

# Creating A Non-subfile Maintenance Program

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## Welcome

Welcome to this Genesis tutorial. These tutorials are designed to introduce you to the major features and functions of the Genesis V code generator. The main goal of the tutorial is to teach you all the basic skills you will need to successfully create RPG programs on your AS/400 using Genesis V PractiCASE.

Although this tutorial is written in a step by step manner, PractiCASE does not confine you to creating programs in a linear fashion, except where a definite hierarchical structure exists. For example, you must specify a non-subfile section before a subfile section.

Other than this type of situation, you can let your creativity flow and build up a program specification in your own style!

For this tutorial, we are going to use the speed entry method to create a non-subfile maintenance program like the one shown here –

The speed entry method does have some auto-navigation features where PractiCASE will prompt you for information where needed.

```

                                Maintain Customer
Customer          1
Mnemonic         TEST
Name             Test customer
Address          1 Hewton House
                Hewtown
                _____
                _____
Telephone        8161 111 2222
Salesman         RR
Cumulative Sales 1234.56

F3=Exit F12=Previous
F23=Delete
18-044
```

An example of this would be when you add a physical file, PractiCASE will ask you for a logical file if you haven't specified one.

Any time you need help within PractiCASE, you can hit the Help key for help relevant to the screen you are at, or position the cursor in a field and type '?' or hit F4 to obtain a list of values.

## Program overview

This program is going to have 2 panels. Panel 1 will be a prompt screen where the user will be asked to type in a customer number to maintain, and panel 2 will let the user actually maintain the selected customer data.

Once the user has entered a customer number on the prompt screen, they will be taken to panel 2 immediately upon pressing ENTER.

## Skills

With this tutorial, you will learn

- ✓ How to specify a prompt screen.
- ✓ How to specify a non-subfile reference only file.
- ✓ How to specify a non-subfile primary file for add, update and delete.
- ✓ How to edit a non-subfile screen format.
- ✓ How to specify entry parameters.

# Getting Started

## Lesson 1. Creating a program

The first thing to do is create a program entry in the 'List of Application Functions'.

You can achieve this by either taking option 'I' to insert new records in the list, or locate to the end of the list where you will find empty records.

Anywhere you see a subfile section within PractiCASE, empty records appear lowlit, and records read from the database appear highlight.

Some subfile records appear lowlit but have data in them. These are empty records, but have been defaulted data to speed up program specification. They have not yet been written to the database.

Give the program a unique name, for this tutorial use 'TUTFM' if it is available. Give the program a description of 'Maintain customer', and a 'Type' of 'S' for screen.

Hit ENTER to write the record.

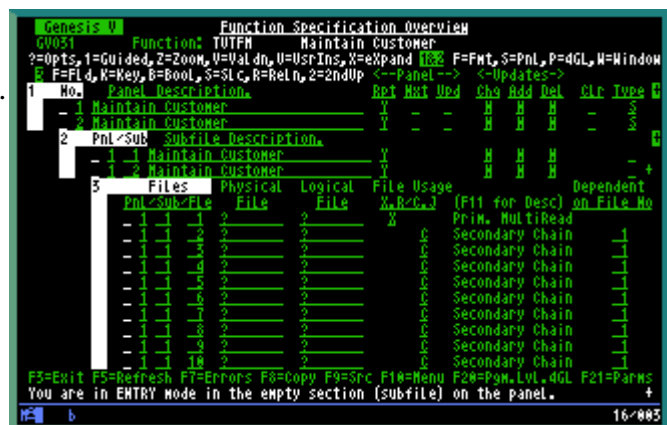
Now you have created a program entry, type 'X' in the action control box to go to the program overview screen.

## Lesson 2. Understanding the overview screen

The 'Function Specification Overview' screen displays the program's basic functions so the program can be understood at a glance.

The screen is split up into 3 list sections.

The first section headed 'Panel Description' shows the panels currently defined in this program. The second section 'Subfile Description' shows the subfiles defined on each screen, and the third section shows the files defined on each panel and subfile.



## The Prompt Screen

### Lesson 3. Creating a prompt screen

Panel 1 is our prompt screen, so give it the description 'Maintain Customer Prompt'.

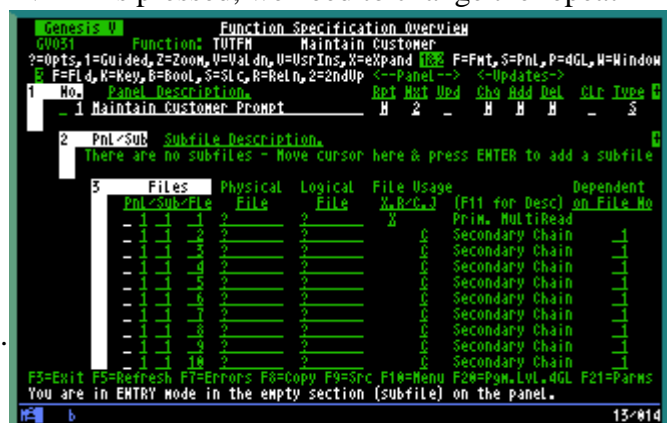
In order to exit this panel immediately when ENTER is pressed, we need to change the repeat flag ('Rpt' box) for panel 1 to 'N'.

