

CHAPTER 7 HOUSE KEEPING

INTRODUCTION The Housekeeping system enables the user to manipulate data from the local drive, floppy drive and network drives whilst remaining within the software environment, thus alleviating the requirement to use DOS.

Housekeeping allows the user to copy, print and delete files, and also to set the time and date on the machine.

To access the housekeeping options carry out the following:

1. Select the **Maint.** (F8) button.

Run	Head	Paste Load	Clean Screen	Adjust	Setup	Monitor	Maint.
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2. Select the **House Keeping** (F4) button.

Calibrat pressure	Calibrat Offset	Calibrat Vision	House Keeping	Set Prefs	Diagnost	Test Cycles	Exit
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The menu bar displays the following options:

Set Date	Set Time	Print Data	Copy Data		Delete Data		Exit
----------	----------	------------	-----------	--	-------------	--	------

SET DATE

The Set Date option allows the user to set the current date on the machine.
On selecting Set Date the following window is displayed:

Change date page		
Year	:	2000
Month	:	03
Day	:	14

The menu bar changes to the following:

	Set		Next	Previous	Incr.	Decr.	Exit
--	-----	--	------	----------	-------	-------	------

The **Next** and **Previous** keys move the cursor between the three parameters.

The **Incr.** and **Decr.** keys change the value of the highlighted parameter.

The **Set** key sets the newly entered figure, as shown in the title window on the status page.

The **Exit** key returns to the previous menu. Pressing **Exit** without pressing **Set** returns the machine to the previous date.

SET TIME

The Set Time option allows the user to set the current time on the machine.
On selecting Set Time the following window is displayed:

Change time page		
Hour	:	15
Minute	:	25
Second	:	45

The menu bar changes to the following:

	Set		Next	Previous	Incr.	Decr.	Exit
--	-----	--	------	----------	-------	-------	------

The **Next** and **Previous** keys move the cursor between the three parameters.

The **Incr.** and **Decr.** keys change the value of the highlighted parameter.

The **Set** key sets the newly entered figure, as shown in the title window on the status page.

The **Exit** key returns to the previous menu. Pressing **Exit** without pressing **Set** returns the machine to the previous time.

PRINT DATA

The Print Data option allows the user to output the following data to the local printer or to a disk in the machines floppy drive:

Data Option	File Output (as .PRN files)
Product Data	Chosen Product Data File
Event Log	EVENT.DAT
Config Data	CONFIG.TXT
Manage Data	MANINF.DAT
SPC Data	READINGS.DEK

On selecting Print Data the following window is displayed:

The screenshot shows a window titled 'Print Data'. It has two main sections. The top section is titled 'Drive' and contains a label 'Print From:' followed by a text box containing 'Local Drive'. The bottom section is titled 'Print Data' and contains a list of data options: 'Product Data', 'Event Log', 'Config File', 'Management', and 'SPC Data'. The 'Print Data' section is currently selected and highlighted.

The menu bar changes to the following:

The screenshot shows a menu bar with several buttons. From left to right, the buttons are: 'Print Printer', 'Print File', a blank button, 'Up', 'Down', a blank button, a blank button, and 'Exit'. The 'Print Printer' button is currently highlighted.

The **Print Printer** key prints the chosen file to the local printer, if Product Data is highlighted a further window and menu bar open to allow the user to select the required product data file (see next page).

The **Print File** key outputs the print file to the machines floppy drive, the file has a .PRN extension. If Product Data is highlighted a further window and menu bar open to allow the user to select the required product data file (see next page).

The **Up** and **Down** keys move the cursor between the data file types.

The **Exit** key returns to the previous menu bar.

If the **Print Printer** or **Print File** keys are pressed when Product Data is highlighted the following window is displayed:

Print Data File	
265TEST1	
CALIBRA	
DEFAULT	
Search	Product ID
265TEST1	265TEST1-

The menu bar changes to the following:

Print Printer	Print Data		Left	Right	Up	Down	Exit
------------------	---------------	--	------	-------	----	------	------

The **Left** and **Right** keys move between columns (if displayed).

The **Up** and **Down** keys move vertically through the files.

Exit returns to the housekeeping display without any other action.

Print Printer outputs the Product File to the local printer.

Print File outputs the Product File to the machines floppy drive, the file has a .PRN extension.

COPY DATA

The Copy Data function allows the operator to copy data between the local hard drive, local drive and network drives.

On selecting Copy Data the following window is displayed:

The screenshot shows a window titled 'Copy Data'. At the top, there is a section labeled 'Drive' with two options: 'Copy From: Floppy Drive' and 'Copy To: Local Drive'. Below this is a larger section containing a list of data types: Product Data, Event Log, Test Data, SPC Data, Config Data, Service Data, Deviation Data, and Image Data.

NOTE

Image Data is available on machines with 2D Inspection only. Deviation Data is only available on machines with Tooling Monitoring authorized.

The menu bar changes to the following:

The screenshot shows a horizontal menu bar with seven buttons: 'Copy Data', 'Copy All', 'Up', 'Down', 'From Disk', 'To Disk', and 'Exit'.

NOTE

Copy All is only available when product Data is highlighted.

The **Up** and **Down** keys move the cursor between the various data types.

The **From Disk** key allows selection of the disk to copy from, options are:

Local Drive; Floppy Drive; Network Drive.

The **To Disk** key allows selection of the disk to be copied to, options are:

Local Drive; Floppy Drive; Network Drive.

The **Exit** key returns to the previous menu.

The function of the **Copy Data** key depends upon the data type selected. If Event Log, Test Data, Config Data, Service Data, Deviation Data or SPC Data are selected the files are transferred directly from the source to the destination and no further options are given.

NOTE

Copying Config Data copies the following files:

- CALIB.INI
- CONFIG.CFG

These files are required if a Windows NT recovery procedure is required on the machine.

The file names under each item are as follows:

Event Log	Test Data	SPC Data	Config Data	Service Data	Deviation Data
event.dat	atest.dat	readings.dek	calib.ini	service.dat	deviate.dat
	fiducial.dat		config.cfg	replen.dat	
	inspect.dat		maint.dat		
	location.dat		config.txt		
	offset.dat				
	test.dat				
	test.log				
	theta.dat				
	videoxy.dat				

If the **Copy Data** key is pressed when Product Data is highlighted, the message **‘Do you also want to create a copy of the inspection data?’** is displayed. The following window is displayed:

Copy Data File

265TEST1
CALIBRA
DEFAULT

Search

265TEST1

Product ID

265TEST1-

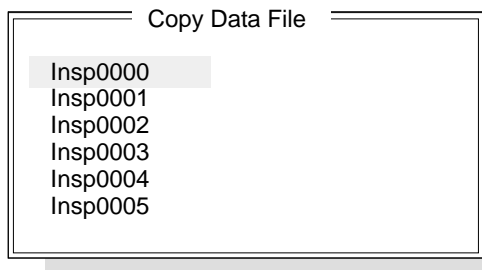
The menu bar changes to the following:

Yes							No
-----	--	--	--	--	--	--	----

The **Yes** key copies the highlighted product data file between the drives as indicated, with all the inspection data that is associated with it. The message **‘Copying All Files Please Wait’** is displayed.

The **No** key copies the highlighted product data file between the drives as indicated, without the inspection data that is associated with it. The message **‘Copying All Files Please Wait’** is displayed.

If the **Copy Data** key is pressed when Image Data is highlighted, the following window is displayed:



The menu bar changes to the following:

Copy File			Left	Right	Up	Down	Exit
-----------	--	--	------	-------	----	------	------

The **Copy File** key copies the selected product data file from the source to the destination.

The **Left** and **Right** keys move the cursor between product file columns (if displayed).

The **Up** and **Down** keys move the cursor between the various product data files.

