

MaintScape Quick Reference Fact Sheet

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Introduction

Most MaintScape customers find MaintScape extremely easy to use, self-teaching and powerful once a very few core principles are understood. However MaintScape can seem otherwise before these principles are understood.

By contrast, other computer applications may seem easy to use at first, however users often learn this comes at the expense of power and flexibility. MaintScape is designed to be a “tool” which can be used as a skilled technician sees fit, and not as a rulebook to dictate how their job must be done.

This “quick reference” document describes the important MaintScape core principles as compactly as possible.

If you are evaluating MaintScape for purchase without the benefit of training, GrandRavine Software recommends you follow the MaintScape Evaluation Guide for your first experiences with MaintScape. The evaluation guide introduces the principles summarized in this document, and can be printed from the initial “MaintScape Evaluation” window or by clicking on main menu icon, “More Functions, Documents”.


Please contact GrandRavine Software or your MaintScape representative if any of the material in this document interest you and you need assistance in making it work.

Quick Reference

Most Important Facts


The Basics




<p>MaintScape Main Menu Window</p>	<p>The ‘menu’ tab on this window contains icons representing the primary MaintScape ‘objects’ (e.g. equipment, work order, etc. - see MaintScape Object Types, page 5) and other MaintScape features.</p> <p>If the menu icon label starts with ‘Go To’, clicking the icon will take you immediately to a window. Clicking any other icon pops up a list of related actions.</p> <p>The actions for MaintScape object menu icons usually include:</p> <ul style="list-style-type: none"> • ‘Open...’ to display a specific record if you know its code. • ‘Search and Report...’ to display a search window where you can look for one or more records, and produce reports or perform bulk actions on these records. See page 3 for a description of search windows. • ‘New...’ to display a blank object window for entering a new record. See page 4 for a description of object windows. • ‘Today’s Status’ to display a set of statistics related to the icon’s object type. For example, ‘today’s status’ for work orders may list: number of work orders closed last week, number of work orders due this week, number of work orders at least 2 weeks overdue, etc. (see Today’s Status, page 11). <p>Closing the MaintScape main menu window will end your MaintScape</p>
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	session and close down any other MaintScape window that may be open (you will be prompted to save pending changes).
Clickable Buttons	<p>Almost all MaintScape clickable buttons are small picture buttons to save window space for data fields. See Common Picture Buttons, page 12.</p> <p>If you mouse-over any picture button, you will see a description of the button action in the message line at the bottom of the MaintScape window.</p>
Right-Mouse Button pop-up Menus	<p>You can right-mouse click on any field in a MaintScape window if the field label is underlined. This presents you with important and useful actions related to the field – including navigation.</p> <p>This also applies to data in tabular lists if the column header is underlined.</p> <p>Right-mouse click on such fields is indispensable to effective MaintScape operation.</p>
<p>Entering data in code fields</p> <p>(Why does MaintScape keep saying ‘Equipment not found’?)</p>	<p>Some MaintScape code fields such as 'Equipment ID' do not provide drop-down list boxes. This is because MaintScape supports very large databases, and drop-down list boxes are not useful or efficient when the number of items are large. To search for a code value in such a case, right-mouse click on the field and perform one of the following actions with the presented pop-up action menu:</p> <ul style="list-style-type: none"> • 'Automatic Search' will open a search window and execute a default query to list records (usually all records) to select from. Double-click one of the records to select it for the data entry field. • The 'Search...' option will open the same search window as above, but you have an opportunity to enter search criteria at the top of the window and then click the  (search) button to execute the query. As above, double-click one of the retrieved records to select it for the data entry field. • The 'Search using Explorer...' option is available in some cases when the data item required is selectable in the MaintScape Explorer (e.g. equipment, location). Double-click on an icon of the correct type in MaintScape Explorer to select it back for the data entry field. <p>See MaintScape Window Types, page 3 for a description of search windows. See page 10 for a description of MaintScape Explorer.</p>

MaintScape Window Types

MaintScape has very few window types which all operate consistently.

