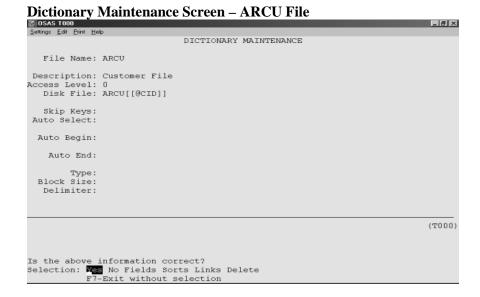
have to be the name of the file in OSAS.

You can use the **list files** command to select the file.

Description Enter a description of the file

Access Level¹ Enter the file access level. Valid levels are 0-9.

¹ Access Levels and access codes are setup through the Create General User Access Codes and the Create General File Access Levels on the General Report Writer main menu and through the User function on the General Report Writer Options menu.



| Field | Description | |
|------------------------|---|--|
| Disk File | | e of the file in OSAS. The name of the file on the et.) The name entered here should not contain a |
| | The Disk File can be | a BBx data file or a Text file. |
| | | for company ID. General uses this to check for the of the company you are in at the time you run a |
| Skip Keys | | ic keys that should not be included in a report that indard OSAS files this field is left blank. |
| Auto Select | | ase that is used each time a report uses this file. For this field is left blank. |
| Auto Begin Auto End | 1 , , , | o always use for reports that use this file as the he report. For standard OSAS files these fields are |
| Туре | If the file specified in type of text file. | disk file is a text files and not a BBX files enter the |
| | 1-blocked files | A file without any record delimiters. The number of characters is specified by block size. |
| | 2-delimted files | A file with records that end with a line-feed character. |
| Block size | If the Type is blocked, enter the size of each record within the file | |
| Delimiter | If the Type is delimited, enter the field delimiter used to separate the records. | |

Is the above information correct?
Selection: No Fields Sorts Links Delete
F7-Exit without selection

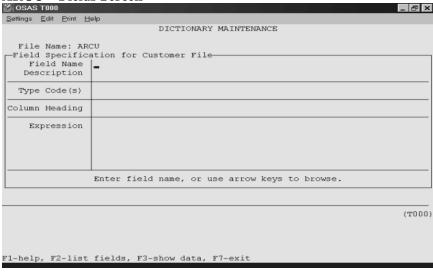
| Command | <u>Description</u> |
|-----------------------------------|--|
| Is the above information correct? | Yes, if the information is correct. You can add or edit a different file or exit Dictionary Maintenance. |
| | No to edit or change the information listed. You can change everything except the File Name. |
| Fields | Press ${\bf F}$ or move the cursor to ${\bf F}$ ields and press enter, to add or edit fields to the file. |
| Sorts ² | Press ${\bf S}$ or move the cursor to ${\bf S}$ orts and press enter, to add or edit sorts to the file |
| | Sorts are setup in the files that the central file will link to, or destination files. |
| Links | Press L or move the cursor to L inks and press enter, to add or edit links to other General Report Writer data dictionary files. |
| | Links are created in the central file, the file you want to link from, or source file. |
| Delete | Press ${\bf D}$ or move the cursor to ${\bf D}$ elete and press enter, to remove the file listed on the Dictionary Maintenance screen. |
| | General will prompt to verify deleting the file. Answer $\bf Yes$ to delete the file or $\bf No$ to save the file. |
| Exit without selection | Press the exit key listed to exit Dictionary Maintenance without saving any changes made. |
| | |

² Sorts are the Keys to the OSAS data files also known as Indexes.

Setting up and Maintaining Fields

Select Fields from the Dictionary Maintenance screen, to add or maintain fields definitions.

ARCU – Fields Screen



Field Description

Field Name Enter the name of the field to add or maintain.

The field name can be 1 to 20 characters long and cannot contain spaces or symbols. Only letters, numbers, periods and underscores are allowed.

The name entered here is used by General Report Writer and does not have to be the name of the field in OSAS.

You can use the **list fields** command to select the field.

Description Enter the description of the field.

The description can be 1 to 40 characters long.

Type Code(s) Type codes determine the type of field you are creating, the length of the field

and the format of the field.

The type codes are entered in a specific order. First, the base field codes, then

the length code, followed by other optional codes.

There are 3 valid T for Text fields base codes.

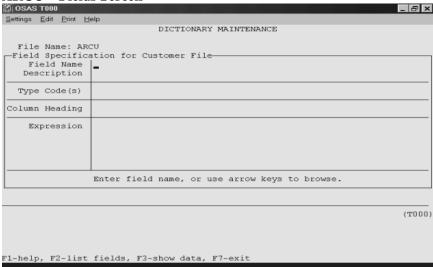
N for Numeric fields

D for Date fields

The length code is an L followed by the number of characters for the field.

Optional codes are entered last in any order. (See Appendix A)

ARCU – Fields Screen



<u>Field</u> <u>Description</u>

Column Heading Enter the heading that will print on reports using this field.

Expression

Enter the information that General will use to create the data for this field.

Expressions can be simple physical field references or can include multiple statements with embedded Basic and General Report Writer functions, like

IF....THEN...ELSE logic.

Data can be referenced in the expression in four ways;

As a physical field (from 1 to 255) by using @PFn, where n is the physical field number.

As a data record, using @REC

As the primary key, using @KEY

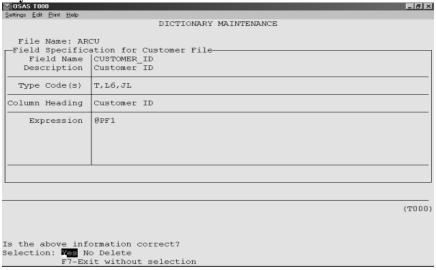
Or as another field in this file, by using its name

Functions can be entered in the expression (**See Appendix C**)

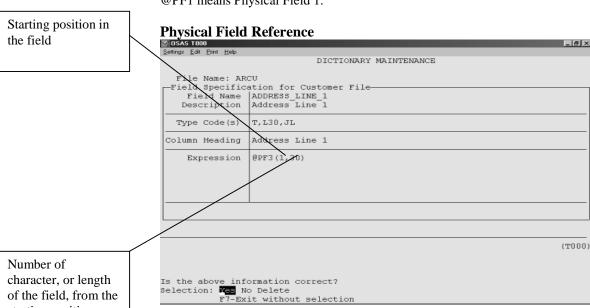
Multiple statements can be entered in expressions, like IF, THEN, ELSE statements.

Field Examples





The Customer ID field in the ARCU data dictionary is a physical field reference. The Expression @PF1 means Physical Field 1.

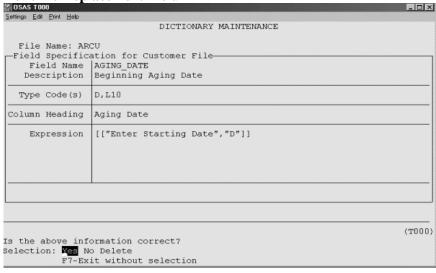


starting position

Some physical field references do not look at or use the entire field. The Address Line 1 field, for example. The Expression, @PF3(1,30) references Physical Field 3, but only part of the field. This is known as a substring. The numbers in the parenthesis tell General Report Writer what part of the field, or string, to use. The first number represents the starting position in the field. The second number represents the number of characters from the starting position to use to make the field. Therefore, this field is referencing Physical Field 3, starting a position 1 for a length of 30 characters.

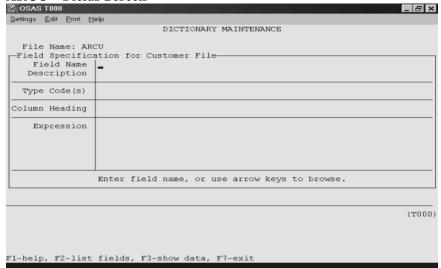
The AGED_121_PLUS field uses multiple statements with embedded Basic and General commands.

Runtime Replacement Field



The AGING_DATE field is a runtime replacement field.

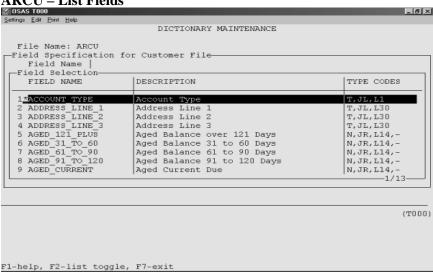
ARCU - Fields Screen



Command Action

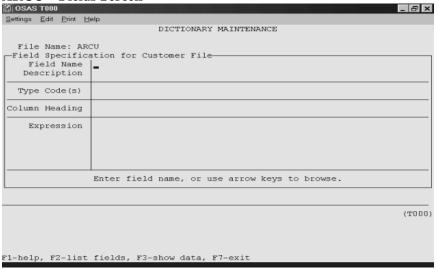
Help Select the help key to display help information about the field or function you are in.

ARCU – List Fields



| Command | <u>Action</u> |
|----------------|--|
| List Fields | Select the list fields key to display all the fields for the selected file. |
| | The fields list in alphabetical order, showing the Field Name, Description and Type Codes. |
| List Toggle | Select the list toggle key to display the fields by Field Name only |
| Exit | Select the exit key to exit list fields |

ARCU - Fields Screen

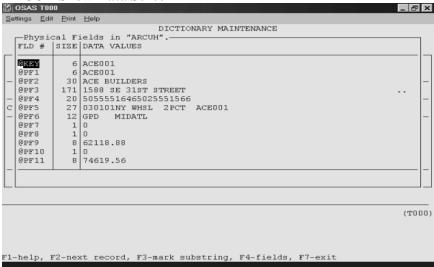


Command Action

Show data Select the show data key to see the information stored in your actual data

file.

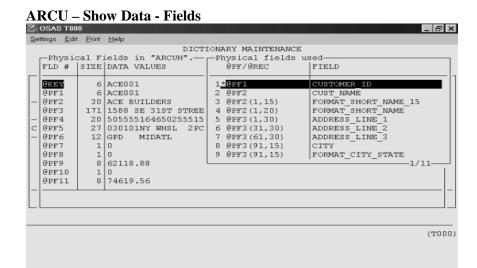
ARCU - Show Data Screen



Command Action

Next record Select the next record key to skip to the next record in the data file.

Mark substring Select the mark substring key to create a field by selecting the data.



Command Action

F1-help, F7-exit without selection

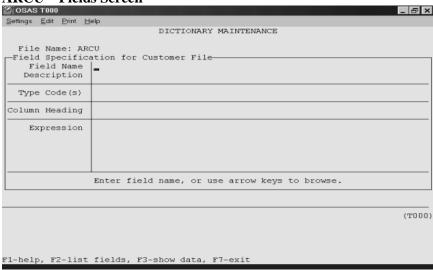
Fields Select the fields key to see the field names that corresponds to the data

fields selected.

Exit without selection Select the exit without selection key to exit fields without saving any

changes.

ARCU – Fields Screen



Command Action

Exit Select the exit key to exit Fields and return to the Dictionary Maintenance

screen.

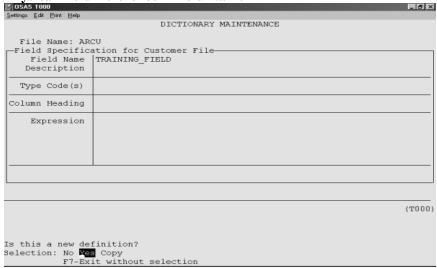
Creating Fields

There are several ways to create data dictionary fields in General Report Writer.

Creating a Physical Field reference

1. First Step in creating any field is to enter the Field Name³

Physical Field Reference - Field Name



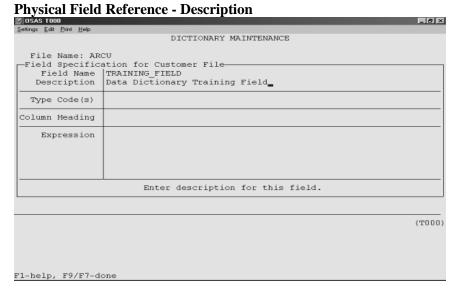
General Report Writer prompts, "Is this a new definition?

| Command | <u>Action</u> |
|------------------------|--|
| No | Select N, for No, if you do not want to create the field named. |
| Yes | Select Y , for Yes, to create the field and continue entering the information needed for the field. |
| Copy | Select ${\bf C}$, for Copy, to create this field by copying information from an existing field. |
| Exit without selection | Select the key listed to exit Fields without saving any changes made. |

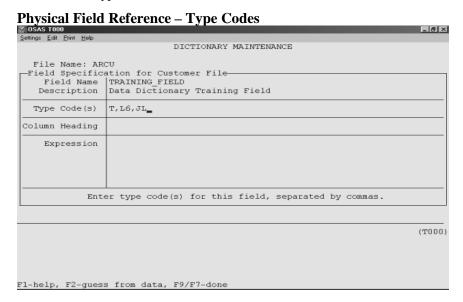
Select Yes to create this field.

³The Field Name can be 1-20 characters long and cannot contain spaces or symbols.

2. Enter the Description⁴ of the field.



3. Enter the Type Codes⁵ for the field.

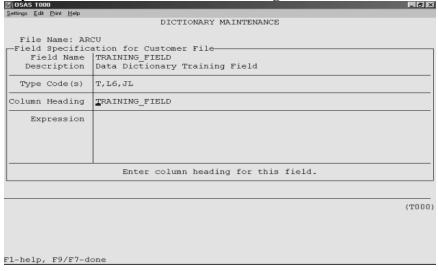


⁴ The Description can be 1-40 characters long and can contain anything you want.

⁵ Type Codes determine the type of field you are creating, the length, and the format of the field (**See Appendix A**). When you are creating a new field the Type Code field defaults T, L, you can accept that if you are creating a text field or change it if you are not.

4. Enter the Column Heading for the field.

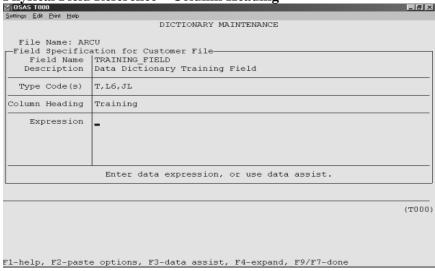
Physical Field Reference - Column Heading



The Field Name will default as the Column Heading. You can accept the column heading or change it.

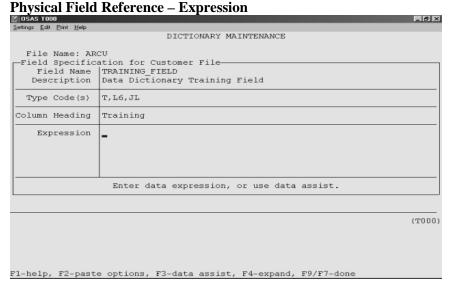
A stacked column heading can be created by using the vertical bar (|) between words.

Physical Field Reference – Column Heading



Note: The Length code, in the Type Code field, and the length of the Column Heading determine the length of the field on the report. The field with the greater length determines the length of the field on the report.

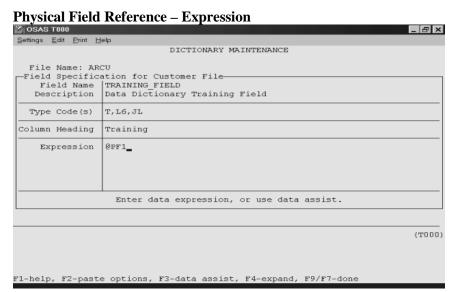
5. Enter the Expression to create the field.



In the Expression field, there are several options available to create the field. You can enter up to 300 characters to create this expression.

| Command | <u>Action</u> |
|---------------|--|
| Paste Options | Select this key to create the field from a list of predefined options. |
| Data Assist | Select this key to create the field from your actual OSAS data files. |
| Expand | Select this key to expand the expression field to 900 characters. |

A. You can type the Expression.



B. The expression can be entered in using the Paste Options.Physical Field Reference – Expression – Paste Options

Settings Edit Pint Help

DICTIONARY MAINTENANCE

File Name: ARCU

Field Specification for Customer File—
Field Name Description Data Dictionary Training Field

Type Code(s) T,L6,JL

Column Heading Training

Expression Training Sield Training

Expression User-defined Functions
5 Link expression

DICTIONARY MAINTENANCE

Paste Options

12 Pields from this file
2 Other files
3 Fields from other files
4 User-defined Functions
5 Link expression

Option Action

Fields from this file Select this

F1-help, F7-exit without selection

Fields from this file Select this option to create the field from an existing data dictionary field in the

current file.

Other files Select this option to create this field using a different data dictionary file.

Fields from other files Select this option to create this field using fields from a different data

dictionary file.

User-defined functions Select this option to create this field using any of the User defined functions

that you can setup on the Config menu in General Report Writer.

Link Expression Select this option to create this field as a link to a different field from a

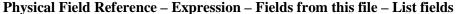
different data dictionary file.

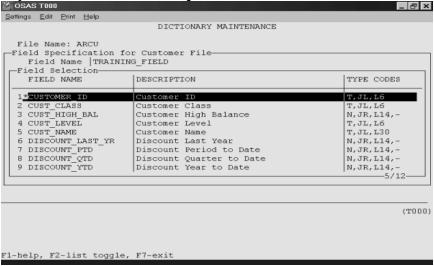
The link between the files must be established before you can use this option.

(T000)

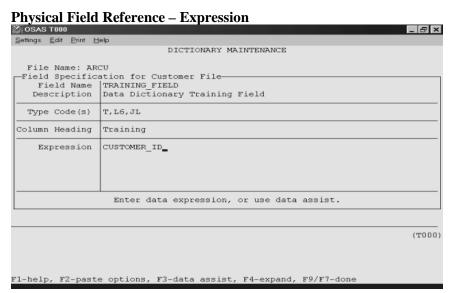
Select Fields from this file.

The list of available fields is displayed.





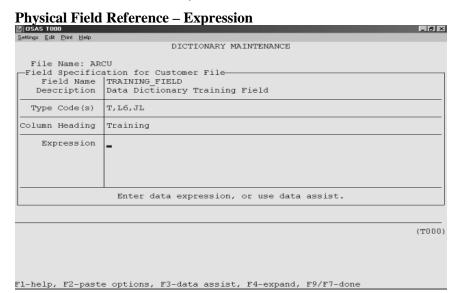
Select the field you want to reference and press enter.



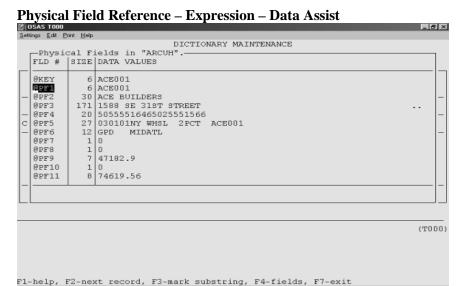
The selected field is displayed in the Expression field.

C. The Expression can be entered using the Data Assist option.

Select the data assist function key.



The Show Data screen is displayed.



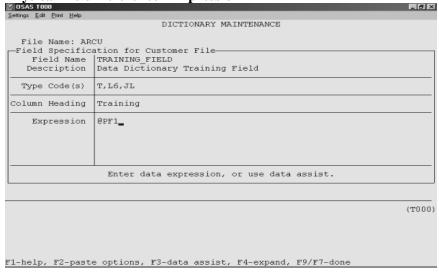
If you want to use the entire field in your Expression, perform the following:

1. Select the data field you want to use to create this data dictionary field and press Enter.

If the record you want to use to create this field isn't displayed use the Next Record key to search through the file until you fine the one you want.

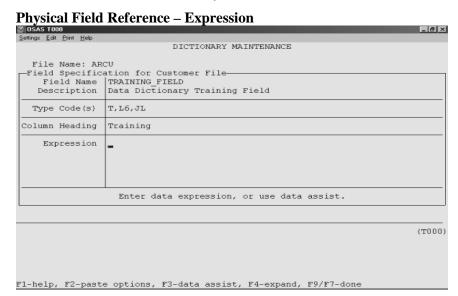
The selected physical field is displayed in the Expression.

Physical Field Reference - Expression

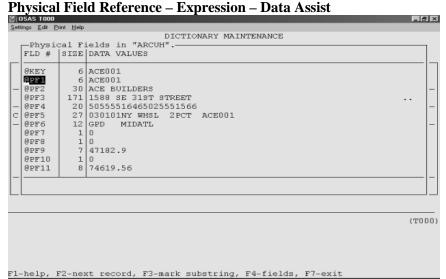


If you want to select part of a field to use in your Expression, perform the following:

1. Select the data assist function key.



The Show Data screen is displayed.

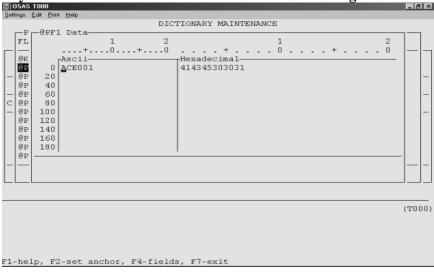


2. Select the data field you want to use to create this data dictionary field.

If the record you want to use to create this field isn't displayed use the Next Record key to search through the file until you fine the one you want.

3. Next, select the Mark Substring function key.

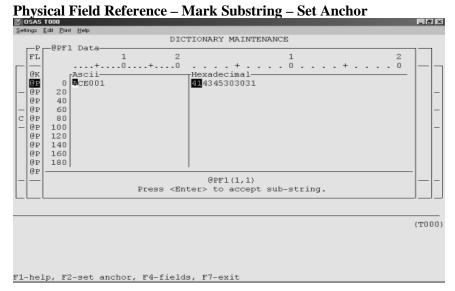
Physical Field Reference – Data Assist – Mark Substring



The Mark substring screen is displayed.

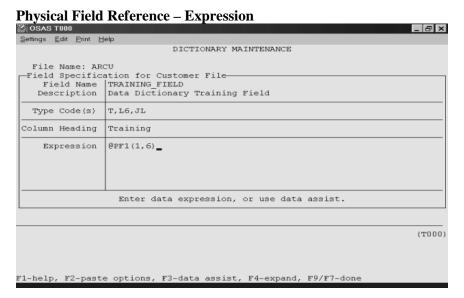
| <u>Field</u> | <u>Description</u> |
|--------------|---|
| ASCII | Displays the ASCII format of the selected data. |
| Hexadecimal | Displays the Hexadecimal format of the selected data. |

4. Move the cursor to the starting position of the data you want to select and press the set anchor function key.



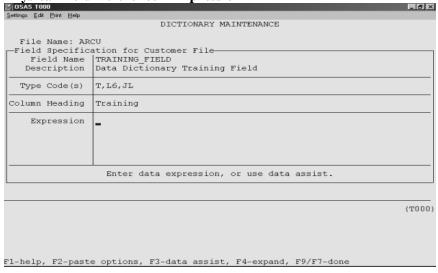
After setting the starting position, move the cursor to the right until all the data you want for this field is selected.

Press Enter to display the Expression



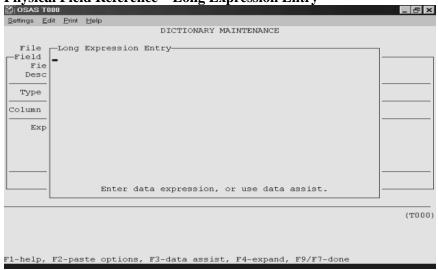
D. You can use the Expand option to enter a long expression.

Physical Field Reference – Expression



Press the expand function key to enter a 900 character expression.

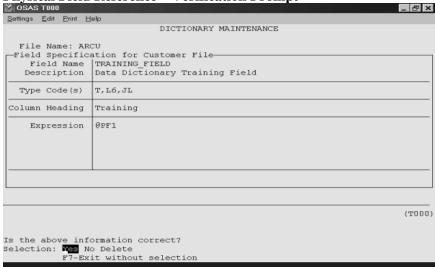
Physical Field Reference – Long Expression Entry



You can use the Paste Options or Data Assist in the Long Expression entry.

Once the Expression has been entered, you must continue to press the enter key until the Verification prompt, "Is the above information correct?", is displayed.

Physical Field Reference – Verification Prompt



| Command | Action |
|------------------------|--|
| Yes | Select Y if the information displayed is correct and to save the changes made to the field. |
| No | Select ${\bf N}$ if the information displayed is not correct and you want to make changes. |
| Delete | Select D to deleted the field displayed. |
| Exit without selection | Select the function key displayed to exit fields without saving any changes made. |

Creating Shorter Fields

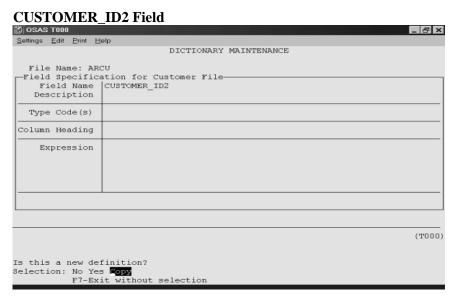
Shorting the Column Headings

Sometimes the Column Heading makes the field take up more columns on the report than the actual field. In some cases, you may want to shorten the column heading to make room for more fields.

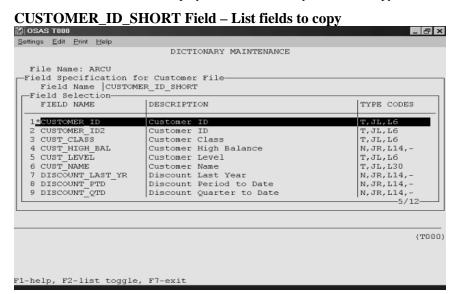
The following examples walk you through the steps in creating a shorter Customer ID field in the ARCU data dictionary file.

To create a shorter column heading enter the following:

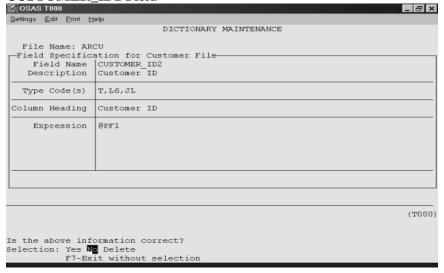
Create a copy of the field you want to shorten. Enter the Field Name you want to create.
 When General Report Writer prompts "Is the above information correct?", select Copy



2. The list fields screen is displayed, select the field you want to copy.



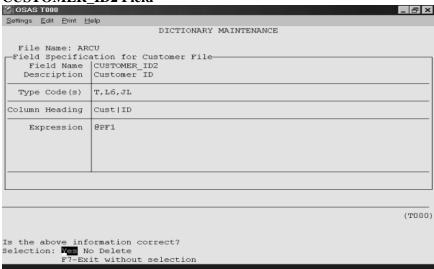
CUSTOMER ID2 Field



This will copy the Description, Type Codes, Column Heading, and Expression.

3. The Verification Prompt is displayed, select No to edit the field

CUSTOMER_ID2 Field



Change the Column Heading to make the field shorter. In this example we change the heading from Customer ID, which takes up 11 spaces on the report, to Cust|ID, which will take up only 4 spaces, so the field will only take up 6 spaces because the Length code is 6.

A stacked column heading can be created by using the vertical bar (|), so Cust ID will display as Cust ID

4. Press Enter until the verification prompt is re-displayed then select Yes to save the field.

Note: Always create a copy of any canned data dictionary fields before you make any changes. If you make changes to the fields shipped by Open Systems this will change the field on all reports using the field and for all users accessing General Report Writer, also if you upgrade or reinstall, your changes will be overwritten. If you create your own copies, those fields and files will not be overwritten.

Here is an example of the field on a report.

Cust ID Field



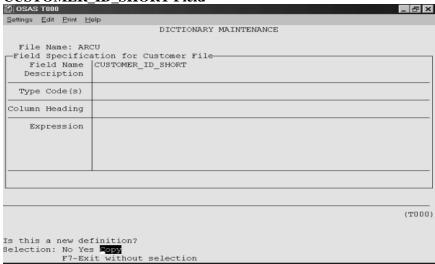
Shorting the Fields

Sometimes the field and the length code need to be shortened.

To shorten the field perform the following:

1. Create a copy of the field you want to shorten.

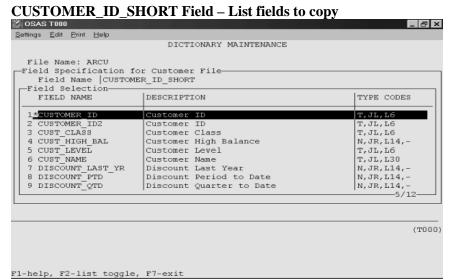
CUSTOMER_ID_SHORT Field

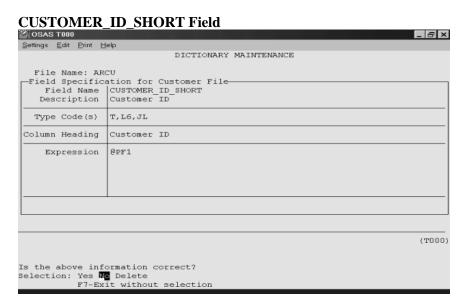


Enter the Field Name⁶ you want to create. When General Report Writer prompts "Is the above information correct?", select Copy.

⁶ The Field Name can be 1-20 characters long and cannot contain spaces or symbols.

2. The list fields screen is displayed, select the field you want to copy.

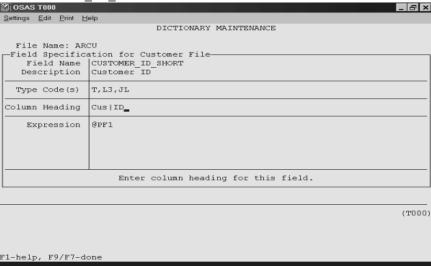




This will copy the Description, Type Codes, Column Heading, and Expression.

3. The Verification Prompt is displayed, select No, to edit the field

CUSTOMER_ID_SHORT Field

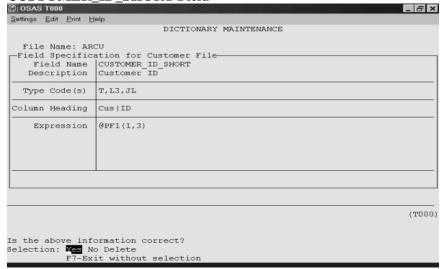


- 4. Change the Length code in the Type Code(s) field, to make the field shorter.
- 5. Change the Column Heading to make the field shorter. In this example we change the heading from Customer ID, which takes up 11 spaces on the report, to Cus|ID, which will take up only 3 spaces, so the field will only take up 3 spaces because the Length code and Column Heading length are 3.

A stacked column heading can be created by using the vertical bar (|), so Cus ID will display as Cus ID

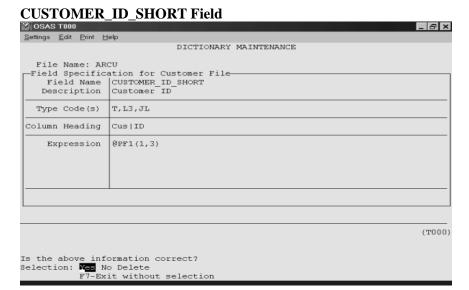
6. Change the Expression to make the field shorter⁷.

CUSTOMER_ID_SHORT Field



⁷ You do not have to change the Expression to shorten the field. General Report Writer will truncate the field if you do not change the expression.

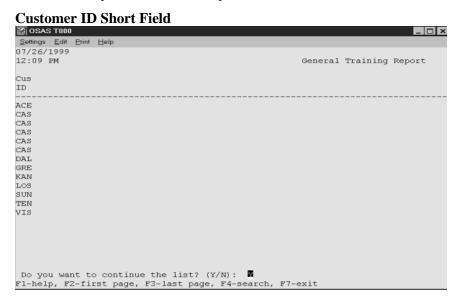
You can also select the part of the field you want to use in the shorter field.



7. Press Enter until the verification prompt is re-displayed and select Yes to save the field

Note: Always create a copy of any canned data dictionary fields before you make any changes. If you make changes to the fields shipped by Open Systems this will change the field on all reports using the field and for all users accessing General Report Writer, also if you upgrade or reinstall, your changes will be overwritten. If you create your own copies, those fields and files will not be overwritten.

Here is an example of the field on a report.



Creating Link Fields

In Dictionary Maintenance, you can create Link Fields. These fields can be used in place of creating a link field on the report.

Creating a link field has several advantages.

- 1. The field is always available for any report using this file as the central file, so you will not have to recreate the link each time you need the field.
- 2. The reports run a little faster when the link is create in Dictionary than on the report.
- 3. The field will be available to use in Breaks, Sorts and Criteria without having to be a field on the report.

Before you create a link field, you must know the name of the file you are linking to, the field name you are linking to, and the type codes for the field. The link between the files must already be established using the Sort and Link functions in Dictionary Maintenance.

The next example walks you through the steps to create a link field in the Customer file (ARCU) for the Sales Rep Name from the Sales Rep file (ARSR).

To create a Link Field, perform the following:

1. Enter the Field Name⁹ you want to create. When General Report Writer prompts, "Is this a new definition?", select Yes.

Sales Rep Name Field

Settings Edit Print Help

DICTIONARY MAINTENANCE

File Name: ARCU

Field Specification for Customer File
Field Name | SALES_REP_NAME |
Description

Type Code(s)

Column Heading

Expression

Is this a new definition?
Selection: No Selection: No Selection

⁸ You can use the File Description books to find out the file and field names, or print the data dictionary files and fields through the print files function on the Dictionary Maintenance screen.

⁹ The Field Name can be 1-20 characters long and cannot contain spaces or symbols.

2. Enter in the Description of the field. 10

1-help, F2-guess from data, F9/F7-done

3. Enter in the Type Code(s)¹¹ for the field.

For this example, use **T,L30,JL**.

Sales Rep Name Field

Settings Edit Print Help

DICTIONARY MAINTENANCE

File Name: ARCU

Field Specification for Customer File
Field Name | SALES_REP_NAME | Description | Sales Rep Name from ARSR

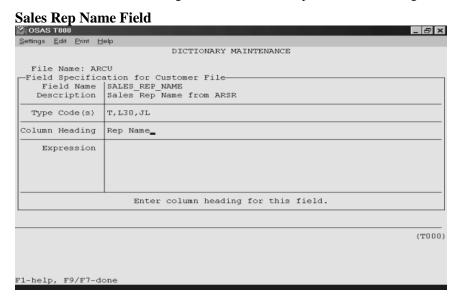
Type Code(s) | T,L30,JL_

Column Heading

Expression

Enter type code(s) for this field, separated by commas.

4. Enter the Column Heading¹² for the field, or accept the default heading.



¹⁰ The Description can be 1-40 characters long containing anything you want. This description will display when you use the list fields function in Fields, Breaks, Sorts, Criteria and Linksel.

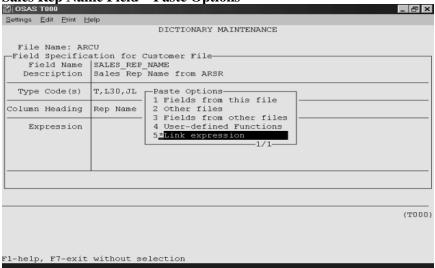
¹¹ Type Codes determine the type of field you are creating, the length, and the format of the field (**See Appendix A**). When you are creating a new field the Type Code field defaults T, L, you can accept that if you are creating a text field or change it if you are not.

¹² The Length code, in the Type Code field, and the length of the Column Heading determine the length of the field on the report. The field with the greater length determines the length of the field on the report.

5. Enter the Expression to create the field.

For linked fields use the Paste Options function key.

Sales Rep Name Field – Paste Options

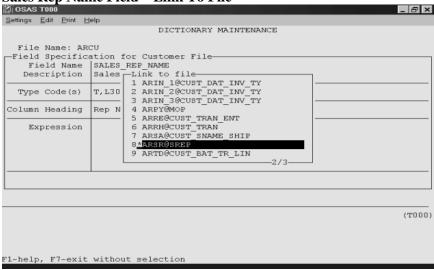


6. Select Link Expression from the Paste Options box.

The Link to file box is displayed.

7. Select the file that contains the field you want for your link expression.

Sales Rep Name Field – Link To File



For this link, select the ARSR@SREP.

(T000)

After the file has been selected, the Link to field box is displayed.

8. Select the field you want to use in your link expression.

Sales Rep Name Field - Link To Field

Settings Edit Print Help

DICTIONARY MAINTENANCE

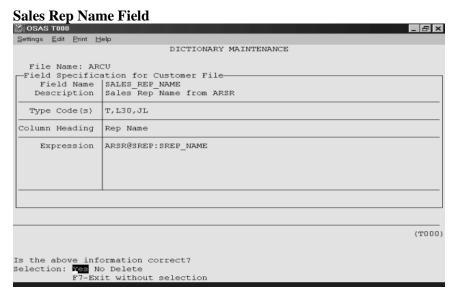
File Name: ARCU

Field Specification for Customer File
Field Name | SALES_REP_NAME |
Description | Sales Rep | Link to field |
Type Code(s) | T,L30,JL |
Column Heading | Rep Name | Link to Gield |
1 RUN_CODE | 2 SALES_MTD |
3 SALES_REP |
4 SALES_TD |
5 STROPE NAME |
6 STATE |
7 ZIP_CODE |
3/3-

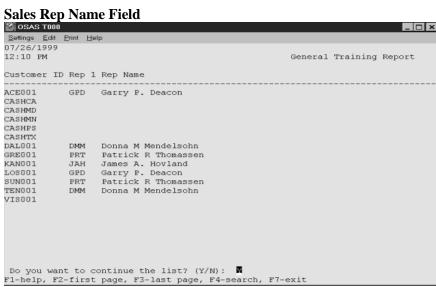
For this link, select the SREP_NAME field

F1-help, F2-next link, F7-exit

9. Enter through the Expression until the verification prompt is displayed. Select Yes.



Here is an example of the field on a report.



Creating Calculated Fields

In Dictionary Maintenance, you can create Calculated Fields. These fields can be used in place of creating a calculated field on the report.

Creating a calculated field has several advantages.

- 1. The field is always available for any report using this file as the central file, so you will not have to recreate the calculation each time you need the field.
- 2. The reports run a little faster when the calculation is create in Dictionary than on the report.
- 3. The field will be available to use in Breaks, Sorts and Criteria without having to be a field on the report.

You can create calculated fields with Numeric, Date or Text fields.

Creating Calculated Numeric Fields

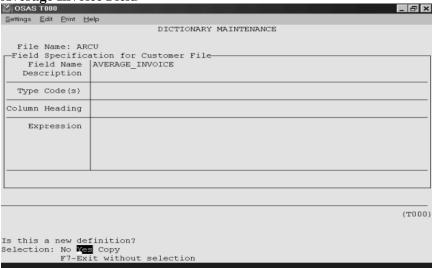
You can use any arithmetic operator with numeric fields, as long as you follow the rules of arithmetic, for example, no division by zero.

The following example will create a calculated field for the Average Invoice amount, which will divide the Sales YTD field with the Invoices YTD field.

The first example uses Basic commands, General Report Writer functions and Paste Options.

1. Enter the Field Name¹³ you want to create. When General Report Writer prompts, "Is this a new definition?", select Yes.

Average Invoice Field



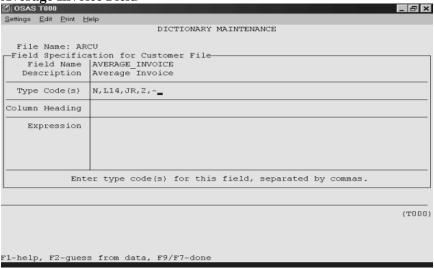
- 2. Enter in the Description of the field. 14
- 3. Enter in the Type Code(s)¹⁵ for the field. The type codes for this field are **N,L14,JR,2,-**.

¹³ The Field Name can be 1-20 characters long and cannot contain spaces or symbols.

¹⁴ The Description can be 1-40 characters long containing anything you want. This description will display when you use the list fields function in Fields, Breaks, Sorts, Criteria and Linksel.

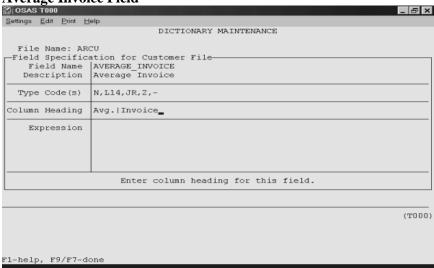
¹⁵ Type Codes determine the type of field you are creating, the length, and the format of the field

Average Invoice Field



4. Enter the Column Heading ¹⁶ for the field, or accept the default heading.

Average Invoice Field

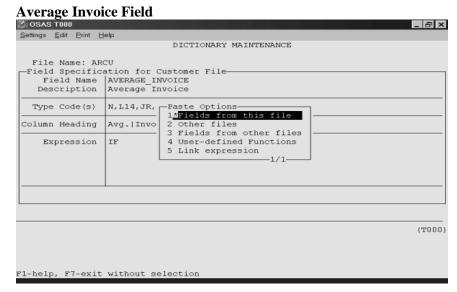


A stacked column heading can be created by using the vertical bar (|), so Avg. Invoice will display as Avg.

Invoice

(See Appendix A). When you are creating a new field the Type Code field defaults T, L, you can accept that if you are creating a text field or change it if you are not.

¹⁶ The Length code, in the Type Code field, and the length of the Column Heading determine the length of the field on the report. The field with the greater length determines the length of the field on the report



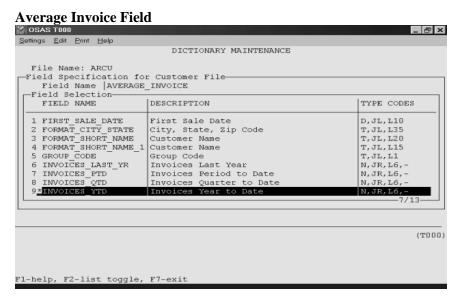
5. Enter the Expression to create the field.

This example uses IF...THEN...ELSE logic.

Enter IF

Select Paste Options and choose Fields from this file.

Select the INVOICE_YTD field.



Enter =0 THEN @FLD=0 ELSE @FLD=

Average Invoice Field OSAS T000 Settings Edit Print Help DICTIONARY MAINTENANCE File Name: ARCU -Field Specification for Customer File-Field Name | AVERAGE INVOICE Field Selection-FIELD NAME TYPE CODES 1 SALES QTD Sales Quarter to Date N, JR, L14, -Sales Rep Name from ARSR Sales Year to Date Ship Zone SALES REP NAME 3★SALES YTD N, JR, L14,-4 SHIP_ZONE 5 STATE T,JL,L2 State 6 STATEMENT_CODE 7 TAXABLE Statement Code Taxable Group? T, JL, L1 T, JL, L1 8 TAX_GROUP 9 TERMS_CODE Tax Group Terms Code T,JL,L6 T,JL,L6 -11/13-(T000)

Select Paste Options and choose Fields from this file.

Select the SALES_YTD field.

F1-help, F2-list toggle, F7-exit

Enter the divide sign "/"

Average Invoice Field OSAS TOO _ & × Settings Edit Print Help File Name: ARCU -Field Specification for Customer File-Field Name | AVERAGE_INVOICE -Field Selection-TYPE CODES 1 FIRST_SALE_DATE
2 FORMAT_CITY_STATE
3 FORMAT_SHORT_NAME 1
4 FORMAT_SHORT_NAME 1
5 GROUP_CODE First Sale Date D, JL, L10 City, State, Zip Code Customer Name T, JL, L35 T, JL, L20 T,JL,L15 T,JL,L1 6 INVOICES_LAST_YR 7 INVOICES_PTD 8 INVOICES_QTD Invoices Last Year Invoices Period to Date N, JR, L6, -N, JR, L6, -Invoices Quarter to Date N.JR.L6. N, JR, L6, (T000)

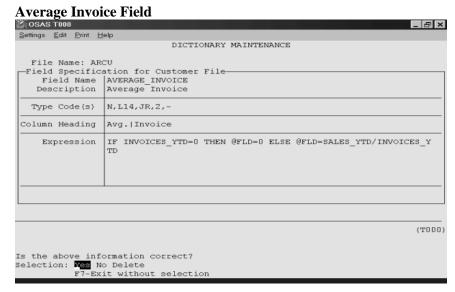
Use the Paste Options and choose Fields from this file.