The **Exit** key returns to the previous menu.

If the **Copy All** key is pressed when Product data is highlighted, the message **‘Do you also want to create a copy of the inspection data associated with each process program that is to be copied?’** is displayed. The menu bar changes to the following:

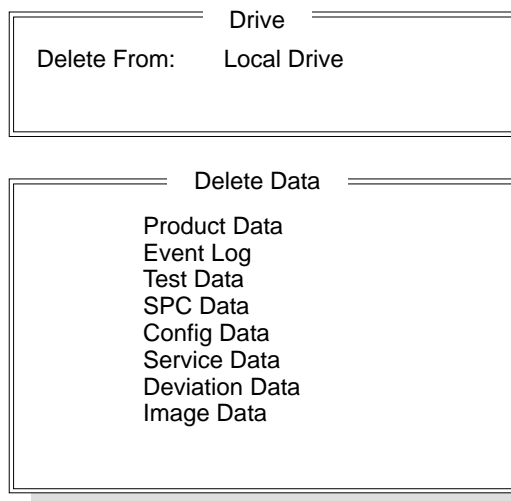
Yes							No
-----	--	--	--	--	--	--	----

The **Yes** key copies all the product data files between the drives as indicated, with all the inspection data that is associated with it. The message **‘Copying All Files Please Wait’** is displayed.

The **No** key copies all the product data files between the drives as indicated, without the inspection data that is associated with it. The message **‘Copying All Files Please Wait’** is displayed.

DELETE DATA

The Delete Data function allows the operator to delete various data types. On selecting the Delete Data key the following window is displayed:



NOTE

Image Data is available with 2D Inspection only. Deviation Data is only available on machines with Tooling Monitoring authorized.

The menu bar changes to the following:



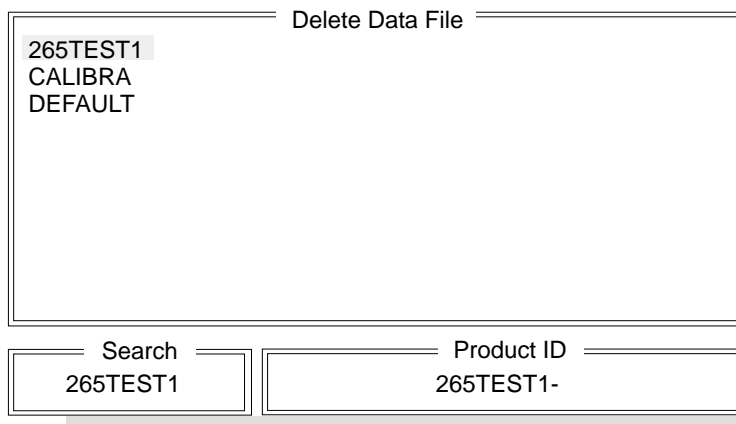
The **Up** and **Down** keys move the cursor through the data types.

The function of the Delete Data option depends on the type of data selected, the options are:

Product Data; Event Log; Test Data; SPC Data; Config Data; Service Data; Deviation Data; Image Data

Product Data

If the **Delete Data** key is pressed when Product Data is highlighted the following window is displayed:



The menu bar changes to the following:

Delete			Left	Right	Up	Down	Exit
--------	--	--	------	-------	----	------	------

The **Left** and **Right** keys move the cursor between columns of Product Data Files.

The **Up** and **Down** keys move the cursor between the Product Data Files.

The **Exit** key returns to the previous menu.

On pressing the **Delete** key, the message '**Confirm deletion of selected product data**' is displayed in the message prompt box, asking the user to confirm the deletion request, the menu bar changes displaying the '**Yes**' and '**No**' options:

Yes							No
-----	--	--	--	--	--	--	----

Event Log

When the Event Log is highlighted, the menu bar changes to the following:

Delete All	Delete Date	Delete Number	Up	Down			Exit
------------	-------------	---------------	----	------	--	--	------

On pressing the **Delete All** key, the message '**Confirm deletion of All Event Data**' is displayed in the message prompt box, asking the user to confirm the deletion request, the menu bar changes displaying the '**Yes**' and '**No**' options.

Yes							No
-----	--	--	--	--	--	--	----

On pressing the **Delete Date** key the following window is displayed:

Delete event to date

Delete all event records
prior to : Fri Jan 28 2000

The menu bar changes to the following:

Delete					Incr.	Decr.	Exit
--------	--	--	--	--	-------	-------	------

The **Incr.** and **Decr.** keys change the highlighted date.

The **Delete** key deletes all event files prior to the indicated date, the message '**Deleting Events...**' is displayed in the message prompt box.

The **Exit** key returns to the previous menu.

On pressing the **Delete Number** key the following window is displayed:

Delete event by number

Delete all event records
except the most recent :

1

The menu bar changes to the following:

Delete					Incr.	Decr.	Exit
--------	--	--	--	--	-------	-------	------

The **Incr.** and **Decr.** keys change the highlighted number.

The **Delete** key deletes all event files prior to the indicated number, the message **'Deleting Events...'** is displayed in the message prompt box.

The **Exit** key returns to the previous menu.

Test Data

If the **Delete Data** key is pressed when Test Data is highlighted, the message **'Confirm deletion of Test Data'** is displayed in the message prompt box, asking the user to confirm the deletion request, the menu bar changes displaying the **'Yes'** and **'No'** options.

Yes							No
-----	--	--	--	--	--	--	----

SPC Data

If the **Delete Data** key is pressed when SPC Data is highlighted, the message **'Confirm deletion of SPC Data'** is displayed in the message prompt box, asking the user to confirm the deletion request, the menu bar changes displaying the **'Yes'** and **'No'** options.

Yes							No
-----	--	--	--	--	--	--	----

Image Data

If the **Delete Data** key is pressed when Image Data is highlighted the following window is displayed:

Delete Data File

10000001

10000002

10000003

10000004

10000005

10000006

The menu bar changes to the following:

Delete	Rebuild List		Left	Right	Up	Down	Exit
--------	-----------------	--	------	-------	----	------	------

The **Rebuild List** key updates the list of image files. This is used mainly with host comms, where the host computer may have a more up to date list.

The **Left** and **Right** keys move the cursor between columns (if displayed).

The **Up** and **Down** keys move the cursor between the various image files.

The **Delete** key deletes the highlighted image file.

The **Exit** key returns to the previous menu.

Deviation Data

If the **Delete Data** key is pressed when Deviation Data is highlighted, the message '**Confirm deletion of Deviation Data**' is displayed in the message prompt box, asking the user to confirm the deletion request, the menu bar changes displaying the '**Yes**' and '**No**' options.

Yes							No
-----	--	--	--	--	--	--	----

MANAGEMENT INFORMATION VIEWER



Introduction

The Management Information Viewer application runs on the CASSIOPEIA. Two versions of the CASSIOPEIA are used, earlier machines were shipped with the E-15 palm size PC, current machines are shipped with the E-125 pocket PC. The viewer enables the downloading and viewing of management information from the printing machine using the infrared link.

The Remote Data Server manages the printing machine end of the link and performs the data analysis on the printing machine event data, according to the SEMI Standard for the Definition and Measurement of Equipment Reliability, SEMI E10-96.

Management information consists of reliability data similar to that reported by the Remote Event Monitor. Once downloaded the data can be saved to file on the palm size PC for later recall.

The data is calculated from the printing machines event log, so the event recording setting is important. Ensure that the event recording function in set preferences is set to Group 1, ie all events are recorded.

