

**ASTRA**<sup>TM</sup>

**Millennium Range**

**Macros**

part of the

***ASTRA Desk Top Accounting***

range of integrated software for

**A**dvanced

**B**usiness

**C**ontrol

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# Introduction

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Macros allow users to develop their own front-ends using applications such as HyperCard, FileMaker, WordPad and most word processors. Many third party software vendors are creating or updating their applications with automatic data outputs and links to **ASTRA** using this published S&S Macro technique.

Macros allow the automation of repetitive procedures, eg Tax quarter or month end reporting, processing standing orders and regular direct debits or credits.

Macros are also useful for inserting standard paragraphs into invoices created with the Free Text option - they speed up the repetitive insertion of blocks of text.

Macros also allow data transfer from other systems via any of **ASTRA's** windows. This unique method is considerably more beneficial than simply transferring data directly into a data file because:

- Data integrity is maintained, as the Macro does not need to know the **ASTRA** file structure, which can change as enhanced versions are released.
- A full audit is maintained of all data entry, as per the standard **ASTRA** audit trails.
- Input via windows reduces the possibility of corruption, because the data is error checked as though it came from the keyboard.
- Input via windows maintains true multi-user mode and can be performed live and across a network.

## Accessing Macros

The Macros section is available from the File menu.

# Installation

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## Integration with other Sections

Macros can be used alongside all other sections of **ASTRA**

## Menu Permissions

Operators will only be able to use the sections that they have been authorised to access in the menu permissions.

## Ready Made Macros

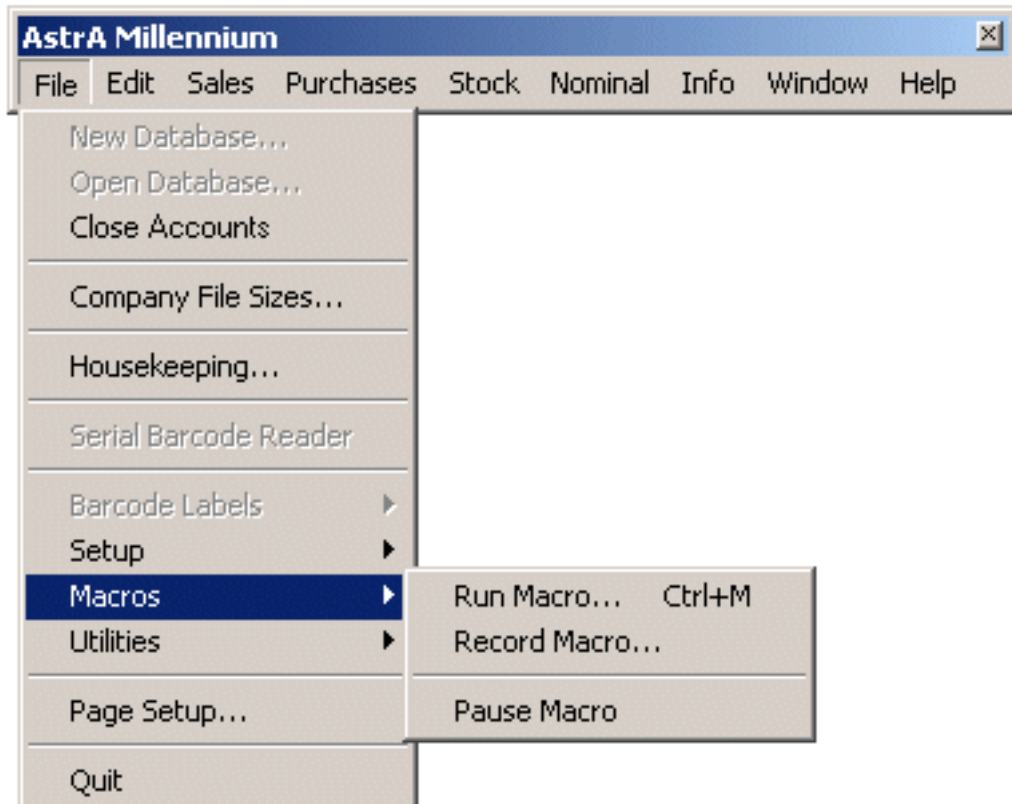
Contact your **ASTRA** dealer or S&S for details of ready produced Macros which may be suitable for your company. Some examples such as Recurring Journals and a Stationery Setup Macro can be obtained from our Web Site.