Select the INVOICE_YTD field.

F1-help, F2-list toggle, F7-exit

The Expression should be:

IF INVOICE_YTD=0 THEN @FLD=0 ELSE @FLD=SALES_YTD/INVOICE_YTD



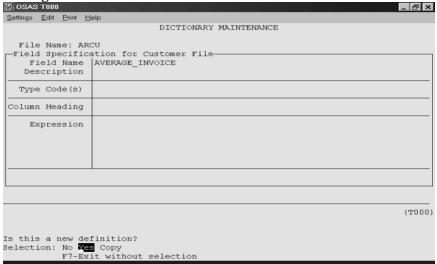
Enter through the Expression field until the verification prompt is displayed. Select Yes to save the field.

Here is an example the field on a report.

Average Invoice Field OSAS T000 _ 🗆 × Settings Edit Print Help 07/26/1999 12:12 PM General Training Report Customer ID Sales Ytd Invs. Avg. Invoice ACE001 CASHCA 1665331.24 14 66487.23 4 118952.23 16621.81 CASHMD CASHMN 108136.59 5 8 0 8 8 21627.32 27639.32 138196.60 CASHPS 65347.52 .00 367487.14 0.00 45935.89 DAL001 GRE001 315563.39 696228.41 39445.42 99461.20 KAN001 6 41198.61 8246.32 LOSD01 247191.67 SUND01 454090.26 TENO01 VISO01 12 0 37840.86 0.00 *Report* SUM Sales Ytd 4589738.99 Do you want to continue the list? (Y/N): \mathbf{X} F1-help, F2-first page, F3-last page, F4-search, F7-exit

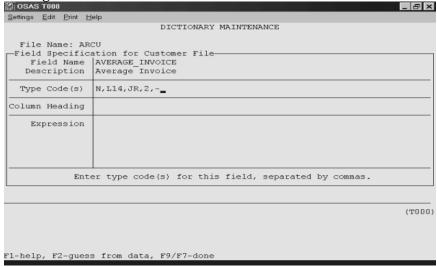
The next example uses General Functions to create the field.

Average Invoice Field



1. Enter the Field Name¹⁷ you want to create. When General Report Writer prompts, "Is this a new definition?", select Yes.

Average Invoice Field



- 2. Enter in the Description of the field. 18
- 3. Enter in the Type Code(s)¹⁹ for the field. For this field use **N,L14,JR,2,-**.

¹⁷ The Field Name can be 1-20 characters long and cannot contain spaces or symbols.

¹⁸ The Description can be 1-40 characters long containing anything you want. This description will display when you use the list fields function in Fields, Breaks, Sorts, Criteria and Linksel.

¹⁹ Type Codes determine the type of field you are creating, the length, and the format of the field (**See Appendix A**). When you are creating a new field the Type Code field defaults T, L, you can accept that if you are creating a text field or change it if you are not.

Average Invoice Field

Settings Edit Brint Help

DICTIONARY MAINTENANCE

File Name: ARCU

Field Specification for Customer File

Field Name | AVERAGE_INVOICE | Description | Average Invoice

Type Code(s) | N, L14, JR, 2,
Column Heading | Avg. | Invoice | Expression

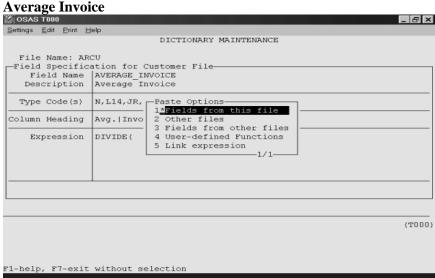
Enter column heading for this field.

(T000)

4. Enter the Column Heading²⁰ for the field, or accept the default heading.

A stacked column heading can be created by using the vertical bar (|), so Avg. Invoice will display as Avg.

Invoice



5. Enter the Expression to create the field.

Calculated fields can use General Report Writer functions²¹, Basic commands and Paste Options.

This Example will use General Report Writer functions and Paste Options.

Enter Divide (to use the divide function), then enter a left parenthesis (

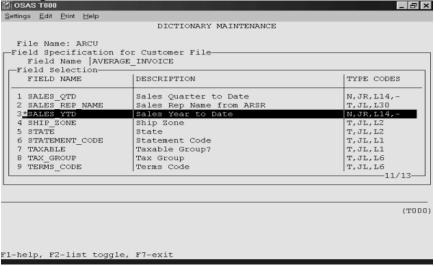
48 - Creating Calculated Fields

-

²⁰ The Length code, in the Type Code field, and the length of the Column Heading determine the length of the field on the report. The field with the greater length determines the length of the field on the report.

²¹ See Appendix C

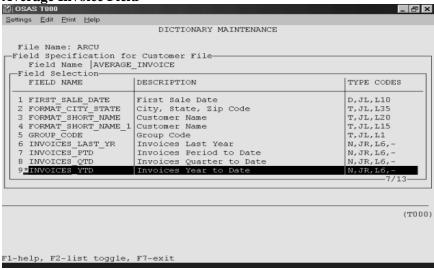
Average Invoice field OSAS TOOO



Select Paste Option and then select Fields from this file.

Select the SALES_YTD field.

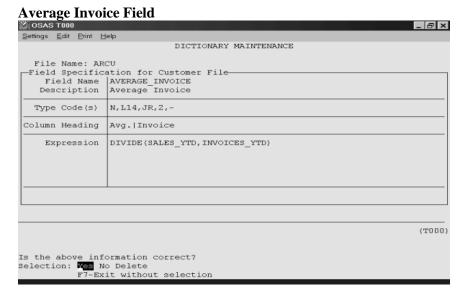
Average Invoice Field



Enter a comma, then use the Paste Options and select Fields from this file.

Select the INVOICE_YTD field.

End the Expression by entering a right parenthesis)



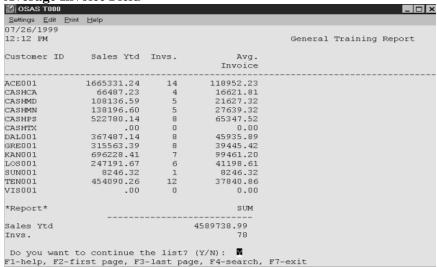
The Expression should be:

DIVIDE(SALES_YTD,INVOICES_YTD)

Enter through the Expression field until the verification prompt is displayed. Select Yes to save the field.

Here is an example of the field on a report.

Average Invoice Field



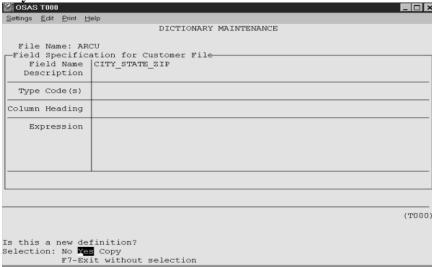
Creating Calculated Text Fields

Text fields can be added together to form more complex text fields.

The following example will create a calculated field for City, State and Zip Code.

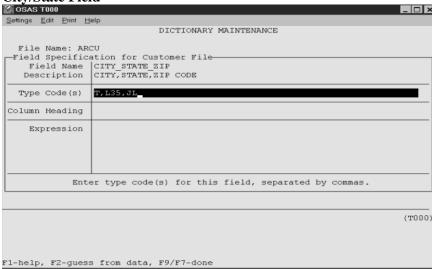
1. Enter the Field Name²² you want to create. When General Report Writer prompts, "Is this a new definition?", select Yes.

City/State Field



- 2. Enter in the Description of the field.²³
- 3. Enter in the Type $Code(s)^{24}$ for the field. For this field use **T,L35,JL**.

City/State Field



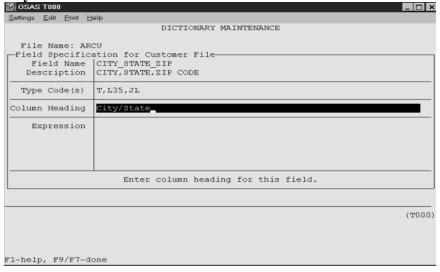
²² The Field Name can be 1-20 characters long and cannot contain spaces or symbols

²³ The Description can be 1-40 characters long containing anything you want. This description will display when you use the list fields function in Fields, Breaks, Sorts, Criteria and Linksel.

²⁴ Type Codes determine the type of field you are creating, the length, and the format of the field (**See Appendix A**).

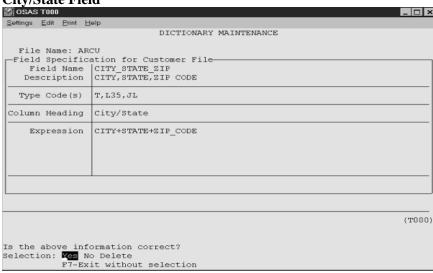
4. Enter the Column Heading²⁵ for the field, or accept the default heading.

City/State Field



5. Enter the Expression to create the field.





Select Paste Options and choose Fields from this file.

Select CITY, type +, select STATE, type +, select ZIP_CODE

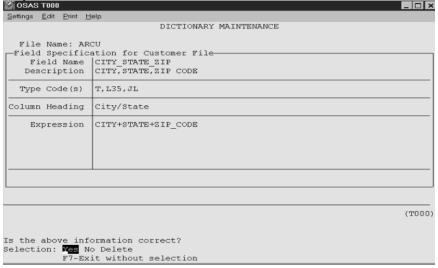
The Expression should be:

CITY+STATE+ZIP_CODE

²⁵ The Length code, in the Type Code field, and the length of the Column Heading determine the length of the field on the report. The field with the greater length determines the length of the field on the report.

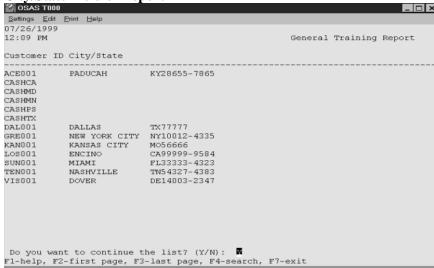
6. Enter through the Expression until the Verification prompt is displayed. Select Yes to save the field.

City/State Field



Here is an example of the field on a report.

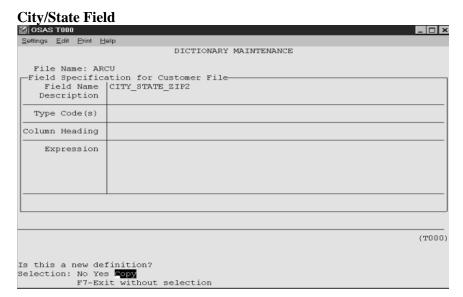
City/State Field on report



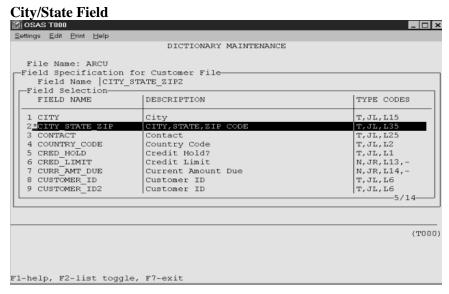
The field can be changed so the format is a little better.

The following example will create a calculated field for City, State and Zip Code and we will format the field to print and display better.

1. Enter the Field Name²⁶ you want to create. When General prompts, "Is this a new definition?", select Copy.



Copy CITY_STATE_ZIP field just created.

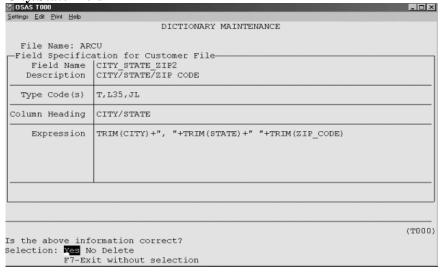


2. When the Verification prompt is displayed, select No.

 $^{^{\}rm 26}$ The Field Name can be 1-20 characters long and cannot contain spaces.

3. Edit the Expression. Use General commands and Paste Options.

City/State Field



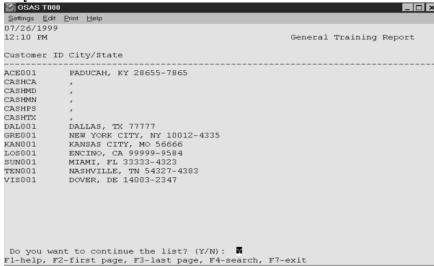
Change the Expression to the following:

TRIM²⁷(CITY)+", "+TRIM(STATE)+" "+TRIM(ZIP_CODE)

4. Enter through the Expression until the Verification prompt is displayed, and select Yes to save the field.

Here is and example of the field on a report.

City/State Field



We stripped away the blank spaces at the end of each field, added a comma between the city and the state and a space between the state and the zip code.

²⁷ See Appendix C

Creating Runtime Replacement Fields

In Dictionary Maintenance, you can create Runtime Replacement Fields. These fields can be used in place of entering a runtime replacement on the report.

Creating a runtime replacement field has several advantages.

- 1. The field is available to use for any report using this file as the central file, so you will not have to recreate it in criteria and linksel each time you need it.
- 2. The field will be available to use in creating link or calculated fields and in creating sorts and links between files.

You can create a runtime replacement field and enter all the necessary information to create the field or you can copy from an existing field and edit the Expression to create the runtime replacement.

Creating Text Runtime Replacement Fields

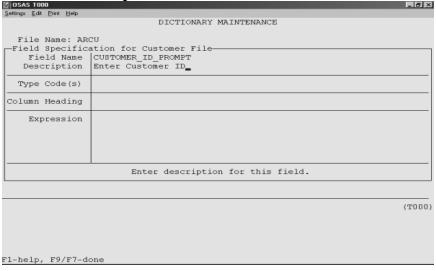
The first example will create a runtime replacement field without copying an existing field.

1. Enter the Field Name²⁸ you want to create. When General Report Writer prompts, "Is this a new definition?", select Yes.

²⁸ The Field Name can be 1-20 characters long and cannot contain spaces.

2. Enter in the Description of the field.²⁹

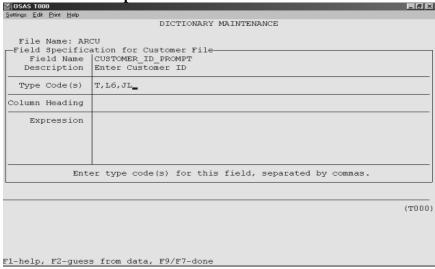
Customer ID Prompt Field



3. Enter in the Type Code(s)³⁰ for the field.

For this field use **T,L6,JL**.

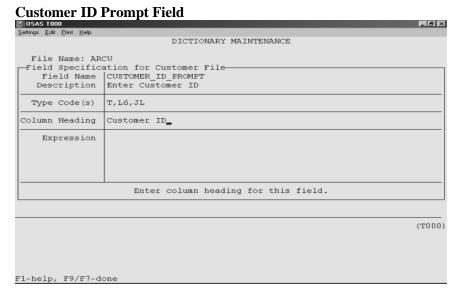
Customer ID Prompt Field



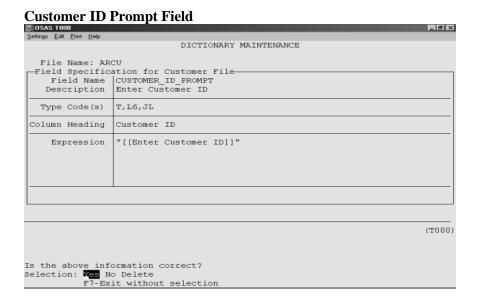
²⁹ The Description can be 1-40 characters long containing anything you want. This description will display when you use the list fields function in Fields, Breaks, Sorts, Criteria and Linksel.

³⁰ Type Codes determine the type of field you are creating, the length, and the format of the field (**See Appendix A**). When you are creating a new field the Type Code field defaults T, L, you can accept that if you are creating a text field or change it if you are not.

4. Enter the Column Heading³¹ for the field, or accept the default heading.



5. Enter the Expression to create the field.



The Expression for runtime replacements always begin with two left square brackets ([[) and end with two right square brackets (]]).

Between the brackets, enter the expression you want to prompt on the screen when you run the report. You can type anything you want between the brackets.

For text field runtime replacements, surround the brackets with quotes ("")

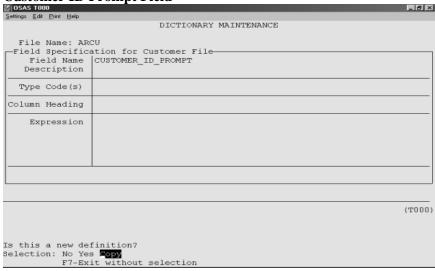
After you enter the Expression, press Enter until the verification prompt appears and select Yes to save the Expression and the field.

³¹ The Length code, in the Type Code field, and the length of the Column Heading determine the length of the field on the report. The field with the greater length determines the length of the field on the report.

The next example will create a runtime replacement field by copying an existing field.

1. Enter the Field Name³² you want to create. When General Report Writer prompts "Is this a new definition?", select Copy

Customer ID Prompt Field



The Field Selection screen is displayed.

2. Select the field you want to copy.

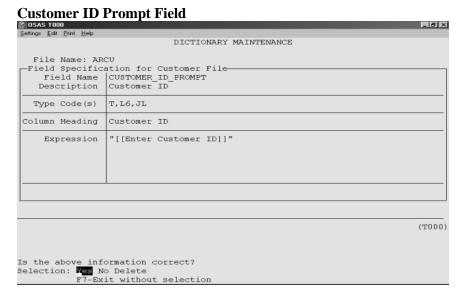
F1-help, F2-list toggle, F7-exit

Customer ID Prompt Field – Copy Field OSAS T000 Settings Edit Print Help DICTIONARY MAINTENANCE -Field Specification for Customer File Field Name | CUSTOMER_ID_PROMPT -Field Selection-FIELD NAME DESCRIPTION TYPE CODES 1 CURR_AMT_DUE Current Amount Due N. JR. L14. -2*CUSTOMER ID Customer ID T,JL,L6 2 CUSTOMER ID2
4 CUSTOMER ID_SHORT
5 CUST_CLASS
6 CUST_HIGH_BAL T, JL, L6 T, JL, L3 Customer ID Customer Class Customer High Balance Customer Level T,JL,L6 N,JR,L14,-7 CUST_LEVEL T, JL, L30 8 CUST_NAME 9 DISCOUNT_LAST_YR Customer Name Discount Last Year (T000)

3. When the Verification prompt is displayed, select No to edit the Expression.

³² The Field Name can be 1-20 characters long and cannot contain spaces or symbols.

4. Enter to the Expression and type in the runtime replacement.



The Expression for runtime replacements always begin with two left square brackets ([[) and end with two right square brackets (]]).

Between the brackets, enter the expression you want to prompt on the screen, when you run the report. You can type anything you want between the brackets.

For text field runtime replacements, surround the brackets with quotes ("")

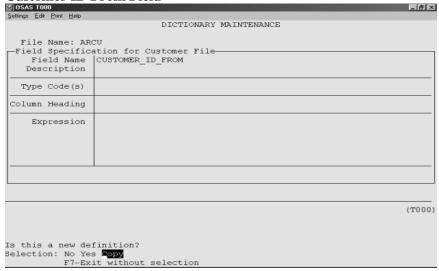
After you enter the Expression, press Enter until the verification prompt appears and select Yes to save the Expression and the field.

The next example will create From/Thru runtime replacement fields, by copying from existing fields.

First create the From runtime replacement field.

1. Enter the Field Name³³ you want to create. When General Report Writer prompts "Is this a new definition?", select Copy

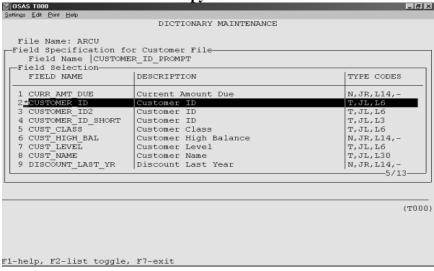
Customer ID From Field



The Field Selection screen is displayed.

2. Select the field you want to copy.

Customer ID From Field - Copy Field

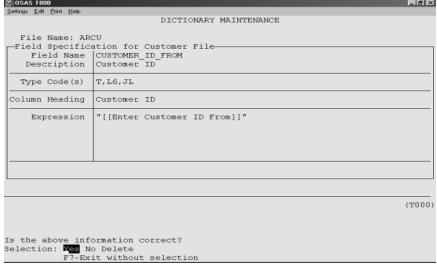


3. When the Verification prompt is displayed, select No to edit the Expression.

³³ The Field Name can be 1-20 characters long and cannot contain spaces or symbols.

4. Enter to the Expression and type in the runtime replacement.

Customer ID From Field



The Expression for runtime replacements always begin with two left square brackets ([[) and end with two right square brackets (]]).

Between the brackets, enter the expression you want to prompt on the screen, when you run the report. You can type anything you want between the brackets.

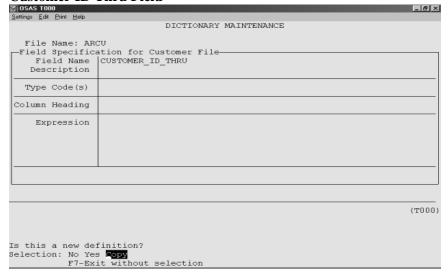
For text field runtime replacements, surround the brackets with quotes ("")

After you enter the Expression, press Enter until the verification prompt appears and select Yes to save the Expression and the field.

Next create the Thru runtime replacement field.

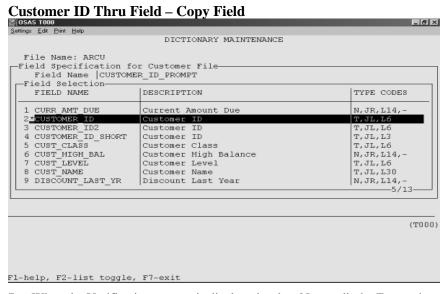
5. Enter the Field Name you want to create. When General Report Writer prompts "Is this a new definition?", select Copy

Customer ID Thru Field



The Field Selection screen is displayed.

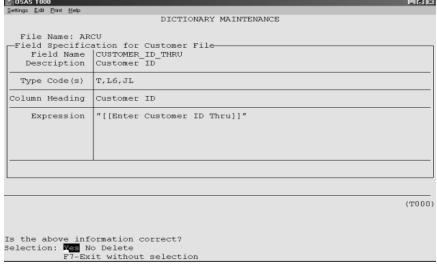
6. Select the field you want to copy.



7. When the Verification prompt is displayed, select No to edit the Expression.

8. Enter to the Expression and type in the runtime replacement.

Customer ID Thru Field



The Expression for runtime replacements always begin with two left square brackets ([[) and end with two right square brackets (]]).

Between the brackets, enter the expression you want to prompt on the screen, when you run the report. You can type anything you want between the brackets.

For text field runtime replacements, surround the brackets with quotes ("")

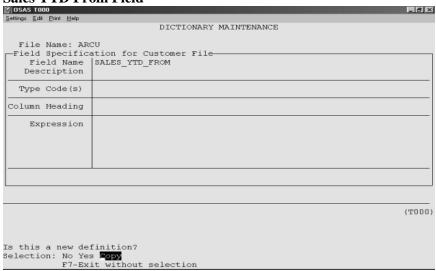
After you enter the Expression, press Enter until the verification prompt appears and select Yes to save the Expression and the field.

Creating Numeric Runtime Replacement Fields

Next, we will create a runtime replacement for a numeric field by copying from an existing field.

1. Enter the Field Name³⁴ you want to create. When General Report Writer prompts "Is this a new definition?", select Copy

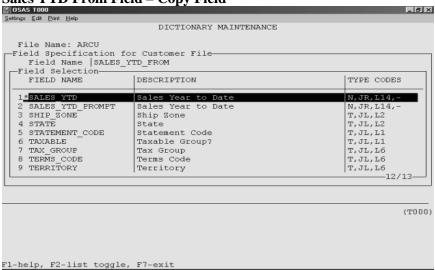
Sales YTD From Field



The Field Selection screen is displayed.

2. Select the field you want to copy.

Sales YTD From Field - Copy Field

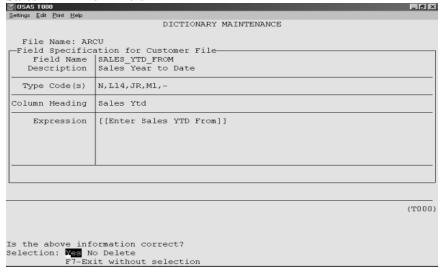


3. When the Verification prompt is displayed, select No to edit the Expression.

³⁴ The Field Name can be 1-20 characters long and cannot contain spaces or symbols.

4. Enter to the Expression and type in the runtime replacement.

Sales YTD From Field



The Expression for runtime replacements always begin with two left square brackets ([[) and end with two right square brackets (]]).

Between the brackets, enter the expression you want to prompt on the screen, when you run the report. You can type anything you want between the brackets.

For numeric fields **DO NOT** use quotes ("") around the outside of the brackets.

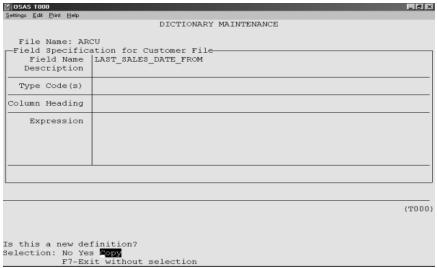
After you enter the Expression, press Enter until the verification prompt appears and select Yes to save the Expression and the field.

Creating Date Runtime Replacement Fields

Next, we will create a runtime replacement for a date field by copying an existing field.

1. Enter the Field Name³⁵ you want to create. When General Report Writer prompts "Is this a new definition?", select Copy

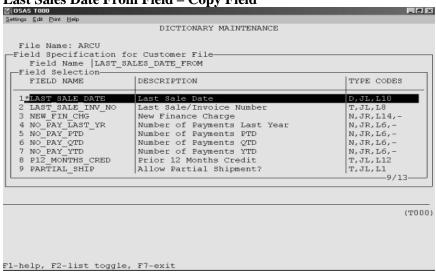
Last Sales Date From Field



The Field Selection screen is displayed.

2. Select the field you want to copy.

Last Sales Date From Field - Copy Field

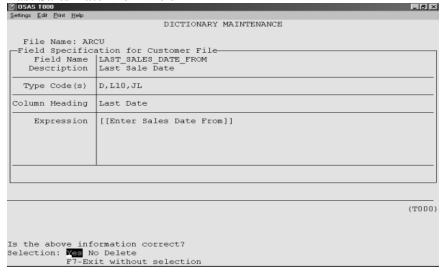


3. When the Verification prompt is displayed, select No to edit the Expression.

³⁵ The Field Name can be 1-20 characters long and cannot contain spaces or symbols.

4. Enter to the Expression and type in the runtime replacement.

Last Sales Date From Field



The Expression for runtime replacements always begin with two left square brackets ([[) and end with two right square brackets ([]).

Between the brackets, enter the expression you want to prompt on the screen, when you run the report. You can type anything you want between the brackets.

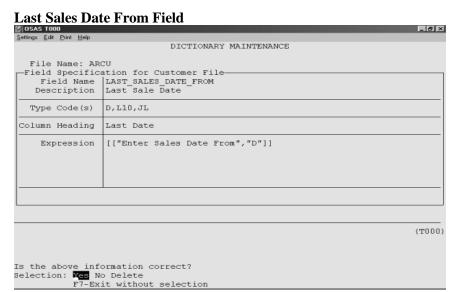
For date fields **DO NOT** use quotes ("") around the outside of the brackets, however OSAS stores all dates in Julian³⁶ format, so you will need to know the Julian number for the date you want.

68 - Creating Date Runtime Replacement Fields

³⁶ A Julian date is defined as the number of days passed since January 1, 4713 BC.

If you do not know the Julian number for the date, you can format the Expression to prompt you for the date using a regular date format, by placing the quotes inside the brackets and defining the type of field you are creating.

In the Expression field start the runtime replacement with two left square brackets ([[), after the brackets type a quote ("). Next, enter your expression, which can be anything you want. After the expression is entered, type another quote ("). Next, type a comma (,) followed by another quote ("). After the quote type **D**, for date, followed by another quote (") and then two right square brackets ([]).



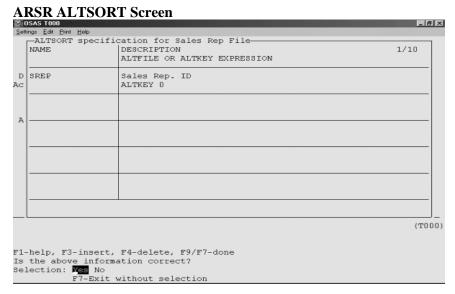
This Expression will allow General Report Writer to prompt you for the date using the date format you select in Display formats, on the Config menu.

After you enter the Expression, press Enter until the verification prompt appears and select Yes to save the Expression and the field.

You can also create Text and Numeric runtime replacement fields this way. (See Appendix B)

Setting up and Maintaining Sorts

Select the ARSR file and select Sorts³⁷ from the Dictionary Maintenance screen, to add or maintain the Alternate sorts definitions.



Sort definitions, for GENERAL Report Writer, have two main functions.

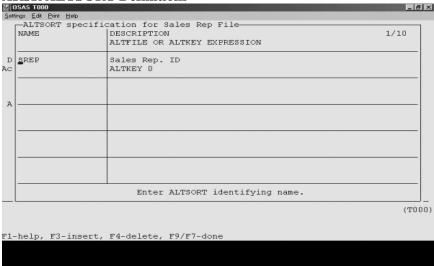
- 1. Altsorts will sort the data on a report using a key other than the primary key. If an Altsort is used on the report, you can also choose a data range based on that Altsort, using the Begin with and End with fields on the Report Design screen.
- 2. When a Link definition is set up on a file to the current file, the sort order can be specified here, when accessing the records in the file.

Note This refers to how the other files link to this file and not how this file links to others.

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³⁷ Sorts are also known as Keys or Indexes.

ARSR ALTSORT Definitions



<u>Field</u> <u>Description</u>

NAME Enter in the name of the sort definition.

The name can be 1-15 characters, and cannot contain spaces or symbols. Letters, numbers, periods, and underscores are allowed

Each name must be unique for this file.

DESCRIPTION Enter the description of the sort definition.

ALTFILE OR ALTKEY³⁸ EXPRESSION

The Altfile/Altkey field determines how the sort definition is processed.

There are two methods: ALTKEY or ALTFILE

ALTKEY uses any of the secondary keys to a file, if it is a multikeyed file.

Following the Altkey is the key number.

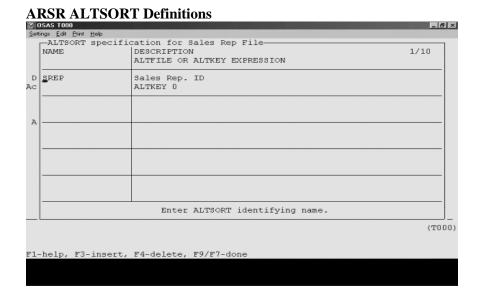
Example **ALTKEY 0**. This sorts by the primary key to the Sales Rep file, which is the Sales Rep ID

ALTFILE uses anther file in GENERAL Report Writer's dictionary to determine the sort for the primary file.

Following the Altfile is the file name followed by the way the primary files key should be sorted by the alternate files key, using K\$ as a variable to represent the key of the alternate file.

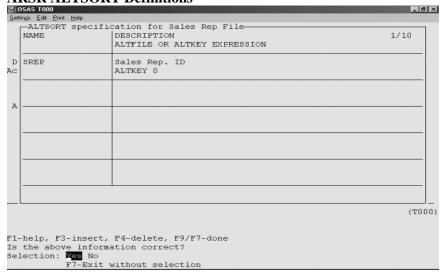
Example **ALTFILE ARIN "K\$(1,6)"**. This would sort by the Customer ID field in the ARIN file.

³⁸ The Altkey is made up of fields from the file. These fields determine the sort order of the file.



| Command | <u>Action</u> |
|----------------|--|
| Help | Select the function key listed to display General Report Writer help |
| Insert | Select the function key listed to insert a blank line in the position your cursor is in. |
| Delete | Select the function key listed to delete the line the cursor is on. |
| Done | Select the function key(s) listed to display the Verification prompt and to exit Sorts. |

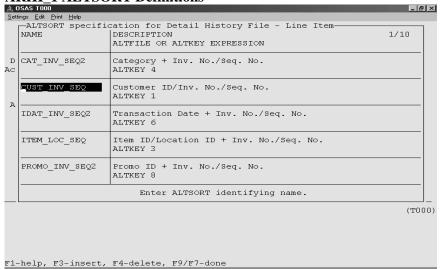
ARSR ALTSORT Definitions



Once the Altsort has been entered the Verification prompt, "Is the above information correct?", is displayed.

SelectionActionYesSelect Y, to save the changes made to the altsorts and to exit SortsNoSelect N, to edit the alternate sorts.Exit without selectionSelect the function key listed to exit sorts without saving any changes.

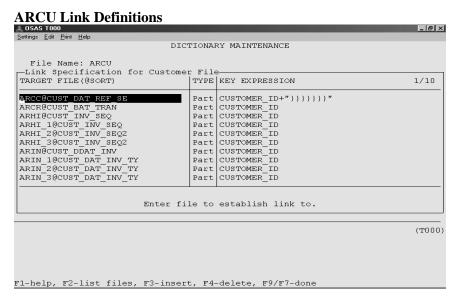
ARHI_1 ALTSORT Definitions



You can have up to 50 alternate sorts in General Report Writer.

Setting up and Maintaining Links

Select the ARCU file and select Link from the Dictionary Maintenance screen, to add or maintain link definitions.



Link definitions are used to pre-define relationships between two files. This allows you to pull data from the linked file when a link field is created on reports, or in Fields in Dictionary Maintenance.

A link is a connection from the current file, to the key of the destination file, and how that key is used to read records from the destination file. Link definitions use the linked files Sort definition to access the records.

Links can be one-to-one (full links) or one-to-many (partial links).

Field

Description

TARGET FILE@SORT

Enter the name of the file that the current file is linked or linking to.

The file must have a dictionary definition setup in GENERAL Report Writer.

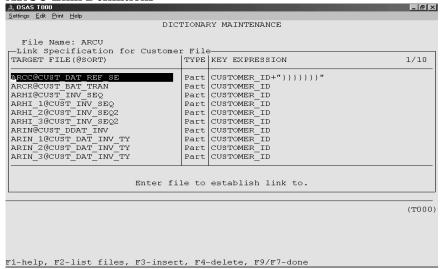
If there is a Sort definition that defines the order to access the records in the target file, it can be referenced here with the @sortname at the end of the file.

The @sort determines which key, from the file you are linking to, is used to create the sort, and which fields in the key are used to connect the two files together.

At least one of the fields from the @sort must be in the central file, the file you are linking from, to create the link.

The list files command is available to select the file.

ARCU Link Definitions



<u>Field</u> <u>Description</u>

TYPE

Enter the type of link you are creating. There are two types available.

Full for one to one links.

Partial for one to many links.

One to one links are created when all the fields in the @sortname are part of the central file.

One to many links are created when only some of the fields in the @sortname are part of the central file.

One to one links are more advantageous on reports then one to many links. One to one links are easier to control with Criteria and produce better results in Breaks and Sorts

KEY EXPRESSION

Enter the key(s), or field(s) the current file and the link file have in common, to create the link.

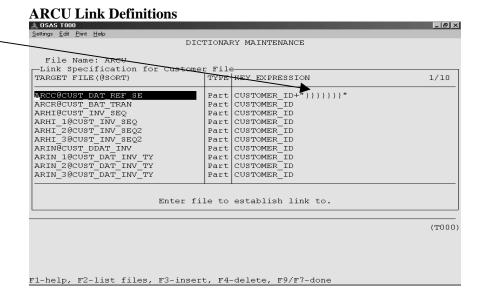
You can use the list fields function key to display the fields from the central file. Only fields from the central file will display.

If all the fields in the @sortname are available in the central file, you have a one to one link*.

If all the fields in the @sortname are not available in the central file, you have a one to many link.*

*Use the File Description Books or print the data dictionary files with the Print Files function in Dictionary Maintenance to get a list of all available fields for each file.

The Key Expression is hard coded to only look at records that contain this phrase.



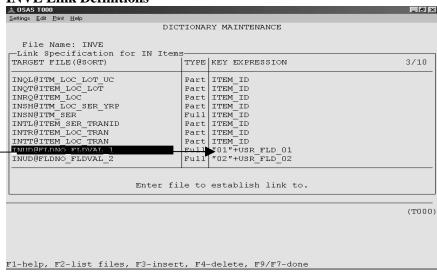
<u>Field</u> <u>Description</u>

KEY EXPRESSION

You can also hard code the key expression, to only look at certain records, by placing quotes ("") around words or phrases that are stored in the file.

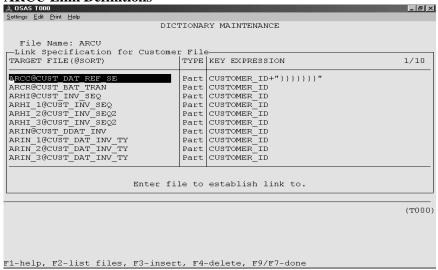
Example: To sort the link to the ARCC@CUST_DAT_REF_SE in descending date order we placed seven } within quotes.

INVE Link Definitions



The first link from the INVE file to the INUD (Inventory User Defined Fields) is hard coded to only look at user define field number 1 and then select the field value.





| Command | <u>Action</u> |
|----------------|--|
| Help | Select the function key listed to display help information for Link Definitions. |
| List Files | Select the function key listed to display a list of available files and sorts to which you can link. |
| Insert | Select the function key listed to insert a blank line at the cursor. |
| Delete | Select the function key listed to delete the Link Definition the cursor is on. |
| Done | Select the function keys listed to finish editing or creating links and to bring up the Verification prompt. |

Link Examples

There are two types of links created in General, One-to-One or Full links, and One-to-Many, or Partial links.

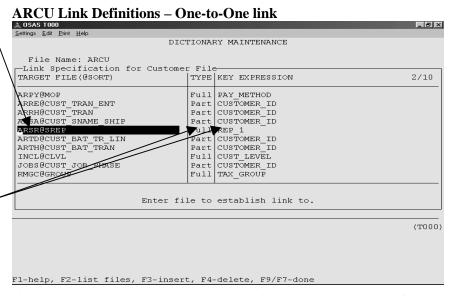
One-to-One Links

A one to one relationship exists between two files when the value being used to link the files is only stored once in the destination file (the file being linked to).

This type of link would be a Full link.

The @SORT uses the SREP key, which is made using the Sales Rep ID in the Sales Rep File (ARSR).

The type of link is Full because in the Key Expression all the fields in the @SORT are available in the central file (ARCU)



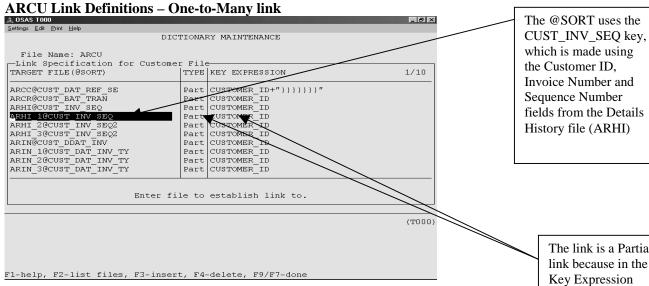
If you are writing a report using the Customer file, ARCU, as the source file and you want to include information about the Sales Rep assigned to the customer, the Sales Rep information is stored in the Sales Rep file, ARSR.

The Sales Rep ID can be used to link from the source file, ARCU, to the destination file, ARSR. The Sales Rep ID occurs only once in the Customer file and only once in the Sales Rep File. A one-Sales Rep ID in the ARCU file-to-one-Sales Rep ID in the ARSR file-relationship.

One-to-Many Links

A one to many relationship exists between two files when the value being used to link the files is stored multiple times in the destination file (the file being linked to).

This type of link would be a Partial link.

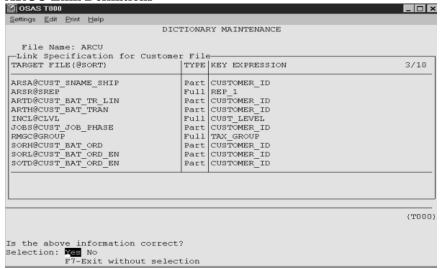


If you are writing a report using the Customer file, ARCU, as the source file and you want to include information on posted transactions, that information is stored in the Accounts Receivable Detail History file, ARHI.

The Customer ID can be used to link from the source file, ARCU, to the destination file, ARHI. The Customer ID occurs only once in the Customer file, but each posted invoice for the customer has a separate record in the Detail History file-it occurs multiple times in ARHI. A one- Customer ID in the ARCU file-to many-Customer ID in the ARHI file-relationship.

The link is a Partial link because in the Key Expression only the Customer ID field is available in the Customer file (ARCU). The Invoice Number and Sequence Number fields are not part of the Customer file (ARCU).

ARCU Link Definitions



Once the Link Definition information has been entered, select the Done function key to display the Verification prompt "Is the above information correct?".

| <u>Selection</u> | <u>Action</u> |
|---------------------------|---|
| Yes | Select Y, to save the changes made and to exit Link. |
| No | Select N, to edit the Link Definitions. |
| Exit without Selection | Select the function key listed to exit Links without saving any changes made. |

Printing the Data Dictionary Files

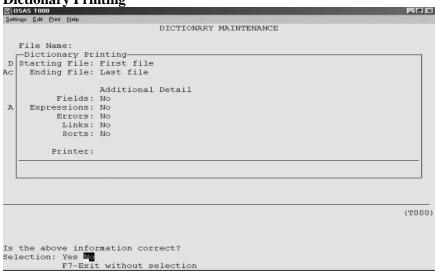
To print the data dictionary files perform the following:

1. From the Dictionary Maintenance screen, select the Print File(s) function.

The Dictionary Printing screen is displayed.

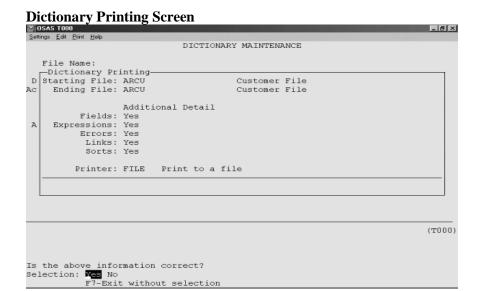
Enter file name to add or modify. F1-help, F2-list files, F3-print file(s), F7-exit

Dictionary Printing



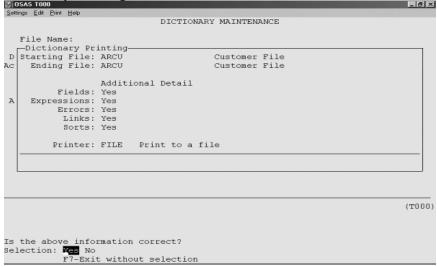
By default General will print all data dictionary files installed, but will not print any of the additional information.