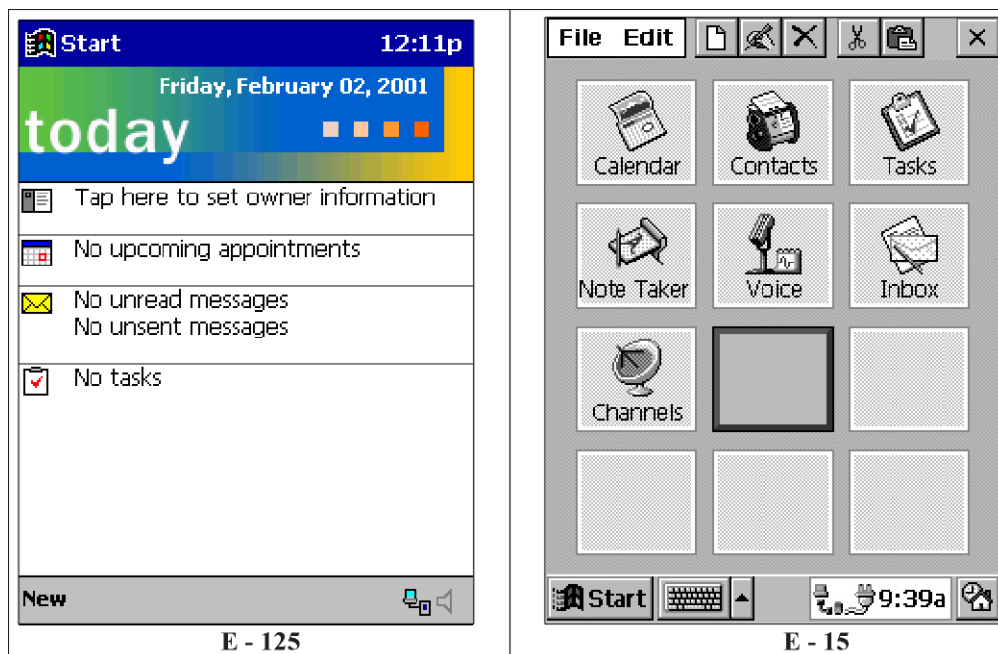
For information on the Pocket Off Line Editor refer to the Machine Programming chapter of this manual.

For information on the other functions of the E-15 palm size PC refer to the Getting Started with the CASSIOPEIA (Hardware Manual) and the Palm-size PC User's Guide, supplied with the unit.

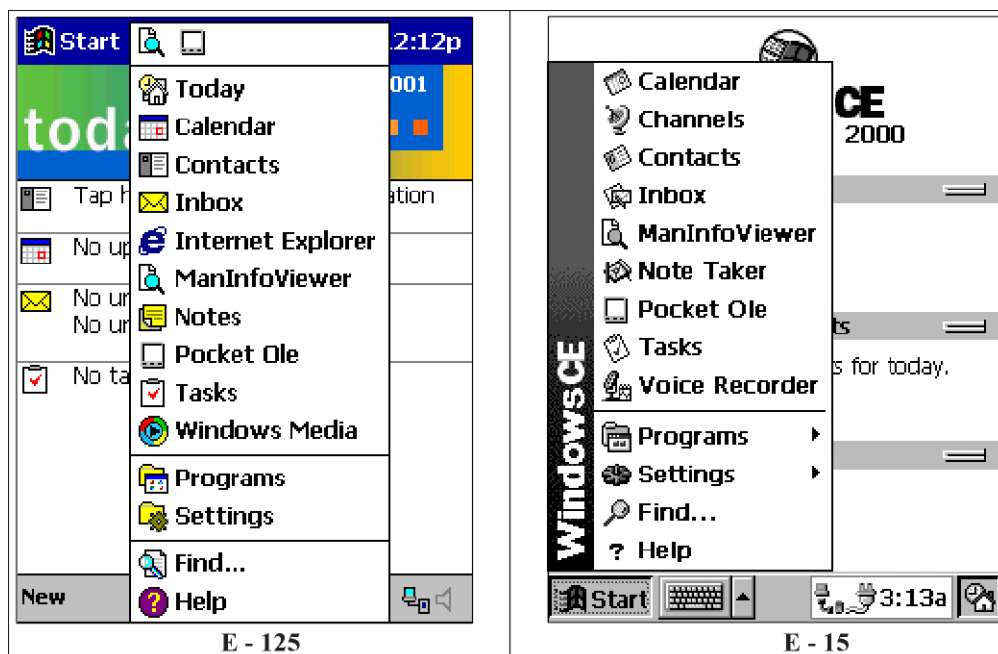
For information on the other functions of the E-125 pocket PC refer to the Hardware Manual and Pocket PC User's Guide, which are both included as PDF files on the CASSIOPEIA CD-ROM, supplied with the unit.

Start Up

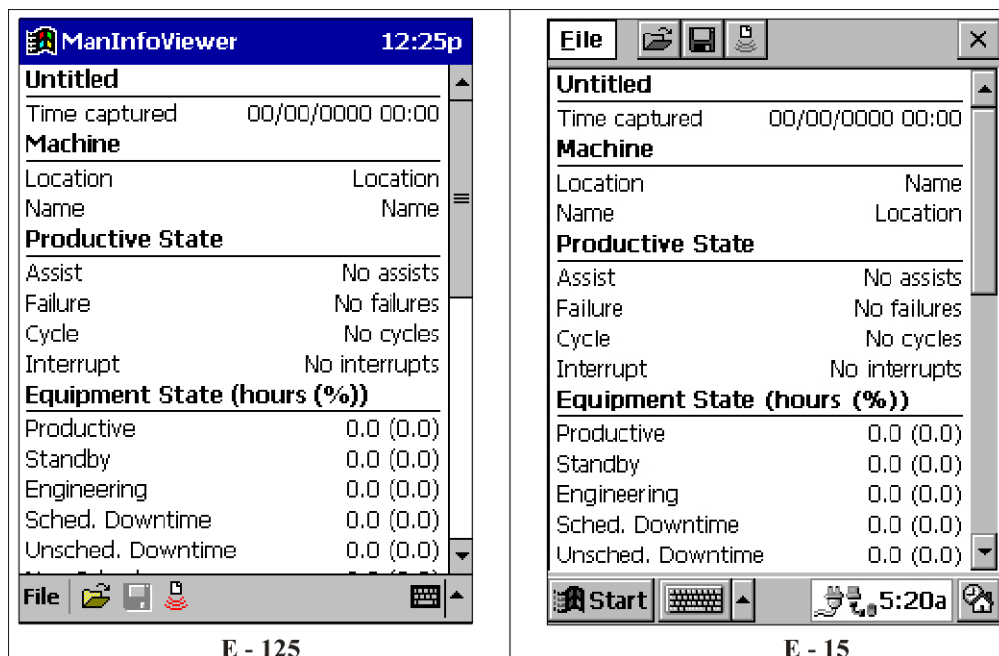
1. Press the **Power** button, the following window is displayed:



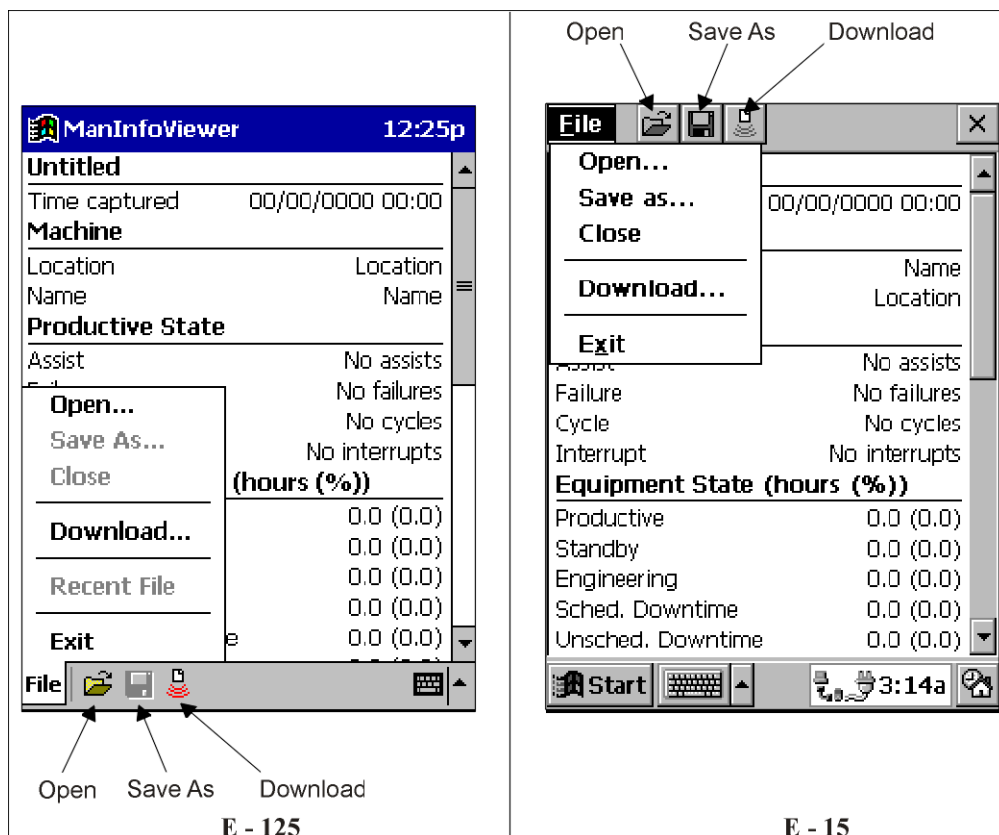
2. Using the stylus select **Start**, the following menu is displayed:



3. Select **ManInfoViewer**, the following window is displayed:



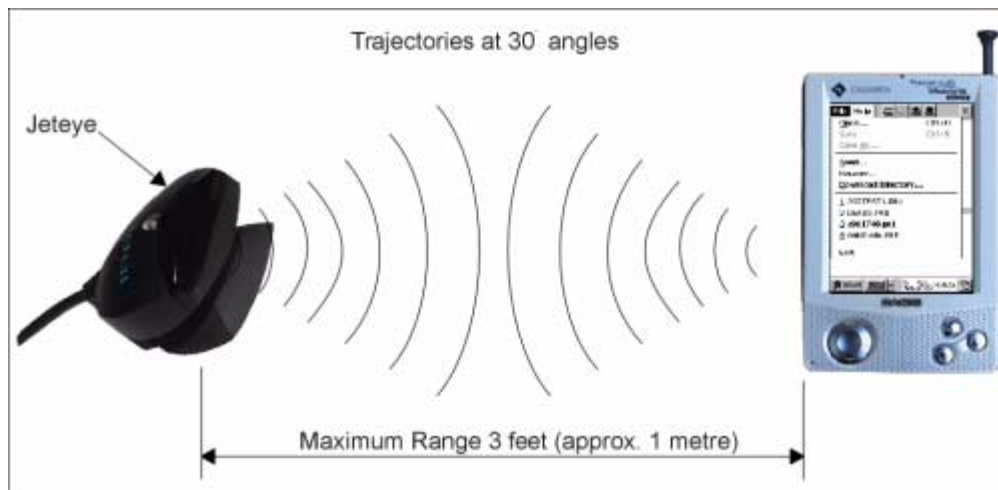
4. Select **File**, the following window is displayed:



Downloading

To download the data from the printing machine to the palm size PC, proceed as follows:

1. Ensure the Start Up section has been carried out.

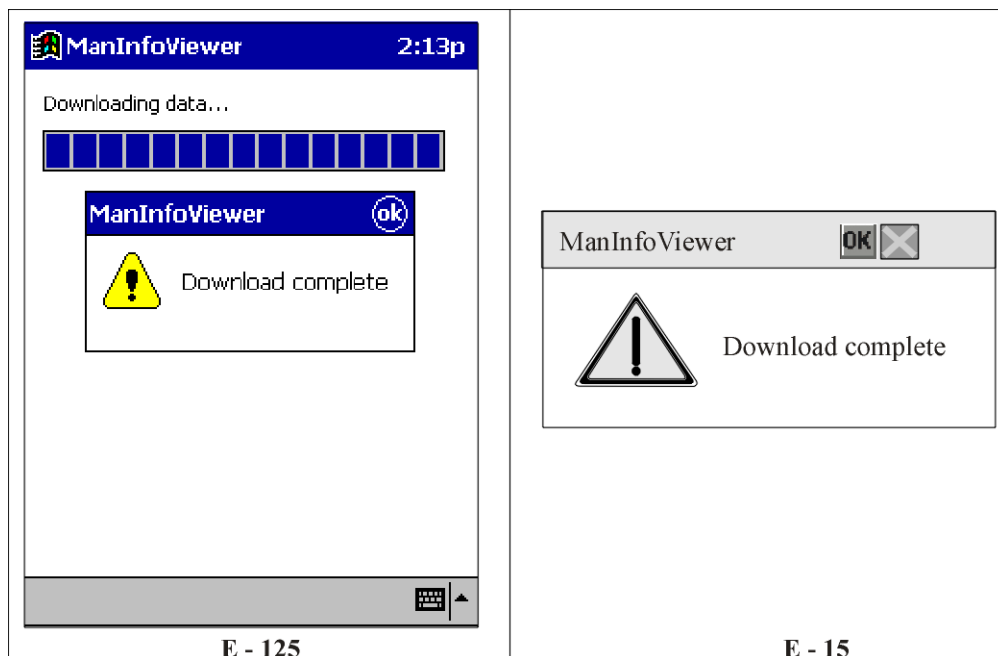


2. With reference to the above figure, aim the infrared port of the palm size PC at the Jeteye.

NOTE

The CASSIOPEIA shown is the E-15, but the information is also valid for the E-125.

3. Select **Download**, communications between the printer and the palm size PC are established and data is downloaded using the infrared link.
4. Once the data is downloaded, a window of the following form is displayed:



NOTE

If the download is unsuccessful see the Error Messages information at the end of this section.

5. Select **OK**, to close the window and access the management information.
6. Use the scroller on the right to view all the data. A complete list of all the data is shown below.

Infinity.man	
Time captured	27/06/2000 04:37
Machine	
Location	
Name	SLANGHAM1
Productive State	
Assist	29
Failure	94
Cycle	2613
Interrupt	123
Equipment State (hours (%))	
Productive	31.02 (19.24)
Standby	116.82 (72.44)
Engineering	0.0 (0.0)
Sched. Downtime	4.55 (2.82)
Unsched. Downtime	8.87 (5.5)
Non Sched.	0.0 (0.0)
Total	161.26 (100.0)
Equipment Reliability (hours)	
MTBA	1.07
MTBF	0.33
MTBI	0.25
Equipment Reliability (cycles)	
MCBA	90
MCBF	27
MCBI	21
File Summary	
Size	1048544
Number of events	16912
First event	07/06/2000 00:10
Last event	13/06/2000 17:25
Standard	SEMI-E10

NOTE

The name, under the heading Machine, is the PC name. The default is the machine serial number, ie DEK 122354.