This tells PractiCASE that this panel should be exited on ENTER providing there are no validation errors.

We also need to specify which panel to go to next, so enter '2' in the 'Nxt' box to go to panel 2. Hit ENTER to write panel 1 to the database.

Panel 1 has now been defined to PractiCASE.

Entering a record here with number 2 defines panel 2, etc. The 'Chg', 'Add' and 'Del' flags refer to primary file maintenance modes, and are discussed in lesson 10.



## **Lesson 4. Adding a non-subfile reference file**

You will now be prompted to select a physical file to maintain. We are not maintaining any records on the prompt screen, so hit F3 to exit this finder.

For our prompt screen, we need the user to enter the customer number they wish to maintain. We could do this by specifying a work field with a length the same as the customer number. This would not be a recommended method however, because if the size of the customer number changes in the future, your work field length will still be hard-coded as the old length.

The preferred method is to use the customer number from the customer file, by specifying the customer file as a reference only file, that way any future changes will be implemented automatically.

Enter CUSMST in the files section, as panel 1, subfile 0, file 1 and type 'R'eference.

You now need to select the customer number field, so type 'F' for fields against CUSMST in the files section.

Select field CMCUNO as 'I'npnt only.

If there is a suitable customer number finder in your current list of application functions, PractiCASE will automatically attach it to the customer number field as a 'Q' type validation. This automatic selection of validations is discussed further in lesson 7.

## **The Screen Formatter**

There are two screen formatters available to you – the non-subfile formatter, and the subfile formatter.

Each screen formatter is split into 2 sections. A WYSWYG (What You See is What You Get) section at the top, and a detail section at the bottom showing the fields and text that appear on the screen.

Fields and text can be added, removed, changed or repositioned in any of the sections of the screen formatter.

Any changes you make in the WYSIWYG section are immediately reflected in the detail section, and vice-versa.

You can reposition the WYSIWYG section by changing the value in the Position at line or Position at column boxes at the top right of the screen.

Changes can be made in the detail section of the formatter by simply changing the current values, adding new entries, or taking options. In the WYSIWYG section, you need to 'point and click'. Any time you point and click in this section, you will be presented with a pop-up window, from which you can take a number of options to edit or add fields or text.

## Lesson 5. Changing the non-subfile format

We will now look at how the fields have been layed out on the screen so far.

Take option 'F' against the non-subfile section.

You can see PractiCASE has defaulted the screen heading to be the same as the panel description. Change the screen heading from 'Maintain Customer Prompt' to 'Maintain Customer', and it's start position from 28 to 32.

Hit F3 to return to overview.

That's the prompt screen done. Now we need to do the maintenance screen.

## The Maintenance Screen

### Lesson 6. Creating a non-subfile maintenance screen

On panel 2, we are going to maintain customer records, so type 'I' for insert against panel 1 to open up new entry records, then give panel 2 the description 'Maintain customer', change the repeat flag to 'C', and the next screen flag (Nxt box) to '1', then hit ENTER to write it to the database.

Repeat 'C' repeats the panel while data has changed. If no data has changed and ENTER is pressed, the panel is exited and the next one processed as though F3 was pressed.

The prompt screen will be redisplayed ready for the next customer number to be entered once panel 2 is exited because we have specified '1' in the next screen flag.

## Lesson 7. Adding a non-subfile primary file

You will now be prompted to select a physical file. You can hit F3 to exit this finder without a selection, but since we want to update the customer record on the flatscreen, select 'CUSMST'. You will now be prompted to select a logical file. Again, you can hit F3 to exit this finder without a selection to use a program described logical file, but we want to use 'CUSMSTI', so select this file.

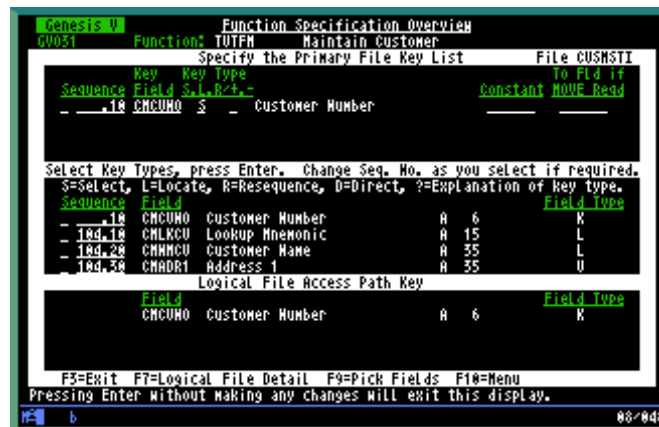
Note the keylist is automatically selected by the dynamic data modeler (there is a message at the bottom of the screen telling you when the data modeler is working).

Once the keylist is selected, you will be taken to the non-subfile formatter where you can change the screen layout. Only 'Customer Number' has been selected so far. We need more fields to be able to lay this out properly, so hit F3 to return to overview.