# Macros

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## Running Macros

Macros are selected from the File menu or by typing the associated command key.



### File menu

**Run Macro** - select this to run a macro. This will display the standard Open File Dialog box, from which the required Macro text file is opened and then run.

Whilst a macro is running the following options become available from the menu:

**Stop Running Macro** - select this to stop running a macro whilst it is running.

**Pause Running Macro** - select this to pause a running macro whilst it is running.

**Resume Macro** - select this to resume running a macro menu.

**Record Macro** - select this to record a macro sequence. This will enable you to open windows and enter text which can then be saved as a macro. When the

macro is then run it will repeat the recorded sequence. For example, the printing of a Trial Balance can be recorded by selecting Trial Balance from the Nominal menu, select printer from the popup menu and press the enter key. Return to the Macro menu and select Stop Recording Macro. A standard Save File Dialog box be displayed into which the name of the macro is entered and then saved. When the macro is then run it will print out the Trial Balance automatically.

Macro can also be run using Apple Events and Apple Script, eg, it is possible to use such as FileMaker Pro ( or any other Apple Event capable application) to send an Apple Event or Apple Script to Astra with the Macro command embedded in the Event that is being sent. Please refer to the selected application's reference manual for specific instructions on how to do this.

## Creating Macros

Create Macros in the format described below using any program that can save in text format, eg Word Pad or SimpleText or another word processing programs. Save each Macro text file with a meaningful name, eg Tax Quarter End, Standing Orders etc.

You can also record a Macro and let **ASTRA** create the macro text file for you by selecting Record Macro from the macro menu. See the previous Record Macro item for details.

## Format of Macros

Macros take the form of a simple line-by-line text file and are in the following format:

INSTRUCTION <delimiter> INSTRUCTION <delimiter> INSTRUCTION .... etc  
... until the end of the text file.

INSTRUCTIONS can be in upper or lower case and are followed by commands or text in curly brackets {}.

The <delimiter> can be a tab or carriage return character (note that 'linefeed', 'enter', up, down, left and right cursor characters are ignored as delimiters).

The tab delimiter enables Macros to be easily produced using spreadsheet programs, eg Excel, as each column in Excel is automatically separated by a tab character. Remember to save the created file in Text Format.

Examples of Macros appear later in this section of the manual.

# Macro Instruction Set

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The **ASTRA** Macro Language has been extended in the Millennium range and contains the following additional commands and features:

## **SKIP{On}**

This will stop all further Macro commands being executed from the currently open Macro file until Skip{Off} is found.

## **SKIP{Off}**

This will resume all further Macro commands at the next command until the end of the file or another Skip{Off} is found.

## **Variables**

Variables can be used in Macros to allow checking of data. The variables names can be up to 30 characters in length. Each variable can be set to a number such as 23.45. Variables do not need to be declared before either existing ones are re-used or created as required. All variables are initialised each time a Macro session is started.

Examples of variables could be 'BALANCE', 'V100', 'ZA90', etc.

## **GET{Variable/Dialog Field Number}**

The Get command takes a Field in a window and transfers the number it contains to a variable.

eg GET{Balance/45}

Where '45' is the Dialog Field Number as explained previously in the Dialog Fields section and 'Balance' is a variable.

## **PUT{Variable/Value}**

The Put command sets a variable to a specific value.

eg PUT{Balance/123.23}

This puts the value '123.23' into the variable 'Balance'.

### **ADD{Variable/Value}**

This adds an amount to a variable.

eg `ADD{Balance/12.34}`

This adds '12.34' to the value already existing in the variable 'Balance'.