MTB(x) = Mean Time Between (x)

MCB(x) = Mean Cycles Between (x)

Where (x) is A = Assist

Where (x) is F = Failure

Where (x) is I = Interrupt

Analysis Information

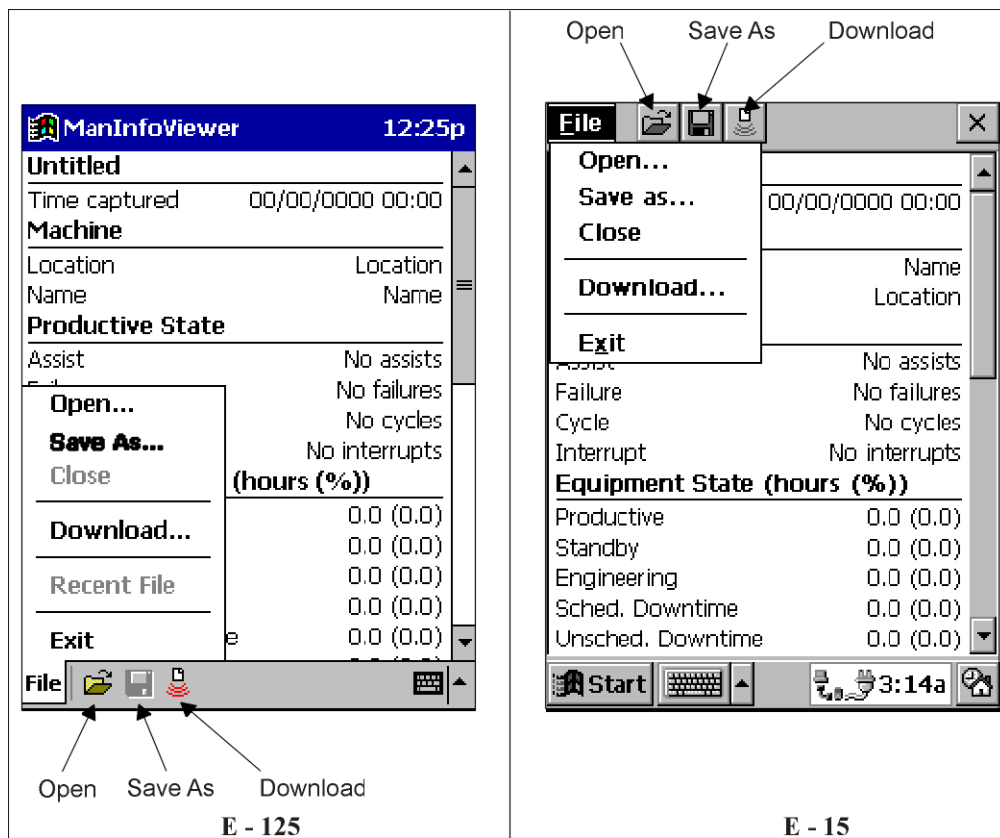
The table below compares the SEMI E10-96 specification, SEMI Standard for the Definition and Measurement of Equipment Reliability, with those used by DEK on their printing machines.

SEMI Process State	DEK Printer Process State
Productive State	Running
Standby State	Waiting Ready
Engineering State	No Equivalent
Sched. Downtime	Set Up, Maintenance
Unsched. Downtime	Down, Recovery
Non Sched.	Machine Switched off

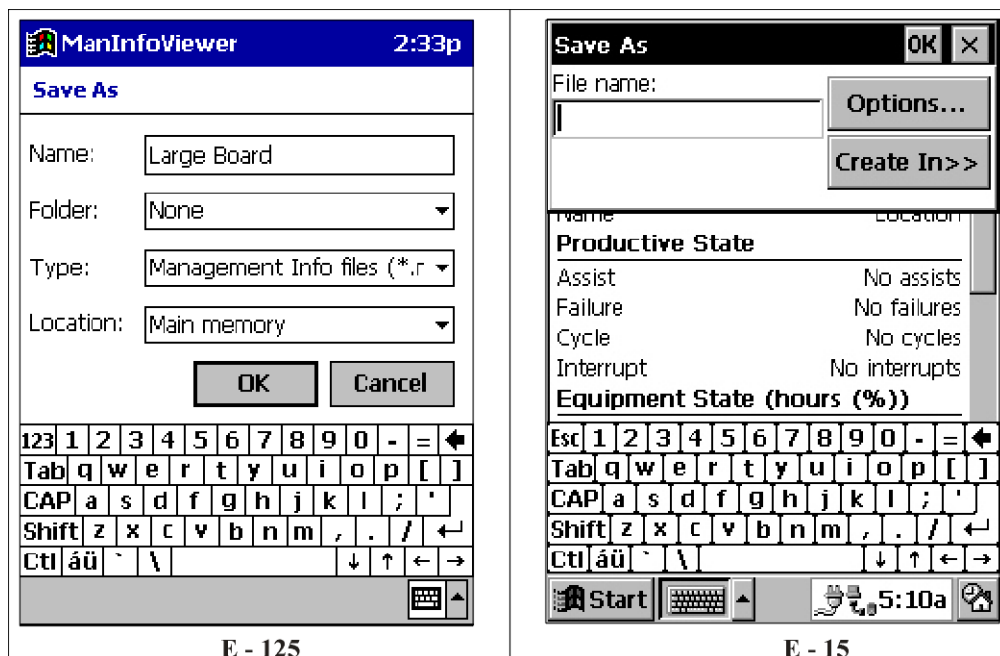
Productive State	The period of time when the equipment is performing its intended function.
Standby State	The period of time, other than non-scheduled time, when equipment is in a condition to perform its intended function, but it is not operational, ie no product available.
Engineering State	The period of time when the equipment is in a condition to perform its intended function, but is operated to conduct engineering experiments, ie process development.
Scheduled Downtime	<p>The period of time when the equipment is not available to perform its intended function due to planned downtime events.</p> <ul style="list-style-type: none"> • Maintenance Delay - Waiting for maintenance personnel, parts or management decision. • Production Test • Preventive Maintenance • Set Up • Facilities Related - Environmental; House hook-up - Air/Power; Communications links with other equipment
Unscheduled Downtime	The period of time when the equipment is in production, but normal production has been halted other than for a scheduled downtime event, ie equipment failure.
Non Scheduled	<p>The period of time when the equipment has not been scheduled to be utilized in a productive role, ie weekends, unworked shifts and holidays.</p> <p>The terminology is defined in the SEMI-E10 96 standard.</p>

Saving A File

1. Select **File**, the following window is displayed:



2. Select **Save As**, the following window is displayed:

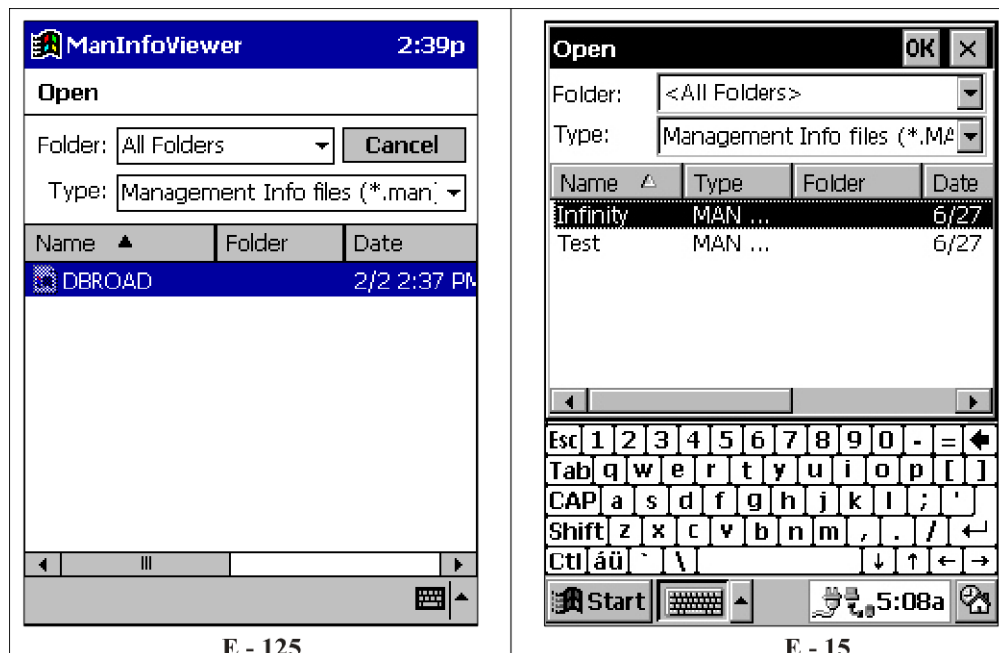


3. With the stylus enter a file name using the keyboard and select **OK**.
Confirmation is sought if overwriting an existing file.
The file is given a .man extension unless specified otherwise.