To select a range of files and to print additional information select No at the Verification prompt.



| Option | <u>Description</u> |
|---------------|---|
| Starting File | Select the beginning file you want to print. By default, General will select the first data dictionary file available. You can use the list files command to select the file you want to print. |
| Ending File | Select the last file you want to print. By default, General will select the last data dictionary file available. You can use the list files command to select the file you want to print. |
| Fields | Select Yes if you want to print the field names for each file selected or No if you do not want to print the field names. |
| Expressions | Select Yes if you want to print the expressions that make up each field, or No if you do not want to print the expressions. |
| | You must say yes to Fields before you can select Expressions. |
| Errors | Select Yes if you want General to go through each expression to validate that the field exit or the expression can be done, or No, if you do not want General to verify each expression. |
| | You must say yes to Fields before you can select Errors. |
| | The list will take longer to generate if you say yes to Errors. |
| Links | Select Yes if you want to see the links from the file printed to other data dictionary files, as setup with the Link function. Select No if you do not want to see the link files. |
| Sorts | Select Yes if you want to see the alternate sorts setup with the Sort function. Select No if you do not want to see the alternate sorts. |
| Printer | Select your output device for the data dictionary list. |
| | |

Dictionary Printing Screen



After the options have been chosen, the Verification prompt is displayed.

| Selection | <u>Description</u> |
|------------------------|--|
| Yes | Select Y, for Yes, if the data dictionary printing options are correct and to print the data dictionary files. |
| No | Select N, for No, if the options are not correct and to make any changes. |
| Exit without selection | Select the function key listed to exit dictionary printing and not save any changes made. |

ARCU Dictionary Listing - Fields

| | General Dio | ctionary Listing | | Page 1 |
|---------------------|---|---------------------------------------|---|--------|
| FILE NAME | DESCRIPTION | DISK NAME | ACL | |
| ARCU | Customer File | ARCU[[@CID]] | | |
| **** FIELD DEFINITI | ONS **** | | | |
| FIELD NAME | DESCRIPTION | TYPE CODES | HEADING | ERROR |
| ACCOUNT_TYPE | | T, JL, L1 | Account Type | |
| ADDRESS_LINE_1 | Address Line 1 Expression: @PF3(1,30) | T, JL, L30 | Address Line 1 | |
| ADDRESS_LINE_2 | Address Line 2 Expression: @PF3(31,30) | T, JL, L30 | Address Line 2 | |
| ADDRESS_LINE_3 | Address Line 3 Expression: @PF3(61,30) | T, JL, L30 | Address Line 3 | |
| AGED_121_PLUS | Aged Balance over 121 Days Expression: CALL "GNAGE.PUB", CUSTO LET @FLD=@TEMPSTAT[5] | | Aged 121 Plus TEMPSTAT[ALL]; | |
| AGED_31_TO_60 | Aged Balance 31 to 60 Days Expression: CALL "GNAGE.PUB", CUSTO LET @FLD=@TEMPSTAT[2] | N,JR,L14,- DMER_ID,"",AGING_DATE,@ | Aged 31 To 60 TEMPSTAT[ALL]; | |
| AGED_61_TO_90 | Aged Balance 61 to 90 Days Expression: CALL "GNAGE.PUB", CUSTO LET @FLD=@TEMPSTAT[3] | | | |
| AGED_91_TO_120 | Aged Balance 91 to 120 Days Expression: CALL "GNAGE.PUB", CUSTO LET @FLD=@TEMPSTAT[4] | OMER_ID,"",AGING_DATE,@ | | |
| AGED_CURRENT | Aged Current Due Expression: CALL "GNAGE.PUB", CUSTO LET @FLD=@TEMPSTAT[1] | | | |
| AGED_TOTAL_AMT_DUE | Aged Total Amount Due Expression: AGED_CURRENT+AGED_31121_PLUS | | Aged Total Amt Due ED_91_TO_120+AGED | |
| AGING_DATE | Beginning Aging Date Expression: [["Enter Starting Dat | D,L10 e","D"]] | Aging Date | |
| AREA_CODE | Phone Area Code Expression: @PF4(1,3) | T,JL,L3 | Area Code | |
| ATTENTION | Attention Expression: @PF3(122,25) | T,JL,L25 | Attention | |
| AUTO_CRED_HOLD | Auto Credit Hold? Expression: @PF5(9,1) | T,JL,L1 | Auto Cred Hold | |
| AVAILABLE CREDIT | Available Credit Expression: CRED LIMIT-TOTAL DUE | N,JR,L14,- | Available Credit | |

ARCU Dictionary Listing - Links

| *** LINK DEFINITIONS **** | | |
|---|--------------|--|
| ARGET FILE(@SORT) | TYPE | KEY EXPRESSION |
| | | |
| Dan Communication | m 11 | METANG METANG GODE |
| RCD_1@TYPE_CODE | Full | "TERMS-"+TERMS_CODE |
| RCD_4@TYPE_CODE | Full | "GLACCT " +DIST_CODE |
| RCC@CUST_DAT_REF_SE | Part | CUSTOMER_ID+"}}}}}}" |
| RCR@CUST_BAT_TRAN | Part | CUSTOMER_ID+"}}}}}" CUSTOMER_ID CUSTOMER_ID CUSTOMER_ID |
| RCD_4@TYPE_CODE RCC@CUST_DAT_REF_SE RCR@CUST_BAT_TRAN RHI@CUST_INV_SEQ RHI_1@CUST_INV_SEQ RHI_3@CUST_INV_SEQ2 RIM@CUST_DAT_INV RIN_1@CUST_DAT_INV_TY RIN_2@CUST_DAT_INV_TY RN_3@CUST_DAT_INV_TY RPY@MOP | Part | CUSTOMER_ID |
| RHI_1@CUST_INV_SEQ | Part | CUSTOMER_ID |
| RHI_2@CUST_INV_SEQ2 | Part | CUSTOMER_ID CUSTOMER_ID CUSTOMER_ID |
| RHI_3@CUST_INV_SEQ2 | Part | CUSTOMER_ID |
| RIN@CUST_DDAT_INV | Part | CUSTOMER_ID |
| RIN_1@CUST_DAT_INV_TY | Part | CUSTOMER_ID |
| RIN_2@CUST_DAT_INV_TY | Part | CUSTOMER_ID |
| RIN 3@CUST DAT INV TY | Part | CUSTOMER ID |
| RPY@MOP | Full | PAY METHOD |
| RRE@CUST TRAN ENT | Part | CUSTOMER ID |
| RRH@CUST_TRAN | Part Part | CUSTOMER ID |
| RSA@CUST SNAME SHIP | Part | CUSTOMER ID |
| RSR@SREP | Full | REP 1 |
| RTD@CUST_BAT_TR_LIN | | CUSTOMER ID |
| RTH@CUST BAT TRAN | Part Part | CUSTOMER ID |
| NCL@CLVL | Full | CUST LEVEL |
| OBS@CUST JOB PHASE | Part | CUSTOMER ID |
| MGC@GROUP | Full | TAX GROUP |
| ORH@CUST BAT ORD | Part | CUSTOMER ID |
| ORL@CUST_BAT_ORD EN | Part | CUSTOMER ID |
| | | |
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ARCU Dictionary Listing - Sorts

| ARGET FILE(@SORT) | TYPE | KEY EXPRESSION |
|-----------------------|--------------|--|
| | | |
| | | |
| RCD_1@TYPE_CODE | Full | "TERMS-"+TERMS_CODE "GLACCT"+DIST_CODE CUSTOMER_ID+"}}}}" CUSTOMER_ID CUSTOMER_ID |
| RCD_4@TYPE_CODE | Full | "GLACCT " + DIST_CODE |
| RCC@CUST_DAT_REF_SE | Part Part | CUSTOMER_ID+"}}}}}" |
| RCR@CUST_BAT_TRAN | Part | CUSTOMER_ID |
| RHI@CUST_INV_SEQ | Part | CUSTOMER_ID |
| RHI_1@CUST_INV_SEQ | Part | CUSTOMER_ID |
| RHI_2@CUST_INV_SEQ2 | Part | CUSTOMER_ID |
| RHI_3@CUST_INV_SEQ2 | Part | CUSTOMER_ID |
| RIN@CUST_DDAT_INV | Part | CUSTOMER_ID |
| RIN_1@CUST_DAT_INV_TY | Part | CUSTOMER_ID |
| RIN_2@CUST_DAT_INV_TY | Part | CUSTOMER_ID |
| RIN_3@CUST_DAT_INV_TY | Part | CUSTOMER_ID |
| RPY@MOP | Full | PAY_METHOD |
| RRE@CUST TRAN ENT | Part | CUSTOMER ID |
| RRH@CUST_TRAN | Part | CUSTOMER_ID |
| RSA@CUST SNAME SHIP | Part | CUSTOMER ID |
| RSR@SREP | Full | REP 1 |
| RTD@CUST BAT TR LIN | Part | CUSTOMER ID |
| RTH@CUST BAT TRAN | Part | CUSTOMER ID |
| ICT@CTAT | Full | CUST LEVEL |
| DBS@CUST JOB PHASE | Part | CUSTOMER ID |
| MGC@GROUP | Full | TAX GROUP |
| ORH@CUST BAT ORD | Part | CUSTOMER ID |
| ORL@CUST_BAT_ORD EN | Part | CUSTOMER ID |
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| Inventory Sales Analysis Report |
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Inventory Sales Analysis Report

| 12/29/1999 10:53 AM | IN | VENTORY SAL | ES ANALYS | SIS REPORT | | | Page 1 |
|-------------------------|------------------------------|-------------|------------|-----------------------|--------------------------|----------|-----------|
| Item ID | Description | Location | | Qty Sold | Total Sold Total Sold | | Available |
| 100 | Electrical Package | MN0001 | MTD YTD | 100.0000 849.0000 | 36072.75 307519.61 | 18.0000 | 17.0000 |
| 150 | Plumbing Package | MN0001 | MTD YTD | 50.0000 | 47645.33 607954.37 | 15.0000 | 16.0000 |
| PRODUCT LINE: M | IATERIAL TOTAL MTD TOTAL YTD | | | 150.0000 1487.0000 | 83718.08 915473.98 | 33.0000 | 33.0000 |
| 200100 | Furnace | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.000 |
| 200200 | Water Heater | MN0001 | MTD YTD | .0000 | .00 | 8.0000 | 8.0000 |
| 200300 | Air Conditioner | MN0001 | MTD YTD | .0000 | .00 | 8.0000 | 8.0000 |
| 200400 | Water Softener | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.000 |
| 200500 | Sump Pump | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.000 |
| 200600 | Humidifier | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.000 |
| PRODUCT LINE: H | EAT/AIR TOTAL MTD TOTAL YTD | | | .0000 1206.0000 | .00 | 48.0000 | 48.0000 |
| 250 | Exterior Panels | MN0001 | MTD YTD | .0000 17.0000 | .00 23970.23 | 242.0000 | 222.000 |
| 300 | Interior Door | MN0001 | MTD YTD | .0000 | .00 9579.32 | 35.0000 | 22.000 |
| 350 | Entry Door | MN0001 | MTD YTD | .0000 | .00 | 5.0000 | 2.0000 |
| 400 | Interior Materials | MN0001 | MTD YTD | .0000 | .00 96576.98 | 16.0000 | 17.000 |
| 450 | Slide by Window 24" x 40" | MN0001 | MTD YTD | .0000 226.0000 | .00 41748.36 | 12.0000 | 12.0000 |
| 460 | Slide by Window 30" X 40" | MN0001 | MTD YTD | .0000 111.0000 | .00 19633.87 | 28.0000 | 24.0000 |
| 600 | Standard Window 24" X 40" | MN0001 | MTD YTD | .0000 139.0000 | .00 17537.26 | 2.0000 | 3.0000 |
| PRODUCT LINE: M | MATERIAL TOTAL MTD TOTAL YTD | | | .0000 | .00 225491.46 | 340.0000 | 298.000 |
| *Report* TOTAL TOTAL | | | | 150.0000 3779.0000 | 83718.08 1140965.44 | 421.0000 | 379.000 |

Step 1: Planning the Report

This will be an Inventory Sales Analysis Report.

On the report we will have the Item ID, Description, Location ID, Sales quantity and dollar amounts for a particular month, and for the year, on hand quantity and available quantity. We will have the report prompt for the month and year we want to print. We will create subtotals by Product line and setup criteria based on Location ID and Item ID. In addition, we will customize the footers for this report.

The central file for this report will be the INQT- Inventory Quantities File. We will link to the INHS file to get the Sales quantity and amount for the month and the year.

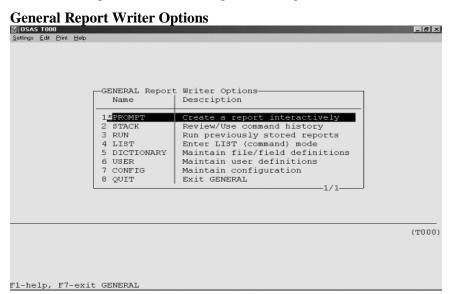
We will create several data dictionary items for this report.

Step 2: Creating the Report

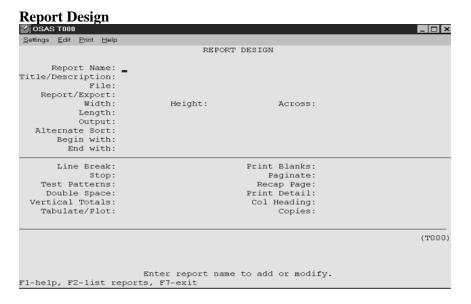
This example will walk you through creating the report before any data dictionary items are created.

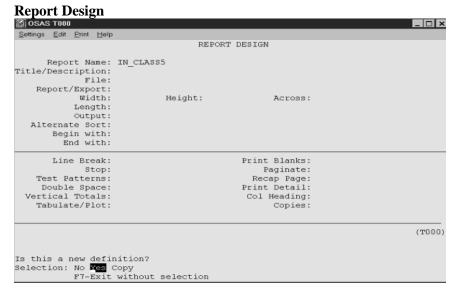
This is usually how you find that the data dictionary items you want do not exist or the report cannot be created using the standard data dictionary items.

1. Select Prompt from the General Report Writer Options menu



The Report Design screen is displayed.





- 2. Enter the Report Name.* For this report use **IN_CLASS5**
- 3. When General prompts "Is this a new definition?, select Yes.

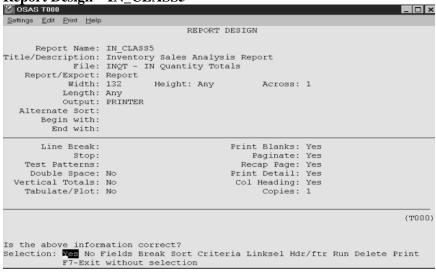
Report Design - IN_CLASS5 _ 🗆 × OSAS TOOO Settings Edit Print Help REPORT DESIGN Report Name: IN_CLASS5 Title/Description: Inventory Sales Analysis Report File: INQT - IN Quantity Totals Report/Export: Report Height: Any Across: 1 Width: 132 Length: Any Output: PRINTER Alternate Sort: Begin with: End with: Print Blanks: Yes Line Break: Paginate: Yes Stop: Paginate: Yes Recap Page: Yes Print Detail: Yes Test Patterns:
Double Space: No
Vertical Totals: No
Tabulate/Plot: No Col Heading: Yes Copies: 1 (T000) Is the above information correct? Selection: **W**es No Fields Break Sort Criteria Linksel Hdr/ftr Run Delete Print F7-Exit without selection

4. Enter information in the following fields:

| Field | <u>Description</u> |
|--------------------|--|
| Title/Description* | Enter the name you want to print on the report |
| | Enter Inventory Sales Analysis Report |
| File* | Select the central file for this report. |
| | The list files function is available to select the file. |
| | Select the INQT file |

 $^{^{*}}$ See Appendix D for more information.

Report Design - IN_CLASS5



| <u>Field</u> | <u>Description</u> |
|----------------|---|
| Report/Export* | Select how you want to print or export the report. |
| | Select Report |
| Width* | Select the number of columns across the report. |
| | Accept the default of 132 |
| Height* | Select the maximum number of rows each record can occupy on the report. |
| | Accept the default of Any |
| Across* | Enter the number of records you want to print across the page. |
| | Accept the default of 1 |
| Length* | Enter the number of rows you want to print per page |
| | Accept the default of Any |
| Output* | Enter the output device used for this report. |
| | Accept the default of Printer |

Once you enter the output field, select the done function key to display the Verification prompt, "Is the above information correct?".

5. Select Fields from the Repot Design screen.

^{*}See Appendix D for more information.

The Field Specification screen is displayed.

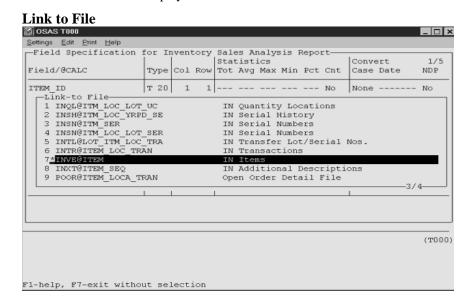


- 6. Enter the fields for this report.
 - A. The first field is the Item ID. Use the list fields function key to select the field and enter through all columns to accept the defaults.
 - B. The second filed is the Description.

The item description is not part of the INQT file. Use the link function key to create a link field.

Enter in the Link Name. For this field use DESCRIPTION and press enter.

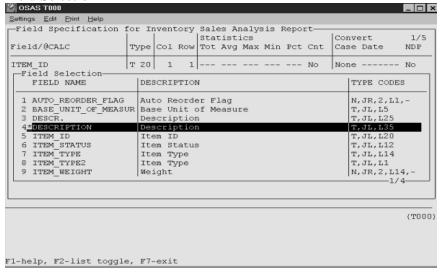
The Link to file box is displayed.



C. Select the INVE@ITEM file and press enter.

The Field Selection box is displayed.

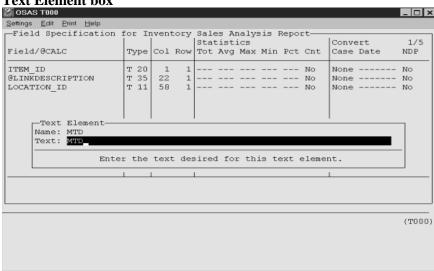
Field Selection



- D. Select the Description field and press Enter to add the link field to the report. Enter through all columns to accept the defaults.
- E. Use the list fields function to select Location ID as the next field for the report.
- F. After Location ID, the next field will print MTD on the line next to the month to date total. Select the Text function key.

The Text Element box is displayed.

Text Element box



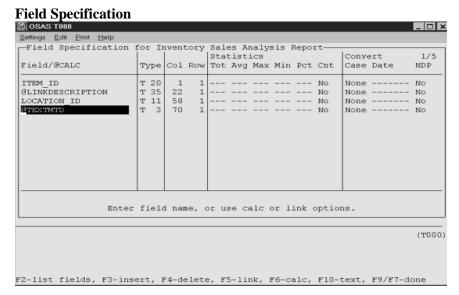
Field Description

Name Enter the name of the text field. The field can be 1-14 characters long and cannot contain spaces or symbols.

Enter MTD for this field

Text Enter the text you want to print on the report.

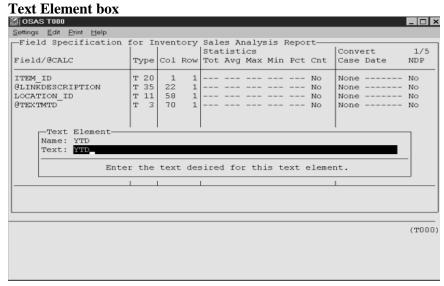
Enter MTD for this field.



The field is added to the report with @TEXT in front of the text name.

Create another text field to print YTD on the line below MTD.

G. Select the text function key.



FieldDescriptionNameEnter the name of the text field. The field can be 1-14 characters long and cannot contain spaces or symbols.Enter YTD for this fieldTextEnter the text you want to print on the report.Enter YTD for this field.

Field Specification OSAS T000 _ 🗆 × Settings Edit Print Help Field Specification for Inventory Sales Analysis Report Field/@CALC Type Col Row Tot Avg Max Min Pct Cnt NDP Case Date T 20 None ------- --- No
--- --- No
--- No T 35 T 11 T 3 58 None -----LOCATION_ID No None -----@TEXTYTD 70 None ----Enter field name, or use calc or link options. (T000) F2-list fields, F3-insert, F4-delete, F5-link, F6-calc, F10-text, F9/F7-done

We want the YTD field to print below the MTD field, so change the Col to the same column as the MTD field and change the Row to 2.

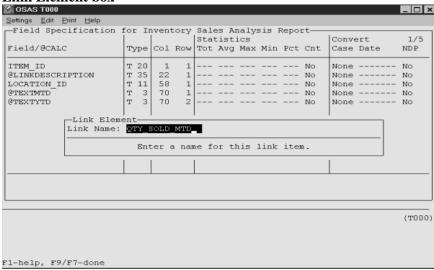
The next two fields will be the Month to Date sales quantity and amount.

The Sales figures, we will use, are stored in the summary history file INHS.

H. Use the link function key to create a link for the month to date quantities.

Enter QTY_SOLD_MTD for the Link Name.

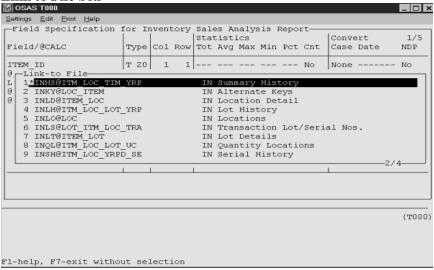
Link Element box



Press Enter

I. The Link –to-file box is displayed; select the file to create the link. Select the INHS@ITM_LOC_TIM_YRP file and press Enter.

Link to File box



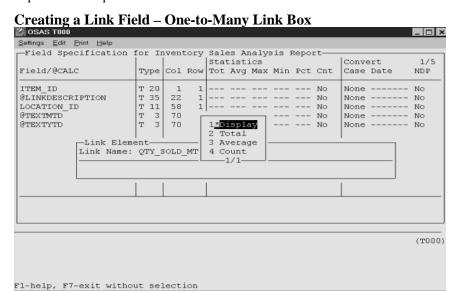
The Field Selection box is displayed; select the field you want to use to create the link.

Field Selection Screen



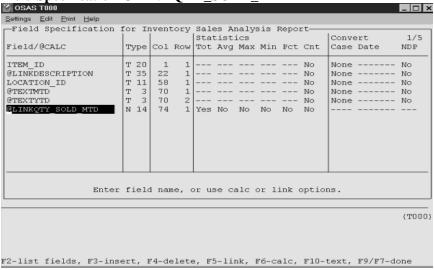
Select the QTY_SOLD field and press Enter

This is a one-to-many link; General Report Writer prompts you to select how you want this field to print on the report.



Select Display

Field Specification @LINKQTY_SOLD_MTD



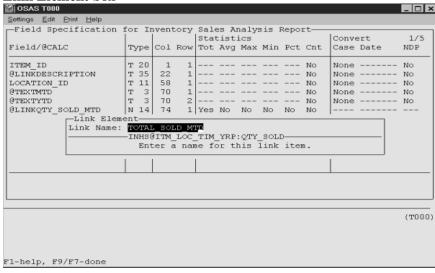
The link is added to the Field Specification screen.

Change the Row to 1 so this field prints on the first row of the report.

Next, create a link for the amount sold per month.

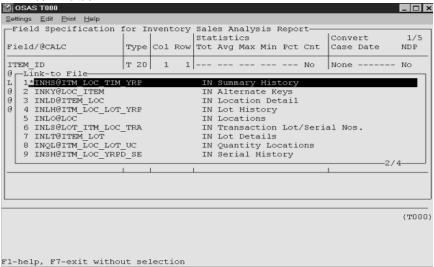
J. Use the link function key to create the link.Enter TOTAL_SOLD_MTD for the Link Name and press Enter.

Link Element box



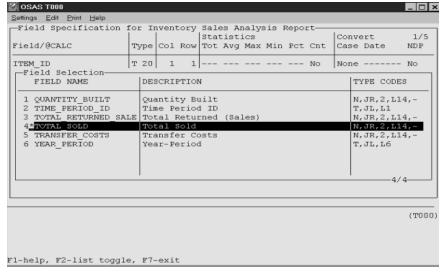
K. The Link-to-file box is displayed. Select the file to create the link. Select the INHS@ITM_LOC_TIM_YRP file and press Enter.

Link to File box



The Field Selection screen is displayed; select the field you want to use for the link.

Field Selection Screen

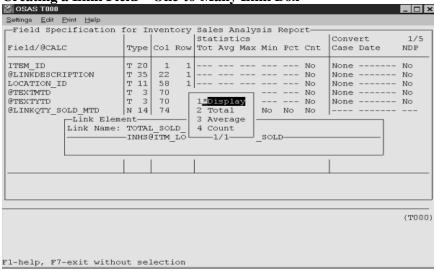


Select the TOTAL_SOLD field.

Press Enter

This is another one-to-many link field; select how you want the field to print on the report.

Creating a Link Field - One-to-Many Link Box

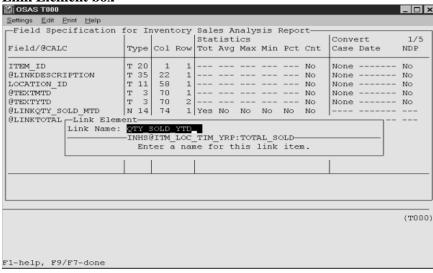


Select Display

The next two fields will be the Year to Date sales quantity and amount.

L. Use the link function key to create a link for the year to date quantities. Enter QTY_SOLD_YTD for the Link Name.

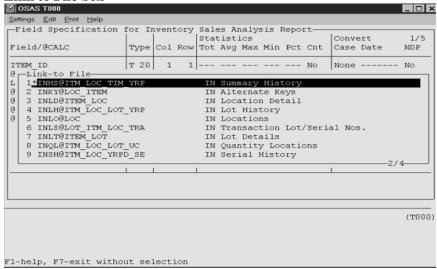
Link Element box



Press Enter

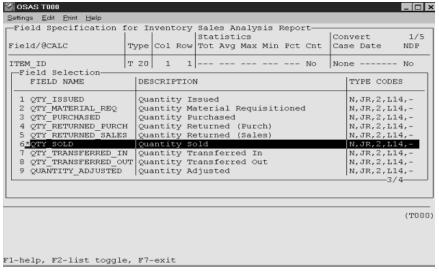
M. The Link –to-file box is displayed; select the file to create the link. Select the INHS@ITM_LOC_TIM_YRP file and press Enter.

Link to File box



The Field Selection box is displayed; select the field you want to use to create the link.

Field Selection Screen

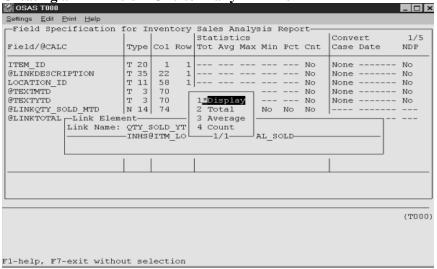


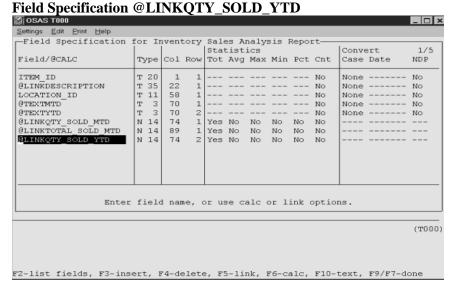
Select the QTY_SOLD field.

Press Enter

This is another one -to-many link. Select Display

Creating a Link Field - One-to-Many Link Box





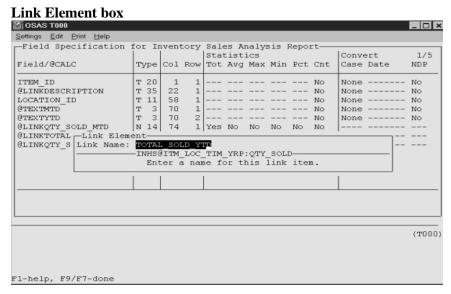
The link is added to the Field Specification screen.

Change the column to 74 and change the row to 2 so this field will print on the second row below the MTD field.

Next, create a link for the amount sold per year.

N. Use the link function key to create the link.

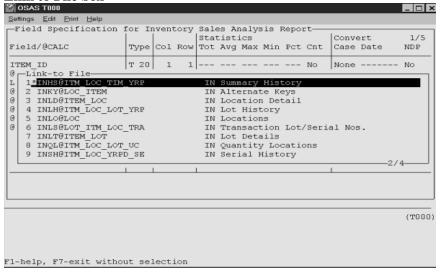
Enter TOTAL_SOLD_YTD for the Link Name.



Press Enter

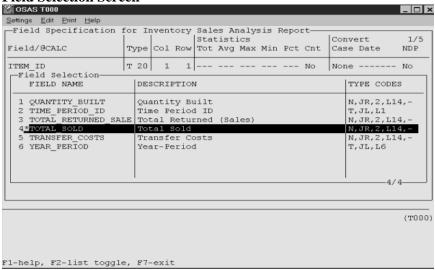
O. The Link-to-file box is displayed. Select the file to create the link. Select the INHS@ITM_LOC_TIM_YRP file and press Enter.

Link to File box



After selecting the file, the Field Select screen is displayed

Field Selection Screen



Select the TOTAL_SOLD field.

Press Enter

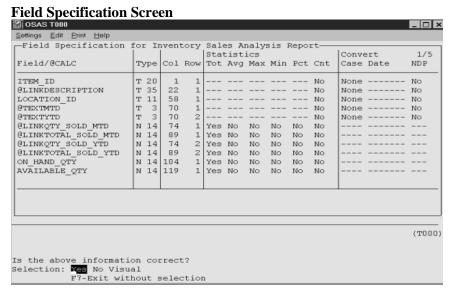
Creating a Link Field - One-to-Many Link Box Settings Edit Print Help -Field Specification for Inventory Sales Analysis Report Statistics Convert Field/@CALC Tot Avg Max Min Pct Cnt Type Case Date т 20 ITEM_ID T 35 T 11 T 3 @LINKDESCRIPTION LOCATION_ID 22 58 --- --- No None No None No @TEXTMTD 70 70 None 1≛Display None No No GLINKQTY_SOLD_MTD | N 14 74
GLINKTOTAL Link Element
GLINKQTY_S Link Name: TOTAL_SOLD No No No 2 Total 3 Average -INHS@ITM LC -1/1-SOLD-(T000)

This is another one-to-many link field.

Select Display

F1-help, F7-exit without selection

- P. Then Next field is the ON_HAND_QTY field. Use the list fields function to select the field.
- Q. After selecting the ON_HAND_QTY field use the list fields function to choose the AVAILABLE_QTY field.

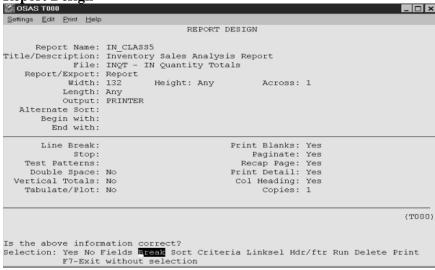


Select the done function key to display the Verification prompt, "Is the above information correct?", select Yes to exit the Field Specification screen and return to the Report Design screen.

The next step is to add the break information. We want to break by Product Line on this report.

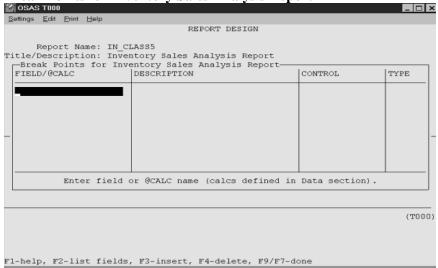
On the Report Design Screen, select Break

Report Design



The Break Point screen is displayed.

Break Points for Inventory Sales Analysis Report



Break Points for Inventory Sales Analysis Report –Field Selection

| Settings | Edit | Brint | Help |

Use the list fields function key to select the break point fields.



Product line is not an available field from the INQT file.

Since Product line is not part of the INQT file, we have two options for using the field in breaks.

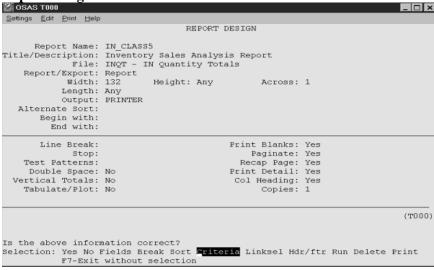
- 1. Create a link field, on the report, for product line, and use that field in breaks.
- 2. Create a link field in Dictionary and use that field in breaks. This option will allow you to use the field without having it on the report.

Exit Break. We will add the Product Line field later and continue creating the report.

The next step is to create criteria for the report. We want the report to prompt for the Location, the Item ID from and thru, and to prompt for the month and year for the totals.

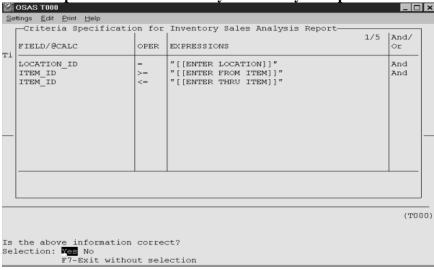
Select Criteria from the Report Design screen.

Report Design - Criteria



The Criteria Specification screen is displayed.

Criteria Specification for Inventory Sales Analysis Report



For the criteria, enter the following:

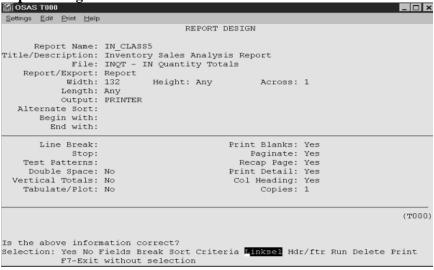
Select the done key to display the Verification prompt. Answer Yes.

*It is not necessary to type the quotes ("") around the outside of the brackets. General Report Writer will place the quotes automatically based on the field type.

The MTD and YTD totals come from the INHS file, which is a one-to-many link file; therefore, the criteria must be setup in Linksel.

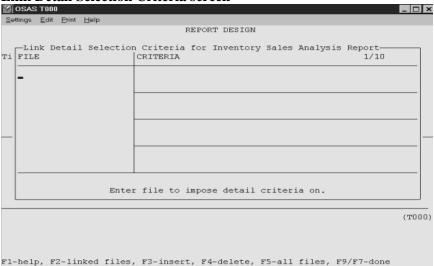
Select Linksel from the Report Design screen.

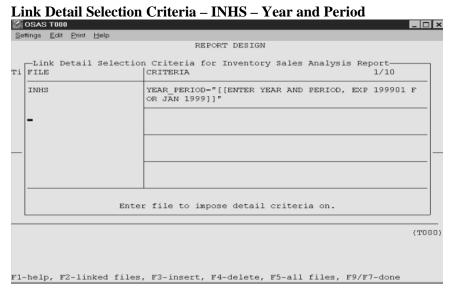
Report Design - Linksel



The Link Detail Selection Criteria screen is displayed.

Link Detail Selection Criteria screen





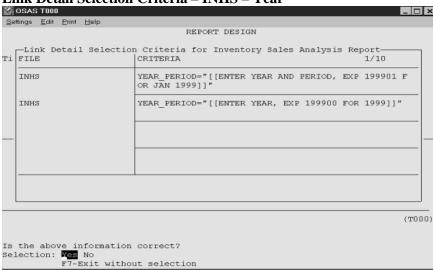
Enter criteria for the MTD totals. Select the linked file-INHS, and then enter the following Criteria:

YEAR_PERIOD="[[ENTER YEAR AND PERIOD, EXP 199901 FOR JAN 1999]]"*

The criteria will let you enter the year and the period for the MTD totals.

Next, enter the criteria for the YTD totals.

Link Detail Selection Criteria – INHS – Year



Again, select the linked file-INHS, and then enter the following Criteria:

YEAR_PERIOD="[[ENTER YEAR, EXP 199900 FOR 1999]]"*

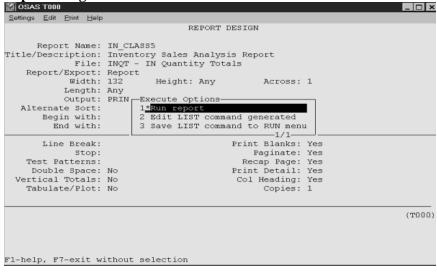
The criteria will let you enter the year and the period for the YTD totals.

After the criteria have been entered, select the done function key to display the Verification prompt. Answer Yes.

^{*}In Linksel, you must manually place quotes around the Expression based on the field type. If the field is Text, quotes are required. If the field is Numeric or Date, quotes are not required. (See Appendix B)

Select Run from the Report Design screen.

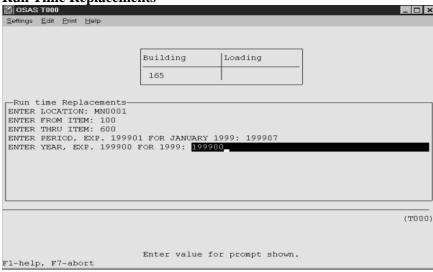
Report Design - Run



Choose Run Report from the Execute Options menu.

Enter in the run time replacements

Run Time Replacements



For Location ID enter MN0001

For From Item Enter 100

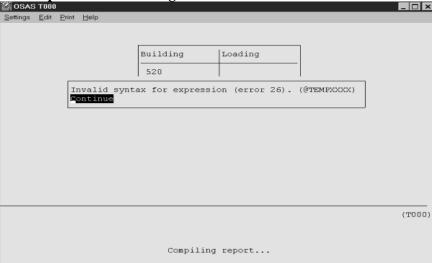
For Thru Item Enter 600

For Period Enter 199907*

For Year Enter 199900*

^{*}If you are using version 5.2x or lower, enter 1995 in place of 1999.

Run Report - Error Message



We get an Invalid syntax for expression error.

Press Enter exit the report

This error occurs because the INHS file was used more then once in LINKSEL.

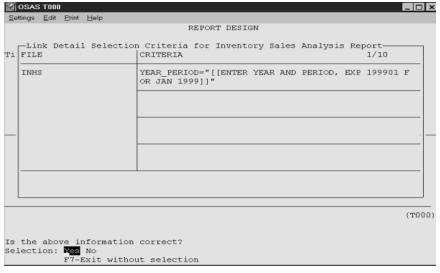
Select Prompt, choose the IN_CLASS5 report and select LINKSEL from the Report Design screen.

Report Design - Linksel

```
OSAS TOOO
                                                                                                                       Settings Edit Print Help
                                                       REPORT DESIGN
         Report Name: IN CLASS5
Title/Description: Inventory Sales Analysis Report
File: INQT - IN Quantity Totals
Report/Export: Report
Width: 132 Height: Any Ac
                                                                         Across: 1
                Length: Any
    Output: PRINTER
Alternate Sort:
Begin with:
End with:
                                                           Print Blanks: Yes
          Line Break:
                                                                    Paginate: Yes
Recap Page: Yes
Print Detail: Yes
Col Heading: Yes
      Stop:
Test Patterns:
   Double Space: No
Vertical Totals: No
      Tabulate/Plot: No
                                                                             Copies: 1
                                                                                                                        (T000)
Is the above information correct?
Selection: Yes No Fields Break Sort Criteria Finksel Hdr/ftr Run Delete Print
F7-Exit without selection
```

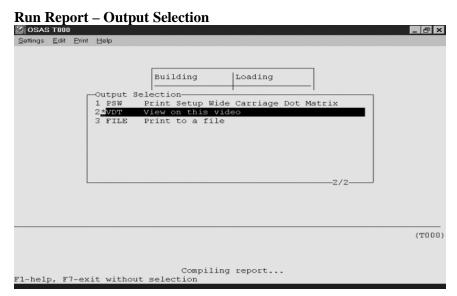
In Linksel, remove the second line for the YTD information.

Link Detail Selection Criteria



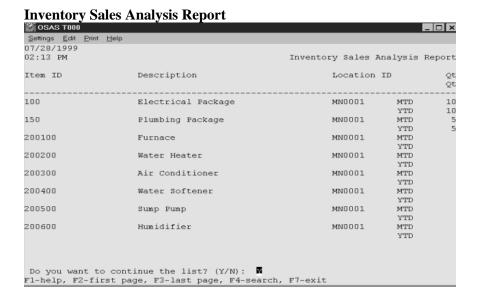
Select the done function key and answer Yes at the Verification prompt.

Run the report again.

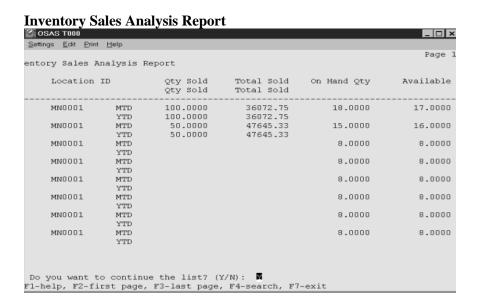


The Output Selection screen is displayed

Select VDT

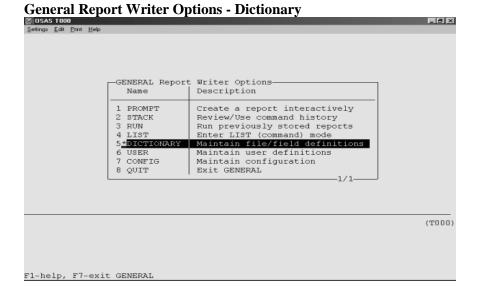


If you print to the screen, use the left and right arrows to shift between the left and right sides of the screen.



The MTD and YTD figures are the same because our link to those figures is using the same file and the same Linksel criteria.

We will need to create data dictionary items to change this.



Select Dictionary from the General Report Writer Options menu

First, we will create the data dictionary items that will allow us to link to the INHS file to select the MTD and YTD totals separately.

In the INHS file there are separate records for month totals and year totals, however those totals are stored in the same field.

To get the totals for the month records to print separate from the year records we have a couple of options.

- 1. Create a copy of the INHS data dictionary file. Link to the original for month records and link to the copy for the year records.
- Create alternate sorts in the INHS data dictionary file. One sort for the month records and another sort for the year records.

Is this a new defi<u>niti</u>on?

Selection: No Yes **Ropy**F7-Exit without selection

Option 1: Using a Copy of the INHS Data Dictionary File

The following example uses a copy of the INHS data dictionary file to get the year records.

Enter a new File Name to create the copy of the INHS data dictionary file. When General Report Writer prompts "Is this a new definition?" select Copy

INHS_COPY - Copy

@OSAS TODO
Settings Edit Pint Help

DICTIONARY MAINTENANCE

File Name: INHS_COPY

Description:
Access Level:
Disk File:
Skip Keys:
Auto Select:
Auto Begin:
Auto End:

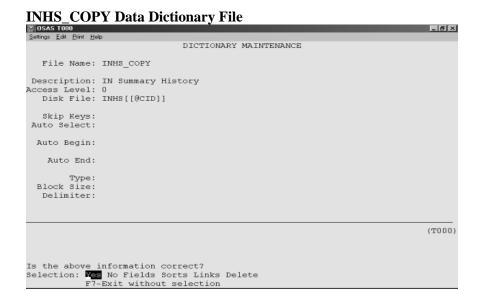
Type:
Block Size:
Delimiter:

(T000)

The File Name/Wildcard box is displayed, enter the name of the file you want to copy or you can enter the application id and the wildcard of * to select the file from a list.

INHS_COPY - Select File to Copy (INHS) Settings Edit Print Help _ 8 × DICTIONARY MAINTENANCE File Name: INHS_COPY Description: Access Level: Disk File: Auto Select: File Name/Wildcard-Auto Begin: INHS_ Auto End: Enter filename wildcard. Type: Block Size: Delimiter: (ጥበበበ) Listing all files may take time. F1-help, F2-all files, F7-exit

Enter INHS to copy the INHS file.



When the Verification Prompt is displayed, select Yes to save the file.

Now that the copy of the INHS file had been created, we need to create a Link from INQT to the new INHS_COPY file

Select Links from the Dictionary Maintenance screen of the INQT file.

Dictionary Maintenance – INQT - Links

```
## OSAS 1000

Settings Edit Birt Help

DICTIONARY MAINTENANCE

File Name: INQT

Description: IN Quantity Totals
Access Level: 0
Disk File: INQT[[@CID]]

Skip Keys:
Auto Select:

Auto Begin:
Auto End:

Type:
Block Size:
Delimiter:

Delimiter:

(T000)

Is the above information correct?
Selection: Yes No Fields Sorts Firks Delete
F7-Exit without selection
```

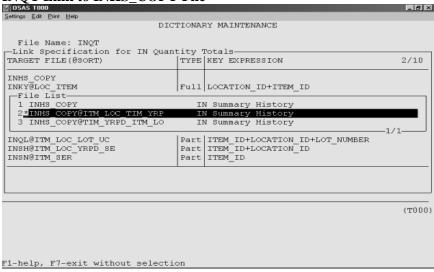
You can create these links in alphabetical order or add them to the end.