Search Window	<p>Search windows search for MaintScape objects such as equipment, work orders, procedures, etc (see MaintScape Object Types, page 5).</p> <p>All search windows are consistent. You specify search criteria in the tabbed control at the top of the window, then click the  (search) button</p>
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	<p>to list matching records in the ‘results list’ at the bottom of the window.</p> <p>You use search windows when you are actively looking for records, or when in ‘select mode’ selecting codes for use in another window (see Entering data in code fields, page 3).</p> <p>You can maximize the search window to see more data in the results list.</p> <p>You can click on any column heading in the results list to sort data by that column.</p> <p>Select menu bar action ‘File’/’Print’ or click the  (print) toolbar button to print the results list sorted in the same sequence as displayed.</p> <p>Buttons within the search criteria group perform actions on the search criteria. Buttons within the results list group perform bulk actions on the selected records. You can select multiple records using the normal Microsoft Windows conventions of holding down the <Ctrl> or <Shift> keys when clicking on records.</p> <p>MaintScape reports are produced from search windows. Enter search criteria, and instead of clicking ‘search’ (binoculars) to display the results, click the  (report) button.</p> <p>Double-clicking a record in the results list displays the record in the search window’s matching object window (see Object Window, below) – except when the search window is in ‘select mode’. In this case, double-clicking a record fills in a field in the ‘select from’ window.</p>
<p>Object Window</p>	<p>Object windows display all details for a single MaintScape object, such as equipment, work order, procedure, etc., and let you take actions on the object (see MaintScape Object Types, page 5).</p> <p>Fields may be protected or modifiable in an object window depending on the status of the object (e.g. is the work order ‘open’ or ‘closed’, equipment ‘active’ or ‘retired’?) and your security permissions. Any changes you make to modifiable fields must be explicitly saved by clicking the  (save) toolbar button or menu bar action ‘File’/’Save’.</p> <p>Some MaintScape object types, such as work orders and purchase orders, support ‘status changes’ (e.g. change status ‘open’ to ‘closed’). The permitted status change operations are listed as actions under the ‘File’ menu bar item.</p> <p>Every MaintScape object type has a search window and an object window. These window types work together: double-click a record in a search window’s results list to display it in a object window. In the object window you can then ‘scroll’ along the records listed in the search window by clicking the left/right ‘green arrow’ toolbar buttons.</p>
<p>Inspector Window</p>	<p>Inspector windows are like object windows in that they display something in all its detail, however ‘something’ is usually less than a full MaintScape object such as equipment or a work order.</p> <p>For example, the purchase order object window contains a tabular list of PO items. Double-click on a PO item to display all its detail in the PO</p>

	<p>item inspector window.</p> <p>Inspector windows are always on top of the window with the ‘inspected data’.</p> <p>You do not need to close an inspector window down in order to work with other MaintScape windows, including the window with the inspected data. For example, you can leave the PO item inspector window open, and click along the PO items listed in the PO window to change the item displayed in the inspector. You can even change the PO displayed in the PO window and the PO item inspector window will adjust to display the first item of the new PO.</p>
Modal Window	<p>Modal windows are those where you cannot use any other application window until the modal window is closed down. Many computer applications make extensive use of modal windows. MaintScape has very few.</p>

MaintScape Object Types

The following table lists the major MaintScape object types. Each object type has a search window to search for, report on and perform bulk operations on objects of that type. Each object type has an object window to display all data and permit all operations. See MaintScape Window Types, page 3.

Work Order	<p>Information that can be specified in a Work Order includes:</p> <ul style="list-style-type: none"> • Equipment or location to maintain (this is referred to as the work order “subject”). • Target date (due date). • Status: E.g. scheduled, open, closed, etc. Status value is changed by “status change” operations. See list of supported statuses, below. • Multiple levels of accounts for costing. • Attachments. • One or more tasks – each including: <ul style="list-style-type: none"> • Task summary line, full task description, notes and observations recorded while performing the task. • Any number of labor assignments, each specifying any number of scheduled and actual labor dates and times. • Any number of parts assignments. • Work Order statuses supported by MaintScape are: <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-right: 20px;">Planned</td> <td>Data entry of work order is in progress but not yet complete.</td> </tr> <tr> <td>Scheduled</td> <td>Work order is fully specified, however the work is not yet ready to be done. Work orders generated from the maintenance schedule are status ‘scheduled’.</td> </tr> <tr> <td>Pending Approval</td> <td>Work order should be changed to status</td> </tr> </table> 	Planned	Data entry of work order is in progress but not yet complete.	Scheduled	Work order is fully specified, however the work is not yet ready to be done. Work orders generated from the maintenance schedule are status ‘scheduled’.	Pending Approval	Work order should be changed to status
Planned	Data entry of work order is in progress but not yet complete.						
Scheduled	Work order is fully specified, however the work is not yet ready to be done. Work orders generated from the maintenance schedule are status ‘scheduled’.						
Pending Approval	Work order should be changed to status						