### **WHEN{Variable/Comparison/Variable/Text to be displayed in the Alert Box}**

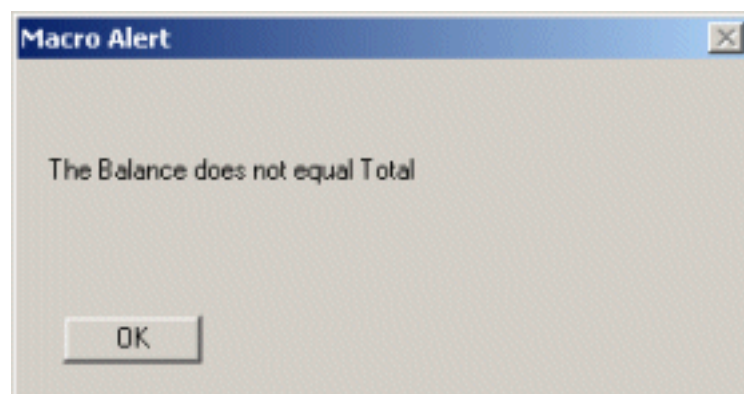
This compares two variables and if the expression is true it displays an Alert box on the bottom right hand side of the screen. This Alert box will contain the text as entered in the macro line.

The comparisons are

EQ which is Equal,  
NE which is Not Equal,  
GT which is Greater Than,  
LT which is Less Than.

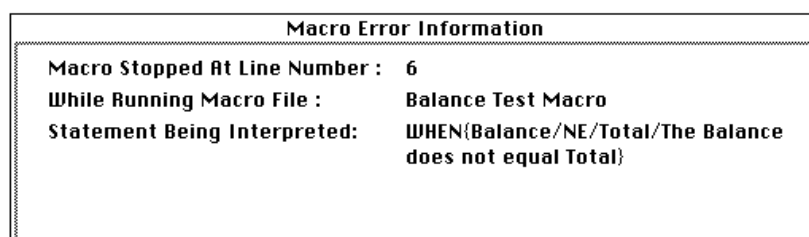
eg `WHEN{Balance/NE/Total/The Balance does not equal Total}`

This example displays the text 'The Balance does not equal Total' in an Alert box when the value in the variable 'Balance' does Not Equal the value in the variable 'Total'. The macro will stop at this point.



**Alert box window**

🍏 In addition to the Alert box a Macro Error Information window will be displayed at the top right hand side of the screen.



**Macro Error Information window**

This is to enable you to find where, in your Macro, this comparison was true.

## Ribbon

The ribbon command signifies a click on the Ribbon Bar. The numbering is from left to right.

eg RIBBON{1}

This is a click on the OK button.

## MENU{First Menu Name/Last Menu Name}

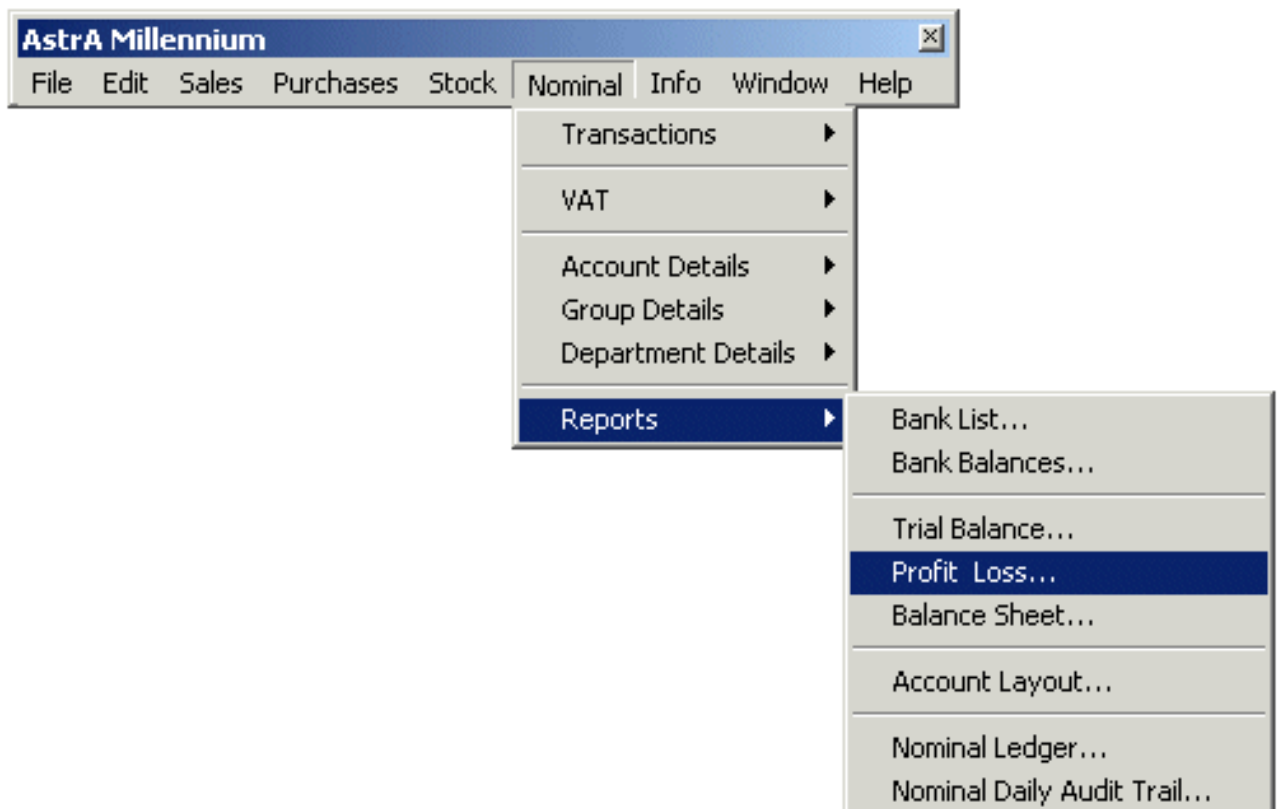
This will bring out the window associated with the 'Last Menu Name', from the 'First Menu Name' main section menu.