In a blank field, select the Target file and @Sortname.

For this link, select the INHS_COPY@ITM_LOC_TIM_YRP

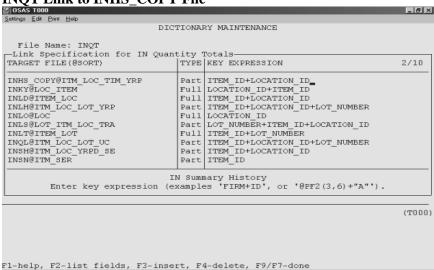
You can use the list files function to select the file.

INQT Link to INHS_COPY File



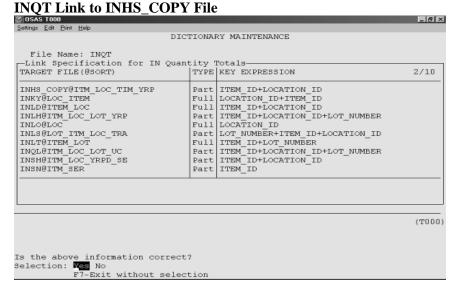
Enter the same Type and Key Expression as the INHS@ITM_LOC_TIM_YRP link.

INQT Link to INHS_COPY File



The Type should be Partial.

The Key Expression should be ITEM_ID+LOCATION_ID.

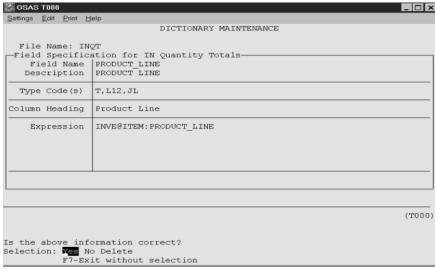


Select the Done function key, to display the Verification Prompt. Select Yes to save the changes.

Next, create a link field for the Product Line to use in Break on the report.

Still in the INQT file, select Fields and create the Product Line link field. (See page 37)

Link Field – Product Line



When the Verification prompt is displayed, select Yes to save the field.

Exit fields and exit Dictionary Maintenance.

Select Prompt and edit the report. We will change the YTD links to the copy of the INHS dictionary file, and add the Product Link break field.

For this report, we will copy the existing report and edit the copy.

In the Report Name field, enter a new name and select Copy to create the report from the existing report.

IN_CLASS6 Report - Copy _ 8 × REPORT DESIGN Report Name: IN CLASS6 Title/Description: INVENTORY SALES ANALYSIS REPORT File: INQT - IN Quantity Totals Report/Export: Report Height: Any Across: 1 Width: 132 Length: Any Output: PRINTER Alternate Sort: Begin with: End with: Print Blanks: Yes Line Break: Paginate: Yes Recap Page: Yes Test Patterns: Double Space: No Vertical Totals: No Print Detail: Yes Col Heading: Yes Tabulate/Plot: No Copies: 1 (T000) Is the above information correct? Selection: Yes No Fields Break Sort Criteria Linksel Hdr/ftr Run Delete Print F7-Exit without selection

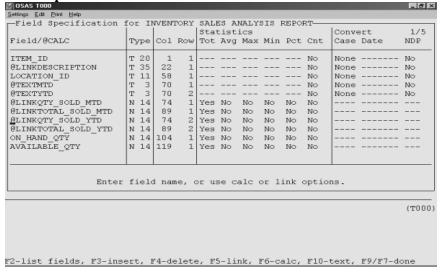
For this report use IN_CLASS6 and copy from the IN_CLASS5 report.

When the Verification prompt is displayed, select Fields.

Inventory Sales Analysis Report - Fields Settings Edit Print Help REPORT DESIGN Report Name: IN_CLASS6 Title/Description: INVENTORY SALES ANALYSIS REPORT File: INQT -IN Quantity Totals Report/Export: Report
Width: 132
Length: Any Height: Any Across: 1 Output: PRINTER Alternate Sort: Begin with: End with: Print Blanks: Yes Line Break: Stop: Paginate: Yes Recap Page: Yes Print Detail: Yes Test Patterns: Double Space: No Vertical Totals: No Col Heading: Yes Copies: 1 Tabulate/Plot: No (TOOO) Is the above information correct? Selection: Yes No <mark>Fields</mark> Break Sort Criteria Linksel Hdr/ftr Run Delete Print F7-Exit without selection

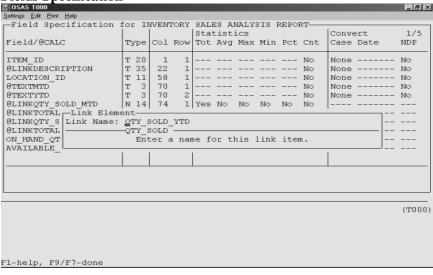
Enter or arrow down to the QTY_SOLD_YTD link.

Fields Specification



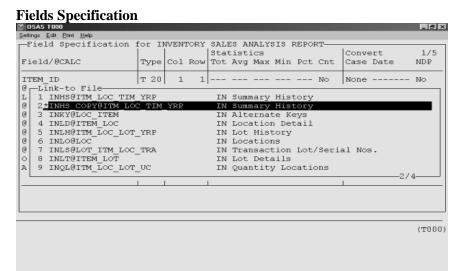
Use the link function key to edit the link.

Fields Specification



The Link Element box is displayed. Press Enter at the Link Name field because it will not be changed.

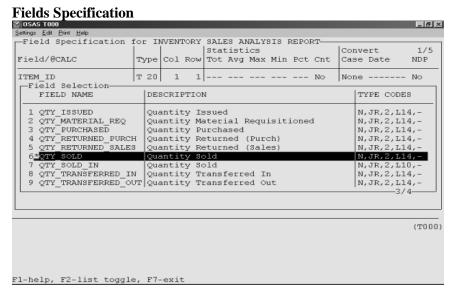
The Link-to-file box is displayed.



Change the Link-to-file from the INHS file to the INHS_COPY file.

The Field Selection screen is displayed.

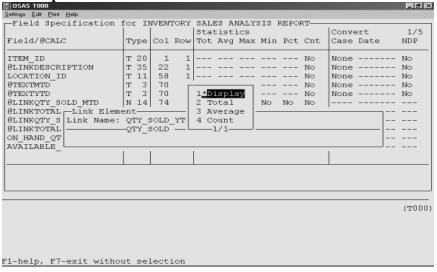
F1-help, F7-exit without selection



Select the QTY_SOLD field if it is not already selected. Press Enter

The one to many link box is displayed.

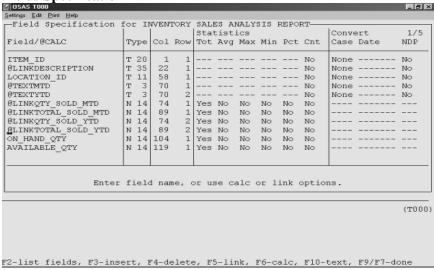
Fields Specification



Select Display to add the field to the report.

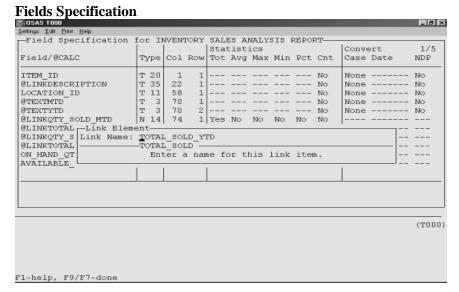
Next, edit the TOTAL_SOLD_YTD field.

Fields Specification



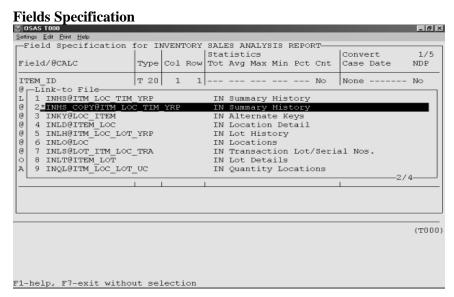
Enter or arrow down to the TOTAL_SOLD_YTD field.

Use the link function key to edit the link.



The Link Element box is displayed. Press Enter at the Link Name field because it will not be changed.

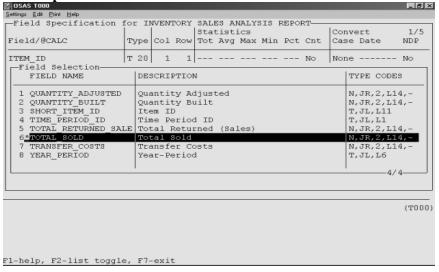
The Link-to-file box is displayed.



Change the Link-to-file from the INHS file to the INHS_COPY file.

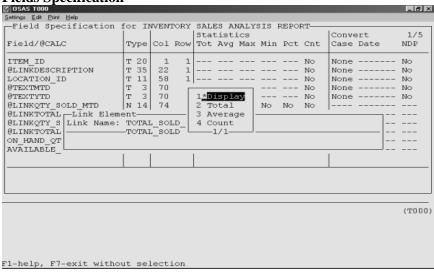
The Field Selection screen is displayed.

Fields Specification



Select the TOTAL_SOLD field if it is not already selected. Press Enter The one to many link box is displayed.

Fields Specification

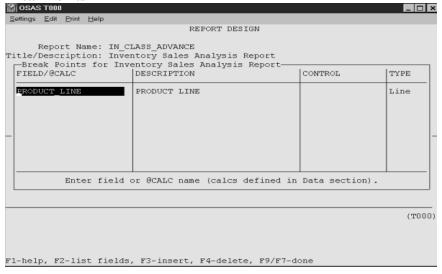


Select Display to add the field to the report.

Select the done function key to display the Verification Prompt, answer Yes to save the changes and exit fields.

Select Break from the Report Design Screen.

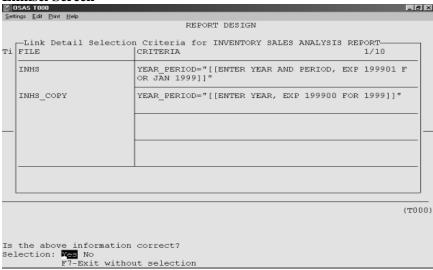
Break Points



Enter the Product Line field; since we create this field in dictionary, we can use it here.

After the break for Product Line has been entered, select Linksel.

Linksel Screen



Add criteria for the INHS_COPY file to select the Year for which we want the totals to print.

In File, select the INHS_COPY. In the Criteria field, enter the following:

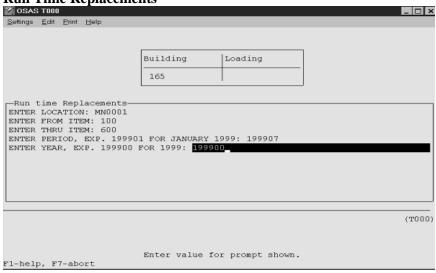
YEAR_PERIOD="[[ENTER YEAR, EXP 199900 FOR 1999]]"*

Select the done function key and answer Yes when the Verification prompt is displayed.

^{*}In Linksel, you must manually place quotes around the Expression based on the field type. If the field is Text, quotes are required. If the field is Numeric or Date, quotes are not required. (**See Appendix B**)

Enter in the run time replacements

Run Time Replacements



For Location ID enter MN0001

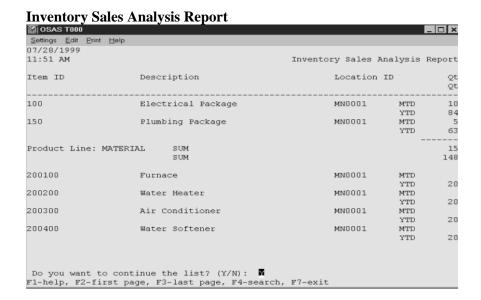
For From Item Enter 100

For Thru Item Enter 600

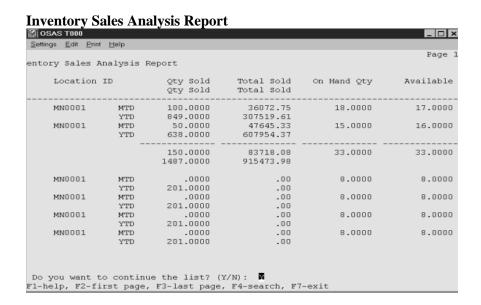
For Period Enter 199907*

For Year Enter 199900*

^{*}If you are using version 5.2x or lower, enter 1995 in place of 1999.



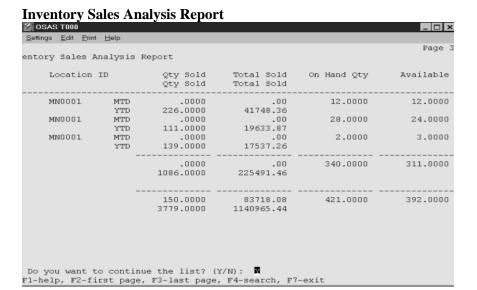
If you print to the screen, use the left and right arrows to shift between the left and right sides of the screen.



Inventory Sales Analysis Report Settings Edit Print Help 07/28/1999 11:51 AM Inventory Sales Analysis Report Description Location ID Qt Slide by Window 24" x 40" 450 MN0001 MTD YTD 460 Slide by Window 30" X 40" MN0001 MTD YTD 11 Standard Window 24" X 40" 600 MNDDD1 MTD 13 YTD Product Line: MATERIAL 108 *Report* SUM 15 377

Do you want to continue the list? (Y/N): \mathbf{X} F1-help, F2-first page, F3-last page, F4-search, F7-exit

Last Page of the report



Option 2: Creating Alternate Sorts

The following example creates alternate sorts in the INHS data dictionary file for the month and year records. We will link to the sorts from the INQT data dictionary file.

General Report Writer Options - Dictionary

GENERAL Report Writer Options—
Name Description

1 PROMPT Create a report interactively
2 STACK Review/Use command history
3 RUN Run previously stored reports
4 LIST Enter LIST (command) mode
5 **DICTIONARY Maintain file/field definitions
7 CONFIG Maintain user definitions
7 CONFIG Maintain configuration
8 QUIT Exit GENERAL

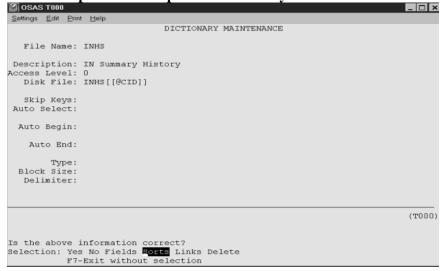
(T000)

Select Dictionary from the General Report Writer Options menu.

Select the INHS file and choose Sorts

F1-help, F7-exit GENERAL

General Report Writer Options - Dictionary - INHS - Sorts



INHS File Layout

INHSxxx-Summary History Inventory

IN Summary History Record

File Name: INHSxxx Record Size: 451 (512)

File Type: Mkeyed – Dynamic Number of keys: 2

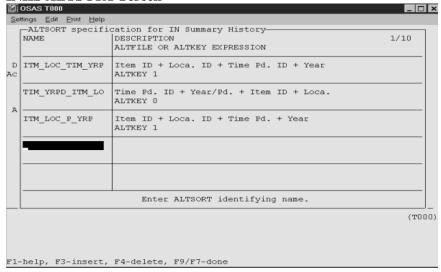
| Field No | Template | Description | Type | Length | Note |
|-------------|----------|---------------------------------|------|--------|--------------------------------------|
| 1 | TIME | Time Period ID | C | 1 | P = Period Record Y = Year Record |
| 2 | YRPD | Year-Period | C | 6 | yyyypp (periods) yyyy00 (years) |
| 3(1,20) | ITEM | Item ID | C | 20 | , |
| 3(21,6) | LOCA | Location ID | C | 6 | |
| 4 | QPUR | Quantity Purchased | N | 14 | INQT |
| 5 | QPRT | Quantity Returned (Purch) | N | 14 | INQT |
| 6 | QSAL | Quantity Sold | N | 14 | INQT |
| 7 | QSRT | Quantity Returned (Sales) | N | 14 | INQT |
| 8 | QMAT | Quantity Material Requisitioned | N | 14 | INQT |
| 9 | QTIN | Quantity Transferred In | N | 14 | INQT |
| 10 | QTOUT | Quantity Transferred Out | N | 14 | INQT |
| 11 | QADJ | Quantity Adjusted | N | 14 | INQT |
| 12 | QBLD | Quantity Built | N | 14 | INQT |
| 13 | QISS | Quantity Issued | N | 14 | INQT |
| 14 | CPUR | Cost Purchased | N | 14 | DOLL |
| 15 | CPRT | Cost Returned (Purch) | N | 14 | DOLL |
| 16 | CSAL | Cost Sold | N | 14 | DOLL |
| 17 | CSRT | Cost Returned (Sales) | N | 14 | DOLL |
| 18 | CMAT | Cost Material Requisitioned | N | 14 | DOLL |
| 19 | CTIN | Cost Transferred In | N | 14 | DOLL |
| 20 | CTOUT | Cost Transferred Out | N | 14 | DOLL |
| 21 | CADJ | Cost Adjusted | N | 14 | DOLL |
| | | | | | |

IN-34 File Descriptions Manual Volume I

The ALTSORT specification screen is displayed.

The first Altsort will be used to get the MTD totals. In the INHS file the Time Period field stores a P for period totals. (See pervious page). This will be the record used to get the MTD totals.

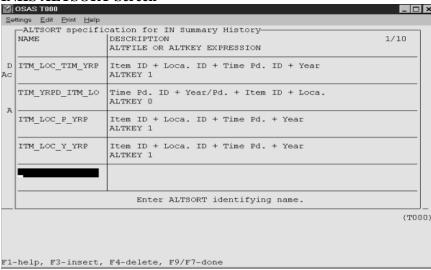
INHS ALTSORT Screen



- Select a blank field. Enter in your altsortname. For this example, use ITM_LOC_P_YRP.
- 2. Enter in a description of the Altsort.
- Enter the ALTFILE or ALTKEY you want to use for this sort. For this example type in ALTKEY 1

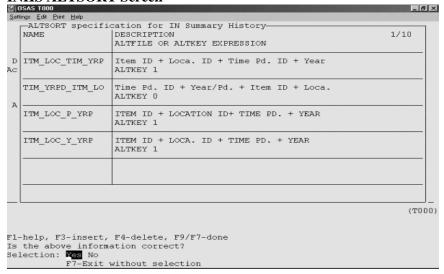
The second Altsort will be used to get the YTD totals. In the INHS file the Time Period field stores a Y for year totals. (See pervious page). This will be the record used to get the YTD totals.

INHS ALTSORT Screen



- 1. Select a blank field. Enter in your altsortname. For this example, use ITM_LOC_Y_YRP.
- 2. Enter in a description of the Altsort.
- Enter the ALTFILE or ALTKEY you want to use for this sort. For this example type in ALTKEY 1

INHS ALTSORT Screen



Select the done function key to display the Verification prompt. Answer Yes to save the added sorts.

The Dictionary Maintenance screen is displayed. Select Yes when the Verification prompt is displayed to save the file.

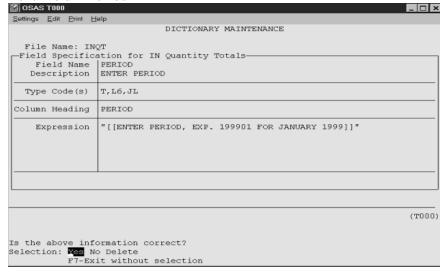
Next, select the INQT file and choose Fields.

General Report Writer Options – Dictionary – INQT - Fields



Create a runtime replacement field that will prompt for the Period. (See page 56)

Text Field – Period

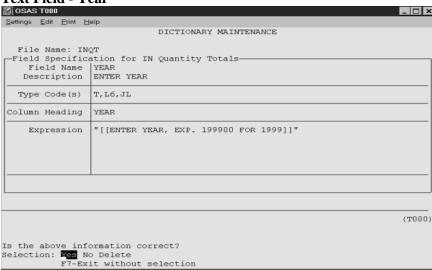


This field is a runtime replacement field. Enter the same runtime replacement information that was entered in Linksel on the original report for the MTD totals.

We are creating this field to use it as part of the Key Expression when we link to the INHS file.

Next, create a runtime replacement field that will prompt for the Year. (See page 56)

Text Field - Year



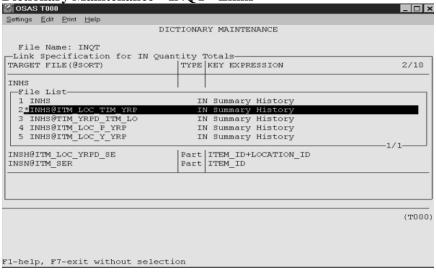
This field is a runtime replacement field. Enter the same runtime replacement information that was entered in Linksel on the original report for the YTD totals.

We are creating this field to use it as part of the Key Expression when we link to the INHS file.

Now that the sorts have been created in the INHS file and the fields in the INQT file, we need to create Links from INOT to the new sorts in INHS.

Select Links from the Dictionary Maintenance screen of the INQT file.





You can create these links in alphabetical order or add them to the end.

The first link is to the INHS@ITM_LOC_P_YRP

Dictionary Maintenance – INQT - Links



The type of link is Full, for a one-to-one link.

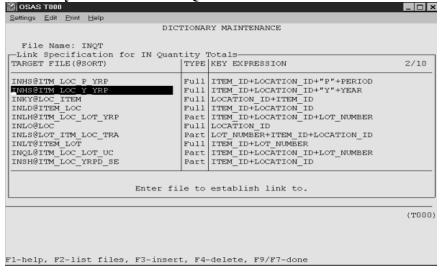
In Key Expression, enter:

ITEM_ID+LOCATION_ID+"P"+PERIOD

Here we are linking by Item Id, Location ID, the P is for the Period record, and we are passing the Period we want, which in this case is a run time replacement to prompt for the period. (See page 76)

The second link is to the INHS@ITM_LOC_Y_YRP

Dictionary Maintenance – INQT - Links



The type of link is Full, for a one-to-one link.

In Key Expression, enter:

ITEM_ID+LOCATION_ID+"Y"+YEAR

Here we are linking by Item Id, Location ID, the Y is for the Year record, and we are passing the Year we want, which in this case is a run time replacement to prompt for the year. (See page 76)

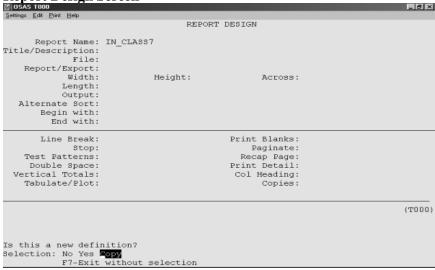
Select the done function key to display the Verification prompt. Answer Yes

Dictionary Maintenance – INQT – Links OSAS T000 _ 🗆 × Settings Edit Print Help DICTIONARY MAINTENANCE File Name: INQT
—Link Specification for IN Quantity TotalsTARGET FILE(@SORT) TYPE KEY E TYPE KEY EXPRESSION 2/10 INHS@ITM_LOC_P_YRP INHS@ITM_LOC_Y_YRP INKY@LOC_ITEM INLD@ITEM_LOC Full ITEM_ID+LOCATION_ID+"P"+PERIOD Full ITEM_ID+LOCATION_ID+"Y"+YEAR Full LOCATION_ID+ITEM_ID Full ITEM_ID+LOCATION_ID INLH@ITM_LOC_LOT_YRP INLO@LOC Part ITEM_ID+LOCATION_ID+LOT_NUMBER Full LOCATION ID Part LOT NUMBER+ITEM_ID+LOCATION_ID
Full ITEM_ID+LOT_NUMBER
Part ITEM_ID+LOCATION_ID+LOT_NUMBER INLS@LOT_ITM_LOC_TRA INLT@ITEM LOT INQL@ITM_LOC_LOT_UC INSH@ITM LOC YRPD SE Part ITEM ID+LOCATION ID (TODO) Is the above information correct? Selection: Yes No F7-Exit without selection

Next step is to edit the report to get the correct information.

Select Prompt from the General Report Writer Options menu.

Report Design Screen

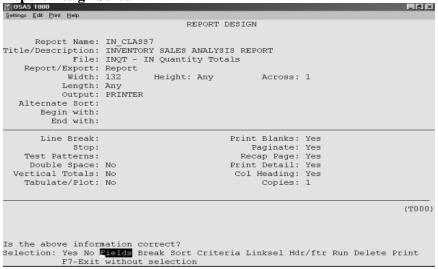


Instead of editing the existing report, we will make a copy of that report and edit the copy.

In the Report Name field, enter IN_CLASS7. Select copy when General prompts, "Is this a new definition?" Copy the IN_CLASS5 report.

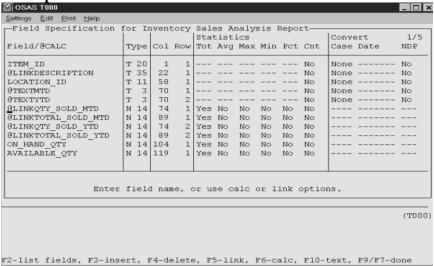
Once the report has been copied, the Verification prompt is displayed. Select Fields.

Report Design Screen



In the Field Specification screen, the Verification prompt is displayed, select No, to edit the MTD and YTD links.

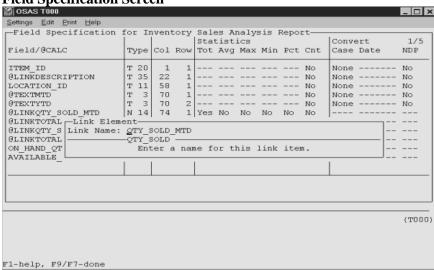
Field Specification Screen



Enter or arrow down to the @LINKQTY_SOLD_MTD field and select the link function key.

Field Specification Screen

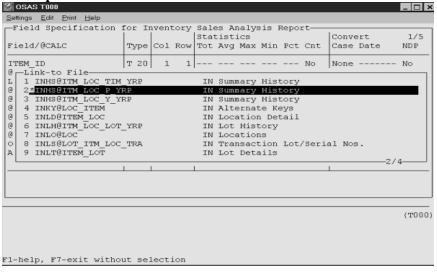
The Link Element box is displayed.



Press Enter

The Link to file box is displayed.

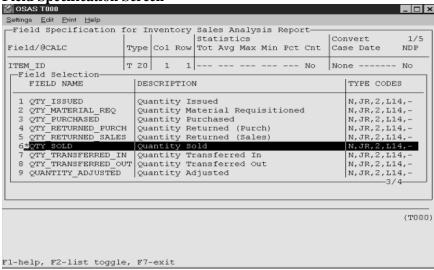
Field Specification Screen



Select the new link file INHS@ITM_LOC_P_YRP and press Enter.

The Field Selection box is displayed.

Field Specification Screen

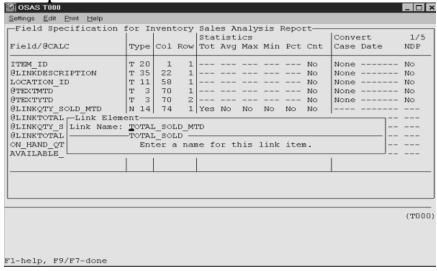


Select the QTY_SOLD field.

Next, recreate the link for the Total Sold field.

Enter or arrow down to the @LINKTOTAL_SOLD_MTD field and select the link function key. The Link Element box is displayed.

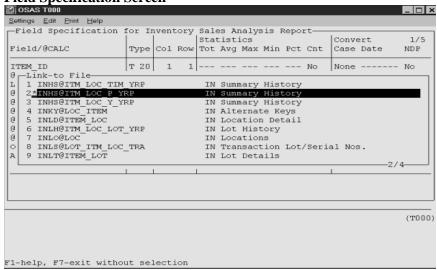
Field Specification Screen



Press Enter

The Link to file box is displayed.

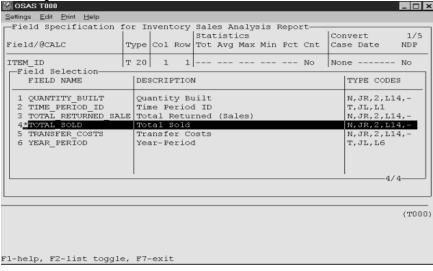
Field Specification Screen



Again, select the new link file INHS@ITM_LOC_P_YRP and press Enter.

The Field Selection box is displayed.

Field Specification Screen



Select the TOTAL_SOLD field.

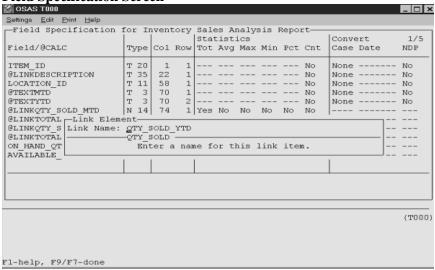
Now recreate the links for the YTD totals.

Start with the QTY_SOLD_YTD

Enter or arrow down to the @LINKQTY_SOLD_YTD field and select the link function key.

The Link Element box is displayed.

Field Specification Screen



Press Enter

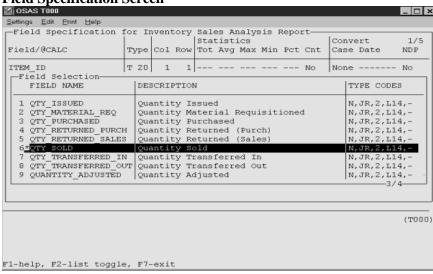
(T000)

The Link to file box is displayed.

Field Specification Screen OSAS TOOO _ | 🗆 | × Settings Edit Print Help -Field Specification for Inventory Sales Analysis Report Statistics Convert Field/@CALC Туре Tot Avg Max Min Pct Cnt Case Date T 20 @_Link-to File 1 INHS@ITM_LOC_TIM_YRP 2 INHS@ITM LOC P YRP IN Summary History 3*INHS@ITM LOC Y YRP IN Summary History 4 INKY@LOC_ITEM 5 INLD@ITEM LOC IN Alternate Keys IN Location Detail 6 INLH@ITM_LOC_LOT_YRP 7 INLO@LOC IN Lot History IN Locations 8 INLS@LOT_ITM_LOC_TRA 9 INLT@ITEM_LOT IN Transaction Lot/Serial Nos. IN Lot Details

This time, select the new link file INHS@ITM_LOC_Y_YRP and press Enter. The Field Selection box is displayed.

Field Specification Screen

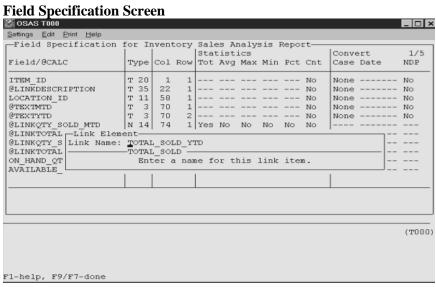


Select the QTY_SOLD field.

Next, recreate the link for the Total Sold field.

Enter or arrow down to the @LINKTOTAL_SOLD_YTD field and select the link function key.

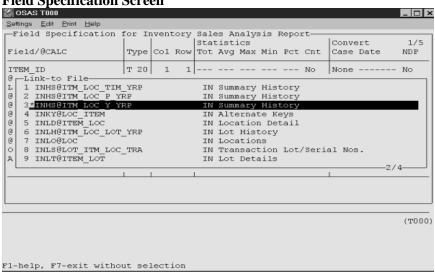
The Link Element box is displayed.



Press Enter

The Link to file box is displayed.

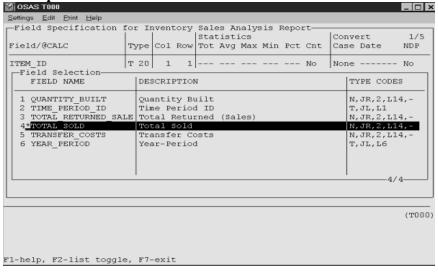
Field Specification Screen



Again, select the link file INHS@ITM_LOC_Y_YRP and press Enter.

The Field Selection box is displayed.

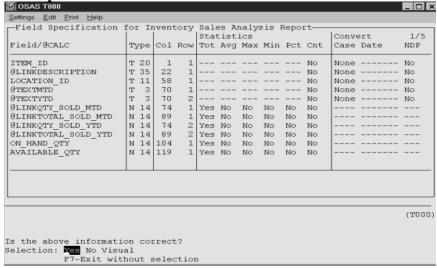
Field Specification Screen



Select the TOTAL_SOLD field.

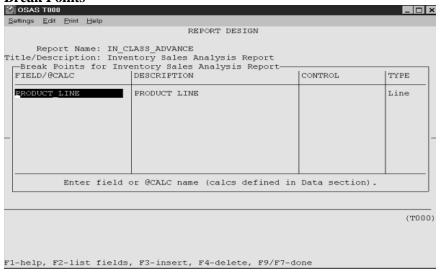
Once the year to date total sold field has been updated, select the done function key. Answer Yes to the verification prompt.

Field Specification Screen



Select Break from the Report Design Screen.

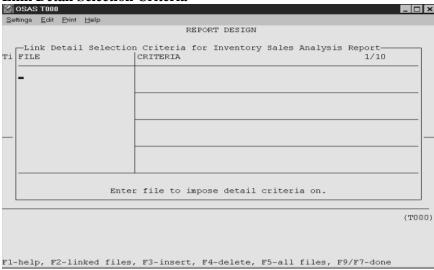
Break Points



Enter the Product Line field; since we create this field in dictionary, we can use it here.

After the break for Product Line has been entered, select Linksel.

Link Detail Selection Criteria

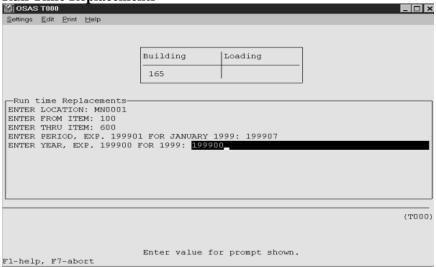


Remove all Linksel criteria from this report.

Run the report.

Enter in the runtime replacements.

Run Time Replacements



For Location ID enter MN0001

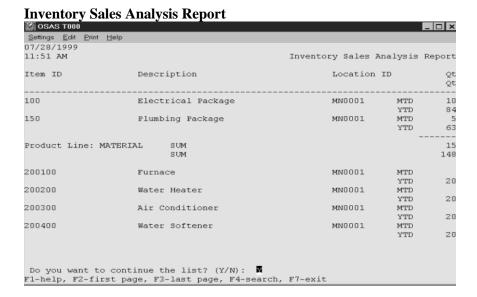
For From Item Enter 100

For Thru Item Enter 600

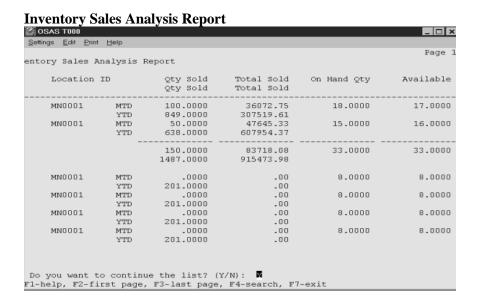
For Period Enter 199907*

For Year Enter 199900*

^{*}If you are using version 5.2x or lower, enter 1995 in place of 1999.

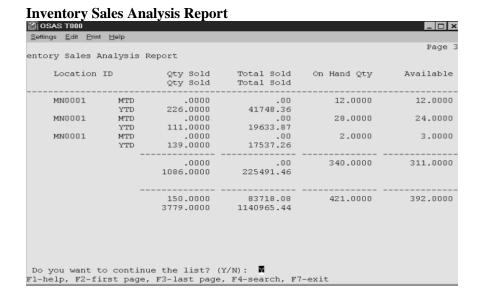


If you print to the screen, use the left and right arrows to shift between the left and right sides of the screen.



Inventory Sales Analysis Report <u>Settings Edit Print H</u>elp 07/28/1999 11:51 AM Inventory Sales Analysis Report Description Location ID Qt Slide by Window 24" x 40" 450 MN0001 MTD YTD 460 Slide by Window 30" X 40" MN0001 MTD 11 YTD 600 Standard Window 24" X 40" MN0001 MTD 13 YTD Product Line: MATERIAL 108 *Report* SUM 377 Do you want to continue the list? (Y/N): $\overline{\mathbf{W}}$ F1-help, F2-first page, F3-last page, F4-search, F7-exit

Last Page of the report



Header/Footer

The final steps of this report are to edit the headers and footers.

Select Prompt, when the Report Design screen is displayed, enter the IN_CLASS7 report.

Report Design – Inventory Sales Analysis Report Settings Edit Print Help

```
Report Name: IN_CLASS_ADVANCE
Length: Any
Output: PRINTER
  Alternate Sort:
Begin with:
                            Print Blanks: Yes
     Line Break:
                                             Paginate: Yes
                                         Recap Page: Yes
Print Detail: Yes
Col Heading: Yes
   Test Patterns:
  Double Space: No
Vertical Totals: No
    Tabulate/Plot: No
                                               Copies: 1
                                                                          (T000)
Is the above information correct?
Selection: Yes No Fields Break Sort Criteria Linksel #dr/ftr Run Delete Print
           F7-Exit without selection
```

Select Hdr/ftr from the report design screen.

The Select Header/Footer screen is displayed

You always have a header and footer for the report and you get a header and footer for each break point on the report.

Select Header/Footer

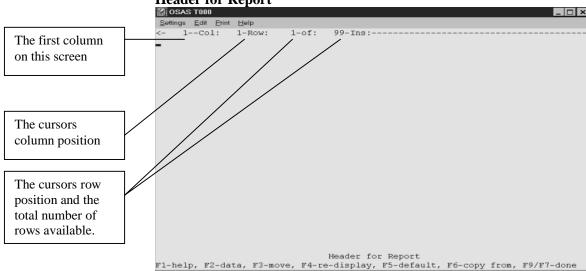


Select Header for Report

The report header is displayed.

Header for Report

OSAS TOO



| Selection | Description |
|------------------|---|
| Help | Select the function key displayed to view help information about the header or footer. |
| Data | Select the function key displayed to add or maintain data in the header or footer. Data elements can include field or break values, or can be calculation or expressions. |
| Move | Select the function key displayed to move a field or heading. |
| Re-display | Select the function key displayed to re display the edit window. |
| Default | Select the function key displayed to overlay the text with the default header or footer that General would normally generate. If there is already text displayed, General will verify replacing the old text with the defaults. |
| Copy from | Select the function key displayed to copy the header or footer from another header or footer within the same report. |
| Done | Select the function keys displayed to bring up the Verification prompt and to exit header or footer. |

Displayed at the top of the screen is the first column that appears on this screen, along with the column and row position of the cursor and the total number of rows, which are 99.

The first time you enter Header for Report, the screen is blank. Use the default function key to display the header.

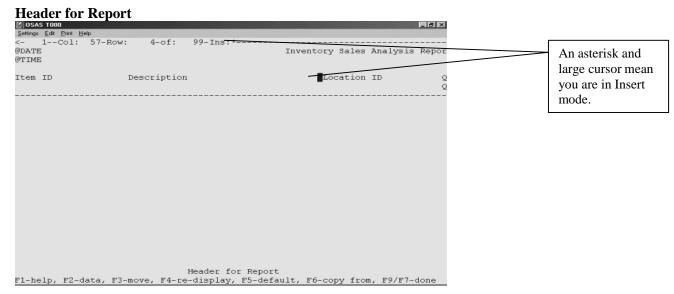
Once the defaults are brought in, you can edit move or change anything that appears on the header for the report.

Changing Text

You can change any text on the header by placing your cursor at the text you want to change and overwriting the text currently displayed.

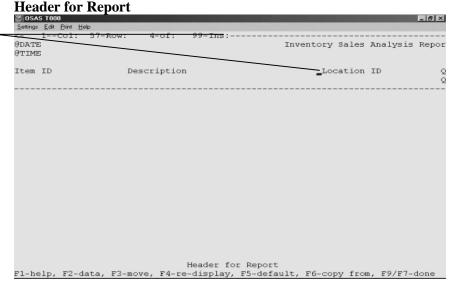
Before you edit any text or fields on the header or footer make sure you are in overwrite mode and not insert.

Insert will add spaces and move the other fields on the report.

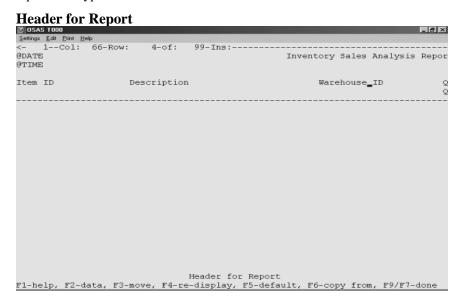


If you have a large cursor and there is and * next to Ins, you are in insert mode.

No asterisk and small cursor mean you are in Overwrite mode.



Once you are in Overwrite mode, place the cursor at the starting position of the text you want to replace and type in the new text.



In this example, we changed Location ID to Warehouse ID.

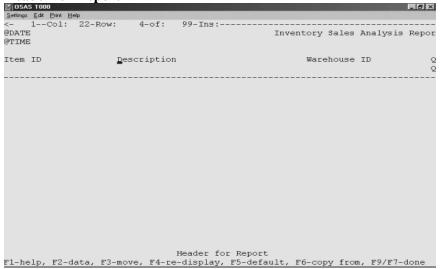
Moving Text and Fields

You can move text and fields in the headers or footers on the report.

To move text or fields perform the following:

1. Place the cursor underneath the field or text that you want to move.

Header for Report



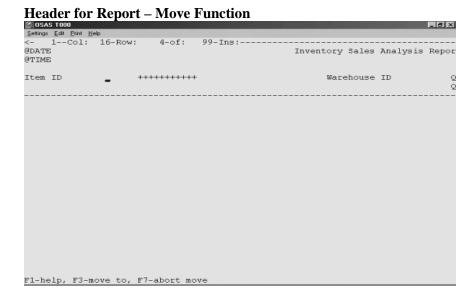
2. Select the move function key.

Header for Report – Move Function

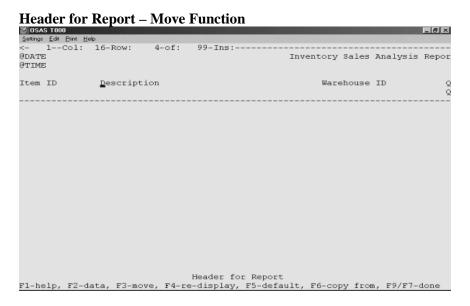


The entire field is changed to plus (+) signs.

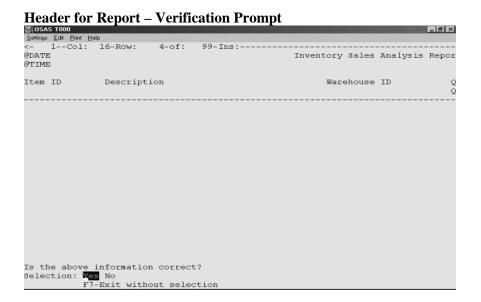
3. Move the cursor to the starting position where you want to move the field.



4. Select the move to function.



The field or text is now moved to the cursors new position.