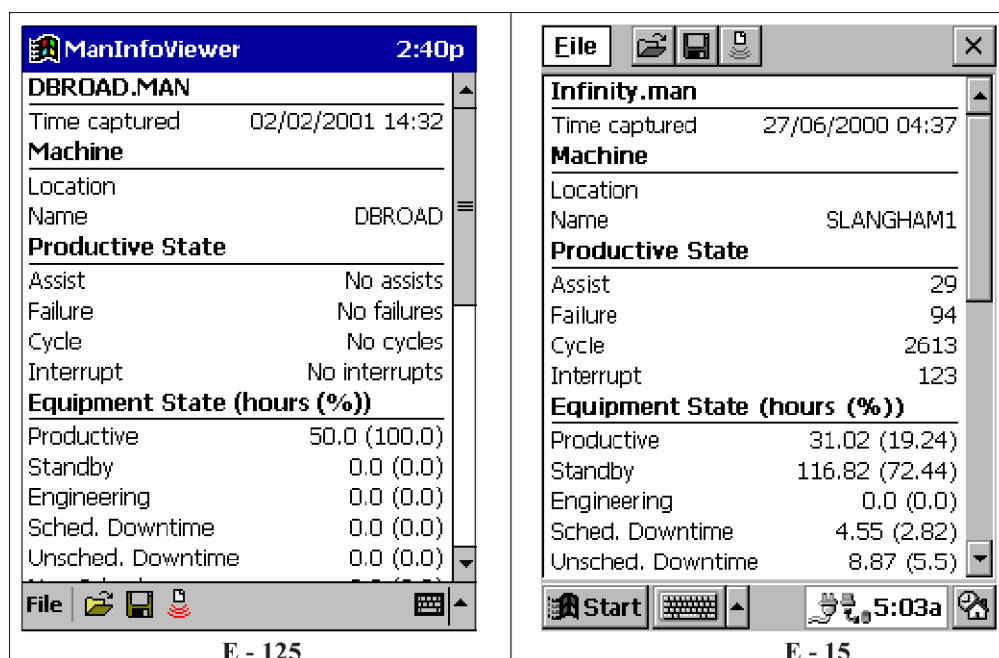
Opening A File

To open a data file on the palm size PC, proceed as follows:

1. Ensure the Start Up section has been carried out.
2. Select **Open**, the following window is displayed:



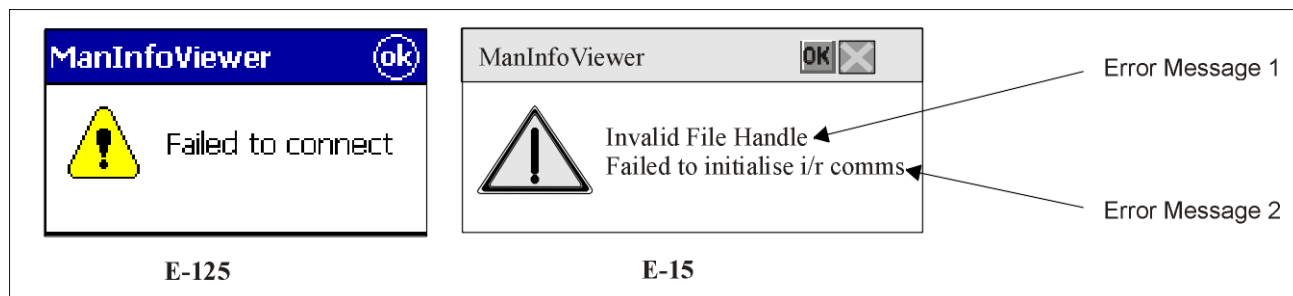
3. Using the stylus highlight the required file.
4. On the E-15 only select **OK**, a window of the following form, automatically on the E-125, is displayed:



5. Use the scroller on the right to view all the data. A complete list of all the data is shown in the Download section.

Error Messages

Error messages can occur during downloading or analysis. Error messages are displayed in the following format:



NOTE

Not all error conditions contain 2 error messages.

Downloading

The following table lists the possible downloading error messages and the recovery actions:

Error Message 1	Error Message 2	Actions
Failed to initialize i/r comms	N/A	Retry Download. Reset Handheld. Reinstall Handheld Software.
Invalid File Handle	Failed to initialize i/r comms	
Failed to get port settings		
Failed to connect		
Download failed	N/A	Retry. Restart the printer. Reinstall handheld printer.

Analysis

The following table lists the possible analysis error messages and the recovery actions:

Error Message 1	Error Message 2	Actions
The server has reported an error with the analysis:	Failed to load event file	Ensure printer is logging events. Delete the event file. Restart the printer.
	Event File Not Recognized	
	Event File Not Found	
	Failed to open event file	Retry download.
	General Failure	
	Data Not Ready, Please Try Later	

NOTE

If all the above actions fail to produce a result, contact DEK Customer Support.

RECOVERY PROCEDURE

System Description The machines' hard disk drive is partitioned to allocate both system and dynamic disk space.

System information is held on drive C: which holds all the system software including the Windows NT operating system.

The drive D: contains the machine operating software and the dynamic (changeable) files such as product, machine configuration and calibration.

It is the files on drive D: which need to be backed up at regular intervals to enable the machine to be brought back into an up-to-date working state should the Windows NT operating system or the machine software fail.

Recovery Disk DEK provides an Infinity Software CD-ROM which the engineer can use to restore the machine or the operating system software should an error occur. The CD-ROM auto-runs, on-screen prompts provide an easy route to either full or partial recovery. The option for full or partial recovery depends upon the extent of the system error reported and whether the engineer deems it necessary to complete a full or partial recovery.

At the time of machine shipment, the software CD-ROM is burnt with all the information required to operate the machine, this disk is shipped with the machine. It should be noted that the product specific files such as CONFIG.TXT files, may have changed since the time of shipment. Files that have been archived can be used to overwrite the files on disk D: as required.

Recovery Procedure To perform a partial or full system recovery carry out the following:

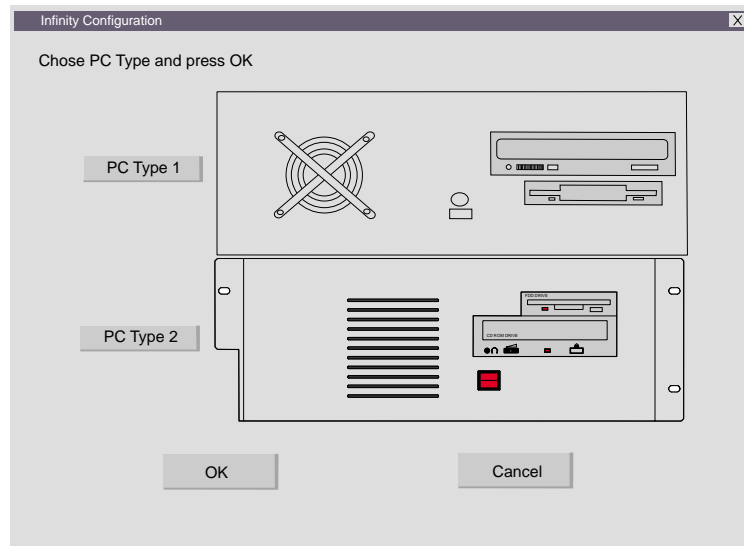
1. Close down Windows.
2. Insert the Infinity Software CD-ROM into the machine PC CD-ROM tray.
3. Turn the mains isolator to **OFF**.
4. Turn the mains isolator to **ON**, the DEK set-up program runs.
5. Select **C** on the keyboard when the message '**Press C to Continue or <ESC> to quit recovery**' is displayed.