If the menu item is not available the Macro sequence will stop. If part menu names are entered the first match is used.

eg MENU{Nominal/Profit & Loss...}

This will bring out the Profit & Loss window from the Reports menu under the Nominal section.

Note: if an apostrophe is used in the menu name, ensure that the same type of apostrophe is used in the macro, ie not speech marks nor curly quotes.

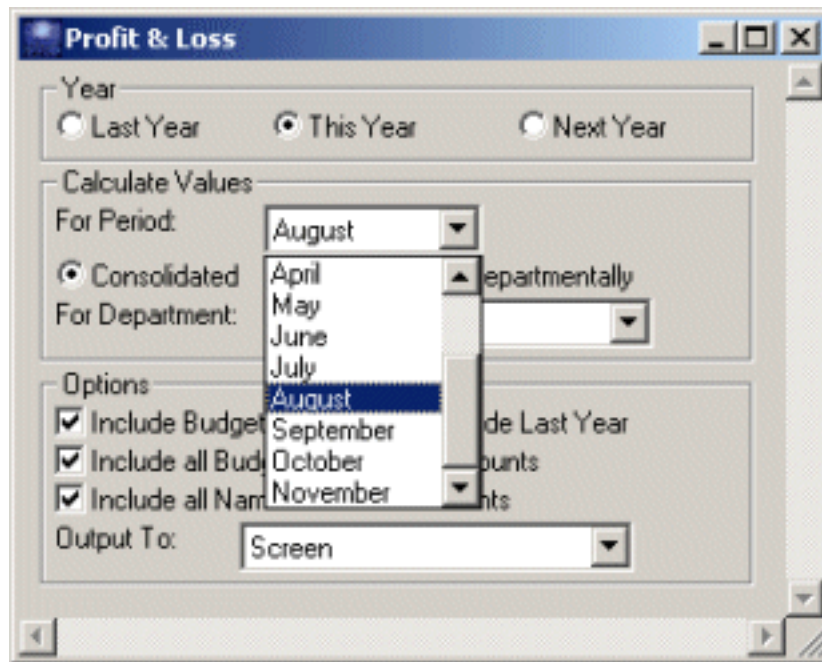


## Profit and Loss report menu

**Popup Menus** on an active window are handled in the same way - the First Menu Name being the prompt on the active window, the Last Menu Name being the popup menu selection.

eg MENU{For What Period/August}

Where 'For What Period' is the prompt and 'August' is the item in the popup menu.



**Profit & Loss Report window**

### **MENU{Dialog Field Number/Item required from popup menu}**

For popup menus where there is no prompt, the Dialog Field number of the popup menu and the item required from the popup menu are entered into the command.

eg MENU{41/Cheque}

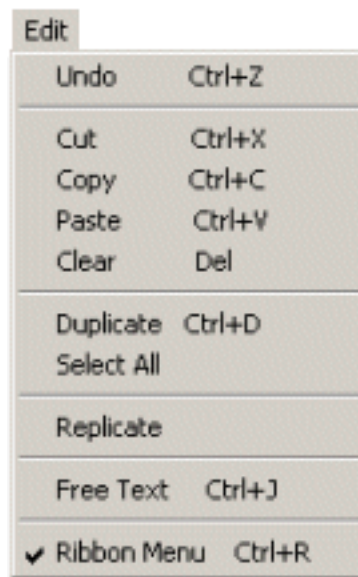
This would select 'cheque' from the popup menu of Dialog Field 41. To find the Dialog Field number as before, click on the dialog field whilst holding down the command and option keys.