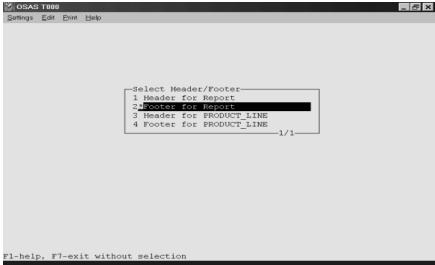
Once you have made all changes or additions to the header, select the Done function to display the Verification prompt

| Selection | <u>Description</u> |
|------------------------|---|
| Yes | Select Y, for Yes, if the information is correct and to save any changes made to the header or footer. |
| No | Select N, for No, if the information is not correct and you want to make changes. |
| Exit without selection | Select the function key displayed to exit the header or footer without saving any changes made. |
| | You will be prompted to Abort any changes. Select Yes if you want to exit the header or footer, or select No to re-display the Verification prompt. |
| | |

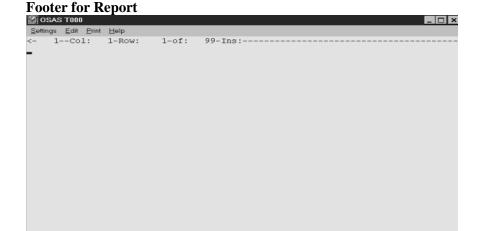
Note: Even if you do not make any changes to the header or footer, General considers bring in the defaults as customizing the header or footer and will display the Verification prompt whenever you exit a header or footer. If you select Yes, even if you did not make any changes this will make your report instructions longer and make generating the report take longer. Therefore, if you do not make any changes to the header or footer **ALWAYS** select Exit without selection.

When you exit a header or footer the Select Header/Footer is redisplayed.

Select Header/Footer



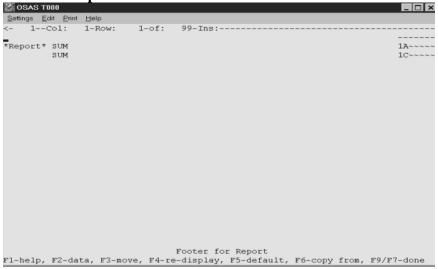
Select Footer for Report.



Footer for Report F1-help, F2-data, F3-move, F4-re-display, F5-default, F6-copy from, F9/F7-done

The first time you enter Footer for Report, the screen is blank.

Footer for Report



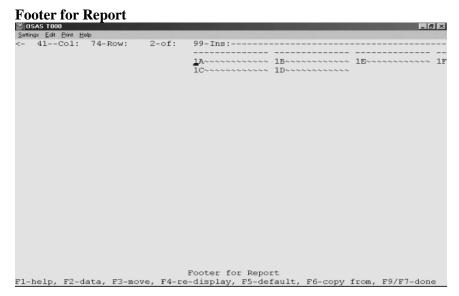
Use the default function key to display the footer.

As on the header you can change any text by placing your cursor below the text and typing over the words that are already there.

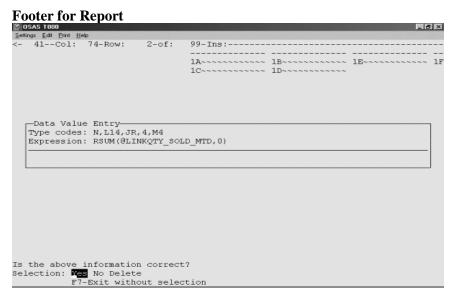
Footer for Report



Change the word Sum, in the footer, to TOTAL MTD for the first line and TOTAL YTD for the second line.



If you selected Yes in any Statistic fields, you will have report in the Footer for the report. These fields will be represented with a 1 followed by a letter and tilde (\sim).

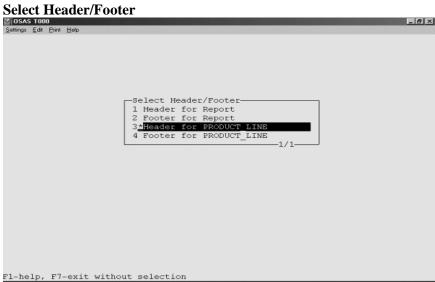


Place the cursor underneath any of the fields and select the Data function key to display the information on how this total/subtotal is created.

You can edit or delete any of the information displayed in the Data Value Entry box. This will change the value on the report.

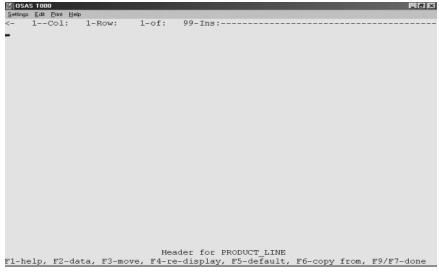
Exit the Data Value Entry box

Select the done function key to display the Verification prompt. Answer Yes.



Select Header for Product Line

Select Header/Footer



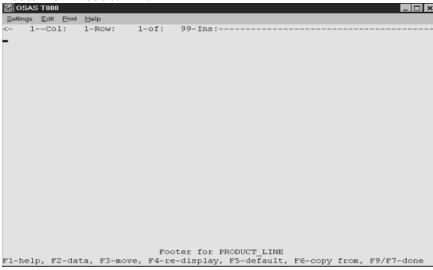
The header for any break points will always be blank even after pulling in the defaults. You can add anything to the header of the break point fields.

Select Header/Footer



Select Footer for Product Line.

Footer for Product Line



The footer is blank the first time you enter the screen.

Footer for Product Line



Use the default function key to display the footer.

As on the other headers and footers you can change any text by placing your cursor below the text and typing over the words that are already there.

Footer for Product Line



Change the word Sum, in the footer, to TOTAL MTD for the first line and TOTAL YTD for the second line.

You have the same functions and options for the break point footer as you do for the report footer.

Select the done function key to display the Verification prompt. Answer Yes.

Run the report again.

Enter in the runtime replacements.



For Location ID enter MN0001

For From Item Enter 100

For Thru Item Enter 600

For Period Enter 199907*

For Year Enter 199900*

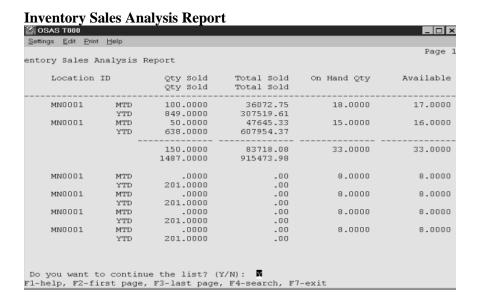
^{*}If you are using version 5.2x or lower, enter 1995 in place of 1999.

Inventory Sales Analysis Report Settings Edit Print Help 07/28/1999 12:05 PM Inventory Sales Analysis Report Description Location ID Qt 10 100 MN0001 Electrical Package MTD YTD Plumbing Package 150 MN0001 MTD 63 YTD Product Line: MATERIAL TOTAL MTD TOTAL YTD 148 200100 Furnace MN0001 MTD 20 YTD 200200 Water Heater MN0001 20 YTD 200300 Air Conditioner MN0001 20 YTD 200400 Water Softener MN0001 20 YTD

The report prints with the customized footers.

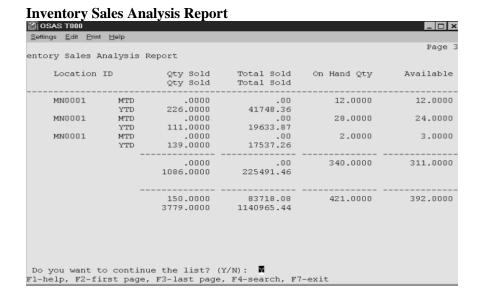
Do you want to continue the list? (Y/N): WTF1-help, F2-first page, F3-last page, F4-search, F7-exit

If you print to the screen, use the left and right arrows to shift between the left and right sides of the screen.



Inventory Sales Analysis Report Settings Edit Print Help 07/28/1999 12:05 PM Inventory Sales Analysis Report Description Location ID Qt Slide by Window 24" x 40" 450 MN0001 MTD YTD 460 Slide by Window 30" X 40" MN0001 MTD 11 YTD Standard Window 24" X 40" MN0001 600 MTD 13 YTD Product Line: MATERIAL TOTAL MTD TOTAL YTD 108 *Report* TOTAL MTD TOTAL YTD 377 Do you want to continue the list? (Y/N): $\overline{\mathbf{W}}$ F1-help, F2-first page, F3-last page, F4-search, F7-exit

Last Page of the report



Inventory Sales Analysis Report

| 12/29/1999 10:53 AM | IN | VENTORY SAL | ES ANALYS | SIS REPORT | | | Page 1 |
|---------------------------------|-----------------------------|-------------|------------|-----------------------|--------------------------|-------------|-------------------|
| Item ID | Description | Location | | Qty Sold | Total Sold Total Sold | On Hand Qty | Availabl |
| 100 | Electrical Package | MN0001 | MTD YTD | 100.0000 849.0000 | 36072.75 307519.61 | 18.0000 | 17.000 |
| 150 | Plumbing Package | MN0001 | MTD YTD | 50.0000 638.0000 | 47645.33 607954.37 | 15.0000 | 16.000 |
| PRODUCT LINE: MATE | RIAL TOTAL MTD TOTAL YTD | | | 150.0000 1487.0000 | 83718.08 915473.98 | 33.0000 | 33.0000 |
| 200100 | Furnace | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.000 |
| 200200 | Water Heater | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.000 |
| 200300 | Air Conditioner | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.0000 |
| 200400 | Water Softener | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.000 |
| 200500 | Sump Pump | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.000 |
| 200600 | Humidifier | MN0001 | MTD YTD | .0000 201.0000 | .00 | 8.0000 | 8.000 |
| PRODUCT LINE: HEAT | /AIR TOTAL MTD TOTAL YTD | | | .0000 | .00 | 48.0000 | 48.0000 |
| 250 | Exterior Panels | MN0001 | MTD YTD | .0000 17.0000 | .00 23970.23 | 242.0000 | 222.000 |
| 300 | Interior Door | MN0001 | MTD YTD | .0000 415.0000 | .00 9579.32 | 35.0000 | 22.000 |
| 350 | Entry Door | MN0001 | MTD YTD | .0000 70.0000 | .00 16445.44 | 5.0000 | 2.0000 |
| 400 | Interior Materials | MN0001 | MTD YTD | .0000 108.0000 | .00 96576.98 | 16.0000 | 17.000 |
| 450 | Slide by Window 24" x 40" | MN0001 | MTD YTD | .0000 | .00 41748.36 | 12.0000 | 12.0000 |
| 460 | Slide by Window 30" X 40" | MN0001 | MTD YTD | .0000 | .00 19633.87 | 28.0000 | 24.0000 3.0000 |
| 500 | Standard Window 24" X 40" | MN0001 | MTD YTD | .0000 139.0000 | .00 17537.26 | 2.0000 | 3.0000 |
| PRODUCT LINE: MATE | RIAL TOTAL MTD TOTAL YTD | | | .0000 | .00 225491.46 | 340.0000 | 298.0000 |
| *Report* TOTAL MTD TOTAL YTD | | | | 150.0000 3779.0000 | 83718.08 1140965.44 | 421.0000 | 379.000 |

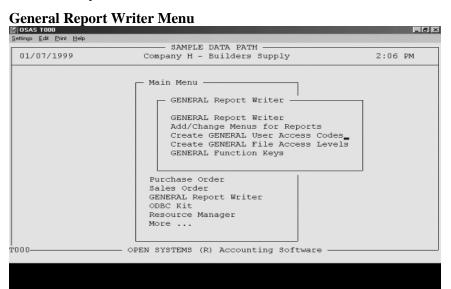
SECURITY

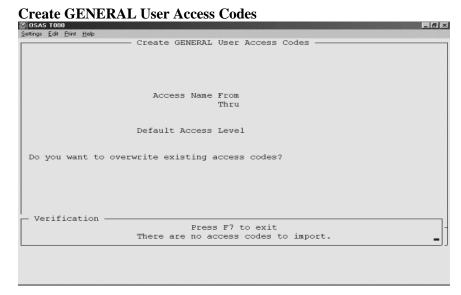
You can create Access Codes in Resource Manager to limit access to certain applications and functions in OSAS. These access codes do not carry over to General Report Writer automatically. So any user can access and print reports for any application even if they do not have access to the application in OSAS

To prevent unauthorized users from viewing data or printing reports in applications they cannot access in OSAS use the Create General User Access Codes function to import the access names from OSAS to General Report Writer and the Create General File Access Levels function to set up the application access levels. Use the Dictionary and User functions to edit the file access levels and the access names.

Create GENERAL User Access Codes

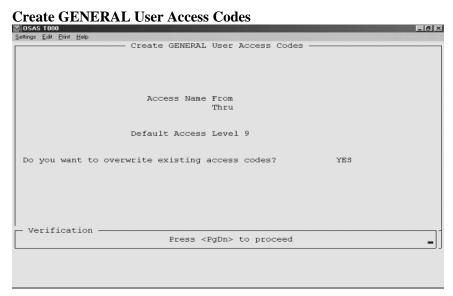
Select Create GENERAL User Access Codes to import Access Codes from Resource Manager to GENERAL Report Writer.





Access Codes in Resource Manager **must be setup** before using this function in GENERAL Report Writer.

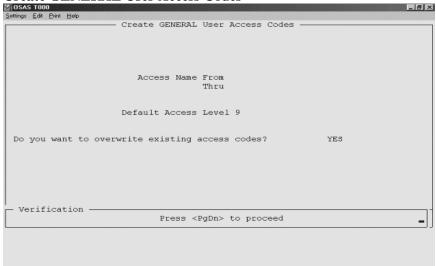
If you do not use Access Codes or have not set them up in Resource Manager before entering this function, you will get a message prompting you to F7 to exit. There are no access codes to import.



If you have access codes setup in Resource Manager you can import them into GENERAL Report Writer.

| Field | Description |
|--------------------------|--|
| Access Name From/Thru | Select the Access Names you want to import into General Report Writer. Leave blank to import all access names. |
| | General imports the Access Name and not the Access Code. |
| | You can use the Inquiry command, F2 or Esc W, to select the names. |

Create GENERAL User Access Codes

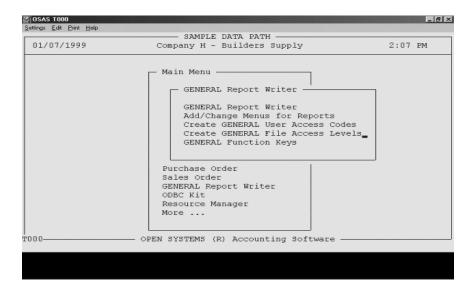


FieldDescriptionDefault Access LevelEnter the access level you want to copy to each name. The default level is 9.Valid levels are 0 – 9.9 being the highest level of access and 0 being the lowest.You can only access files that have a file access level equal to or lower than your access name level.Do you want to overwrite existing access codes?Select Yes to overwrite codes already setup in General Report Writer.Select No to only import new codes.

Use the **Proceed** command, **PgDn** or **Esc P**, to copy the access names.

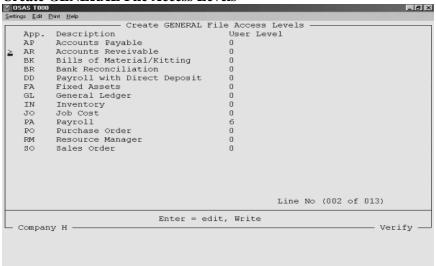
Create GENERAL File Access Levels

Select **Create GENERAL File Access Levels** from the GENERAL Report Writer menu to setup access levels for each application.



Changing File Access Level for an Application

Create GENERAL File Access Levels



| <u>Fields</u> | <u>Description</u> |
|---------------|---|
| App. | The applications that have data dictionary items installed. |
| Description | The description of the applications. |
| User Level | The file access level for the application. |
| | Valid levels are 0 to 9. |
| | 0 being the lowest level of security and 9 being the highest. |

To change the Access Level for an application perform the following:

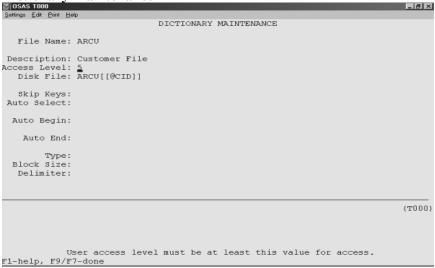
1. Enter to the User level field and type in the access level you want for the application.

Use the **Proceed** command, **PgDn** or **Esc P**, to save the changes.

Changing File Access Level for Individual Files

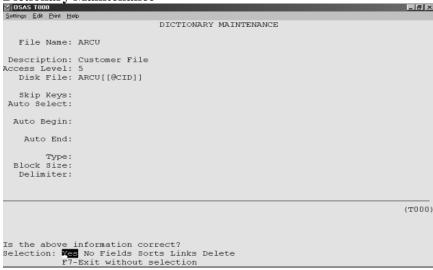
To change the Access Level for an individual file perform the following:

Dictionary Maintenance

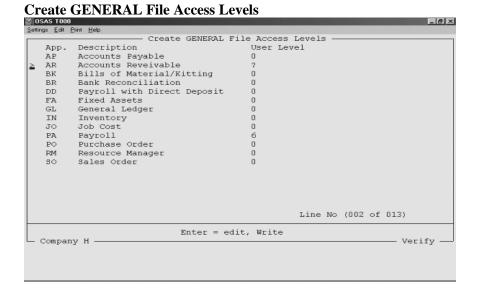


- 1. Select Dictionary from the General Report Writer Options menu.
- 2. Enter the name of the file you want to edit.
- 3. Select No when the verification prompt is displayed.
- 4. Change the Access Level field to the desired number.

Dictionary Maintenance



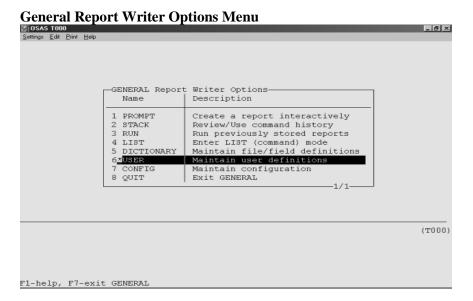
5. Enter until the verification prompt displays. Answer Yes to save the changes.



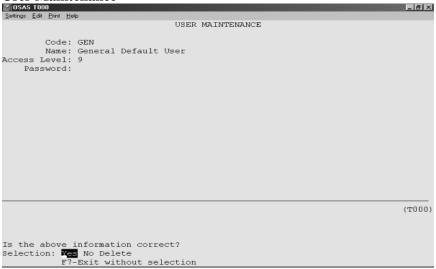
A ? in the **User Level** field displays if there are File Access Level for individual files within an application, which are different from the File Access Level for the entire application.

If you change the ? to a number and write those changes it will overwrite any individual File Access Levels you have setup.

Select **User** from the GENERAL Report Writer Options menu to add or maintain access names in GENERAL Report Writer.







Users can be entered here without having to import in their Access Names from Osas.

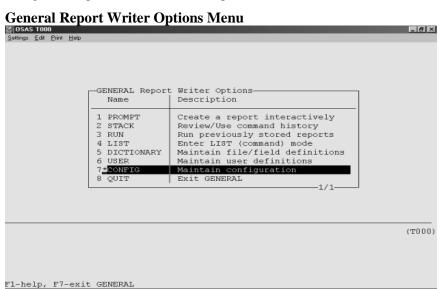
You can also edit or delete any users already created.

| <u>Field</u> | <u>Description</u> |
|--------------|--|
| Code | The access code used to enter GENERAL Report Writer. |
| Name | The access name or description of access code. |
| Access Level | The access level this user has for GENERAL Report Writer. |
| Password | The password, if any, for this user to get into GENERAL Report Writer. |
| | Note: If a password is used both the Code and Password will have to be entered to get into GENERAL Report Writer. |

CONFIGURATION

Config

Select **Config** from the GENERAL Report Writer Options menu to maintain or change configuration options for GENERAL Report Writer³⁹.



The Selection Entry menu displays

³⁹ Many options do not need to be modified from their defaults.

Selection Entry

Selection Entry Menu



Use Display Formats to establish system-wide parameters, such as language, date format, currency format and the "exit program".

Use Terminal Attributes to establish system-wide defaults for terminal characteristics, such as the foreground and background colors.

Use Printer Definitions function to establish printer drivers, if modes other than those provide by Basic are desired.

Use Report Heading Defaults to establish a standard heading for any reports that do not have a custom header defined.

Use VDT options to establish Display Formats and Terminal Attributes for this specific video or terminal. You can override the system defaults.

Use User Function Definition to maintain user-defined functions, which can be used in field definitions in the dictionary maintenance.

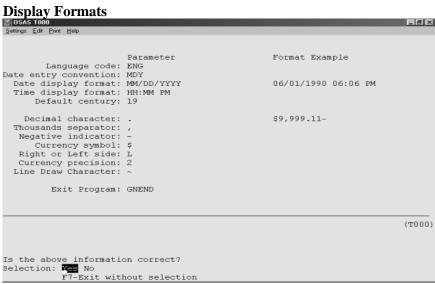
Use User Replacement Definition to maintain user-defined run-time replacement values.

Use Import secondary dictionary to import reports and dictionary items created and exported at another site.

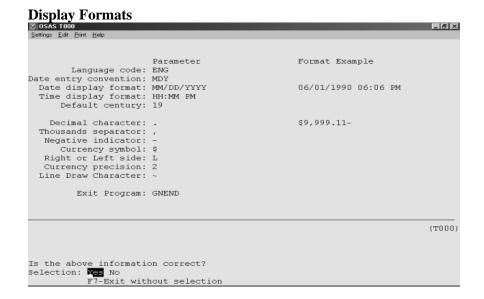
Use Export secondary dictionary to export reports and dictionary items from one site to import into another site.

Display Formats

Use Display Formats to setup parameters determining how fields and data will display in General Report Writer. These parameters are system wide for everyone using General Report Writer.



| <u>Field</u> | Description | |
|-----------------------|--|-----------------------------------|
| Language Code | Defaults to ENG for English. | |
| Date Entry Convention | Select the position for day, month and year when displayed and entered in General Report Writer. | |
| | Defaults to MDY (mont | th/day/year) for USA dates. |
| | Other formats supported | d are DMY and YMD. |
| Date Display Format | Select how dates are formatted by combining the codes for month, day and year. | |
| | MM - Month number | MMM - Month name |
| | DD - Day number | DDD - Day name |
| | YY - 2 digit Year | YYYY - 4 digit Year |
| Time Display Format | Format Select how time is displayed by combining the combi | |
| | HH - Hour | |
| | MM - Minutes | |
| | PM - 12 hour time | |
| Default Century | Select the default centur | ry for dates using 2 digit years. |

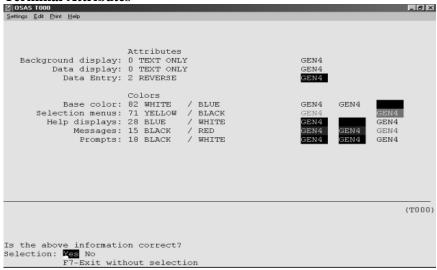


| <u>Field</u> | <u>Description</u> |
|---------------------|---|
| Decimal Character | The decimal character to use for number displays. |
| Thousands Separator | The character to use for separating thousands in number displays. |
| Negative Indicator | The character(s) to use for displaying negative numbers. Either "-" for a trailing minus sign, or parentheses "(" to enclose the number in parentheses. |
| Currency Symbol | The character to use to indicate currency. You can also add an optional underscore, to indicate a space fill, to separate the symbol from the number. |
| Right or Left Side | Specify whether the currency symbol appears on the Left or Right side. |
| Currency Precision | Decimal precision for currency amounts. Default is 2. |
| Exit Program | The name of the program the system should run when exiting General. |
| | The Exit Program must be "GNEND" or you will exit to a Basic prompt and not back to the menu when you run reports in General Report Writer. |

Terminal Attributes

Use Terminal Attributes to setup parameters determining the screen colors and how Data fields will display in General Report Writer. These parameters are system wide for everyone using General Report Writer.

Terminal Attributes

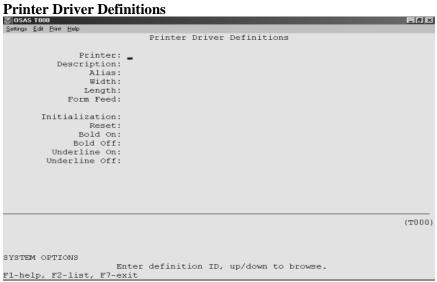


| Field | <u>Description</u> | |
|---------------------|---|--|
| Background Display* | Select how you want background screens to display. | |
| Data Display* | Select how you want the foreground to display. | |
| Data Entry* | Select how you want entry fields to display. | |
| Colors | Select the colors for each menu type. | |
| | Colors are selected in pairs. The first color is the background and the second color is the text. | |
| | The valid entries are | |
| | 1for Black | |
| | 2 for Blue | |
| | 3 for Green | |
| | 4 for Cyan | |
| | 5 for Red | |
| | 6 for Magenta | |
| | 7 for Yellow | |
| | 8 for White | |

^{*} The valid entries are: 0 for text only, 1 to display text with an underline, 2 to display text in reverse video, and 3 to display both an underline and in reverse video.

Printer Definitions

Printer Definitions are used to setup printer drivers and options for printers used by General Report Writer.⁴⁰

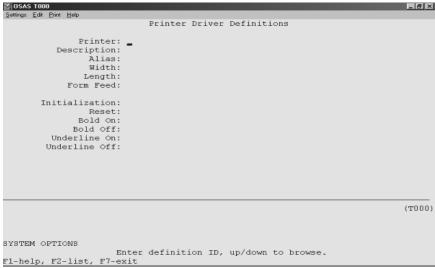


| <u>Field</u> | <u>Description</u> | | |
|--------------|---|--|--|
| Printer | tter the name of the of the printer definition. The name can be up to 6 aracters long, without spaces. | | |
| Description | Enter a description of this printer. The description is used in the selection list when printing reports. | | |
| Alias | Enter the name of the physical printer, as setup in OSAS. | | |
| | Use the list definitions key to choose from the selection of printers setup. | | |
| Width | Enter the default (standard) width in columns for this printer. | | |
| Length | Enter the default (standard) length in rows for this printer. | | |
| Form Feed | Enter the desired method for GENERAL to control page ejects. | | |
| | O General Report Writer does not issue form feeds before or after a report. | | |
| | 1 General Report Writer issues a form feed before, but not after each report. | | |
| | 2 General Report Writer issues a form feed after, but not before each report. | | |
| | 3 General Report Writer issues a form feed before and after each report. | | |

 $^{^{40}}$ You do not have to setup printers in General Report Writer. The printers setup in OSAS will be available for the reports you create in General Report Writer.

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Printer Driver Definitions

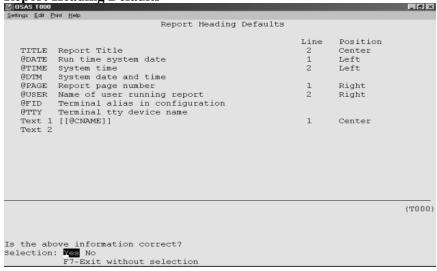


| <u>Field</u> | <u>Description</u> |
|----------------|---|
| Initialization | Enter a string to send to the printer before any printing takes place. |
| | The string can be ASCII test and ASCII code, or in hexadecimal codes. |
| Reset | Enter a string to send to the printer when a report is complete and the last form-feed, if any, is sent to the printer. |
| | The string can be ASCII test and ASCII code, or in hexadecimal codes. |
| Bold On | Enter a string to turn on bold printing. |
| | The string can be ASCII test and ASCII code, or in hexadecimal codes. |
| Bold Off | Enter a string to turn off bold printing. |
| | The string can be ASCII test and ASCII code, or in hexadecimal codes. |
| Underline On | Enter a string to turn on <u>underline</u> printing. |
| | The string can be ASCII test and ASCII code, or in hexadecimal codes. |
| Underline Off | Enter a string to turn off underline printing. |
| | The string can be ASCII test and ASCII code, or in hexadecimal codes. |

Report Heading Defaults

Select the defaults to print on the heading of all reports that do not have a customized heading.

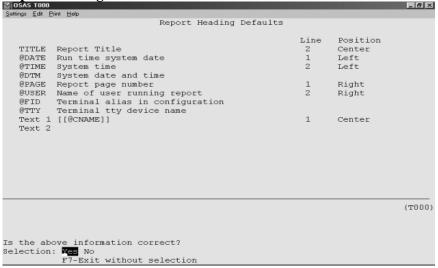
Report Heading Defaults



There are eight predefined headings and two user defined headings that you can print on any report.

| <u>Field</u> | <u>Description</u> |
|--------------|--|
| TITLE | The report Title/Description |
| @DATE | The system date at the time the report is generated. |
| @TIME | The system time at the time the report is generated |
| @DTM | The system date and time, at the time the report is generated. |
| @PAGE | The report page number |
| @USER | The user generating the report |
| @FID | The terminal alias in the configuration. |
| @TTY | The terminal tty device name. |
| Text 1 | Enter the information you want to print on the report header. |
| Text 2 | Enter the information you want to print on the report header. |

Report Heading Defaults
| Osas Todo
| Settings Edit Print Help



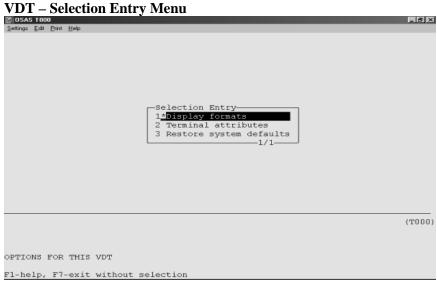
| Field | Description |
|--------------|--|
| Line | Enter the line number you want the field to print on the header. |
| | Valid lines are $1-3$. |
| | Leave this field blank if you do not want to print this field on the header. |
| Position | The position of the heading. |
| | 1 for the left margin |
| | 2 for the center position |
| | 3 for the right margin. |

VDT

Is the above information correct?

F7-Exit without selection

Selection: Wes No



VDT allows you to override the system defaults for Display format and Terminal attributes, for this terminal only. You can also restore system defaults if any changes have been made.

VDT – Display Formats OSAS T000
Settings Edit Print Help Format Example Language code: ENG Date entry convention: MDY
Date display format: MMY/DD/YYYY
Time display format: HH:MM PM
Default century: 19 06/01/1990 06:06 PM Decimal character: . \$9,999.11-Decimal character: Thousands separator: Negative indicator: Currency symbol: Right or Left side: Currency precision: Line Draw Character: (T000)

VDT - Display format has two options that are not available or maintainable on a terminal-byterminal basis.

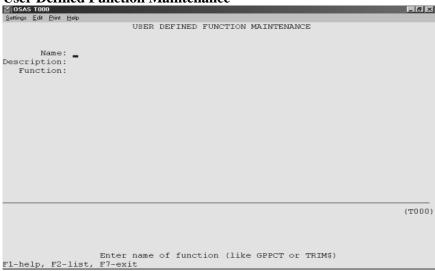
The Date entry convention is a system-wide parameter, so that date conversions will work the same for any report.

The Exit program is also a system-wide parameter. Every terminal will exit to the same program.

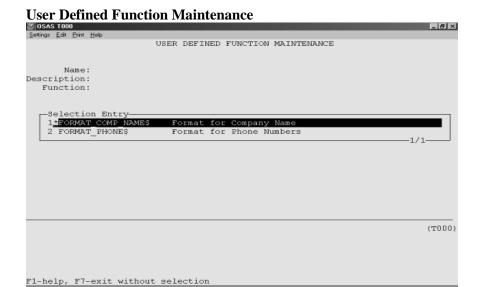
User Function Definition

General Report Writer's Dictionary supports the use of user-defined functions that are created in Business Basic. Function definitions are maintained here and at run-time General Report Writer inserts them in the report as required.

User Defined Function Maintenance



| <u>Field</u> | <u>Description</u> |
|--------------|---|
| Name | Enter the name of the function. |
| | Function names can be from 1 to 20 characters long, and can contain letters, numbers and underscores. |
| | If the function derives a string result, then it must end in a dollar sign. |
| Description | Enter a description for this function. |
| Function | Enter the arguments and Basic code for the function. |



Use the list key to see the available function definitions.

There are two preloaded definitions, Format for Company Name and Format for Phone Numbers.

User Replacement Definition

User Replacement Definition maintain user-defined run-time replacement values



| <u>Field</u> | <u>Description</u> |
|--------------|---|
| Name | Enter the name of the run-time replacement. |
| | The name can contain 1 to 30 characters. |
| | Use the list key to choose the replacement from a selection list. |
| Description | Enter the description for this replacement |
| Value | Enter the value to use as a replacement when this run-time replacement is used by a report. |

Use the Import Secondary Dictionary and Export Secondary Dictionary functions to export a report or dictionary files from one installation of General Report Writer on one machine or site and import them into a different installation of General Report Writer.

Export Secondary Dictionary

Export to Secondary Dictionary

[IDSAS 1000]
Settings Edit Pint Help

EXPORT TO SECONDARY DICTIONARY

Secondary Dictionary: Class1

(T000)

Do you want to create this file?

Selection: No Selection Selection

First, you would export the report or dictionary items.

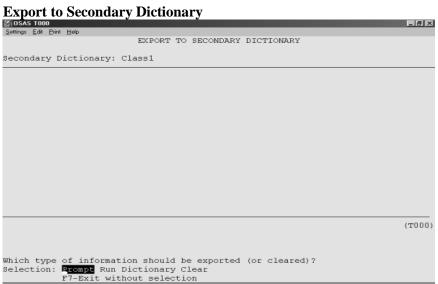
<u>Field</u> <u>Description</u>

Secondary Dictionary

Enter the name of the file you want to create to export the information from General Report Writer.

You are prompted to create the file, if it does not already exist.

The file is created in the progGN directory.



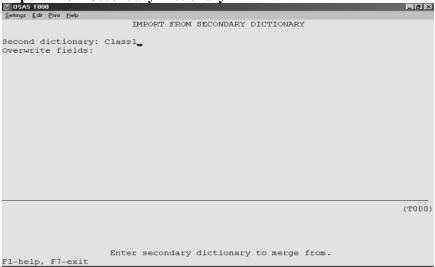
Once the file has been created, select the information you want to export.

| <u>Field</u> | <u>Description</u> |
|--------------|--|
| Prompt | Select the prompt mode report(s) you want to export. |
| Run | Select the report(s) saved to the run menu to export. |
| Dictionary | Select the data dictionary file(s) you want export |
| Clear | If information has been exported to the file before, select the clear option to erase the previous export information. |

Once the file has been created, copy it from the progGN directory, to a diskette, or email the file. Copy the file to the progGN directory of the machine you will import the information into.

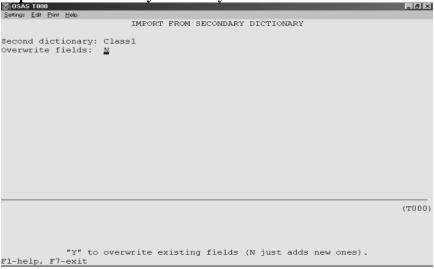
Import Secondary Dictionary

Import From Secondary Dictionary



<u>Field</u> <u>Description</u>

Import From Secondary Dictionary



Field Description

Overwrite fields Select Y, for Yes, to overwrite existing fields and reports.

Select N, for No, to only import new fields and reports.

APPENDIX

Appendix A - Type Codes

Type codes are used in General Report Writer's dictionary definitions and calculations to determine the type of data being used, the length of the field, and optional formatting of the field.

Type codes consist of a base type code, then the length code, followed by one or more optional codes. Type codes are separated with commas.

Type codes are entered in Fields in Data Dictionary and when creating Calculated fields on reports.

Base Codes

There are three valid base codes in General Report Writer, Text, Numeric and Date.

| Base Code | <u>Description</u> |
|-----------|--|
| T | Enter T, for Text or alphanumeric fields. These fields can contain letters or numbers. |
| N | Enter N, for Numeric fields. These fields can contain numbers only. |
| D | Enter D, for Date fields. Date fields are stores as Julian numbers in OSAS. |

Length Code

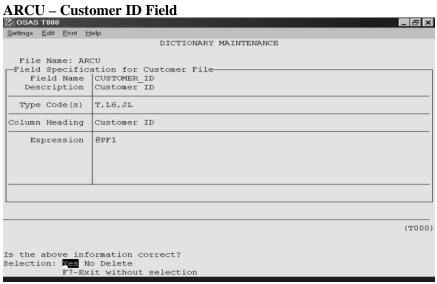
The length code is used to determine the number of characters for the field.

The length code is an $\bf L$ followed by a number, which represents the maximum number of characters the field can hold.

Optional codes

Each base codes supports additional format codes.

Text Fields



| <u>Option</u> | <u>Description</u> |
|---------------|---|
| n= a number | Enter the number of lines the field can occupy. The default is 1. The maximum number is 99. |
| JL | To left justify the field. |
| JR | To right justify the field. |

Note: OSAS justifies Text fields left so the first letter of each word line up correctly.

Numeric Fields

ARCU – Current Amount Due Field

| SOSAS TOOO | ent Amount Due Field |
|-----------------------------|--|
| Settings Edit Print Help | |
| | DICTIONARY MAINTENANCE |
| Field Name | CU ation for Customer File CURR_AMT_DUE Current Amount Due |
| Type Code(s) | N,L14,JR,M1,- |
| Column Heading | Curr Amt Due |
| Expression | @pF9 |
| | |
| | (T000) |
| Selection: Wes No F7-Ex: | t without selection |

| Option | <u>Description</u> |
|------------------|---|
| n=a number | Enter the decimal precision for the field. The default number is 0 and the maximum number is 9. |
| M1-M7* | Used the mask setup on the OSAS Company Information screen, in Resource Manager, to determine the decimal precision. |
| | M1 – Regular Dollars Mask M2 – Inventory Cost Mask M3 – Inventory Price Mask M4 – Inventory Quantities Mask M5 – Rates Mask M6 – Hours Mask M7 – Credit Limits Mask |
| P* | Enter P to punctuate the number with commas. |
| - | Enter – to have a trailing minus sign for negative numbers. |
| () | Enter () to have negative numbers display inside parentheses. |
| CR | Enter CR to have negative numbers display with a CR, for credit to the right. |
| \$ ⁴¹ | To display the number in currency format. |
| Sn | Scale factor of n, where n represents a number, means GENERAL Report Writer should shift the decimal point automatically by this amount. |
| JL | To left justify the field. |
| JR | To right justify the field. |

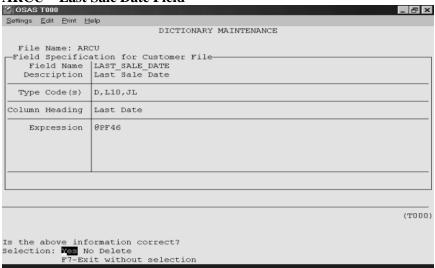
Note: OSAS justifies Numeric fields right so the decimals line up correctly.

^{*} The M1-M7 and P options will not work together.

⁴¹ The currency decimal precision, set up in Display Formats on the Config menu, determines the decimal precision of the field on the report and will override any other decimal precision selected.

Date Fields

ARCU - Last Sale Date Field



| Option | <u>Description</u> |
|---------------|---|
| T | Display with time. |
| | Assumes internal date number is minimum precision 4 number, with time stored as a decimal portion of a day. |
| JL | To left justify the field. |
| JR | To right justify the field. |

Note: OSAS justifies Date fields left so the first letters of each date line up correctly.

Appendix B - RunTime Replacements

Criteria and/or Linksel can be setup to prompt the user at run time for information to enter to continue running the report. These are called Run-Time Replacements.

Criteria Run-Time Replacements

Selecting the fields and the operator for run time replacements is the same as setting up regular criteria. The Expression is where you setup the prompt information.

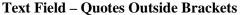
Criteria Specification

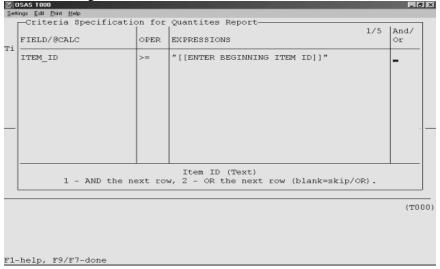
| OSAS 1000 | | OSAS 1000 | | OSAS 1000 |

| <u>Field</u> | <u>Description</u> |
|--------------|--|
| FIELD/@CALC | Enter the field you want to use in criteria |
| | You can use the list fields function key to select the field. |
| OPER | Enter the operator, or how you want to compare the field to the Expression. |
| | You can use the list operators function key to select the operator. |
| Expressions | Enter the information you want to use to limit the field. |
| | Run Time Replacements always begin with two square brackets ([[) and end with two square brackets (]]). Between the sets of brackets, enter the prompt you want to appear on the screen. |
| | Exp: [[Enter Expression you want to appear on the screen]] |
| And/Or | You can select multiple fields to use in criteria and as run time replacements. |

The three different field types are setup a little differently

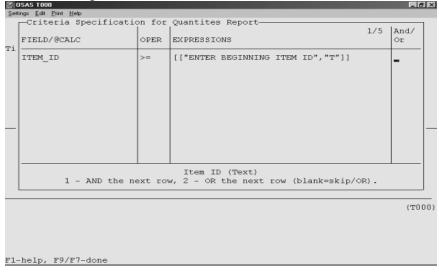
Text Fields





Criteria for Text fields require quotes around the Expression. You can enter the expression without quotes around the brackets and General Report Writer will by default place quotes around the brackets. You can also manually enter the quotes.

Text Field – Quotes Inside Brackets

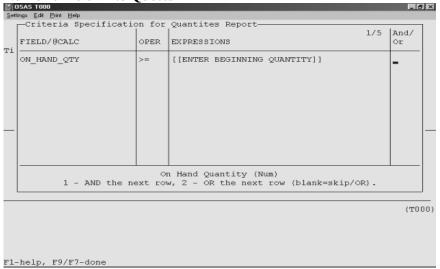


You can also place the quotes inside the brackets around the Expression. If the quotes are placed inside the brackets, you must tell General Report Writer what type of field you are using in criteria. This is done by place a comma after your phrase and a capital **T** within quotes, before the ending brackets are entered.

Example: [["Enter Item ID","T"]]

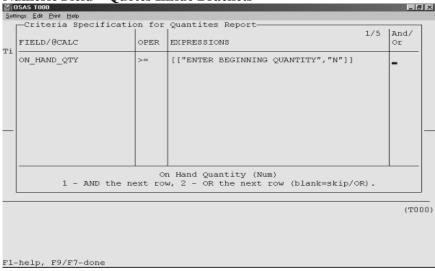
Numeric Fields

Numeric Field - No Quotes



Criteria for numeric fields do not require quotes around the brackets. For Numeric fields, General does not use quotes on the outside of the brackets. You do not want to add quotes.



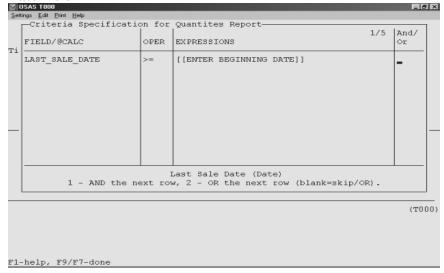


If the quotes are placed inside the brackets place a capital N within quotes, before the ending brackets are entered.

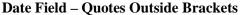
Example: [["Enter Quantity","N"]]

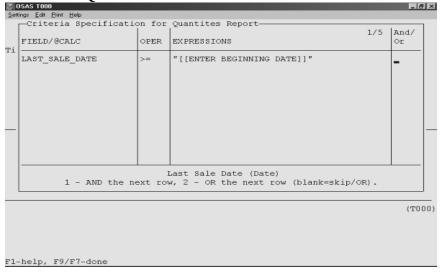
Date Field

Date Field



For an Expression on a date field GENERAL Report Writer does not place surrounding quotes around the outside of the brackets, however if the Expression is used this way on a date field you must know the Julian number for the date. If you enter the date in a regular date format, such as MM/DD/YYYY, you will get an error message telling you the date entered is not in the dictionary.





If you manually place quotes around the outside of the brackets, you will not need the Julian number for the date and you can enter a date in regular date format without any errors. 42

⁴² This will only work with version 6.0 and higher. If you are on version 5.1x or 5.2x of General Report Writer you must setup the field with quotes on the inside of the brackets and specify D for the field type.

If the quotes are placed inside the brackets place a capital D within quotes, before the ending brackets are entered. 43

Example: [["Enter Date","D"]]

_

 $^{^{43}}$ If you are on version 5.1x or 5.2x of General Report Writer, you must enter run time replacements for date fields this way.