NOTE

If a current copy of the product and machine calibration data is not held, carry out Steps 6-8.

6. Select **Option 3** - Backup Product and Calibration Data.
7. Insert a blank formatted floppy disk into the A:drive.
8. Follow the on-screen prompts and copy the machine calibration and product files to the A:drive.
9. From the main menu, select either **Option 1** to replace Windows NT partition or **Option 2** to reload the entire disk and select **C** on the keyboard.
10. When prompted enter machine serial number and press **Return**. The Ghost program now re-writes the Windows NT partition and if selected the DEK machine software.
11. On completion, remove the CD-ROM from the PC and reboot the machine.
12. Windows NT automatically scans both partitions of the hard disk for errors.

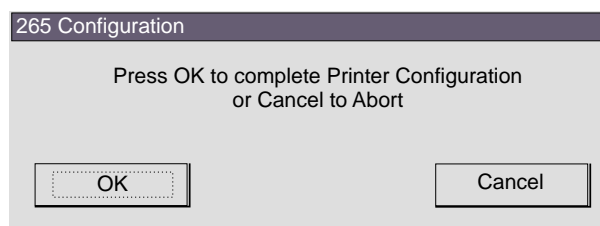
13. On completion the system restarts, the following window is displayed:



14. Select either **PC Type 1** or **PC Type 2** dependent upon the PC fitted to the printer and select **OK**, the following window is displayed:



15. Select **OK**, the following window is displayed:



16. Select **OK**, the following window is displayed:

265 Option Selection

273394 Machine Serial Number

Options

☐ Fixed Head

ProFlow Print Carriage

☐ Single Stepper

☒ Dual Stepper

Camera Type

☐ Green Pulnix

☒ Green Sony

☐ Grey Sony

Next Abort

17. Enter the machine serial number. In the Options box, select **Dual Stepper** and the correct camera for the type fitted to the machine. Ensure Fixed Head is not selected.

18. Select **Next**, the following window is displayed:

265 Configuration

Insert disk containing Calibration data in drive A:
and press OK to load, or Cancel to Abort

OK Cancel

19. Insert the diskette containing the product and calibration data into A:drive and press **OK**. The calibration data is now copied onto the machine hard disk.

20. The machine now initializes.

21. The product files can now be copied onto the machine using Copy Data function in Housekeeping (see Copy Data in Housekeeping Chapter).

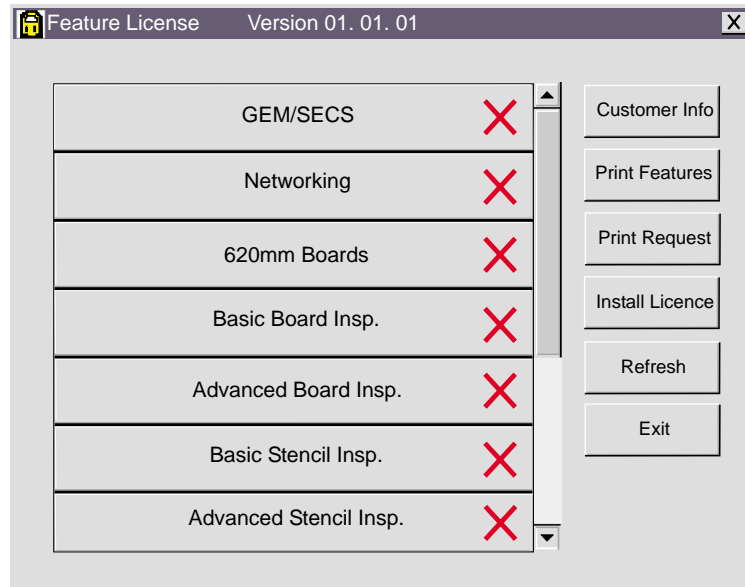
FEATURE LICENSING

Introduction

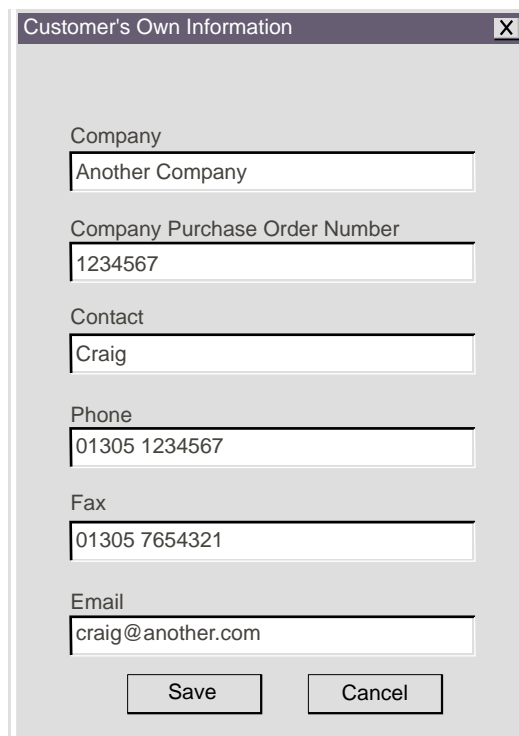
This standalone program accessed from the taskbar, enables a user to request and install a licence to run a new feature on the machine. The opening window lists all the licences available on the dongle and applicable to the machine. Each licence enabled or requested is signified by a tick beside the feature listed. The features available on the dongle are updated at software upgrades.

License Request

1. Select **Start** on the taskbar, **Programs** and **Feature License**. The following window is displayed:



2. Select **Customer Info**. The following window is displayed:



Customer's Own Information

Company
Another Company

Company Purchase Order Number
1234567

Contact
Craig

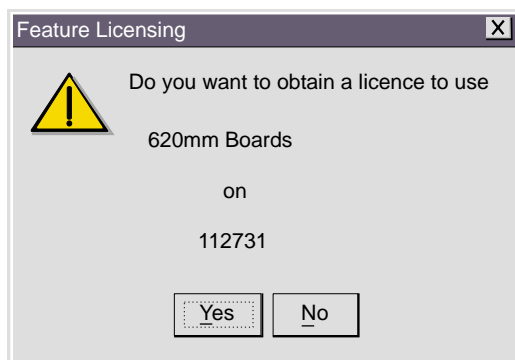
Phone
01305 1234567

Fax
01305 7654321

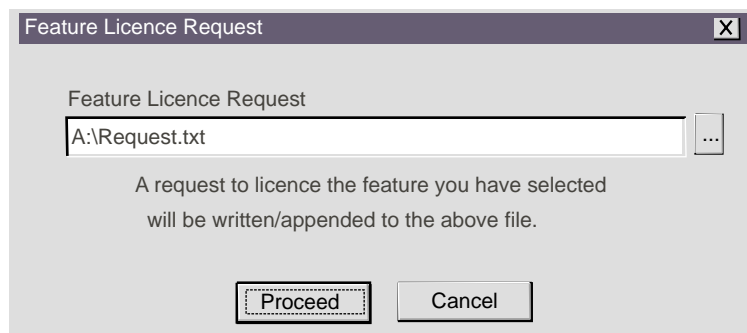
Email
craig@another.com

Save Cancel

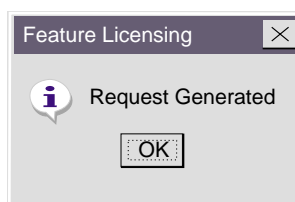
3. Enter the information required and select **Save**. The information is written to a 'customer.txt' file and attached to all licence request files, the window is closed.
4. Scroll down the menu for the feature required. Select the feature, the following window is displayed:



5. Select **Yes**, the following window is displayed:



6. Select **Proceed**, a request is written to the file indicated in the window. If successful, the following window is displayed:



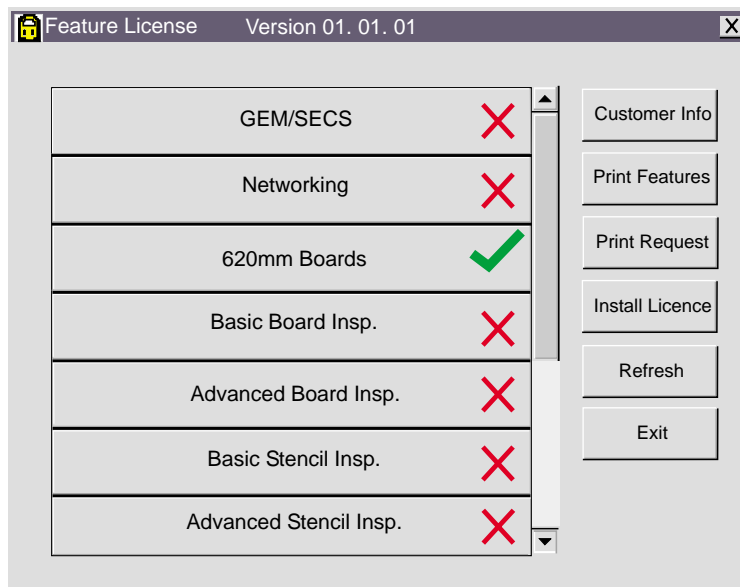
NOTE

*If a different destination file is required for the licence request, press ..., highlight the required file, select **Open** and **Proceed**.*

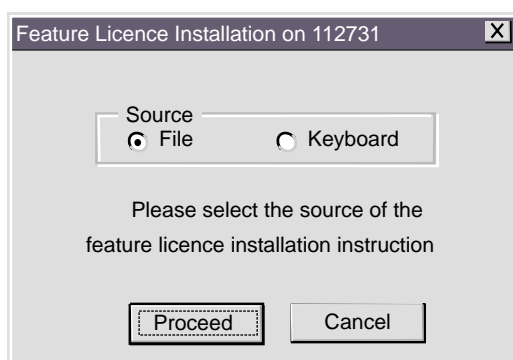
7. The licence request.txt file can now be forwarded to your local DEK agent for processing.

Licence Installation

1. Select **Start** on the taskbar, **Programs** and **Feature License**. The following window is displayed:



2. Select **Install Licence**. The following window is displayed:



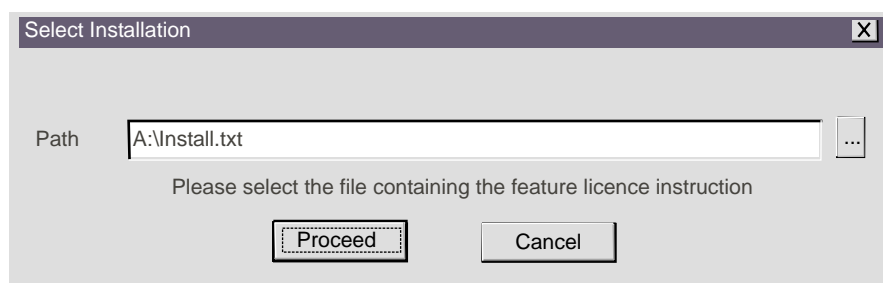
3. Using the radio buttons, select the source of the feature licence and select **Proceed**.

NOTE

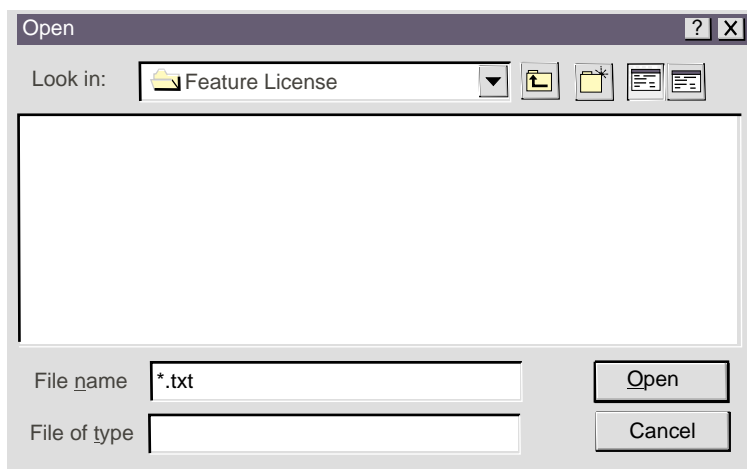
Carry out Steps 4 - 6 if the source of the licence is file.

Carry out Steps 7 - 9 if the source of the licence is keyboard.

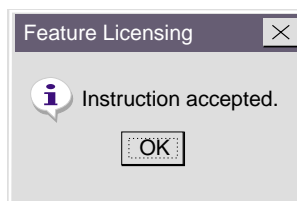
4. Select ... on the following window.



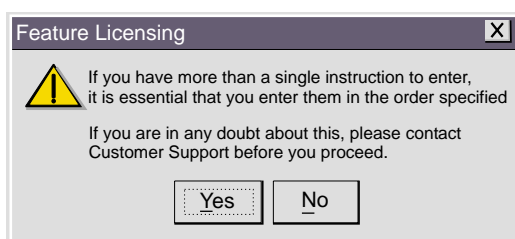
The following window is displayed:



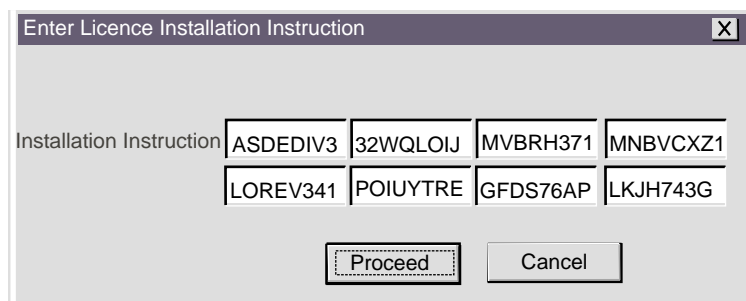
5. Highlight the relevant file and select **Open**. Once the licence has been accepted the following window is displayed:



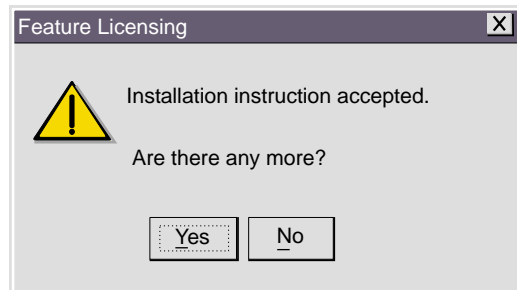
6. Select **OK** and **Exit** the program.
7. Select **Yes** on the following window:



The following window is displayed:



8. Carefully enter the 8 groups of 8 alphanumeric characters of the installation instructions in the order specified and select **Proceed**. Once the licence has been accepted the following window is displayed:



9. If further licencing instructions are to be entered, select **Yes** and repeat Step 8. If not, select **No** and **Exit** the program.