### **MENU{First Menu Name/Last Menu Name/On or Off}**

If the menu is a tick type of menu the state of the tick can be specified to be either ON or OFF. If the menu item is not available the Macro sequence will stop. If part menu names are entered, the first match is used.

eg MENU{Edit/Free Text/On}

This will tick the menu 'Free Text' on.



**Edit menu**





**Popup Menus** can be ticked on or off on an active window in the same way - the First Menu Name being the prompt on the active window, the Last Menu Name being the popup menu selection.

### **TEXT{any text as required}**

This will enter the text between the brackets into the current window's text input box. The maximum number of characters is 255 or the maximum capacity of the text box. Excess characters are ignored.

eg TEXT{Please note the following delivery address}

### **TEXTBOX{text box item reference number}**

Instead of 'tabbing' around a window, it is possible to go direct to the required text box by using either the  DITEM reference number or the  field reference number. This can be found by holding down the  Command and Option keys or the  Control and Shift keys whilst clicking the mouse when the point is above a Dialog Field. See the previous Dialog Fields for details.

eg TEXTBOX{8}

### **Dialog Fields**

Dialog Field Numbers are the numbers given to each field shown in a window in **ASTRA**. This makes it possible to go direct to the required text box rather than scroll around a window. To find the Dialogue Field number on a field

open a window and hold down the Command and Option keys whilst clicking the mouse when the point is above a Dialog Field. The number is displayed in the Field until the mouse button is released and the original data in the Field will be re-drawn.

**KEY{Key Name/Number}** Note: if the Number is omitted a default of 1 is used.

This will have the same effect as if the key was pressed on the keyboard the specified number of times, where Key Name = tab, return, enter, delete, up, down, left, right. The key names can be in upper or lower case.

eg KEY{enter} KEY{tab} KEY{tab/4}

**CLICK{Name of the Button, Radio Button, Click Box, or GOAWAY, ZOOMIN and ZOOMOUT}**

This has the effect of clicking the mouse at that location. GOAWAY will close the window, ZOOMIN will shrink the window and ZOOMOUT will open the window. If the item clicked was a Click Box, the state of the box will change from selected to de-selected or vice-versa as appropriate.

eg CLICK{Print}, CLICK{Pay Now}, CLICK{Cancel}, CLICK{ZOOMIN}, CLICK{GOAWAY}

**Note** for dialog items, such as the Portrait and Landscape icons used on the printer Page Setup window, the DITEM reference number has to be used. To find the Dialog Field number see the previous Dialog Fields for details.

<b>LaserWriter:</b>	Portrait = 12	Landscape = 13
<b>ImageWriter:</b>	Portrait = 13	Landscape = 14

Precede the dialog number with a \ character to show that it is a number rather than a name.

eg CLICK{\13} (to set Landscape on a LaserWriter)

**CLICKBOXON{Name of the Click Box}**

This will select the click box item, irrespective of its previous state.

eg CLICKBOXON{Budgeted Nominal Accounts}

**CLICKBOXOFF{Name of the Click Box}**

This will de-select the click box item, irrespective of its previous state.

eg CLICKBOXOFF{Budgeted Nominal Accounts}

### **CLICKCELL**{Row/Column}

This will tick at the row and column co-ordinates on the window - used in windows such as Incoming Goods and Money Received.

eg CLICKCELL{1/7}

### **MOVE**{Horizontal co-ordinates/Vertical co-ordinates}

This will move the active window to the new co-ordinates which are taken from the LEFT side and TOP of the screen to the TOP LEFT corner of the window.

eg MOVE{150/200}

### **RUN**{another Macro name}

This will PAUSE the current Macro and run another. The new Macro should be placed alongside the original 'calling' Macro, ie in the folder. If the 'called' Macro cannot be found a warning is given and the Macro sequences stop.