We may need to change the physical file keylist that has been picked for us, so take option 'K' against 'CUSMST' in the file section.

As you can see, Customer Number has been chosen as a 'S'elect type key.

A select key means only records that exactly match that key value will be selected.



All is O.K here, so hit F3 to return to overview.

As we have seen, Customer Number (CMCUNO) has already been selected by, but we want to have Lookup Mnemonic (CMLKCU), Address 1 (CMADR1), Address 2 (CMADR2), Address 3 (CMADR3), Address 4 (CMADR4), Address 5 (CMADR5), Telephone Number (CMFONO), Salesman Code (CMSLMN) and Cumulative Sales (CMABSV) as maintainable fields.

Select required fields from the file by taking option 'F' against 'CUSMST' in the file section. Take option 'B' against 'CMLKCU', 'CMADR1', 'CMADR2', 'CMADR3', 'CMADR4', 'CMADR5', 'CMFONO', 'CMSLMN' and 'CMABSV' to select these fields as 'B'oth type (maintainable) fields.

When picking fields as 'B'oth or 'I' nput only, any validations against the fields in the repository, and suitable finders will be automatically pulled into the program.

You will be taken into the validation screen whenever a finder is automatically added.

Finders are specified as 'Q' type validations. You can choose to amend, or remove the displayed validations, or hit F3 from this screen to continue adding fields.

Once the fields are selected, they will appear lowlit in the field selection window.

Hit F3 to return to overview.

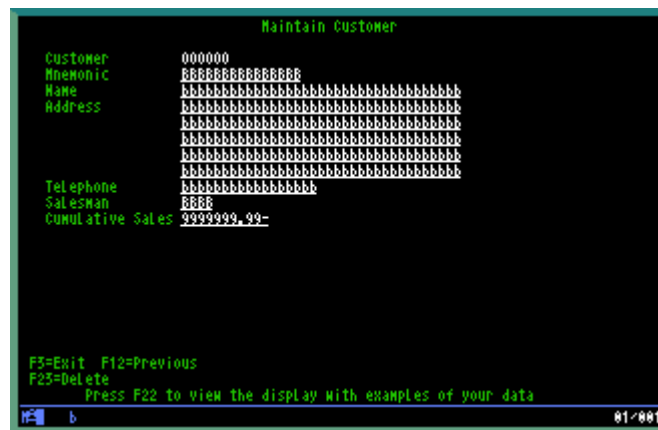


## Lesson 11. Generating the program

This program is now finished. Hit F3 to return to the 'List of Application Functions'. You can take option 'V' to view how the screen will look here.



Prompt screen



Maintenance screen

When you are ready to generate, the object generation tool can be activated by taking option 'G'. Option '3' will be defaulted against both the program (\*PGM) and display file (\*DSPF) - this option generates and compiles, so hit ENTER to submit the job. You can check your submitted jobs by hitting F10 to pull up the menu bar from the 'List of Application Functions', then tab the cursor to 'Jobs' and hit ENTER.

## Quick Reference

It is advisable to familiarize yourself with these keys and options to speed up navigation within PractiCASE.

<b>Action</b>	<b>Key/Option</b>	<b>Screen</b>
Activate menu bar	Function key 10	Anywhere within PractiCASE
Open program object selection menu	Option 'G' or 'S'	List of Application Functions
Generate source	Option '1' Option '1'	List of Application Functions Program Object Selection Menu
Compile source	Option '2' Option '2'	List of Application Functions Program Object Selection Menu
Generate & compile source	Option '3' Option '3'	List of Application Functions Program Object Selection Menu
Edit/review source	Option 'S'	Program Object Selection Menu
Edit/review map	Option 'M' Option 'M'	List of Application Functions Program Object Selection Menu
Edit/review program field list	Option 'L'	Section 1, 2 or 3 of Overview
Edit/review database field list	Option 'F'	Section 3 of Overview
Edit/review screen format	Option 'F'	Section 1 or 2 of Overview
Display screen format	Option 'V' Option 'S' Function key 8	List of Application Functions Section 1 or 2 of Overview Any screen formatter
Edit/review display attributes	Option 'A' Option 'A'	Program field list Any screen formatter
Draw a window	Option 'W'	Section 1 of Overview
Edit/review subfile details	Option 'X' Function key 7	Section 2 of Overview Subfile formatter
Edit./review database file keylist	Option 'K'	Section 3 of Overview
Edit/review program level 4GL	Option '4' Function key 20 Function key 20	List of Application Functions Program Object Selection Menu Overview
Edit/review panel level 4GL	Option 'P'	Section 1 of Overview
Edit/review subfile level 4GL	Option 'P'	Section 2 of Overview
Edit/review entry parameter list	Option '*' Function key 21 Function key 21 Function key 21	List of Application Functions Program Object Selection Menu Overview Any 4GL
Edit/review program header	Option 'H' Function key 11 Function key 19	List of Application Functions List of Application Functions Program Object Selection Menu