	<p>‘Open’ by a user with the appropriate security privileges.</p> <p>Deferred Work order was opened, however work should now be suspended until a future date.</p> <p>Open Work specified by work order should now be in progress.</p> <p>Closed Work specified by work order has been completed. Costs are finalized when a work order is closed (this is why MaintScape cost reports only report on closed work orders).</p> <p>Cancelled Work order was opened, however it was decided the work should not be done after all.</p>
<p>Equipment Type</p>	<p>Equipment Type is a powerful MaintScape concept that is often misunderstood.</p> <p>An equipment type record represents a particular “make and model” of equipment. Unlike similar programs, MaintScape eliminates the need to duplicate “make and model” information in many equipment records. This also makes it easier for you to report on and compare maintenance costs and histories by “make and model”.</p> <p>Examples of “make and model” information:</p> <ul style="list-style-type: none"> • Equipment manufacturer. • Bill of material (i.e. parts used). • Meters (i.e. does equipment have an hours meter, mileage meter, etc. – see Meter Reading, below). • Measurement/reading points (e.g. voltage, pressure, etc. See Measurement/Reading, below).
<p>Equipment</p>	<p>Each Equipment record should identify an equipment type record¹ representing the equipment’s “make and model” (see Equipment Type, above).</p> <p>Therefore, if the first equipment of a particular “make and model” is being added, you should first create the equipment type record².</p>
<p>Procedure</p>	<p>A Procedure is a template for a work order and is very similar in structure to a work order (see Work Order, above).</p> <p>A work order can be created from a procedure either manually or automatically from a maintenance schedule (see Maintenance Schedule, below).</p>

¹ Alternatively, you can let the Equipment Type field default to a general value.

² You can do this very conveniently by right-clicking on the equipment type field in the equipment window and selecting action ‘New...’. You will then data-enter the equipment type record, which will be ‘brought back’ to the equipment window when saved.

	<p>You would manually create a work order from a procedure if a corrective work order is required and a procedure is available specifying the steps, parts and labor (etc.) required.</p>
<p>Maintenance Schedule</p>	<p>Maintenance Schedules generate work orders on a scheduled basis. A maintenance schedule specifies three primary pieces of information:</p> <ul style="list-style-type: none"> • A procedure identifying the work to be done. • An equipment or location on which to do the work (i.e. the work order “subject”). • How often the work should be done (scheduling data). <p>Maintenance schedules schedule by calendar or by meter, floating or non-floating:</p> <ul style="list-style-type: none"> • Work orders must be manually generated into the future for calendar non-floating schedules. The ‘generate’ process can be performed for a single schedule, any set of schedules, or all schedules³. Non-floating calendar maintenance schedules should be generated by the schedule’s ‘next generate’ date. • A single work order should always be ‘next due’⁴ for calendar floating schedules. The first such work order must be manually generated. Subsequent work orders are automatically generated when the ‘next due’ one is closed. • A work order is automatically generated when a meter reading is entered equal to or greater than the meter schedule’s ‘next due’ reading. The ‘next due’ reading is then adjusted to the schedule frequency (e.g. 100 hours) past the current reading. <p>For example, say the meter schedule frequency is every 100 hours, the schedule ‘next due’ reading value is 1335, and a work order is generated when data entering meter reading 1345 hours. The ‘next due’ reading is then adjusted to 1445 hours.</p> <p>The ‘next due’ reading is further adjusted for a ‘floating’ meter schedule when the generated work order is closed: Say the latest meter reading is 1370 hours by the time the generated work order is closed. The maintenance schedule ‘next due’ reading is then adjusted from 1445 hours to 1470 hours.</p>
<p>Part</p>	<p>A Part may be listed on work orders, procedures, purchase requisitions and purchase orders.</p> <p>A Part record marked as under ‘inventory control’ will have quantities</p>

³ Generate work orders for a single calendar maintenance schedule on the maintenance schedule object window. Generate work orders for a set of such schedules on the maintenance schedule search window by selecting the one or more schedules in the results list, and clicking the ‘generate’ button. Generate work orders for all non-floating calendar maintenance schedules by clicking main menu icon, ‘Maintenance Schedule’ and selecting action ‘Generate All...’ (this is the standard recommended procedure).