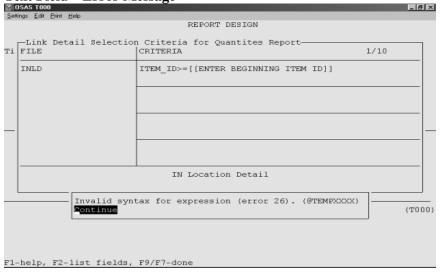
Linksel Run-Time Replacements

Creating Run-Time replacements in Linksel is slightly different than in Criteria, but has the same principle. The file used is entered first. The Field Name, Operator and Expression are all entered in the Criteria box. The Field Name and Operator are entered the same as Criteria. The Expression is not as intuitive in Linksel as it is in Criteria and requires more user intervention.

For a Text field enter the Field Name, then the Operator, but when entering the Expression you must put the surrounding quotes around the outside of the brackets.

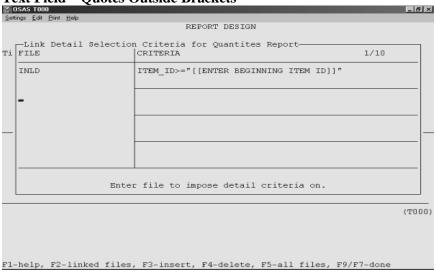
Text Fields





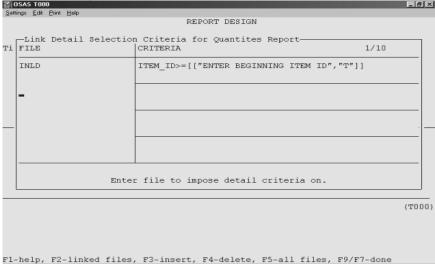
You will get an error message, when you try to leave the criteria box, if the quotes are not used.

Text Field – Quotes Outside Brackets



Example: ITEM_ID>="[[ENTER BEGINNING ITEM ID]]"

Text Field – Quotes Inside Brackets



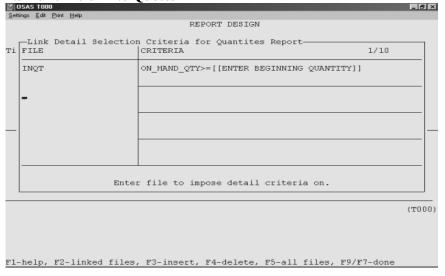
If quotes are used inside the brackets, the expression is entered the same as criteria, by place a comma after your phrase and a capital **T** within quotes, before the ending brackets are entered.

Example:

ITEM_ID>=[["ENTER BEGINNING ITEM ID","T"]]

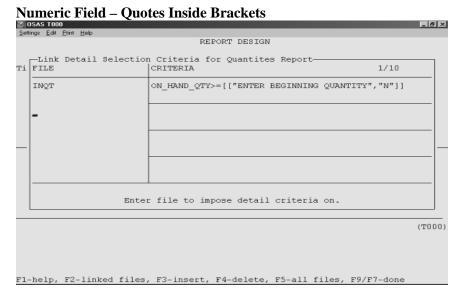
Numeric Fields

Numeric Field - No Quotes



For a numeric field surrounding quotes are not required.

Example: ON_HAND_QTY>=[[ENTER BEGINNING QUANTITY ID]]

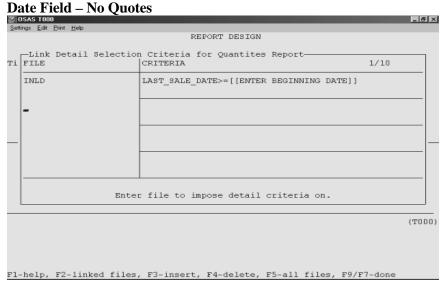


If quotes are used inside the brackets, the expression is entered the same as criteria, by place a comma after your phrase and a capital **N** within quotes, before the ending brackets are entered.

Example:

ON_HAND_QTY>=["[ENTER BEGINNING QUANTITY","N"]]

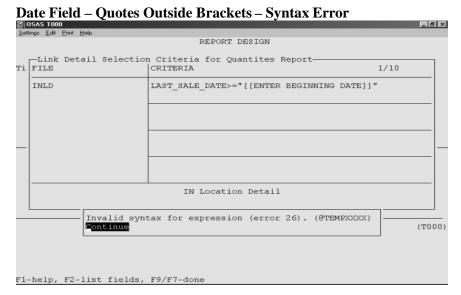
Date Fields



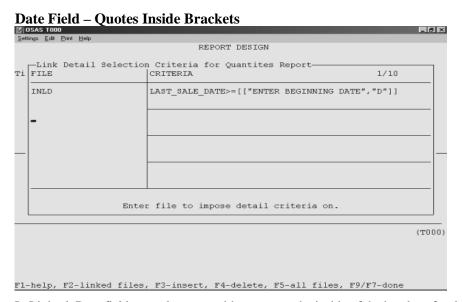
For a date field surrounding quotes are not required either, but you must know the Julian number for the date.

Example:

LAST_SALE_DATE>=[[ENTER BEGINNING DATE]]



In Linksel, with Date fields, if quotes are used on the outside of the brackets you will get a syntax error.



In Linksel, Date fields must be setup with quotes on the inside of the brackets for the run time replacement to work properly.

If quotes are used inside the brackets, the expression is entered the same as criteria, by place a comma after your phrase and a capital **D** within quotes, before the ending brackets are entered.

Example: LAST_SALE_DATE>=[["ENTER BEGINNING DATE","D"]]

Appendix C - Function Table

| Internal Variable | <u>Type</u> | <u>Description</u> | |
|-------------------|-------------|--|--|
| @BREAKn | Text | The current value of a break point, where n represents the break point level number. | |
| @CID | Text | The ID of the current company. | |
| @CNAME | Text | The name of the current company | |
| @DATE | Date | The current date in Julian format. | |
| @DAY | Text | The current date in MM/DD/YY format. | |
| @DTM | Date | The current date and time in Julian format. | |
| @FILECHAIN | Number | The current file chain number. File chains are sequential disk files, delimited by semi-colons, in the dictionary. | |
| @FLD | Varies | The current field. | |
| @Key | Text | The key of the current record. | |
| @PFn | Text | Physical field number n. Equates to an IOLIST position, or in the case of a delimited ASCII file, the field in the record based on the delimiter | |
| @PI | Number | 3.14159265358979 | |
| @REC | Text | The complete record read from the file (READRECORD). | |
| @TEMPname | Number | A temporary numeric variable | |
| @TEMPname\$ | Text | A temporary text variable. | |
| @TTY | Text | The operating system tty device for the terminal | |
| @USER | Text | The operating system login name. | |
| @VDT | Text | The Business Basic terminal name (FID(0)) | |
| @YMD | Text | The system date in YYMMDD format. | |

| Function | Type | Description |
|---------------------------|-------------|--|
| &function(arg-1,arg-2,) | Number | A user defined numeric function. User defined functions are defined through the system configuration |
| &function\$(arg-1,arg-2,) | Text | A user defined text function. |
| ADPRDB(c,s,l,p,r) | Number | Calculates accumulated depreciation through period p, using the declining balance method. The calculation is based on cost c, salvage value s, life l, and an optional rate r. The default rate is 2 unless specified. |
| ADPRSL(c,s,l.p) | Number | Calculates accumulated depreciation through period p, using the straight-line method. The calculation is based on cost c, salvage s, and life l. |
| ADPRSY(c,s,l.p) | Number | Calculates accumulated depreciation through period p, using the sum-of-years-digit method, using cost c, salvage s, and life 1. |
| AGE(x,y) | Number | The age in days from date x to date y. |
| AGED(x,y)) | | |
| AGEHR(x,y) | Number | The age in hours from date/time x to date/time y. |
| AGEM(x,y) | Number | The age in months from date x to date y. |
| AGEMN(x,y) | Number | The age in minutes from date/time x to date/time y. |
| AGEY(x,y) | Number | The age in years from date x to date y. |
| AREF("f",k,exp) | Number | The average of the numeric expression exp across a series of records in target file f (defined in the General dictionary or supported external dictionary), using key expression k. |
| | | The key expression defines the first portion of the key to the target file. If the target file is specified with a sort name (filename@sortname) then the sort specified is used when accessing the range of records indicated by the key expression. |
| AVG(x,y,, z) | Number | Average of all numbers specified. |
| BLOCK(txt,size) | Text | Blocks the text stream txt, into word-wrapped lines of the size specified. |
| CDATE(txt,"map") | Date | Converts the text string txt into a date, using the format specified by map. The map contains text and place specifies: DD, DDD, MM, MMM, YY, and, YYYY. A date of "03/15/99" would be mapped to "MM/DD/YY". Optionally, the map strings MDY and YDM specify variable length, delimited dates. The date "3-1-99" would be converted to March 1, 1999 by a map of "MDY" |

| Function | <u>Type</u> | Description |
|------------------|-------------|---|
| CNT(x,y,,z) | Number | Count of all the elements specified. |
| CNUM(txt,x) | Number | Converts text string txt to a number, ignoring any punctuation, such as currency formatting or thousands separators. If the decimal character x is specified, then that character, rather than a period (.) is used to denote the decimal point. |
| CONTAINS(x,y) | True/False | True if text string x is contained in text string y; false if not. |
| CREF("f",k,exp) | Number | The count of the number of related records in target file f (defined in the General dictionary or a supported external dictionary), using key expression k. |
| | | The key expression defines the first portion of the key to the target file. If the target file is specified with a sort name (filename@sortname) then the sort specified is used when accessing the range of records indicated by the key expression. |
| | | The expression exp may be any valid data expression. |
| DAY(x) | Text | The text formatted date of the date value x. The format used is defined in the system configuration, and defaults to MM/DD/YYYY. |
| DAYTM(x) | Text | The text formatted of the date/time value x. The format used is defined in the system configuration, and defaults to MM/DD/YYYY. |
| DD(d) | Text | The 2-digit day portion of date d. |
| DDD(d) | Text | The abbreviated day name of date d. Mon, Tue Wed, ect. |
| DEL(x,y,z) | Text | The modified version of text value x, where the characters beginning with character number y, for a length of z, is deleted from the string. |
| DIVIDE(x,y) | Number | The result of dividing number x by number y, or 0 if either x or y is 0. |
| DPRDB(c,s,l,p,r) | Number | Calculates depreciation through period p, using the declining balance method. The calculation is based on cost c, salvage value s, life l, and an optional rate r. The default rate is 2 unless specified. |
| DPRSL(c,s,l.p) | Number | Calculates depreciation through period p, using the straight-line method. The calculation is based on cost c, salvage s, and life l. |
| DPRSY(c,s,l.p) | Number | Calculates depreciation through period p, using the sum-of-years-digit method, using cost c, salvage s, and life 1. |

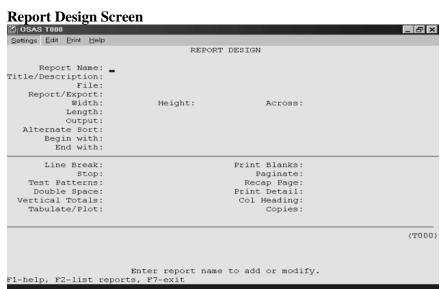
| Function | Type | <u>Description</u> |
|---|------------|--|
| DT(x) | Date | The internal date format for the text x. x must be in the date entry format as defined by the system configuration, normally "MMDDYYYY". This function is useful to compare an entered date with a fixed date. The year portion of the text may be in 0, 2, or 4-digit format. |
| DTM | Date | The internal date and time for the text x. x must be in date and time entry format, normally MMDDYYYY HHMM. This function is useful to compare an entered date and time with a fixed date and time. |
| EXPAND(x,y,z) | Text | Looks for the occurrences of the text string x in the list of values in y, and returns the corresponding element in the list of values in z. If the value of x is not found in y, then the function returns null. |
| FV(x,y,z) | Number | The future value of a string of payments, assuming x is the payment amount, y is the interest rate per period, and z is the number of periods. |
| | | The interest rate should be expressed as a fraction: .07 for 7%, and may need to be adjusted to match the rate per period; .07/12 for monthly rate at 7% annual rate. |
| GAVG(x,y) GCNT(x,y) GMAX(x,y) GMIN(x,y) GSUM(x,y) | Number | The group average, count, maximum, minimum, or sum value of field x, at break level y. Break levels are determined by the order of the break fields entered in the report. |
| IFF(x,y,z) | Text | Test the condition specified by a relational expression x, and if true, returns text y, else returns text z. |
| ISNOTNUM(x) | True/False | True if text is NOT a valid number (suitable for processing by the NUM() function. |
| ISNUM(x) | True/False | True if the text value x IS a valid number. |
| LEFT(x,y) | Text | The leftmost y characters of text value x. If x is less then y characters in length, the value is padded to y characters. |
| LENGTH(x) | Number | The length of text string x, after leading and trailing spaces are removed. |
| LOWER(x) | Text | The text string x, with all the letters in lower case. |
| MATCH(x,y) | True/False | True if text string x matches the regular expression in string y. This function only works in environments that support regular expressions. |
| MID(x,y,z) | Text | The middle z characters of text string x, starting at position y. If there are not enough characters in x to satisfy the length, the value is padded with spaces. |

| Function | Type | Description | | |
|---|-------------|---|--|--|
| MM(d) | Text | The 2-digit month number of date d. | | |
| MMM(d) | Text | The abbreviated month name of date d. Jan, Feb, ect. | | |
| MREF("f",k,exp) | Text | The values of the expression exp across a series of records in target file f (defined in the General dictionary or supported external dictionary), using key expression k. | | |
| | | The key expression defines the first portion of the key to the target file. If the target file is specified with a sort name (filename@sortname) then the sort specified is used when accessing the range of records indicated by the key expression. | | |
| PMT(x,y,z) | Number | The payment amount of an amortization of principal x, at interest rate y, paid over z periods. | | |
| | | The interest rate should be expressed as a fraction: .07 for 7%, and may need to be adjusted to match the rate per period; .07/12 for monthly rate at 7% annual rate. | | |
| PROPER(x) | Text | The text string x, after capitalizing the first letter after spaces and punctuation. | | |
| PV(x,y,z) | Number | The present value of a series of payments, where x is the payment amount, y is the interest per period, and z is the number of periods. | | |
| | | The interest rate should be expressed as a fraction: .07 for 7%, and may need to be adjusted to match the rate per period; .07/12 for monthly rate at 7% annual rate. | | |
| RATE(x,y,z) | Number | The interest rate required to fully amortize future value x and present value y over z periods. | | |
| RAVG(x) RCNT(x) RMAX(x) RMIN(x) RSUM(x) | Number | The report average, count, maximum, minimum, or sum value of field x. | | |
| RIGHT(x,y) | Text | The rightmost y characters of text string x. If x is not long enough, the values is left padded to y characters. | | |
| ROUND(x,y) | Number | The number x, rounded to y decimal places. | | |
| STD(x,y,z) | Number | The standard deviation of the stream of numbers xz . | | |
| SUBT(x,y,z) | Text | The text string x, after substituting all occurrences of text string y with text string z. | | |
| SUM(x,y,,z) | Number | The sum of all numbers xz. | | |
| SYSVAR("x") | Text | The value of the operating system environment variable x, or null if not found. | | |

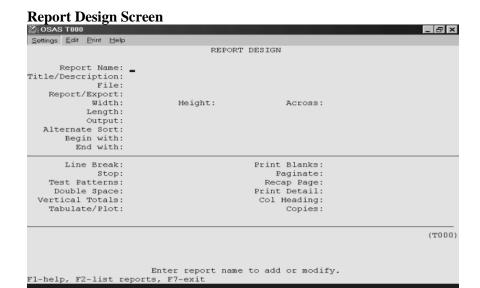
| Function | Type | <u>Description</u> | |
|-----------------|-------------|---|--|
| TERM(x,y,z) | Number | The number of payments required to amortize future value y and present value z, at interest rate x. Interest should be expressed as a fraction .07=7%. | |
| TIME(d) | Text | The time portion of date/time value d. | |
| TREF("f",k,exp) | Number | The total of the numeric expression exp across a series of records in target file f (defined in the General dictionary or supported external dictionary), using key expression k. | |
| | | The key expression defines the first portion of the key to the target file. If the target file is specified with a sort name (filename@sortname) then the sort specified is used when accessing the range of records indicated by the key expression. | |
| TRIM(x) | Text | The text value x, after leading and trailing spaces are removed. | |
| UPPER | Text | The text string x, after converting all letters to upper case. | |
| VAR(x,y,,z) | Number | The statistical variance of the stream of numbers xz. | |
| XREF("f",k,exp) | Text | The values of the expression exp across the record in target file f (defined in the General dictionary or supported external dictionary), using key expression k. | |
| | | The key expression defines the first portion of the key to the target file | |
| YY(d) | Text | The 2-digit year portion of date d. | |
| YYYY(d) | Text | The 4-digit year portion of date d> | |

Appendix D - Report Design Screen

Prompt mode reports are created, edited and executed from the Report Design screen.



| <u>Field</u> | <u>Description</u> | | |
|-------------------|---|--|--|
| Report Name | Enter the name of the report. This is name General Report Writer uses to recognize the report and not the name that prints on the heading of the report. | | |
| | The name can be 1-20 characters long and cannot contain spaces, dashes, or symbols. Letters, numbers, periods and underscores are allowed. | | |
| | If the name entered is not found, General Report Writer will ask if it is a new report definition, and offer an option to copy the definition from and existing report. | | |
| | You can use the list reports function key to select an existing report. | | |
| Title/Description | Enter the description or title for this report. This name prints on the report heading. | | |
| | The title/description can be 1-40 characters long. | | |
| File | Enter the central or primary file for the report. The file selected will control the fields, links, sorts, and criteria for the report. | | |
| | You can use the list files function key to select the file. Wildcard of * is also available. | | |
| | Example: AR* will list all the Accounts Receivable files. | | |



Field Description

Report/Export Enter the format of the report.

1 if this is a report with columnar formatting.

2 for a comma delimited ASCII file export.

3 for a fixed position delimited ASCII file export.

4 for a Data Interchange Format (DIF) export.

5 for a WordPerfect merge format export.

6 Gateway does not work with OSAS software.

Width Enter the number of columns across the report. The default is 132.

> The width of the report is compared to the standard and compressed columns setup for the printers in OSAS. If the printer's width is less than the width of the report, that

printer will not be available for you to print to when printing that report.

Height Enter the maximum number of lines each record can occupy on the report.

> If this field is left blank or 0 General Report Writer will base the number of lines printed, on the report, by the data.

Across Enter the number of records to print across the page per line. The default is 1.

Length Enter the number of lines to print per page. The default is 66.

Output Enter the standard output device for this report.

> Printer gives you the option to select the printers setup in OSAS based on the width of the report and the compressed columns of the printers. You can also print to a file or to the screen.

File will prompt for a path and file name for the output.

Blank or VDT will always print to the screen.

Report Design Screen Settings Edit Print Help REPORT DESIGN Report Name: _ Title/Description: Report/Export: Width: Height: Across: Length: Output: Alternate Sort: Begin with: End with: Line Break: Print Blanks: Paginate: Test Patterns: Recap Page: Print Detail: Double Space: Vertical Totals: Tabulate/Plot: Col Heading: Copies: (T000) Enter report name to add or modify. F1-help, F2-list reports, F7-exit

<u>Field</u> <u>Description</u>

Alternate Sort Select any of the Altsorts or Altkeys, if any, setup in Dictionary for the file. The

report will then be sorted by an alternate key to the file. If no sort is selected the

report will sort by the primary key to the file

You can use the list alternate sorts key to select the sort.

Begin with By default, General Report Writer starts searching for data for the report with the

first record in the file. To start processing the report with a certain record, instead of the first record in the file, enter a starting point. This is based on the primary sort of the file or the alternate sort if one is selected. The report starts processing

at the first record matching or after this entry.

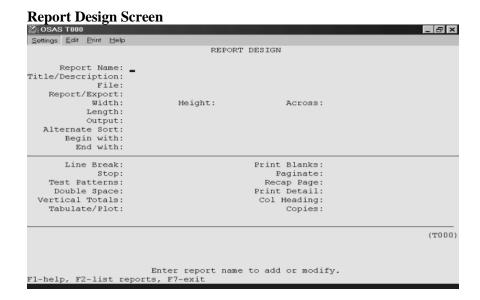
If left blank the report will process from the beginning of the file.

End with By default, General Report Writer ends searching for data for the report with the

last record in the file. To end processing the report with a certain record, instead of the last record in the file, enter an ending point. This is based on the primary sort of the file or the alternate sort if one is selected. The report ends processing at

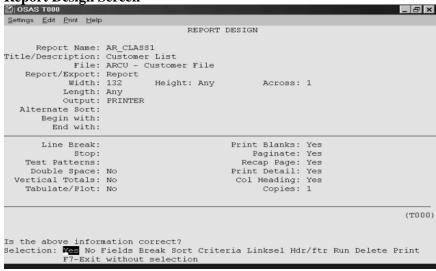
the first record matching or after this entry.

If left blank the report will process to the end of the file.



| Field | <u>Description</u> |
|-----------------|--|
| Line Break | To generate a blank line every n lines, enter the number, from 2 to 99. |
| | Blank will print a continuous report. |
| Stop | To stop the report after a certain number of records, enter a number, from 1 to 9999. |
| | Blank will print a full report. |
| Test Patterns | Enter the number records to use to print a text pattern before the actual data is printed. You can select up to 99 records to use as test patterns. |
| | Test records are printed with *. After the test pattern prints you are given the option to reprint the test pattern, print the report, or exit. |
| Double Space | Select 1-No, for single spacing, 2-Yes, for double spacing. |
| Vertical Totals | Will force any footer to format totals in a vertical, table format. 1-No, 2-Yes. |
| Tabulate/Plot | Prints a cross tabulation or summary report rather than the normal columnar report. Cross-tabulation reports create a summary table display based on one or two break points, and column calculations. You must have at least on break point and one column calculation to use this option. 1-No, 2-Yes. |
| Print Blanks | 1-No, to suppress printing any blank lines, 2-Yes to print all lines specified on the report even if they contain no data. |
| Paginate | Controls whether or not page headers are printed. 1-No, will print just the data, 2-Yes will print a header at the beginning of the report and a footer at the end. |
| Recap Page | The recap page is a list mode summary instruction of the report. 1-No, will suppress the recap page, 2-Yes will print it. |
| Print Detail | 1-No, will print only subtotals on the report, 2-Yes will print the full report. |
| Col Heading | 1-No, will only print the title on the heading, 2-Yes will print column headings. |
| | If the report heading is customized this option has no effect. |
| Copies | You can print 1 to 9 copies of the same report, without regenerating the report each time. |

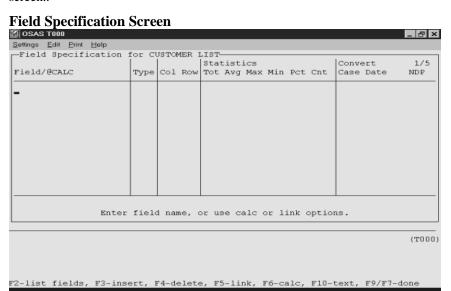
Report Design Screen



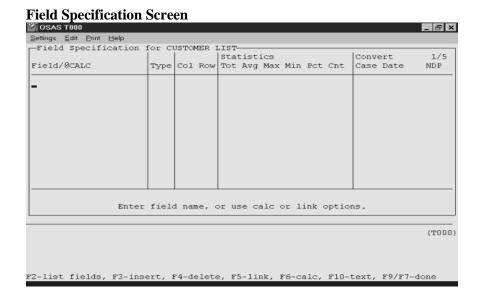
| Command | Action |
|----------------|--|
| Fields | Select the data fields for the report. Fields can come from the primary file, and can be calculated fields, text fields, or linked fields. |
| Break | Select up to 9 fields to generate subtotals. These subtotal fields are called break points. Any field in the primary file can be used, as well as any calculated or linked fields on the report. |
| Sort | Select up to 9 fields to sort the printed data on the report. Any field in the primary file can be used, as well as any calculated or linked fields on the report. Sorts here are used as and alternate to the primary key. |
| Criteria | Select how you want to limit the information printed on the report. You can select up to 60 fields to filter the information with, using And/Or to connect the expressions. Criteria can be based on any field in the primary file, any calculated fields or one-to-one linked fields. |
| Linksel | Link select criteria for one-to-many linked fields |
| Hdr/ftr | Customize the headers and footers for the report. Both the report and break levels headers and footers are supported. |
| Run | Select this option to compile and execute the report. |
| Delete | Select this option to delete the report. |
| Print | Select this option to print a hard copy of the report instructions, how the report is created. Linksel information is not printed with this function. |

Appendix E – Field Specification Screen

Fields for Prompt mode reports are selected, created and edited from the Field Specification screen..



Column **Description** Field/@CALC Select the fields you want on the report. Use the list fields function to select the fields from the primary file. Use the insert function to insert a blank line on the report. Use the delete function to delete a field from the report. Use the link function to create a link field on the report. The link field will have @LINK in front of the link name you enter. The link between the files must be established in Dictionary, before you can create the link on the report. Use the calc function to create a calculated field on the report. Use the text function to create a text field on the report. Use the done function to display the Verification prompt and exit Fields Specification. Type Displays the field type and number of columns the field will use on the report. This information cannot be changed on the Field Specification screen. The column and row in which the field will print. General Report Writer will Col Row default the column and row. You can edit these fields if desired.



Column Description

Statistics Select how you want to create report totals and subtotals for the fields.

Tot* Calculates a total for the field and is displayed the amount as a report total and a subtotal for any break points.

The Tot option is only available for numeric fields.

Avg* Calculates an average amount for the field and is displayed the amount as a report total and a subtotal for any break points

The Avg option is only available for numeric fields.

Max Displays the largest number or date, for the field, as a report total and a subtotal for any break points.

The Max option is available for numeric and date fields.

Min Displays the smallest number or date for the field as a report total and a subtotal for any break points.

The Min option is available for numeric and date fields.

Pct* Calculates a percentage of the field for each line on the report compared to the report total.

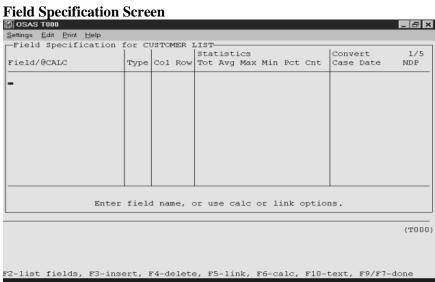
The Pct option is only available for numeric fields.

Cnt Counts the number of records in the field and is displayed the number as a report total and a subtotal for any break points.

The Cnt option is available for all fields

226 – Appendix E – Field Specification Screen

^{*} You cannot use the Tot or Avg options with the Pct option



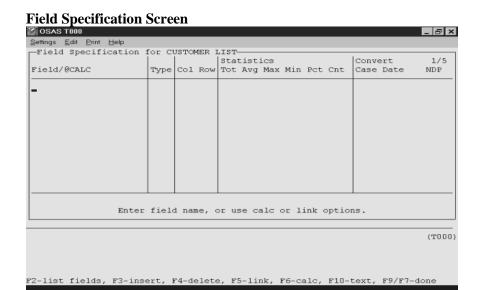
Column Description

Convert

Select how you want the field to display on the report. This column is only available for text and date fields

Case

| 1 – No Conversion | Displays the text as it appears on your system. |
|-------------------|---|
| 2 – Upper | Converts all characters to upper case. |
| 3 – Lower | Converts all characters to lower case |
| 4 – Proper | Looks for spaces and punctuation, and capitalizes the next subsequent letter. All other letters are forced to lower case. |
| Date | |
| 0 –Full Date | Displays the full date based on the Date display format selected in Display formats on the Config menu. |
| 1-MMMYYYY | Displays a 3-character month and 4-digit year for the date. |
| 2-MMYYYY | Displays a 2-digit month and 4-digit year for the date. |
| 3 - MMYY | Displays a 2-digit month and 2-digit year for the date. |
| 4- MMMYYYY | Displays a 3-character month and 2-digit year for the date. |
| 5 – YYYY | Displays a 4-digit year for the date. |
| 6-YYYYMM | Displays a 4-digit year and 2-digit month for the date. |
| 7 - YYMM | Displays a 2-digit year and 2-digit month for the date. |



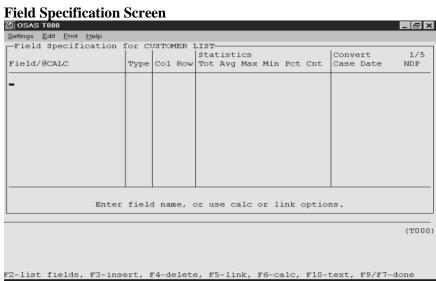
Column Description

Convert Select how you want the field to display on the report. This column is only available for text and date fields

NDP No Duplicate Print

1 Displays all values even if the information for the field is repeated.

2 Suppresses any duplicate values printed for this field.



| Command | <u>Description</u> |
|----------------|--|
| List Fields | Select the function key listed to list the fields for the primary file. |
| Insert | Select the function key listed to insert a blank line. |
| Delete | Select the function key listed to delete a field from the report. |
| Link | Select the function key listed to create a linked field on the report. |
| Calc | Select the function key listed to create a calculated field on the report. |
| Text | Select the function key listed to create a text field on the report. |
| Done | Select the function keys listed to display the Verification prompt and exit Field Specification. |

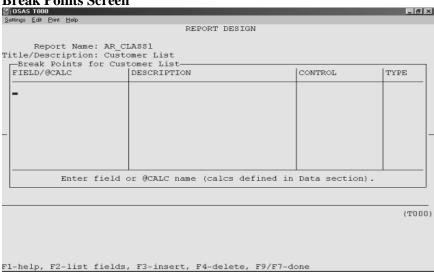
Appendix F - Break Points Screen

Break points tell General Report writer how to group data on a report for subtotal calculations.

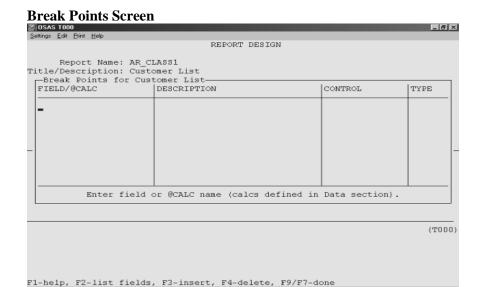
A break point can be based on any field in the primary file, any calculated field or linked field on the report.

Break points can be line breaks or page breaks.

Break Points Screen



| <u>Field</u> | <u>Description</u> | |
|--------------|--|--|
| FIELD/@CALC | Select the field you want to use as a break point. | |
| | You can use the list fields function to select the field. | |
| | You can select any field from the primary file, any linked or calculated fields on the report. | |
| | You can select up to 9 break point fields. | |
| Description | Displays the description of the field selected. | |
| | | |



Field Description

Control Determines if the break point will be on the full field value or part of the field. The field type determines how Control is displayed the values.

If this field is left blank, the break point will be on the full field.

Text Fields Enter the number of characters to break on. Starting with the

left most character, General Report Writer will select the

number entered here and create a break point.

Example: If the break point field was Customer ID and the Control field was 3, General Report Writer would create a break point based on the first 3 characters of the Customer ID. So if the Customer ID was ACE001, General Report writer

would create a break point of ACE*.

Numeric Fields By default, General Report Writer creates a break on each

number. Control allows you to group numeric values together

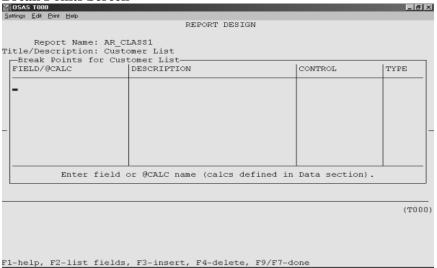
in even amounts.

Example: Entering 5000 in Control would group all values 0-4999 as 0, 5000-9999 as 5000, 10000-14999 as 10000, and so

on.

232 – Appendix F - Break Points Screen

Break Points Screen



Field Description

Control

Determines if the break point will be on the full field value or part of the field. The field type determines how Control is displayed the values.

If this field is left blank, the break point will be on the full field.

Date Fields

By default General Report Writer will break when the date changes, however you can adjust the field to break by a month or year, and specify the format for the break value.

MMMYYYY Creates a break point using a 3-character month

and 4-digit year.

Example: Jan/2000

MMYYYY Creates a break point using a 2-digit month and 4-

digit year.

Example: 01/2000

MMYY Creates a break point using a 2-digit month and 2-

digit year.

Example: 01/00

MMMYY Creates a break point using a 3-character month

and 2-digit year.

Example: Jan/00

YYYY Creates a break point using a 4-digit year.

Example: 2000

YYYYMM Creates a break point using a 4-digit year and 2-

digit month.

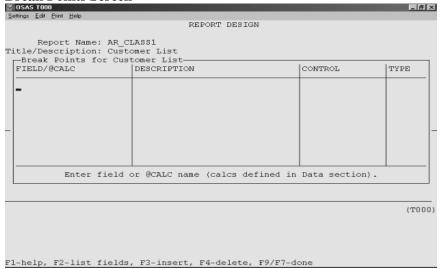
Example: 2000/01

YYMM Creates a break point using a 2 digit year and 2

digit month

Example: 00/01



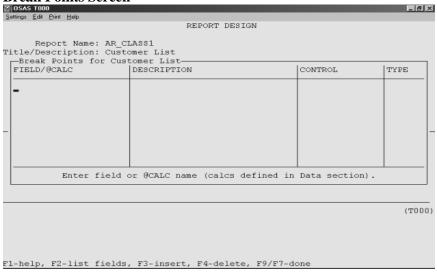


Field Description

Type Select the type of break point you are creating.

- 1 For a line break
- 2 For a page break

Break Points Screen



| Command | <u>Description</u> |
|----------------|---|
| Help | Select the function key listed to display help for the field or function you are using. |
| List Fields | Select the function key listed to display the list of available fields. |
| Insert | Select the function key listed to insert a blank line. |
| Delete | Select the function key listed to delete a field from break points. |
| Done | Select the function keys listed to display the Verification prompt and exit Break Points. |

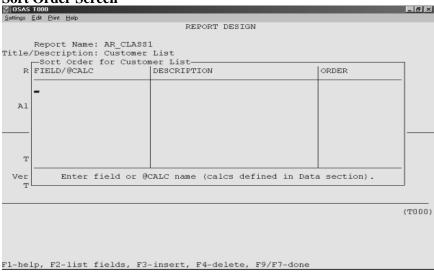
Appendix G – Sort Order Screen

Sorts determine the order the data prints in and the hierarchal order of the report.

If multiple sorts fields are selected, the second level sorts within the first, the third within the second, and so on.

Each level can be sorted in ascending or descending order.

Sort Order Screen



| Field | Description |
|-------|-------------|
| | |

Order

FIELD/@CALC Select the field you want to sort by.

You can use the list fields function to select the field.

You can select any field from the primary file, any linked or calculated fields on the report.

You can select up to 9 sort fields.

Description Displays the description of the field selected.

Select the order you want the fields to print in.

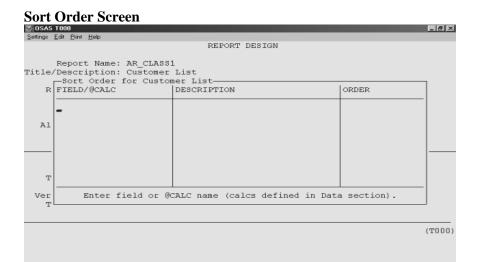
1 Ascending Order

Sorts A-Z, 0-9, lowest to highest.

2 Descending Order

Sorts Z-A, 9-0, highest to lowest.

Appendix G – Sort Order Screen - 237

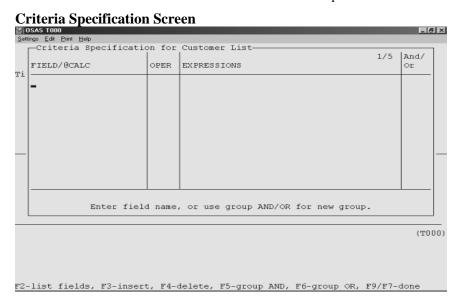


F1-help, F2-list fields, F3-insert, F4-delete, F9/F7-done

| Command | <u>Description</u> |
|----------------|---|
| Help | Select the function key listed to display help for the field or function you are using. |
| List Fields | Select the function key listed to display the list of available fields. |
| Insert | Select the function key listed to insert a blank line. |
| Delete | Select the function key listed to delete a field from sorts. |
| Done | Select the function keys listed to display the Verification prompt and exit Sort Order. |

Appendix H – Criteria Specification Screen

Criteria are used to limit or filter the data returned on the report.



Field Description

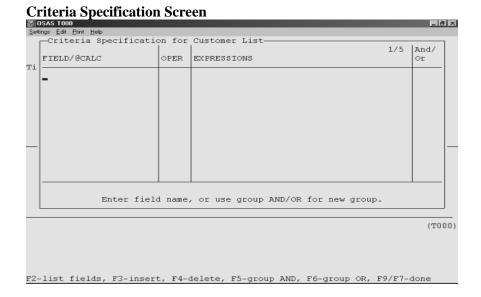
Field/@Calc

Select the field you want to use in criteria

You can use any field in the central file, any calculated field, as long as the calculation does not contain any one to many linked fields, AND any link field, as long as the link is a one-to-one link.

Use the list fields function to select the fields.

You can select up to 60 fields to use in criteria.



<u>Field</u> <u>Description</u>

OPER

Select the operators to specify how the Field/@Calc is compared to the Expression.

All fields have the following available operators.

- Equal to
- > Greater than
- >= Greater than or equal to
- < Less than
- <= Less than or equal to
- <> Not equal to

Text fields have four additional operators.

- == Contains
- -= Does not contain
- += Starts with (starting at position 1)
- ~= Matches expression (approximately equal to)

Criteria Specification Screen Criteria Specification for FIELD/@CALC OPER EXPRESSIONS

And/ Enter field name, or use group AND/OR for new group. (T000) F2-list fields, F3-insert, F4-delete, F5-group AND, F6-group OR, F9/F7-done

Field Description

Expression Enter the phrase you want to compare against the Field.

> The Expression can be a field from the central file, use the list fields function to select the file.

The Expression can be a constant, by typing the comparison phrase. The Expression can be a runtime replacement, which will allow you to enter the comparison phrase at the time the report is generated.

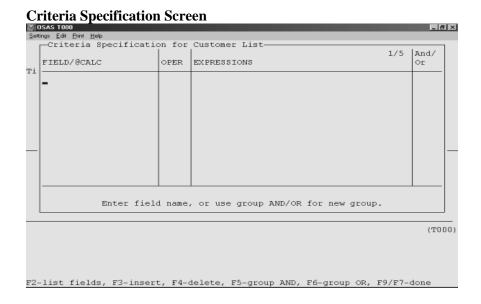
The expression must compare the same data type as the Field/@Calc data type.

Example: Numeric fields must be compared with a numeric expression, text fields with a text expression, and date fields with a date expression.

And/Or Determines how multiple criteria statements are connected.

AND means the criteria must match this line and the next line.

OR means the criteria must match this line or the next line.

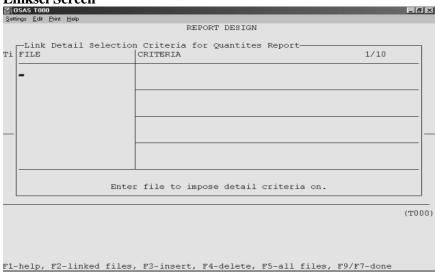


| Command | <u>Description</u> |
|----------------|---|
| List fields | Use the function key listed to select the fields for the Field/@Calc or Expression fields. |
| List operators | Use the function key listed to select the comparison operator for the criteria. |
| Insert | Use the function key listed to insert a blank line. |
| Delete | Use the function key listed to remove a line of criteria. |
| Group AND | Use the function key listed to add group or multilevel comparison. |
| | General Report Writer will compare all the criteria in all groups. |
| | The data returned on the report must match all criteria in all groups connected with a Group AND. |
| Group OR | Use the function key listed to add group or multilevel comparison. |
| | General Report Writer will compare all the criteria in all groups. |
| | The data returned on the report must match all criteria in one group or all criteria in the next group when connected with a Group OR |
| Done | Use the function key listed to display the Verification prompt and exit Criteria Specification. |
| | |

Appendix I – Linksel Screen

Use the Linksel screen to impose criteria on any one-to-many linked fields.

Linksel Screen



Field Description

File

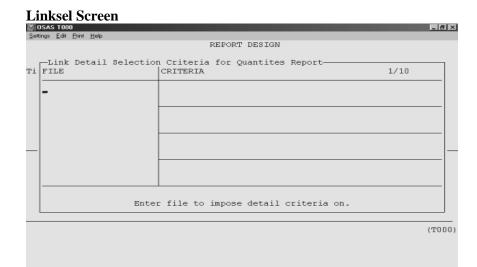
Select the file that contains fields you want to use in criteria

Use the linked files function to select the file from a list of files linked to the central file.

Use the all files function to select the file from a list of all available files.

The data dictionary file can only be selected once in Linksel.

You can select up to 40 data dictionary files.



Field Description

Criteria Enter the Field, Operator and Expression on which you want to impose criteria.

You can use the list fields function to select the Field.

F1-help, F2-linked files, F3-insert, F4-delete, F5-all files, F9/F7-dor

The following Operators can be used. You must manually enter the operators.

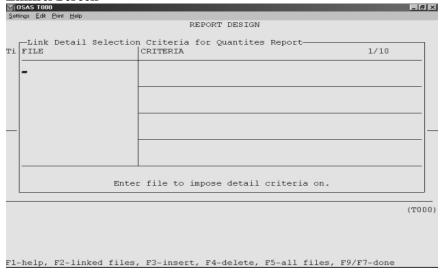
- Equal to
- > Greater than
- >= Greater than or equal to
- < Less than
- <= Less than or equal to
- <> Not equal to

The Expression can be a field from the selected file, a constant by typing in the expression or a runtime replacement.

Multiple expression can be entered by using the AND/OR connectors.

The Criteria field is limited to 100 characters.

Linksel Screen



| Command | <u>Description</u> |
|----------------------------|--|
| Help | Select the function key listed to display help for the field or function you are using. |
| Linked files ⁴⁴ | Select the function key listed to display the list of files, which have been linked to, from the central file. |
| Insert | Select the function key listed to insert a blank line. |
| Delete | Select the function key listed to delete a file from Linksel. |
| All files | Select the function key listed to display a list of all available files. |
| Done | Select the function keys listed to display the Verification prompt and exit Break Points. |

 44 The link from the central file to the linked file must be setup through the Dictionary function before the link file can be selected in Linksel.

Appendix J – Creating Report Link, Calculated and Text Fields

Link Fields

Link fields are created in the Field Specification screen. Link fields are used to select a field that is not part of the central file but needed for the report.

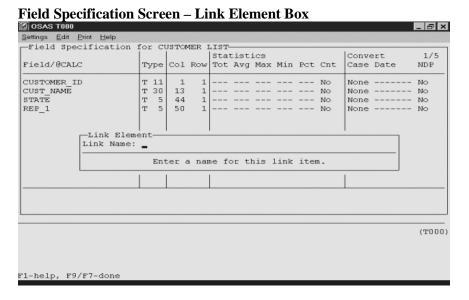
There are two types of linked fields, one-to-one and one-to-many.

Creating a One-to-One Link

To create a one-one-link perform the following:

1. Select the Link function key to create a link field.

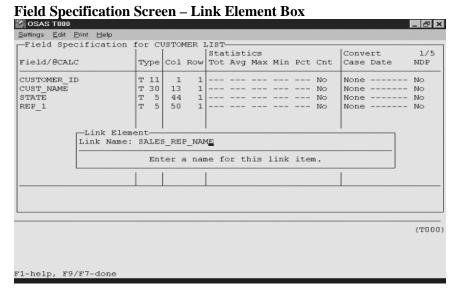
The Link Element box is displayed.