After running called and nested Macros, **ASTRA** returns to where it left off in the calling Macro. Up to 10 sets of nested Macro can be processed. Note that Macro names, ie disk file names, must not exceed 31 characters.

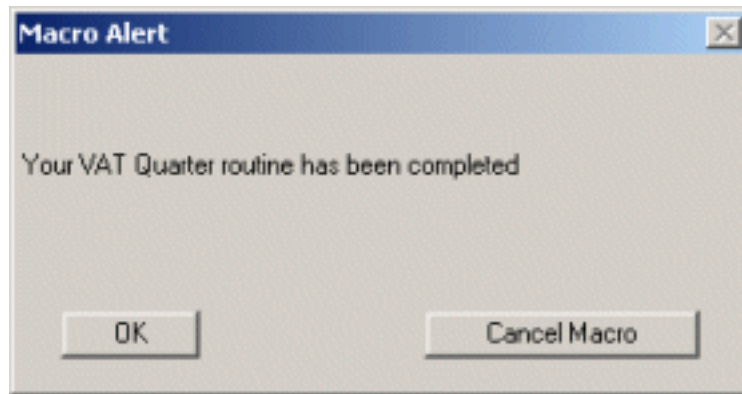
eg RUN{Valuation Reports}

where 'Valuation Reports' is another Macro called from within the first Macro.

### **ALERT**{any text as required}

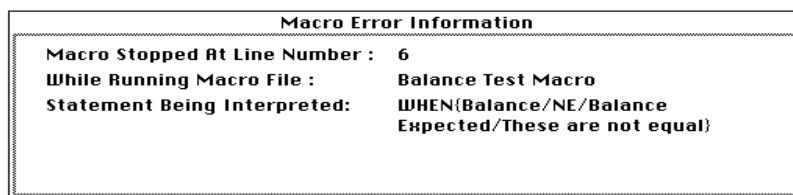
This will create an 'OK' or 'Cancel' acknowledge window which contains the text, up to a maximum of 255 characters. Excess characters are ignored. A beep is given to alert the user and the Macro will pause until the user clicks OK or presses the Enter key. If Cancel Macro is clicked the Macro will stop at this point.

eg ALERT{Your Tax quarter routine has been completed}



**Alert box window**

🍏 In addition to the Alert box a Macro Error Information window will be displayed at the top right hand side of the screen.



**Macro Error Information window**

This is to enable you to find, if required, where in your Macro this alert message was written.

### **COMMENT{any text as required}**

The text, up to a maximum of 255 characters, is purely for comment and is ignored by the sequence.

eg COMMENT{This next part prints the sales analysis ready for archiving}

### **DELETEMACRO{Macro Name}**

This will delete the named Macro file from the disk providing it is in the same folder as the Macro being run. It can be the Macro currently being run, providing it is the last instruction of the Macro, and can be used to prevent a Macro being inadvertently re-run.

eg DELETEMACRO{Monthly Journals}

**Note:** warnings such as OVER CREDIT LIMIT and ON HOLD are ignored when a Macro is running.

# Example Macros

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The following Macro examples could be created using Word Pad, SimpleText or a word processing application and will perform the following tasks:

This Macro will print the Trial Balance followed by the Balance Sheet, both to screen -

```
Comment{The first part prints the Trial Balance}  
Menu{Nominal/Trial Balance}  
Click{Screen}  
Key{Enter}  
Click{GoAway}
```

```
Comment{This part prints the Balance Sheet}  
Menu{Nominal/Balance Sheet}  
Click{Screen}  
Key{Enter}  
Click{GoAway}
```

This Macro will bring out the Sales Invoicing window, an account code, ABC01, and order number, 12345, will be entered. The second window for invoicing will appear, the free text option enabled and some text entered. The free text option will then be turned off and a stock code, AS03, entered -

```
Menu{Sales/Sales Invoices...}  
Text{ABC01}  
Key{Tab/10}  
Text{12345}  
Key{Tab}  
Key{Enter}  
Menu{Edit/Free Text/On}  
Text{Enter your free text here.....}  
Key{Tab/6}  
Menu{Edit/Free Text/Off}  
Text{AS03}  
Key{Tab}
```

There are several other examples on the **ASTRA** Web Site, such as Recurring Journals and one which will set up the Stationery parameters to those used by S&S.

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