⁴ The ‘next due’ work order for a maintenance schedule is the status ‘scheduled’ work order for the schedule’s equipment or location (i.e. subject) and procedure with the earliest target date.

	tracked and may be used in part inventory transactions (see below).
Part Inventory Transaction	<p>A Part Inventory Transaction specifies a part (which must be under inventory control at the time the transaction was created), a part location, a transaction type, an effective date, a quantity and cost, etc.</p> <p>Some transactions are created automatically. For example, transaction type “issue to work order” is created when a work order is closed. Transaction types which can be created manually are:</p> <ul style="list-style-type: none"> • Adjustment • Count • Direct Issue • Receipt • Return to Vendor • Transfer (from one part location to another) <p>Transactions can be reversed if they are made in error.</p>
Service Request	<p>A Service Request is a request for service usually created by non-maintenance personnel. The service request can be evaluated, and generated into a work order if required.</p> <p>MaintScape has the ability for non-MaintScape users to create service request by sending e-mail or through a web page.</p>
Purchase Requisition	<p>A Purchase Requisition is an internal document listing one or more items (usually parts) to order.</p> <p>Purchase requisition items may be generated into purchase order items, or they may be received directly (i.e. matched to a part inventory transaction of type ‘receipt’)⁵.</p>
Purchase Order	<p>A Purchase Order is an external document sent to a vendor listing one or more items (usually parts) to order.</p> <p>Purchase order items may be received (i.e. matched to a part inventory transaction of type ‘receipt’)⁶.</p>

⁵ ‘Matchings’ link either (1) a PR item to a PO item, (2) a PR item to a receipt inventory transaction, or (3) a PO item to a receipt inventory transaction. These cases represent respectively (1) a PO item has been created from a particular PR item, (2) a PR item has been received and (3) a PO item has been received. Matchings are created automatically when you use MaintScape to perform any of the previous 3 operations. However the matched items can be created first and matched afterwards. Matchings can be quite complex: you can have any number of matchings from a PR item or a PO item, and any number of matchings to a PO item or receipt. The rule is the quantities of matchings from or to an item cannot add up to a number greater than the quantity of the item itself.

To take this a bit further – matchings can occur from PR/PO items to return inventory transactions as well as to receipt transactions. Return transactions are treated as negative quantities. For example, a PO item for 3 widgets can be matched to all of: one receipt transaction for 2 widgets, one return transaction for 1 widget (which was defective), and another receipt transaction for 2 widgets. At this point the PO item is fully received (3 = 2 – 1 + 2).

⁶ See ‘matchings’ footnote, above.

Staff	<p>Staff records represent people within your organization.</p> <p>Staff records may be associated with zero, one or more staff roles – e.g. craftsmen, maintenance supervisor.</p> <p>To grant staff logon access to MaintScape, ensure a staff record is created for them and that the record is granted logon access to MaintScape (see User Administration and Security, page 20).</p>
External Resource	<p>External Resource records represent people and companies outside your organization.</p> <p>External resource records may be associated with zero, one or more external resource roles – e.g. Parts Vendor, Equipment Manufacturer, Contractor, etc.</p>
Location	<p>Location records represent physical locations in your organization. Locations are organized hierarchically. For example, the top level may be ‘sites’, the next level may be ‘buildings’, the next level may be ‘floors’, etc.</p> <p>Locations are defined and viewed in MaintScape Explorer. To add a new location within Explorer, right-mouse click on the new location’s parent and select action ‘New Child...’.</p>
Part Location	<p>Part Location records represent physical locations in your organization where parts are stored. Part Locations are organized hierarchically. For example, the top level may be ‘warehouse’, the next level may be ‘rows’, the next level may be ‘bins’, etc.</p> <p>Part locations are defined and viewed in MaintScape Explorer. To add a new part location within Explorer, right-mouse click on the new part location’s parent and select action ‘New Child...’.</p>
Attachment	<p>An Attachment is a document created using a program outside MaintScape that can be associated with a MaintScape object. For example, a CAD drawing can be associated with an equipment or procedure.</p>
Meter Reading	<p>A Meter Reading record specifies an equipment record, a meter, a meter reading value, and a date. Meter readings must increase with time, unless the meter reading record is marked as an ‘adjustment’.</p> <p>Meter readings can only be recorded for equipment with meters. An equipment record has a meter only if its associated equipment type record specifies a meter type.</p>
Measurement/Reading	<p>A Measurement/Reading record specifies an equipment record, a measurement/reading point, a measurement/reading value, and a date. Unlike meter readings, measurement/readings do not have to increase with time.</p>