2. Enter the Link Name.

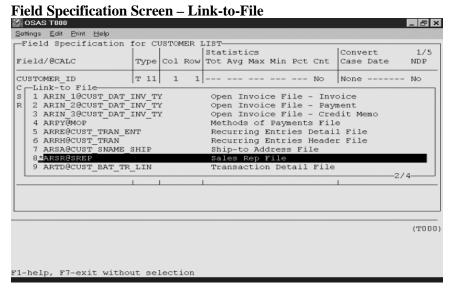
This name is used by you to identify the link, and does not have to be the name of the field being linked.

The Link Name can be 1 to 14 characters long and cannot contain spaces or symbols. Letters, numbers, periods and underscores are allowed.



After the Link Name is entered, the Link-to-File box is displayed.

3. Select the file that contains the field you want for the link⁴⁵.



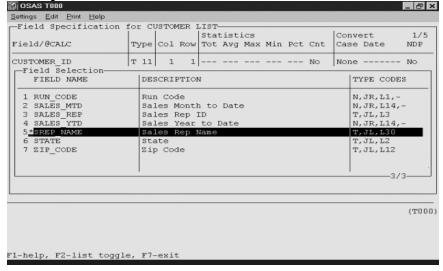
The files are listed in alphabetical order with a description.

The link between the central file and the link to file must be established in Dictionary before you can create a link field on a report.

⁴⁵ You need to know the file that contains the field you want to link to before creating the link field. Use the File Descriptions Books or the General Report Writer Data Dictionaries to find the correct file.

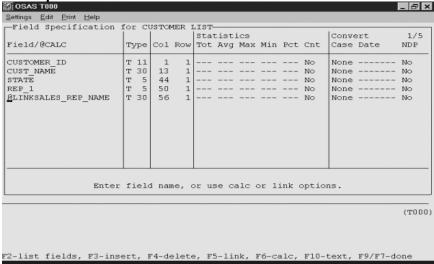
After the link to file is selected, the Field Selection box is displayed,

Field Specification Screen - Link-to-File - Field Selection



4. Select the field you want to use for the link.

Field Specification Screen - @LINK Field



Once the field has been selected, it is added to the Field Specification screen.

@LINK is displayed before the Link Name.

Creating a One-to-Many Link

To create a one-to-many-link perform the following:

1. Select the Link function key to create a link field.

The Link Element box is displayed

Field Specification - Link Element box -Field Specification for Inventory Sales Analysis Report | | | Statistics Field/@CALC Туре Col Row Tot Avg Max Min Pct Cnt Case Date T 20 T 35 T 11 T 3 T 3 ITEM_ID @LINKDESCRIPTION None -----None LOCATION_ID @TEXTMTD 58 70 None ----No No @TEXTYTD Link Element
Link Name: QTY SOLD MTD Enter a name for this link item. (T000)

2. Enter the Link Name.

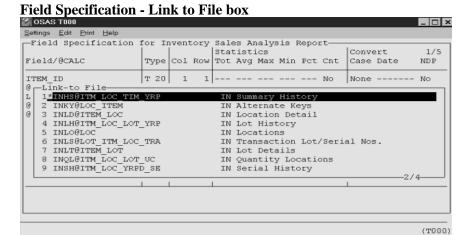
F1-help, F9/F7-done

This name is used by you to identify the link, and does not have to be the name of the field being linked.

The Link Name can be 1 to 14 characters long and cannot contain spaces or symbols. Letters, numbers, periods and underscores are allowed

After the Link Name is entered, the Link-to-File box is displayed.

3. Select the file that contains the field you want for the link⁴⁶.



After the Link to File is selected, the Field Selection box is displayed.

F1-help, F7-exit without selection

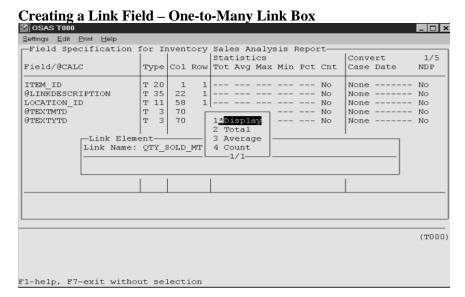
Field Specification - Link to File - Field Selection Settings Edit Print Help -Field Specification for Inventory Sales Analysis Report Type Col Row Tot Avg Max Min Pct Cnt Field/@CALC Case Date NDP T 20 1 FIELD NAME DESCRIPTION TYPE CODES QTY_ISSUED Quantity Issued Quantity Material Requisitioned N,JR,2,L14,-QTY_MATERIAL_REQ 3 QTY_PURCHASED 4 QTY_RETURNED_PURCH Quantity Purchased Quantity Returned (Purch) N,JR,2,L14,-N,JR,2,L14,-QTY RETURNED SALES Quantity Returned (Sales) 6*OTY SOLD Quantity Sold N,JR,2,L14,-QTY_TRANSFERRED_IN | Quantity Transferred In QTY_TRANSFERRED_OUT | Quantity Transferred Out N,JR,2,L14,-N,JR,2,L14,-(T000) F1-help, F2-list toggle, F7-exit

4. Select the field you want to use for the link.

⁴⁶ You need to know the file that contains the field you want to link to before creating the link field. Use the File Descriptions Books or the General Report Writer Data Dictionaries to find the correct file.

After the field is selected, the one-to-many box is displayed.

5. Select how you want the field to print on the report.



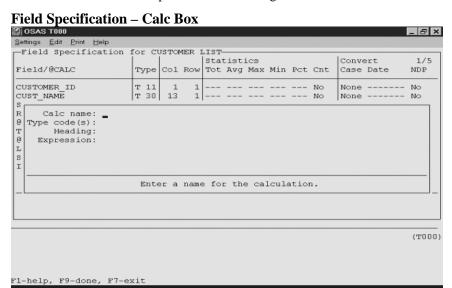
| Option | <u>Description</u> |
|---------------|---|
| Display | Prints each individual record from the linked file, based on the field selected and any Criteria or Linksel criteria entered. |
| Total | Prints the summary total for the field selected and not each individual record. |
| | Total is only available for numeric fields. |
| Average | Prints the average total for the field selected and not each individual record. |
| | Average is only available for numeric fields. |
| Count | Prints the total number of records for the field and not each individual record. |

Once the field has been selected, it is added to the Field Specification screen. @LINK is displayed before the Link Name.

Calculated Fields

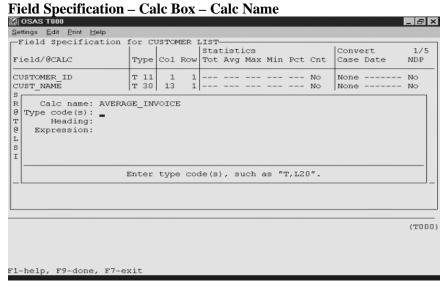
Calculated fields are created to do mathematical calculations on numeric fields and add text fields together to create larger text fields.

To create a calculated field perform the following:



1. Select the Calc function key.

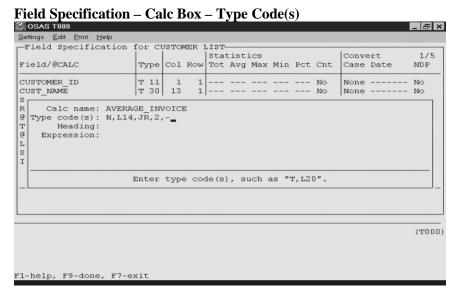
The Calc box is displayed.



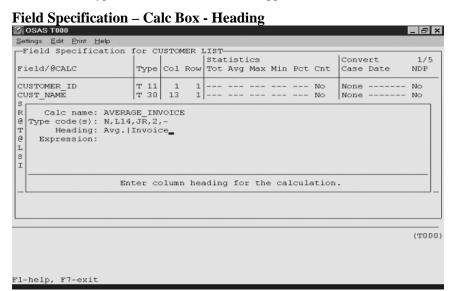
2. Enter the Calc name.

This is the name General Report Writer will use to create the calc field and does not have to be the same as the column heading.

The Calc name can be 1-15 characters long, and cannot contain spaces or symbols. Letters numbers, periods and underscores are allowed.



3. Enter the Type Code(s) for the field (See Appendix A)



4. Enter the Heading for the field.

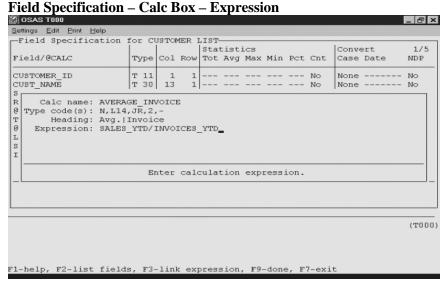
This heading will print in the header of the report if you are printing the header and printing column headings.

5. Enter the Expression used to create the field.

The Expression can be a maximum of 300 characters.

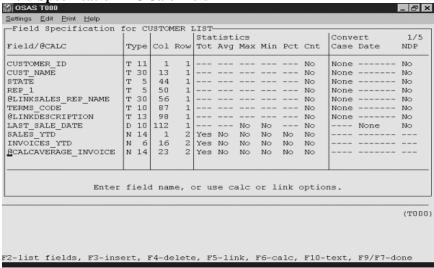
You can use the list fields function to select fields from the central file to use in the Expression. You can use the link expression to create a linked field in the Expression.

1



You must enter through the Expression until General Report Writer returns you to the Field Specification screen, to save the Expression.

Field Specification - @ Calc Field



General Report Writer places @Calc in front of the Calc name you entered.

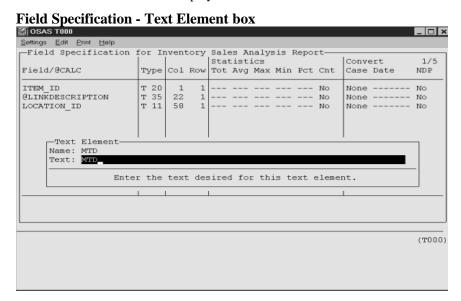
Text Fields

Text fields are created to print a word or phrase on a line in the report.

To create a Text field perform the following:

1. Select the Text function key.

The Text Element box is displayed.



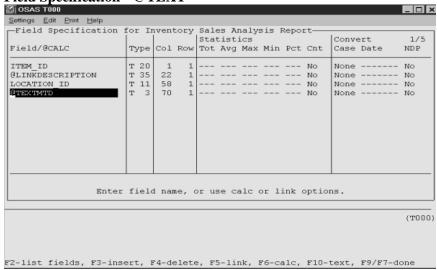
2. Enter the name of the text field.

The field can be 1-14 characters long and cannot contain spaces.

3. Enter the text you want to print on the report.

The text field can be 1-80 characters long.

Field Specification - @TEXT

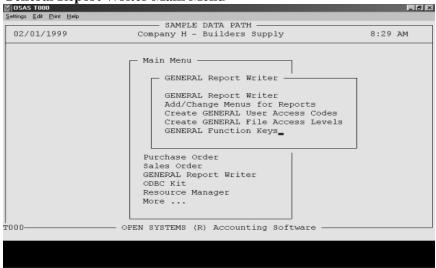


General Report Writer places @TEXT in front of the Text name you entered.

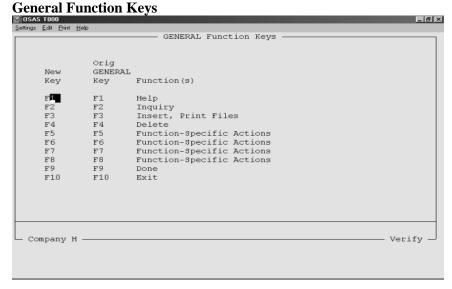
Appendix K - General Function Keys

The function keys assignments in General are different from the function keys in OSAS.

General Report Writer Main Menu



To change the function keys to be more along the lines of the OSAS function keys, select General Function Keys from the General Report Writer main menu.



The General Function Keys screen is displayed.

| <u>Field</u> | <u>Description</u> |
|------------------|--|
| New Key | Select the function key you want to change for General Report Writer functions. |
| | Each function key must have a unique assignment. |
| Orig General Key | The original or default function key assigned for General Report Writer functions. |
| Function(s) | The description the function key assignment is in General Report Writer. |

To change function keys perform the following:

Arrow down to the first key you want to change, type in the new function key number.

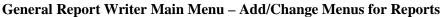
Arrow done to the second key you want change, type in the new function key number.

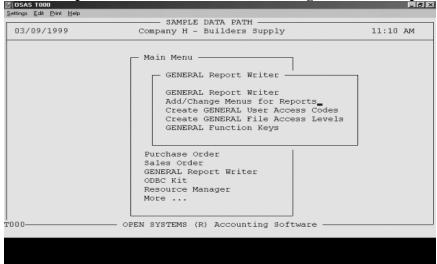
Use the **Proceed** command, **PgDn** or **Escape P**, to save your changes.

Note: You do not have to change the function keys. General Report Writer will display across the bottom of the screen what each function key assignment is, depending on the screen you are on in General Report Writer.

Appendix L - Add/Change Menus for Reports

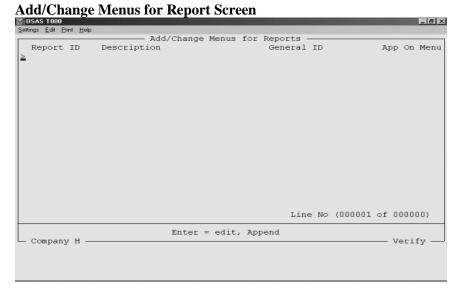
Adding a Report





To add a report to an application menu perform the following:

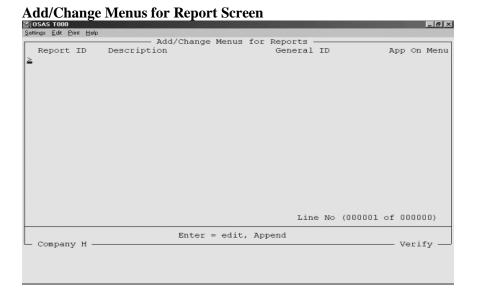
1. Select Add/Change Menus for Report from the General Report Writer main menu.



The Add/Change Menus for Reports screen is displayed.

Any reports already added to a menu are listed.

| <u>Field</u> | <u>Description</u> |
|--------------|--|
| Report ID | The name used by OSAS to recognize the report on the menu. |
| Description | The name of the report on the OSAS menu. |
| General ID | The General Report Writer Report Name of the report added to the menu. |
| App | The application ID where the report is displayed on the menu. |
| On Menu | Yes if the report is displaying on the menu. |
| | No if the report is not displaying on the menu. |
| Line No | The line the cursor is currently on, and the total number of reports added to application menus. |

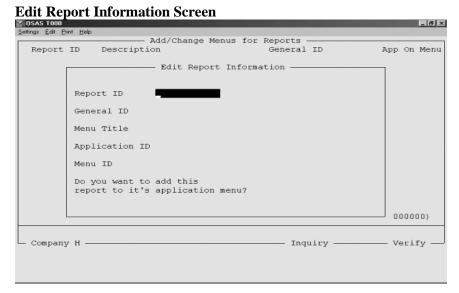


Command Option

Enter Edit any reports that have already been added to application menus.

Append Adds reports to application menus

2. Select Append to add a report to an application menu.



The Edit Report Information screen is displayed.

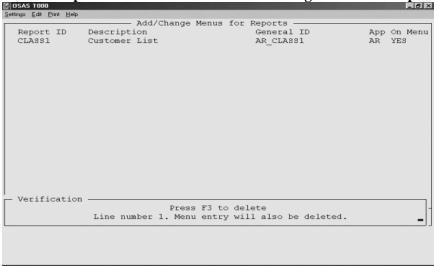
3. Enter the following:

| | <u>Field</u> | <u>Description</u> | | | | |
|----------------|--------------------------------|---|--|--|--|--|
| Report ID | | Enter the name OSAS will use to recognize and store the report in the Open Systems files. | | | | |
| | | The Report ID can be 1-12 characters long. | | | | |
| | | This name does not have to be the same as the report name in General Report Writer. | | | | |
| | General ID | Enter the General Report Writer Report Name. | | | | |
| | | You can use the Inquiry command, $F2$ or $Esc\ W$, to select the report. | | | | |
| Menu Title | | Enter the name you want to appear on the application menu. | | | | |
| | | The Menu Title can contain 1 to 40 characters. | | | | |
| Application ID | | Select the application to add the report to its menu. | | | | |
| | | You can use the Inquiry command, $F2$ or $Esc\ W$, to select the application. | | | | |
| | | Select an application that has the Installed field flag set to Yes. | | | | |
| Menu ID | | Select the menu in the application where you want to add the report | | | | |
| | | You can use the Inquiry command, $F2$ or $Esc\ W$, to select the menu. | | | | |
| | Do you want to add this report | Select Yes to add the report to the selected menu. | | | | |
| | to its application menu? | Select No if you do not want to add the report to the menu. | | | | |
| | | | | | | |

Use the Proceed command, PgDn or Esc P, to save the changes.

Deleting a Report

General Report Writer Main Menu – Add/Change Menus for Reports



To delete a report to an application menu perform the following:

- 1. Place the cursor next to the report you want to remove from the menu.
- 2. Use the Delete function, **F3** or **Esc D**, to remove the report.
- 3. You are prompted to confirm removing the report by using the Delete function again

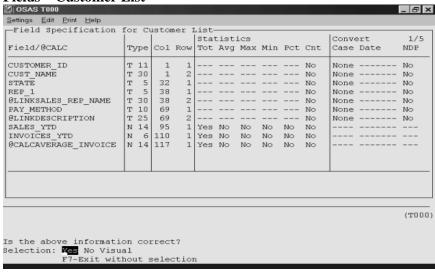
Appendix M - Customer List Report

Here is the Customer List report created in the beginners class. The fields we create in dictionary will relate to this report.

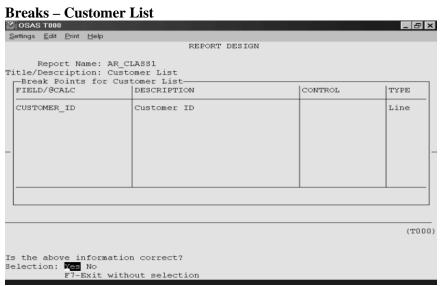
Report Design – Customer List OSAS TOOO Settings Edit Print Help REPORT DESIGN Report Name: AR_CLASS1 Title/Description: Customer List File: ARCU - Customer File Report/Export: Report Width: 132 Length: Any Height: Any Across: 1 Output: PRINTER Alternate Sort: Begin with: End with: Print Blanks: Yes Line Break: Stop: Test Patterns: Paginate: Yes Recap Page: Yes Double Space: No Vertical Totals: No Print Detail: Yes Col Heading: Yes Tabulate/Plot: No Copies: 1 (T000) Is the above information correct?

Selection: Yes No Fields Break Sort Criteria Linksel Hdr/ftr Run Delete Print
F7-Exit without selection

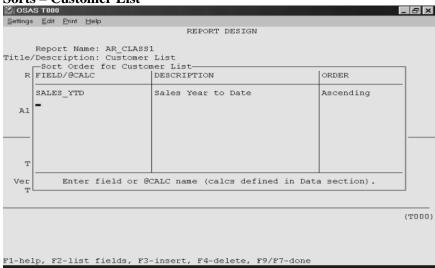
Fields – Customer List







Sorts – Customer List



The Criteria and Linksel screens are left blank.

Report Listing for Customer List

| 02/25/1999 02:40 PM | | Re | port Des | ign Listi | ing for A | R_CLAS | SS1 | | | | Page 1 |
|-----------------------------------|-------------------------|----------|----------|-----------|-----------|--------|-----|-------|--------|-----------|--------|
| Title/Description: | Customer List | | | | | | | | | | |
| File: | ARCU | | | | | | | | | | |
| Report/Export: | Report | | | | | | | | | | |
| Width: | 132 | | | | | | | | | | |
| Output: | PRINTER | | | | | | | | | | |
| Alternate Sort: | | | | | | | | | | | |
| Start with: | | | | | | | | | | | |
| End with: | | | | | | | | | | | |
| Line Break: | | | | | | | | | | | |
| Stop: | | | | | | | | | | | |
| Double Space: | No | | | | | | | | | | |
| Print Blanks: | Yes | | | | | | | | | | |
| Paginate: | Yes | | | | | | | | | | |
| Recap Page: | Yes | | | | | | | | | | |
| Print Detail: | Yes | | | | | | | | | | |
| Col Heading: | Yes | | | | | | | | | | |
| Vertical Totals: | No | | | | | | | | | | |
| **** DATA DEFIN FIELD NAME/DES | | COL | POW. | тот | AVG | MAV | MIN | % TOT | COLINT | CASE DATE | NO D |
| | | | | | | | | | COUNT | CASE DATE | NOD |
| CUSTOMER_ID | T 11 | 1 | 1 | | | | | | | | |
| CUST_NAME | T 30 | 1 | 2 | | | | | | | | |
| STATE | T 5 | 32 | 1 | | | | | | | | |
| REP_1 | T 5 | 38 | 1 | | | | | | | | |
| @LINKSALES_RE | P_NAME T 30 | 38 | 2 | | | | | | | | |
| Link Spec: AR | SR@SREP:SREP_ | NAME | | | | | | | | | |
| PAY_METHOD | T 10 | 69 | 1 | | | | | | | | |
| @LINKDESCRIPT | ION T 25 | 69 | 2 | | | | | | | | |
| Link Spec: AR | PY@MOP:DESCF | } | | | | | | | | | |
| SALES_YTD | N 14 | 95 | 1 | Yes | | | | | | | |
| INVOICES_YTD | N 6 | 110 | 1 | Yes | | | | | | | |
| @CALCAVERAGE | E_INVOICE N 14 | 117 | 1 | Yes | | | | | | | |
| Type codes: N,I | _14,JR,2,- | | | | | | | | | | |
| Heading: Avg | . Invoice | | | | | | | | | | |
| Expression: DIV | /IDE(SALES_YTI | O,INVOIC | ES_YT | D) | | | | | | | |
| **** BREAK DEFI | NITION **** | | | | | | | | | | |
| FIELD NAME | CONTROL | LINE/P. | AGE | | | | | | | | |
| CUSTOMER_ID | | Line | | | | | | | | | |
| **** SORT DEFIN | ITION **** DIRECTION | | | | | | | | | | |
| | | | | | | | | | | | |
| SALES_YTD | Ascending | | | | | | | | | | |
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| Appendix N - Payroll Earnings by Month Report |
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Payroll Earnings by Month Report

| 1:35 PM | HONTHEI E | ARNINGS REPORT | | | Page |
|--------------------------|----------------------------|----------------|-------------|--------------------|--------------|
| mployee Name | SSN | Earn Amt | Earn Amt Gr | oss Amount Mtd Mon | thly Ded Amt |
| 0U001 Linda C Bourne | 459-30-1099 | 29738.00 | .00 | 30883.82 | 42.24 |
| ER001 Timothy G Gerard | | | .00 | 22700.00 | 42.24 |
| EN001 Kathy M Jenkins | 468-22-4819 460-39-9093 | 30000.00 | .00 | 30000.00 | 42.24 |
| ON001 Maria K Jonchim | 460 00 0044 | 4000 00 | 28.13 | 4348.13 | 22.72 |
| JK001 George Lukas | 488-30-1281 | 10000.00 | .00 | 10000.00 | 42.24 |
| 0S001 Lucinda A Rossini | 460-39-9982 | 3220.00 | 28.03 | 3294.03 | 27.70 |
| CO001 Albert W Stockard | 449-58-4392 | 4636.10 | 332.27 | 5451.67 | 22.60 |
| Report* SUM | | 103814.10 | 388.43 | 106677.65 | 241.98 |
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Step 1: Planning the Report

This will be a Payroll Earnings by Month Report.

On the report, we will have the Employee ID, Employee Name, Social Security Number, the Regular, Overtime and Gross Earnings for a particular month and the amount for deduction 1 for the same month. We will have General prompt for the month for the earnings and deduction amounts.

The central file for the report will be the PAEG file (Employee General Information). We will link to the PAEE file (Employee History Earnings) for the Regular, Overtime and Gross earnings, and link to the PAED file (Employee History Deductions) for the Deduction amount.

PAEE File Layout – Earnings Record

| Emplo | yee Histo | ory Earnings Record | | | | |
|-------------|-----------|------------------------|------|--------------|-------|--|
| | File Nar | me: PAEExxx | Reco | rd Size: 343 | (384) | |
| | File Typ | e: Mkeyed – Dynamic | Num | ber of keys: | 2 | |
| Field No | Template | Description | Туре | Length | Note | |
| 1 | EE0\$ | Employee ID | A | 6 | | |
| 2 | EE1\$ | Earning Code | A | 3 | | |
| 3 | EE1[0] | Earning Hrs – YTD | N | 12 | 7.3- | |
| 4 | EE1[1] | Earning Hrs – Month 1 | N | 11 | 6.3- | |
| 5 | EE1[2] | Earning Hrs – Month 2 | N | 11 | 6.3- | |
| 6 | EE1[3] | Earning Hrs – Month 3 | N | 11 | 6.3- | |
| 7 | EE1[4] | Earning Hrs – Month 4 | N | 11 | 6.3- | |
| 8 | EE1[5] | Earning Hrs – Month 5 | N | 11 | 6.3- | |
| 9 | EE1[6] | Earning Hrs – Month 6 | N | 11 | 6.3- | |
| 10 | EE1[7] | Earning Hrs – Month 7 | N | 11 | 6.3- | |
| 11 | EE1[8] | Earning Hrs – Month 8 | N | 11 | 6.3- | |
| 12 | EE1[9] | Earning Hrs – Month 9 | N | 11 | 6.3- | |
| 13 | EE1[10] | Earning Hrs – Month 10 | N | 11 | 6.3- | |
| 14 | EE1[11] | Earning Hrs – Month 11 | N | 11 | 6.3- | |
| 15 | EE1[12] | Earning Hrs – Month 12 | N | 11 | 6.3- | |
| 16 | EE2[0] | Earning Amt – YTD | N | 13 | 9.2- | |
| 17 | EE2[1] | Earning Amt – Month 1 | N | 12 | 8.2- | |
| 18 | EE2[2] | Earning Amt – Month 2 | N | 12 | 8.2- | |
| 19 | EE2[3] | Earning Amt – Month 3 | N | 12 | 8.2- | |
| 20 | EE2[4] | Earning Amt – Month 4 | N | 12 | 8.2- | |
| 21 | EE2[5] | Earning Amt – Month 5 | N | 12 | 8.2- | |
| 22 | EE2[6] | Earning Amt – Month 6 | N | 12 | 8.2- | |
| 23 | EE2[7] | Earning Amt – Month 7 | N | 12 | 8.2- | |

PAEE File Layout – Gross/Net Earnings Record

| Gross/ | Net Earn | ings Record | | | | |
|-------------|----------|----------------------|------|--------------|-------|--|
| | File Nar | me: PAEExxx | Reco | rd Size: 369 | (384) | |
| | File Typ | pe: Mkeyed – Dynamic | Num | ber of keys: | 2 | |
| Field No | Template | Description | Туре | Length | Note | |
| 1 | EE0\$ | Employee ID | A | 6 | | |
| 2 | EE1\$ | Code | A | 3 | "}}}" | |
| 3 | EE1[0] | Gross Amt – YTD | N | 13 | 8.3- | |
| 4 | EE1[1] | Gross Amt – Month 1 | N | 12 | 7.3- | |
| 5 | EE1[2] | Gross Amt – Month 2 | N | 12 | 7.3- | |
| 6 | EE1[3] | Gross Amt – Month 3 | N | 12 | 7.3- | |
| 7 | EE1[4] | Gross Amt – Month 4 | N | 12 | 7.3- | |
| 8 | EE1[5] | Gross Amt – Month 5 | N | 12 | 7.3- | |
| 9 | EE1[6] | Gross Amt – Month 6 | N | 12 | 7.3- | |
| 10 | EE1[7] | Gross Amt – Month 7 | N | 12 | 7.3- | |
| 11 | EE1[8] | Gross Amt – Month 8 | N | 12 | 7.3- | |
| 12 | EE1[9] | Gross Amt – Month 9 | N | 12 | 7.3- | |
| 13 | EE1[10] | Gross Amt – Month 10 | N | 12 | 7.3- | |
| 14 | EE1[11] | Gross Amt – Month 11 | N | 12 | 7.3- | |
| 15 | EE1[12] | Gross Amt – Month 12 | N | 12 | 7.3- | |
| 16 | EE2[0] | Net - YTD | N | 14 | 10.2- | |
| 17 | EE2[1] | Net Amt – Month 1 | N | 13 | 9.2- | |
| 18 | EE2[2] | Net Amt – Month 2 | N | 13 | 9.2- | |
| 19 | EE2[3] | Net Amt – Month 3 | N | 13 | 9.2- | |
| 20 | EE2[4] | Net Amt – Month 4 | N | 13 | 9.2- | |
| 21 | EE2[5] | Net Amt – Month 5 | N | 13 | 9.2- | |
| 22 | EE2[6] | Net Amt – Month 6 | N | 13 | 9.2- | |
| 23 | EE2[7] | Net Amt – Month 7 | N | 13 | 9.2- | |

PAED File Layout

| EDxxx – E | mployee Hi | istory Deductions | | | | Payrol |
|-------------|------------|----------------------|------|--------|-----------------|--------|
| Emplo | yee Histo | ory Deduction Record | | | | |
| | File Nan | ne: PAEDxxx | | Record | Size: 177 (192) | |
| | File Typ | e: Mkeyed – Dynamic | | Numbe | r of keys: 3 | |
| Field No | Template | Description | Туре | Length | Note | |
| 1 | ED0\$ | Employee ID | A | 6 | | |
| 2 | ED1\$(1,3) | Deduction Code | A | 3 | | |
| | ED1\$(3,2) | State | A | 2 | Blank if None | |
| 3 | ED2\$ | Employer Paid? | A | 1 | Y or N | |
| 4 | ED1[0] | Deduction – YTD | N | 12 | 8.2- | |
| 5 | ED1[1]] | Deduction – Month 1 | N | 11 | 7.2- | |
| 6 | ED1[2] | Deduction – Month 2 | N | 11 | 7.2- | |
| 7 | ED1[3] | Deduction – Month 3 | N | 11 | 7.2- | |
| 8 | ED1[4] | Deduction – Month 4 | N | 11 | 7.2- | |
| 9 | ED1[5] | Deduction – Month 5 | N | 11 | 7.2- | |
| 10 | ED1[6] | Deduction – Month 6 | N | 11 | 7.2- | |
| 11 | ED1[7] | Deduction – Month 7 | N | 11 | 7.2- | |
| 12 | ED1[8] | Deduction – Month 8 | N | 11 | 7.2- | |
| 13 | ED1[9] | Deduction – Month 9 | N | 11 | 7.2- | |
| 14 | ED1[10] | Deduction – Month 10 | N | 11 | 7.2- | |
| 15 | ED1[11] | Deduction – Month 11 | N | 11 | 7.2- | |
| 16 | ED1[12] | Deduction – Month 12 | N | 11 | 7.2- | |
| 17 | ED99\$[0] | Reserved for ISV | A | 0 | | |
| | | | | | | |

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N

Reserved for ISV

Reserved for ISV

ED99[0] ED99[1]

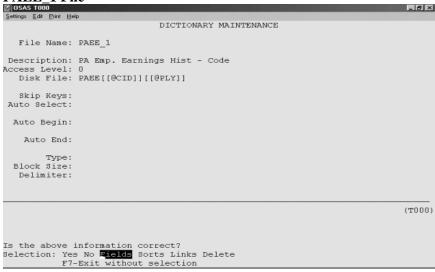
Step 2: Creating the Report

From the file layouts on the previous pages, we can see that each months earnings and deductions are stored in a separate field in the respective files. We can also see that the earnings and gross records are stored in the same file as different records, and each earning code is stored as a separate record.

First, we will create a field to print the earning amounts and have General prompt for the month we print.

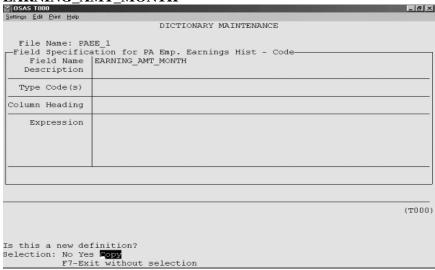
Select the PAEE_1 file on the Dictionary Maintenance screen and choose Fields.

PAEE_1 File

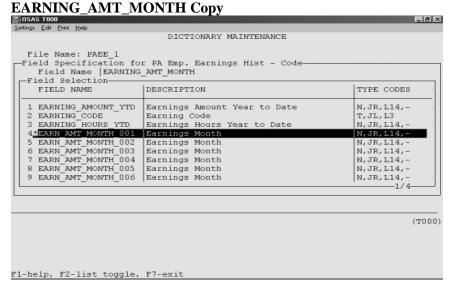


Enter the Field Name you want to create. When General Report Writer prompts "Is the above information correct?", select Copy.

EARNING_AMT_MONTH



Enter EARNING_AMT_MONTH

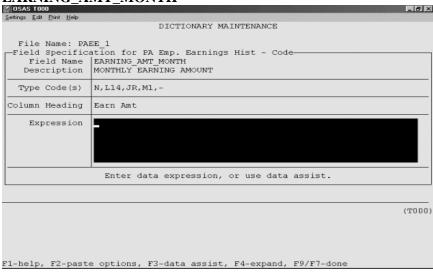


The Field Selection screen is displayed; select the field you want to copy.

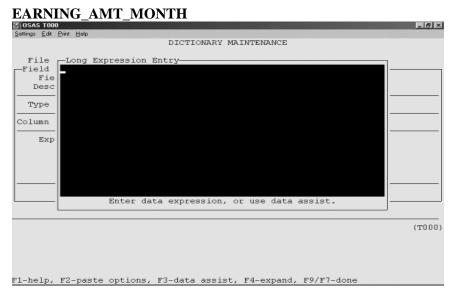
Select the EARN_AMT_MONTH_001

This will copy the Description, Type Codes, Column Heading and Expression.

EARNING_AMT_MONTH

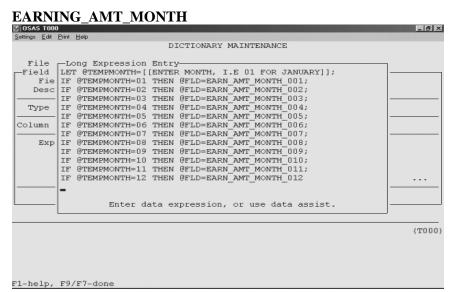


When the Verification prompt displays, select No. Edit the Description, Column Heading and delete the Expression.



Select the Expand option to enter a Long Expression.

Because each of the earning amounts for each month is stored in a separate field, we will use the @TEMP variable (See Appendix C) for this expression. Using the @TEMP variable will allow us to prompt for the month we want on the report and General will select the correct field based on our entry.



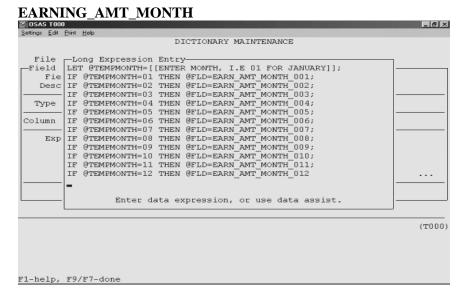
In the expression, on the first line enter the following:

LET @TEMPMONTH=[[ENTER MONTH, I.E 01 FOR JANUARY]];

Move the cursor to the next line and enter the following:

IF @TEMPMONTH=01 THEN @FLD=EARN_AMT_MONTH_001;

On the first line, we are saying let @TEMPMONTH equal whatever is entered in the runtime replacement. On the second line, we are saying if the runtime replacement entry is 01 then for this field print the earning amount for month 1.



Move the cursor to the next line and enter the IF...THEN statement for month 2, which should look like the following:

IF @TEMPMONTH=02 THEN @FLD=EARN_AMT_MONTH_002;

Continue entering IF...THEN statements until you have entered a line for all 12 months.

You can use Paste Options and Fields from this file to select the EARN_AMT_MONTH fields.

The Expression should look like the picture above.

Enter through the Expression field until the Verification prompt is displayed and select Yes to save the field.

Next, create an @TEMPMONTH field in the PAEE_2⁴⁷ file for the Gross amount per month.

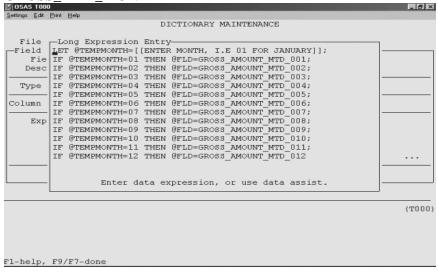
The field should look similar to the following.

280 – Appendix N - Payroll Earnings by Month Report

⁴⁷ Open Systems has created a separate data dictionary file for each record stored in the PAEE file. The PAEE_1 is for the earning records and the PAEE_2 is for the gross records.

The Expression should look like the following:

GROSS AMT MONTH

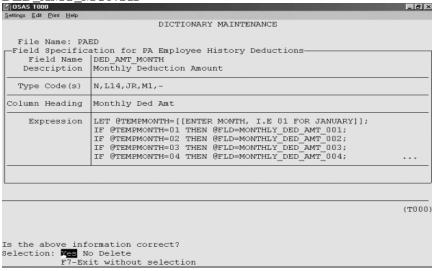


Make sure to enter the same runtime replacement expression so when the report is created and generated General will only prompt for the month one time.

Next, create an @TEMPMONTH field in the PAED file for the Deduction amount per month.

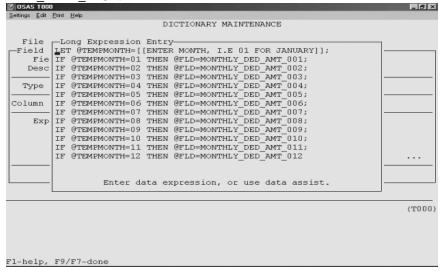
The field should look similar to the following.

DED_AMT_MONTH



The Expression should look like the following:

DED_AMT_MONTH



Make sure to enter the same runtime replacement expression so when the report is created and generated General will only prompt for the month one time.

The regular and overtime earnings are stored in the PAEE_1 file using the same fields but as different records. The next step is to create a way to get each of the records separately.

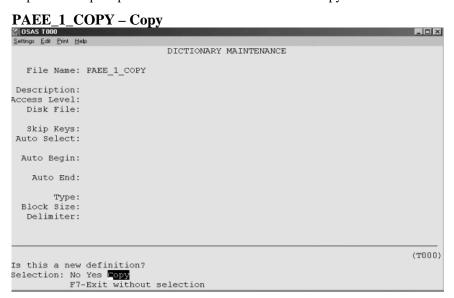
We have 2 options to accomplish this.

- 1. Create a copy of the PAEE_1 and use the original for the regular records and the copy for the overtime records.
- 2. Create alternate sorts in the PAEE_1 for each record type (REG and OVT) then link from the PAEG to each of the individual record types.

Option 1: Using a Copy of the PAEE_1 Data Dictionary File

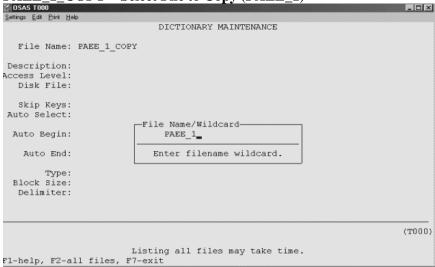
The following example uses a copy of the PAEE_1 data dictionary file to get the overtime records.

Enter a new File Name to create the copy of the PAEE_1 data dictionary file. When General Report Writer prompts "Is this a new definition?" select Copy



The File Name/Wildcard box is displayed, enter the name of the file you want to copy or you can enter the application id and the wildcard of * to select the file from a list.

PAEE_1_COPY - Select File to Copy (PAEE_1)



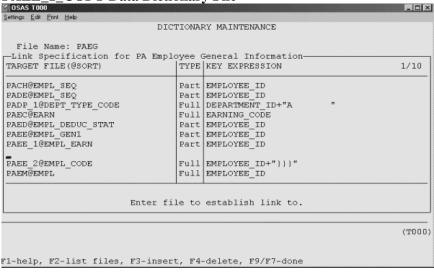
Enter PAEE_1 to copy the PAEE_1 file.

When the Verification Prompt is displayed, select Yes to save the file.

Now that the copy of the PAEE_1 file had been created, we need to create a Link from PAEG to the new $PAEE_1_COPY$ file

Select Links from the Dictionary Maintenance screen of the PAEG file.

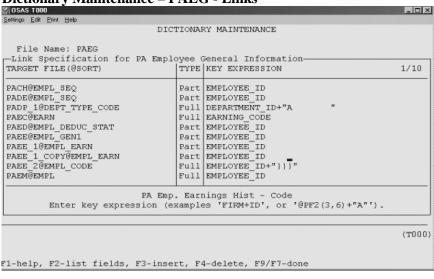
PAEE_1_COPY Data Dictionary File



You can create these links in alphabetical order or add them to the end.

In a blank field, select the Target file and @Sortname.

Dictionary Maintenance – PAEG - Links



For this link, select the PAEE_1_COPY@EMPL_EARN

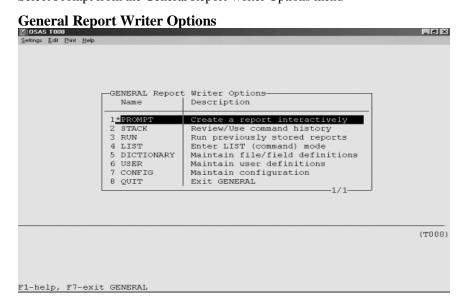
You can use the list files function to select the file.

The Type should be Partial.

The Key Expression should be EMPLOYEE ID.

Select the Done function key, to display the Verification Prompt. Select Yes to save the changes.

Now that all the fields, sorts and links have been created, we are ready to create the report. Select Prompt from the General Report Writer Options menu



The Report Design screen is displayed.

Report Design OSAS TOOO _ 🗆 × REPORT DESIGN Report Name: _ Title/Description: Report/Export: Width: Height: Across: Length: Output: Alternate Sort: Begin with: End with: Line Break: Print Blanks: Stop: Paginate: Test Patterns: Recap Page: Print Detail: Double Space: Vertical Totals: Tabulate/Plot: Col Heading: Copies: (T000) Enter report name to add or modify. F1-help, F2-list reports, F7-exit

Report Design REPORT DESIGN Report Name: PA_CLASS1 Title/Description: File: Report/Export: Width: Length: Height: Across: Alternate Sort: Begin with: End with: Line Break: Print Blanks: Stop: Test Patterns: Paginate: Recap Page: Double Space: Vertical Totals: Tabulate/Plot: Print Detail: Col Heading: Copies: (T000) Is this a new definition? Selection: No **Mes** Copy F7-Exit without selection

Enter the Report Name.* For this report use PA_CLASS1

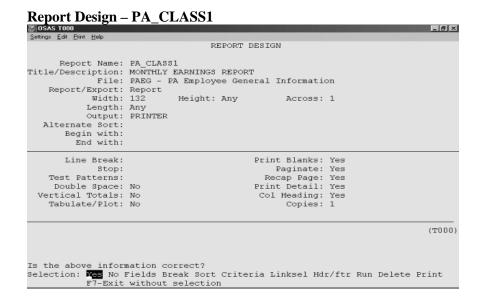
When General prompts "Is this a new definition?, select Yes.

Report Design – PA_CLASS1 _ 8 × Report Name: PA_CLASS1 Title/Description: MONTHLY EARNINGS REPORT
File: PAEG - PA Employee General Information Report/Export: Report Width: 132 Height: Any Length: Any Output: PRINTER Alternate Sort: Begin with: End with: Line Break: Print Blanks: Yes Paginate: Yes Test Patterns:
Double Space: No
Vertical Totals: No
Tabulate/Plot: No Recap Page: Yes Print Detail: Yes Col Heading: Yes Copies: 1 (T000) Is the above information correct?
Selection: Yes No Fields Break Sort Criteria Linksel Hdr/ftr Run Delete Print
F7-Exit without selection

Enter information in the following fields:

| Field | Description |
|--------------------|--|
| Title/Description* | Enter the name you want to print on the report |
| | MONTHLY EARNINGS REPORT |
| File* | Select the central file for this report. |
| | The list files function is available to select the file. |
| | Select the PAEG file |

^{*} See Appendix D for more information.



| Field | Description |
|----------------|---|
| Report/Export* | Select how you want to print or export the report. |
| | Select Report |
| Width* | Select the number of columns across the report. |
| | Accept the default of 132 |
| Height* | Select the maximum number of rows each record can occupy on the report. |
| | Accept the default of Any |
| Across* | Enter the number of records you want to print across the page. |
| | Accept the default of 1 |
| Length* | Enter the number of rows you want to print per page |
| | Accept the default of Any |
| Output* | Enter the output device used for this report. |
| | Accept the default of Printer |

Once you enter the output field, select the done function key to display the Verification prompt, "Is the above information correct?".

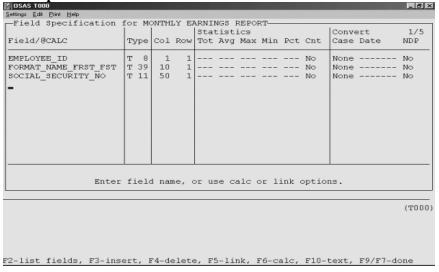
Select Fields from the Repot Design screen.

288 – Appendix N - Payroll Earnings by Month Report

^{*}See Appendix D for more information.

The Field Specification screen is displayed.

Field Specification Screen



Enter the fields for this report.

The first field is the Employee ID. Use the list fields function key to select the field and enter through all columns to accept the defaults.

The second filed is the Format Name First Name First. Use the list fields function key to select the field and enter through all the columns to accept the defaults.

The third field is the Social Security Number. Use the list fields function key to select the field and enter through all the columns to accept the defaults.

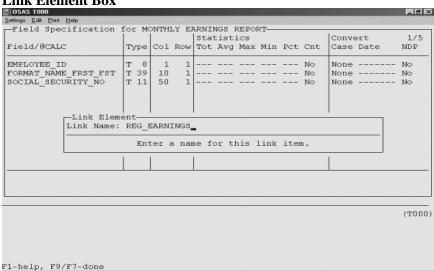
The next two fields will be the Regular and Overtime earning amounts

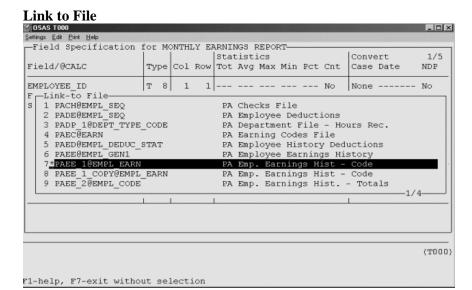
The earnings are stored in the PAEE_1 file.

Use the link function key to create a link for the regular earnings.

Enter REG EARNINGS for the Link Name..

Link Element Box





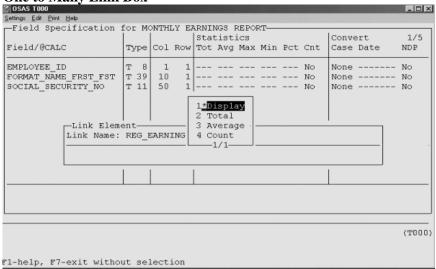
The Link –to-file box is displayed, select the file to create the link.

Select the PAEE_1@EMPL_EARN file and press Enter.

Field Selection | - | & | × | OSAS TOOO -Field Specification for MONTHLY EARNINGS REPORT Statistics Col Row Tot Avg Max Min Pct Cnt Field/@CALC Туре NDP Case Date EMPLOYEE ID 8 -Field Selection FIELD NAME DESCRIPTION TYPE CODES EARNING AMOUNT YTD Earnings Amount Year to Date 2*EARNING AMT MONTH MONTHLY EARNING AMOUNT EARNING CODE EARNING CODE EARNING HOURS YTD EARN AMT MONTH 001 EARN AMT MONTH 002 EARN AMT MONTH 003 EARN AMT MONTH 004 EARN AMT MONTH 005 Earning Code T, JL, L3 Earnings Hours Year to Date Earnings Month N, JR, L14, -N, JR, L14, -Earnings Month N, JR, L14, -N, JR, L14, -Earnings Month Earnings Month Earnings Month N, JR, L14, -N, JR, L14, --1/5 (T000) F1-help, F2-list toggle, F7-exit

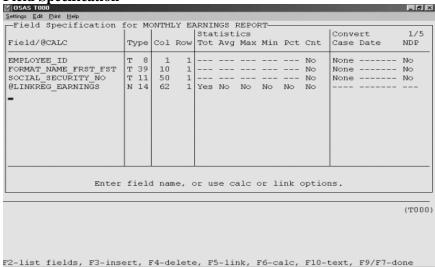
The Field Selection box is displayed, select the field you want to use to create the link. Select the EARNING_AMT_MONTH field and press Enter.

One to Many Link Box



This is a one to many link, select how you want this field to print on the report. Select Display.

Field Specification

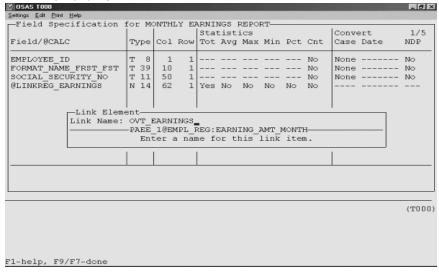


The field is added to the report with @LINK in front of the link name.

Select Yes for Tot under the Statistics column and accept the defaults for all other fields.

Next, add the link for the Overtime earnings.

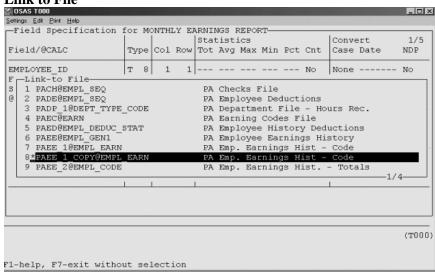
Link Element Box



Use the link function key to create a link for the overtime earnings.

Enter OVT_EARNINGS for the Link Name..

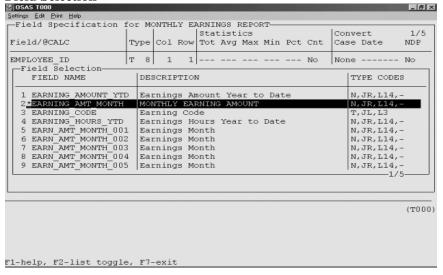
Link to File



The Link –to-file box is displayed, select the file to create the link.

Select the PAEE_1_COPY@EMPL_EARN file and press Enter.

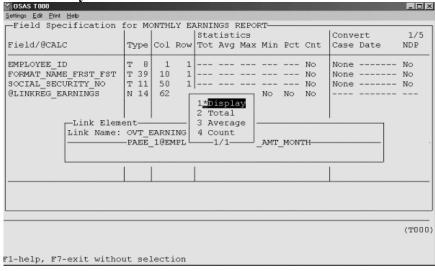
Field Selection



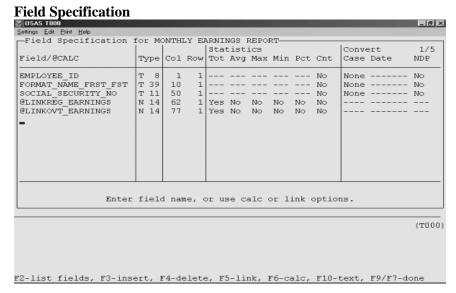
The Field Selection box is displayed, select the field you want to use to create the link.

Select the EARNING_AMT_MONTH field and press Enter.





This is a one to many link, select how you want this field to print on the report. Select Display.



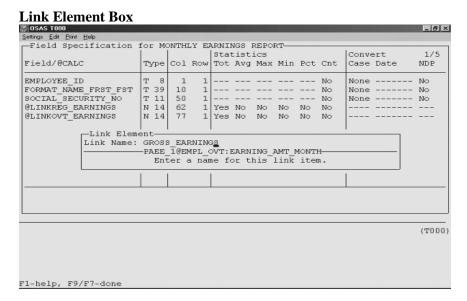
The field is added to the report with @LINK in front of the link name.

Select Yes for Tot under the Statistics column and accept the defaults for all other fields.

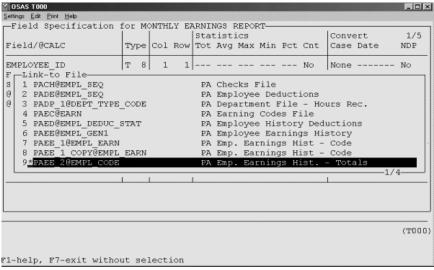
Next, add the link for the Gross Amount, which is stored in the PAEE_2 file.

Use the link function key to create a link for the gross earnings.

Enter GROSS_EARNINGS for the Link Name..



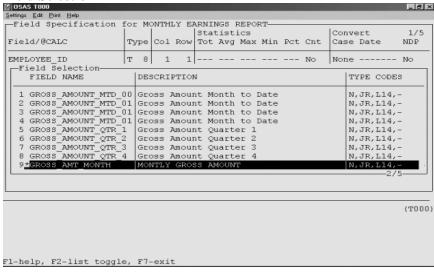
Link to File Box



The Link –to-file box is displayed, select the file to create the link.

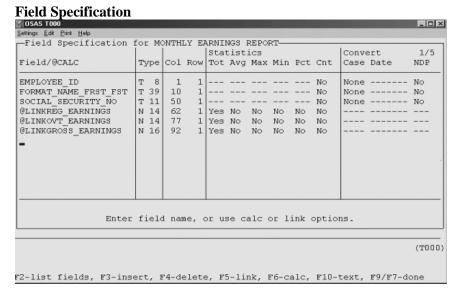
Select the PAEE_2@EMPL_CODE file and press Enter.

Field Selection



The Field Selection box is displayed, select the field you want to use to create the link.

Select the GROSS_AMT_MONTH field and press Enter.



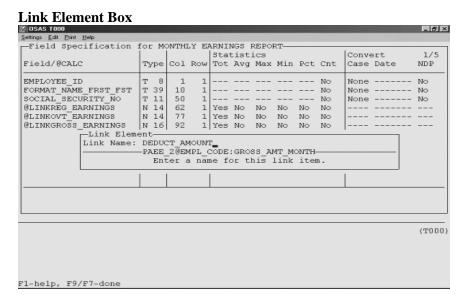
The field is added to the report with @LINK in front of the link name.

Select Yes for Tot under the Statistics column and accept the defaults for all other fields.

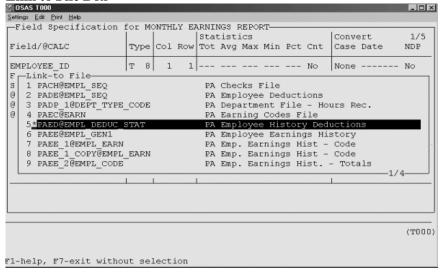
The last field is the deduction amount, which is stored in the PAED file.

Use the link function key to create a link for the deduction amount.

Enter DEDUCT_AMOUNT for the Link Name..



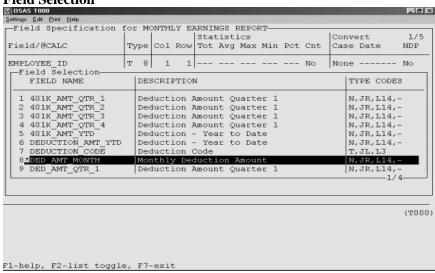
Link to File Box



The Link –to-file box is displayed, select the file to create the link.

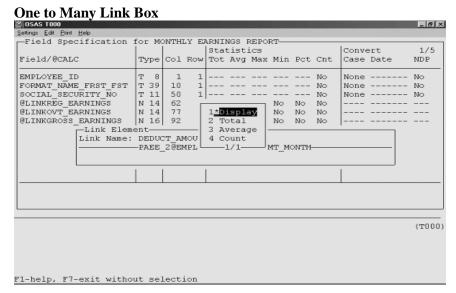
Select the PAED@EMPL_DEDUC_STAT file and press Enter.

Field Selection

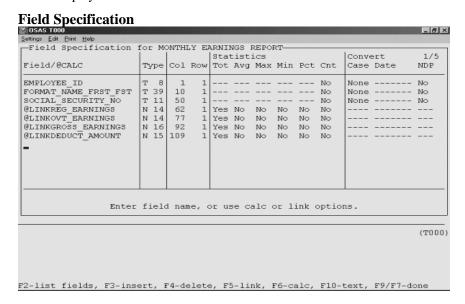


The Field Selection box is displayed, select the field you want to use to create the link.

Select the DED_AMT_MONTH field and press Enter.

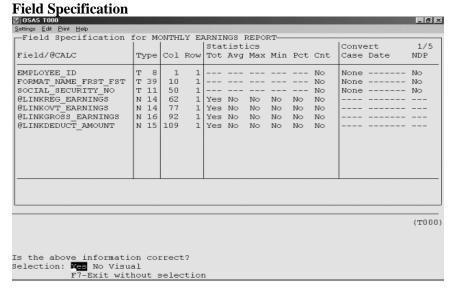


This is a one to many link, select how you want this field to print on the report. Select Display.



The field is added to the report with @LINK in front of the link name.

Select Yes for Tot under the Statistics column and accept the defaults for all other fields.



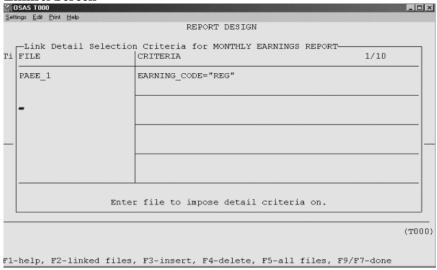
Select the done function key. When the Verification prompt is displayed, select Yes to return to the Report Design screen.

The next step is to add criteria to limit the earning and deduction amounts to only print Regular, Overtime earnings, and only print deduction 1.

The earning and deduction links were one-to-many links, so we need to setup criteria using Linksel.

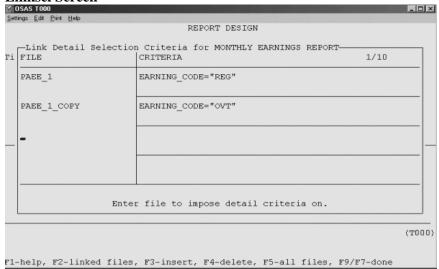
Select Linksel from the report design screen.

Linksel Screen



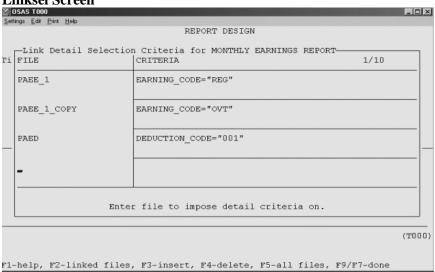
Use the PAEE_1 file to enter criteria for the REG earning code.

Linksel Screen



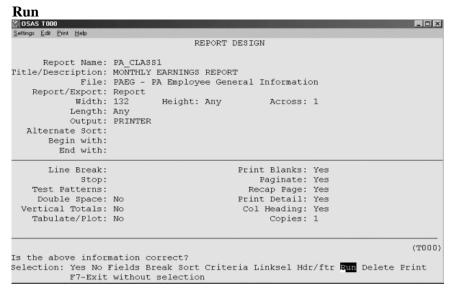
Use the PAEE_1_COPY file to enter criteria for the OVT earning code.

Linksel Screen



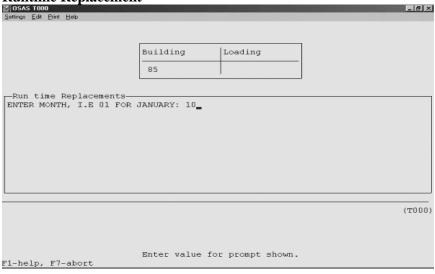
Use the PAED file to enter criteria for the deduction code 001.

Select the done function key. When the Verification prompt is displayed, select Yes to return to the Report Design screen.



Select Run to generate the report

Runtime Replacement



Enter the month you want to print the report for, on the runtime replacement screen.

Enter 10 for OSAS sample data.

The report is displayed.

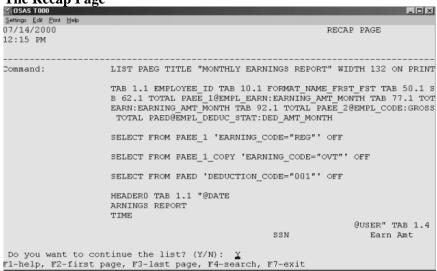
The Report OSAS T000
Settings Edit Print Help
07/13/2000
02:13 PM MONTHLY EARNINGS REPORT Employee Name Earn Amt 459-30-1099 468-22-4819 460-39-9093 BOUUU1 Linda C Bourne Timothy G Gerard 29738.00 22200.00 Kathy M Jenkins Maria K Jonchim 30000.00 4020.00 JEN001 JON001 George Lukas Lucinda A Rossini Albert W Stockard 10000.00 3220.00 LUK001 ROS001 488-30-1281 460-39-9982 449-58-4392 ST0001 4636.10 *Report* SUM 103814.10 Do you want to continue the list? (Y/N): XF1-help, F2-first page, F3-last page, F4-search, F7-exit

Use the left and right arrows to see the entire report.

The Report OSAS TOOD

Settings Edit Print Help _ | D | X MONTHLY EARNINGS REPORT Page 1 Earn Amt Gross Amount Mtd Monthly Ded Amt Earn Amt -30-1099 29738.00 42.24 42.24 30883.82 -22-4819 22200.00 22700.00 -39-9093 30000.00 30000.00 -80-9944 4020.00 28.13 4348.13 22.72 -30-1281 10000.00 10000.00 3294.03 42.24 -39-9982 3220.00 28.03 -58-4392 4636.10 332.27 5451.67 22.60 103814.10 388.43 106677.65 241.98 Do you want to continue the list? (Y/N): \underline{X} F1-help, F2-first page, F3-last page, F4-search, F7-exit

The Recap Page



| :35 PM | | ARNINGS REPORT | | | Page : |
|-------------------------|----------------------------|----------------|------------|---------------------|--------------|
| nployee Name | SSN | Earn Amt | Earn Amt G | ross Amount Mtd Mon | thly Ded Amt |
| DU001 Linda C Bourne | | | | 30883.82 | 42.24 |
| R001 Timothy G Gerard | 459-30-1099 468-22-4819 | 22200.00 | | 22700.00 | 42.24 |
| N001 Kathy M Jenkins | 460-39-9093 | 30000.00 | | 30000.00 | 42.24 |
| 0N001 Maria K Jonchim | | | 28.13 | 4348.13 | 22.72 |
| JK001 George Lukas | 468-80-9944 488-30-1281 | 10000.00 | | 10000.00 | 42.24 |
| S001 Lucinda A Rossini | 460-39-9982 | 3220.00 | 28.03 | 3294.03 | 27.70 |
| 20001 Albert W Stockard | 449-58-4392 | 4636.10 | 332.27 | 5451.67 | 22.60 |
| eport* SUM | | 103814.10 | 388.43 | 106677.65 | 241.98 |
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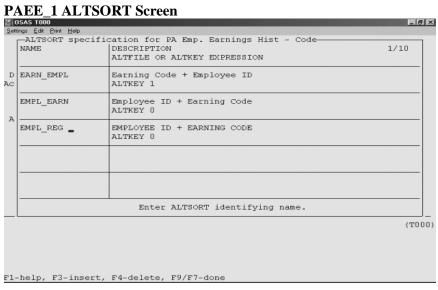
Option 2: Creating Alternate Sorts

The following example creates alternate sorts in the PAEE_1 data dictionary file for the month and year records. We will link to the sorts from the PAEG data dictionary file.

Select the PAEE_1 file and choose Sorts

The ALTSORT specification screen is displayed.

The first Altsort will be used to get the REG earnings.



The sort we will use is ALTSORT 0, which is based on the Employee ID and the Earning Code.

Select a blank field. Enter in your altsortname.

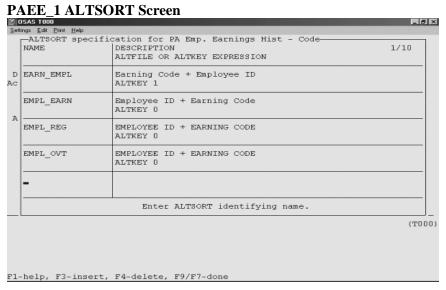
For this example, use **EMPL_REG**.

Enter in a description of the Altsort.

Enter the ALTFILE or ALTKEY you want to use for this sort.

For this example type **ALTKEY 0**.

The second Altsort will be used to get the OVT earnings.



The sort we will use is ALTSORT 0, which is based on the Employee ID and the Earning Code.

Select a blank field. Enter in your altsortname.

For this example, use EMPL_OVT.

Enter in a description of the Altsort.

Enter the ALTFILE or ALTKEY you want to use for this sort.

For this example type **ALTKEY 0**.

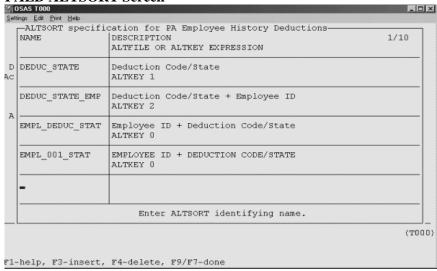
Select the done function key to display the Verification prompt. Answer Yes to save the added sorts.

We will also create an alternate sort to select the deduction code that we pass to the report.

Select the PAED file and choose Sorts

The ALTSORT specification screen is displayed.

PAED ALTSORT Screen



The sort we will use is ALTSORT 0, which is based on the Employee ID, the Deduction Code and the State for the deduction.

Select a blank field. Enter in your altsortname.

For this example, use **EMPL_001_STAT**.

Enter in a description of the Altsort.

Enter the ALTFILE or ALTKEY you want to use for this sort.

For this example type **ALTKEY 0**.

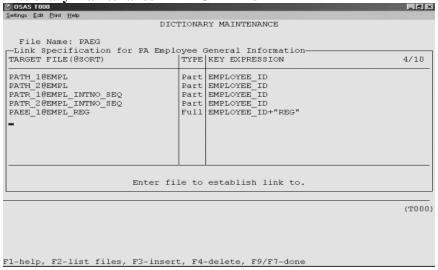
Select the done function key to display the Verification prompt. Answer Yes to save the added sorts.

The next step is to add the Links from the PAEG file to the new alternate sorts in the PAEE_1 and PAED files.

Select Links from the Dictionary Maintenance screen of the PAEG file.

You can create these links in alphabetical order or add them to the end.

Dictionary Maintenance - PAEG - Links



The type of link is Full, for a one-to-one link.

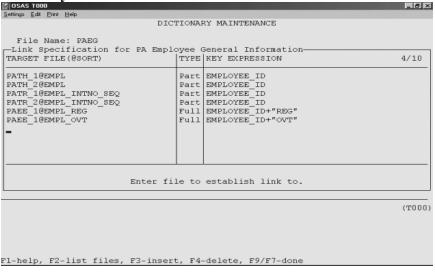
In Key Expression, enter:

EMPLOYEE ID+"REG"

Here we are linking by Employee ID. We are hard coding the earnings record we want for this link by adding the "REG".

The second link is to the PAEE_1@EMPL_OVT

Dictionary Maintenance - PAEG - Links



The type of link is Full, for a one-to-one link.

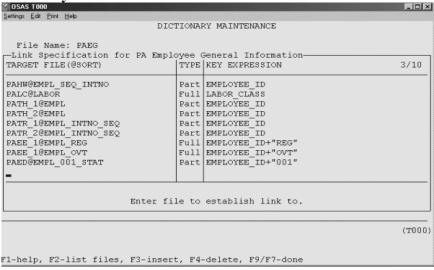
In Key Expression, enter:

EMPLOYEE_ID+"OVT"

Here we are linking by Employee ID. We are hard coding the earnings record we want for this link by adding the "OVT".

The last link is to the PAED@EMPL_001_STAT

Dictionary Maintenance – PAEG - Links



The type of link is Part for a one to many link.

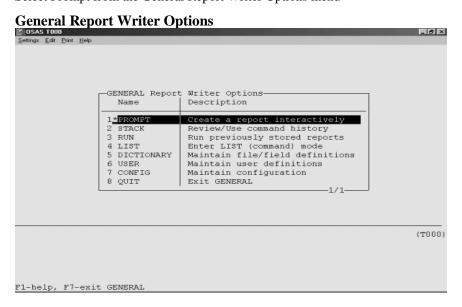
In Key Expression, enter:

EMPLOYEE ID+"001"

Here we are linking by Employee ID. We are hard coding the deduction record we want for this link by adding the "001".

Select the done function key to display the Verification prompt. Answer Yes

Now that all the fields, sorts and links have been created, we are ready to create the report. Select Prompt from the General Report Writer Options menu



The Report Design screen is displayed.

Report Design OSAS TOOO _ 🗆 × REPORT DESIGN Report Name: _ Title/Description: Report/Export: Width: Height: Across: Length: Output: Alternate Sort: Begin with: End with: Line Break: Print Blanks: Stop: Paginate: Recap Page: Print Detail: Test Patterns: Double Space: Vertical Totals: Tabulate/Plot: Col Heading: Copies: (T000) Enter report name to add or modify. F1-help, F2-list reports, F7-exit

Report Design REPORT DESIGN Report Name: PA_CLASS1 Title/Description: File: Report/Export: Width: Length: Height: Across: Alternate Sort: Begin with: End with: Line Break: Print Blanks: Stop: Test Patterns: Paginate: Recap Page: Double Space: Vertical Totals: Tabulate/Plot: Print Detail: Col Heading: Copies: (T000) Is this a new definition? Selection: No **Mes** Copy F7-Exit without selection

Enter the Report Name.* For this report use PA_CLASS1

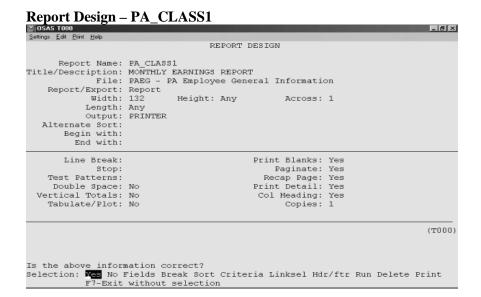
When General prompts "Is this a new definition?, select Yes.

Report Design – PA_CLASS1 _ B X Report Name: PA_CLASS1 Title/Description: MONTHLY EARNINGS REPORT
File: PAEG - PA Employee General Information Report/Export: Report Width: 132 Height: Any Length: Any Output: PRINTER Alternate Sort: Begin with: End with: Line Break: Print Blanks: Yes Paginate: Yes Test Patterns:
Double Space: No
Vertical Totals: No
Tabulate/Plot: No Recap Page: Yes Print Detail: Yes Col Heading: Yes Copies: 1 (T000) Is the above information correct?
Selection: Yes No Fields Break Sort Criteria Linksel Hdr/ftr Run Delete Print
F7-Exit without selection

Enter information in the following fields:

| Field | Description |
|--------------------|--|
| Title/Description* | Enter the name you want to print on the report |
| | MONTHLY EARNINGS REPORT |
| File* | Select the central file for this report. |
| | The list files function is available to select the file. |
| | Select the PAEG file |

^{*} See Appendix D for more information.



| <u>Field</u> | <u>Description</u> |
|----------------|---|
| Report/Export* | Select how you want to print or export the report. |
| | Select Report |
| Width* | Select the number of columns across the report. |
| | Accept the default of 132 |
| Height* | Select the maximum number of rows each record can occupy on the report. |
| | Accept the default of Any |
| Across* | Enter the number of records you want to print across the page. |
| | Accept the default of 1 |
| Length* | Enter the number of rows you want to print per page |
| | Accept the default of Any |
| Output* | Enter the output device used for this report. |
| | Accept the default of Printer |

Once you enter the output field, select the done function key to display the Verification prompt, "Is the above information correct?".

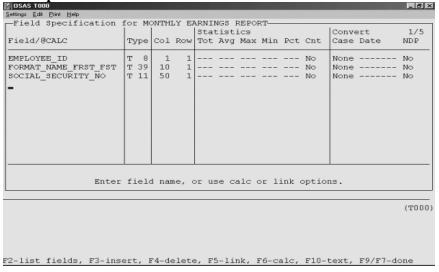
Select Fields from the Repot Design screen.

312 – Appendix N - Payroll Earnings by Month Report

^{*}See Appendix D for more information.

The Field Specification screen is displayed.

Field Specification Screen



Enter the fields for this report.

The first field is the Employee ID. Use the list fields function key to select the field and enter through all columns to accept the defaults.

The second filed is the Format Name First Name First. Use the list fields function key to select the field and enter through all the columns to accept the defaults.

The third field is the Social Security Number. Use the list fields function key to select the field and enter through all the columns to accept the defaults.

The next two fields will be the Regular and Overtime earning amounts

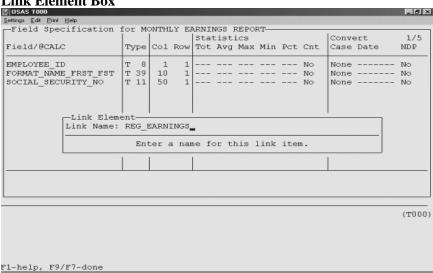
The earnings are stored in the PAEE_1 file.

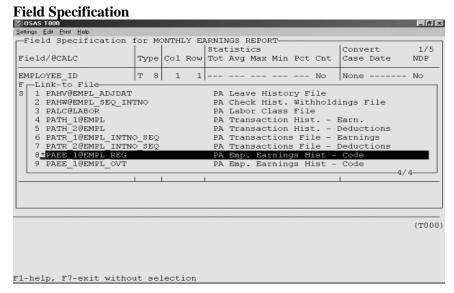
Use the link function key to create a link for the regular earnings.

Enter REG EARNINGS for the Link Name..

Select the Link function.

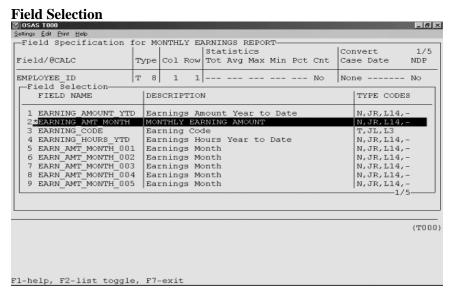




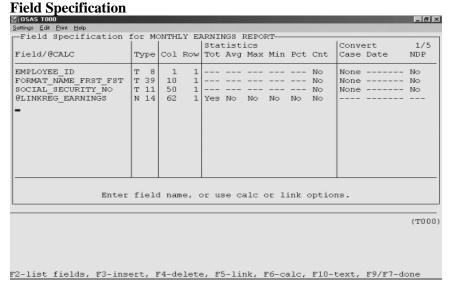


The Link –to-file box is displayed, select the file to create the link.

Select the PAEE_1@EMPL_REG file and press Enter.



The Field Selection box is displayed, select the field you want to use to create the link. Select the EARNING_AMT_MONTH field and press Enter.



The field is added to the report with @LINK in front of the link name.

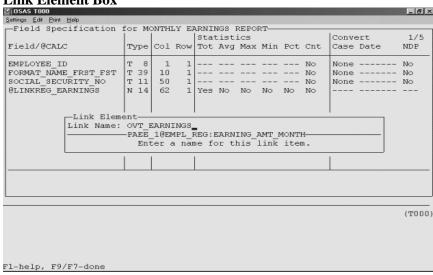
Select Yes for Tot under the Statistics column and accept the defaults for all other fields.

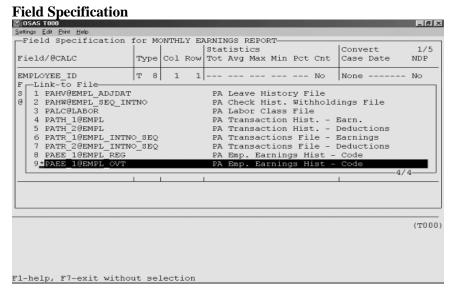
Next, add the link for the Overtime earnings.

Use the link function key to create a link for the overtime earnings.

Enter OVT_EARNINGS for the Link Name..

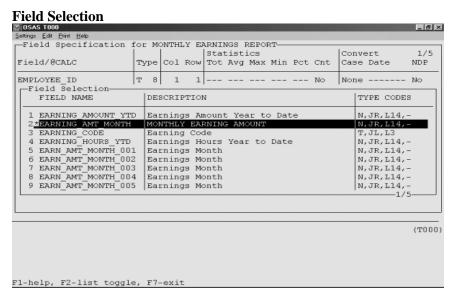
Link Element Box





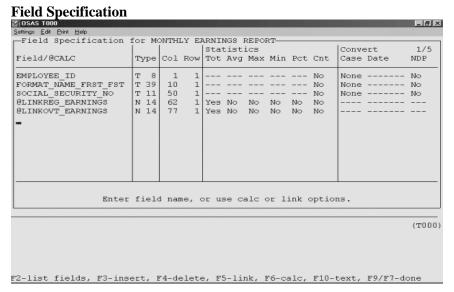
The Link –to-file box is displayed, select the file to create the link.

Select the PAEE_1@EMPL_OVT file and press Enter.



The Field Selection box is displayed, select the field you want to use to create the link.

Select the EARNING_AMT_MONTH field and press Enter.



The field is added to the report with @LINK in front of the link name.

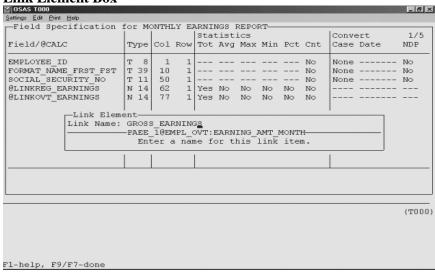
Select Yes for Tot under the Statistics column and accept the defaults for all other fields.

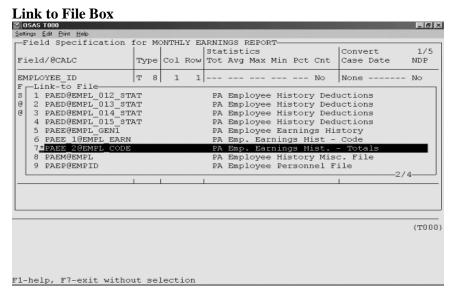
Next, add the link for the Gross Amount, which is stored in the PAEE_2 file.

Use the link function key to create a link for the gross earnings.

Enter GROSS EARNINGS for the Link Name..

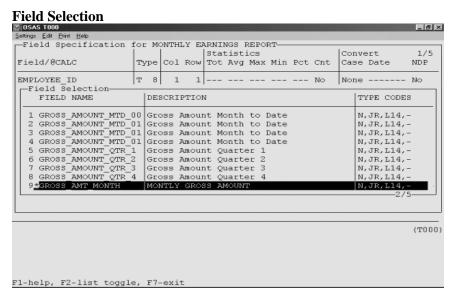
Link Element Box





The Link –to-file box is displayed, select the file to create the link.

Select the PAEE_2@EMPL_CODE file and press Enter.



The Field Selection box is displayed, select the field you want to use to create the link. Select the GROSS_AMT_MONTH field and press Enter.

Field Specification OSAS TOOO _ | D | X -Field Specification for MONTHLY EARNINGS REPORT 1/5 Statistics Convert Field/@CALC Туре Col Row Tot Avg Max Min Pct Cnt NDP Case Date EMPLOYEE ID None -----FORMAT NAME FRST FST SOCIAL SECURITY NO T 39 T 11 N 14 10 No None -----No 50 None ---- No No @LINKREG_EARNINGS 62 1 Yes No No No No @LINKOVT_EARNINGS N 14 N 16 77 1 Yes No No No No No @LINKGROSS_EARNINGS 92 1 Yes No No No No No Enter field name, or use calc or link options. (T000) F2-list fields, F3-insert, F4-delete, F5-link, F6-calc, F10-text, F9/F7-done

The field is added to the report with @LINK in front of the link name.

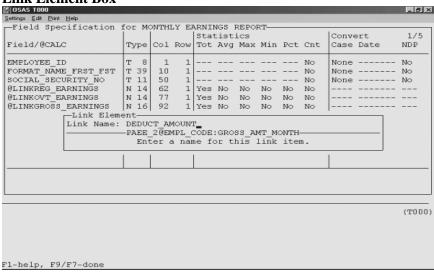
Select Yes for Tot under the Statistics column and accept the defaults for all other fields.

The last field is the deduction amount, which is stored in the PAED file.

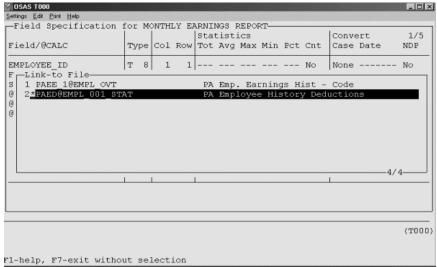
Use the link function key to create a link for the deduction amount.

Enter DEDUCT AMOUNT for the Link Name..

Link Element Box



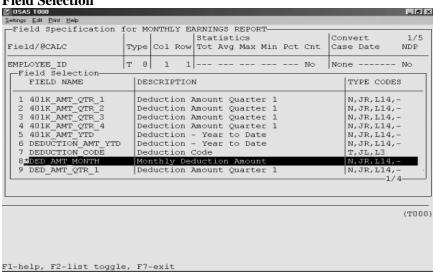




The Link –to-file box is displayed, select the file to create the link.

Select the PAED@EMPL_001_STAT file and press Enter.

Field Selection



The Field Selection box is displayed, select the field you want to use to create the link.

Select the DED_AMT_MONTH field and press Enter.

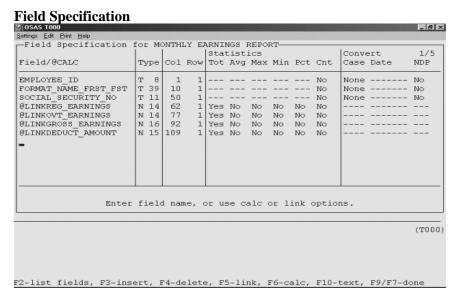
One to Many Link Box OSAS T000 Settings Edit Print Help -Field Specification Statistics Convert Field/@CALC Туре Tot Avg Max Min Pct Cnt Case Date EMPLOYEE_ID T 39 T 11 N 14 N 14 FORMAT_NAME_FRST_FST SOCIAL_SECURITY_NO 10 No None No None N 14 62 N 14 77 N 16 92 @LINKREG_EARNINGS @LINKOVT_EARNINGS No No No 1≭Display @LINKGROSS EARNINGS Total No No No Link Element Average Link Element

Link Name: DEDUCT AMOU 4 Count PAEE_2@EMPL MT_MONTH-(T000)

This is a one to many link, select how you want this field to print on the report.

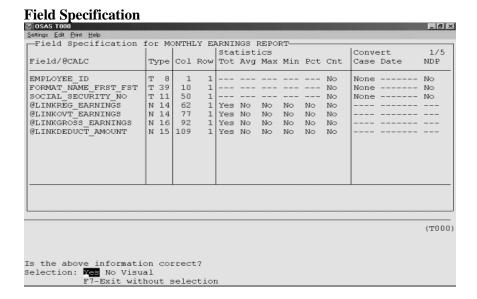
Select Display.

F1-help, F7-exit without selection



The field is added to the report with @LINK in front of the link name.

Select Yes for Tot under the Statistics column and accept the defaults for all other fields.



Select the done function key. When the Verification prompt is displayed, select Yes to return to the Report Design screen.

Run SAS TOOO Settings Edit Print Help REPORT DESIGN Report Name: PA_CLASS1 Title/Description: MONTHLY EARNINGS REPORT File: PAEG - PA Employee General Information Report/Export: Report Width: 132 Height: Any Length: Any Output: PRINTER Alternate Sort: Begin with: End with: Line Break: Print Blanks: Yes Paginate: Yes Stop: Test Patterns: Recap Page: Yes Double Space: No Vertical Totals: No Print Detail: Yes Col Heading: Yes Tabulate/Plot: No Copies: 1 (T000) Is the above information correct? Selection: Yes No Fields Break Sort Criteria Linksel Hdr/ftr Run Delete Print F7-Exit without selection

Select Run to generate the report

Runtime Replacement

Building Loading
85

Run time Replacements
ENTER MONTH, I.E 01 FOR JANUARY: 10

(T000)

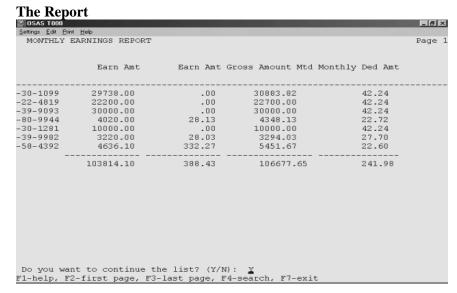
Enter value for prompt shown.

Enter the month you want to print the report for, on the runtime replacement screen.

Enter 10 for OSAS sample data.

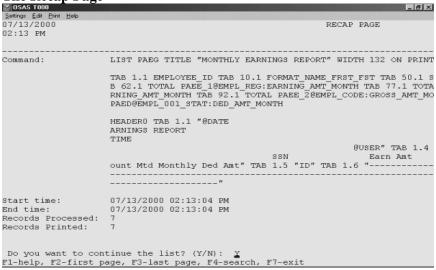
The report is displayed.

The Report OSAS T000
Settings Edit Print Help
07/13/2000
02:13 PM MONTHLY EARNINGS REPORT Employee Name SSN Earn Amt BOU001 Linda C Bourne
GER001 Timothy G Gerard
JEN001 Kathy M Jenkins
JON001 Maria K Jonchim
LUK001 George Lukas
ROS001 Lucinda A Rossini
ST0001 Albert W Stockard 459-30-1099 468-22-4819 29738.00 22200.00 460-39-9093 468-80-9944 30000.00 4020.00 488-30-1281 460-39-9982 10000.00 3220.00 449-58-4392 4636.10 103814.10 *Report* SUM Do you want to continue the list? (Y/N): \underline{X} F1-help, F2-first page, F3-last page, F4-search, F7-exit



Use the left and right arrows to see the entire report.

The Recap Page



Payroll Earnings by Month Report

| 01/13/2000 04:35 PM | MONTHLY E. | ARNINGS REPORT | | | Page |
|-------------------------|-------------|---------------------|-------------|---------------------|---------------|
| Employee Name | SSN | Earn Amt | Earn Amt Gr | ross Amount Mtd Mor | nthly Ded Amt |
| 30U001 Linda C Bourne | 459-30-1099 | 29738.00 | .00 | 30883.82 | 42.24 |
| ER001 Timothy G Gerard | 468-22-4819 | 22200.00 | .00 | 22700.00 | 42.24 |
| EN001 Kathy M Jenkins | 460-39-9093 | | .00 | 30000.00 | 42.24 |
| ON001 Maria K Jonchim | 468-80-9944 | 4020.00 | 28.13 | 4348.13 | 22.72 |
| JK001 George Lukas | 488-30-1281 | 4020.00 10000.00 | .00 | 10000.00 | 42.24 |
| OS001 Lucinda A Rossini | 460-39-9982 | 3220.00 | 28.03 | 3294.03 | 27.70 |
| 00001 Albert W Stockard | 449-58-4392 | 4636.10 | 332.27 | 5451.67 | 22.60 |
| Report* SUM | | | 388.43 | | 241.98 |
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