	<p>Measurement/readings are involved with calibrations.</p> <p>Predictive Maintenance: Measurement/readings can generate work orders if not within a defined range⁷.</p> <p>Measurement/readings can only be recorded for equipment with measurement/reading points. An equipment record has a measurement/reading point only if its associated equipment type record specifies a measurement/reading type.</p>
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Important Facts

Special Features

Most MaintScape user interfaces are based on the conventions of the standard window types (see MaintScape Window Types, page 3). The following special features are exceptions, and in most cases, are unique to MaintScape.

<p>MaintScape Explorer</p>	<p>MaintScape Explorer is modeled on the Microsoft Windows Explorer. It displays a tree structure of locations, equipment and part locations on the left side of the window, and a list of the ‘contents’ of any selected one of these items on the right side of the window. The ‘contents’ are completely configurable using ‘filters’ composed using the familiar search windows (see Search Window, page 3).</p> <p>Examples of ‘contents’ which can be displayed within MaintScape Explorer:</p> <ul style="list-style-type: none"> • For a selected location: All equipment, active work orders, active service requests. • For a selected equipment record: overdue work orders, two-month history of meter readings, all maintenance schedules. • For a selected part location: parts stored at the location that need to be re-ordered, three-month history of inventory transactions. <p>Right-mouse button menu actions and navigation are supported for all objects displayed in MaintScape Explorer. For this reason, many MaintScape customers use MaintScape Explorer as an alternate main menu.</p>
<p>MaintScape Collections</p>	<p>MaintScape Collections are a list of one or more MaintScape objects (e.g. equipment ‘boiler 1’, work order 1387) and/or one or more MaintScape queries (as expressed by criteria in a search window - e.g. work orders due next week).</p> <p>MaintScape Collections are stored in files with file type (extension) ‘mscpc’. MaintScape Collections are not stored in the database. This</p>

⁷ Within MaintScape, see the ‘Maintenance Triggers’ tab page on the ‘Equipment Type’ object window.

	<p>means you can share collections with other MaintScape users, including sending collection files by e-mail⁸.</p> <p>You can double-click on a collection file to ‘run’ it if MaintScape is installed on the computer. If MaintScape is not running, MaintScape will start up, and you will have to log on. If the collection has a single item, either an object (e.g. work order 123) or a query (e.g. list overdue work orders), that object will display in the appropriate object or search window (see MaintScape Window Types, page 3). If the collection has multiple items, the collection will display in the collection window, and then you can double-click on any collection item (object or query) to run it in turn.</p> <p>Many MaintScape users put collection files representing common queries on their Windows desktop for easy access.</p> <p>Suggested uses for MaintScape collections:</p> <ul style="list-style-type: none"> • Set of work orders that a craftsman should do on a particular day (you can e-mail them the collection file). • One or more commonly executed MaintScape queries. • Set of objects you wish to bring to someone’s attention for whatever reason. <p>Collections are also leveraged within MaintScape:</p> <ul style="list-style-type: none"> • A special ‘startup’ collection identifies which objects and queries you want to automatically display when logging on to MaintScape. • Collections are the basis of the queries used by the Today’s Status functionality (see Today’s Status, below). • You can drive MaintScape reports off the set of objects stored in a collection. For example, you can ‘print inventory value report for all parts in collection “my_collection”’. • Collections make it easier to set up frequently used filters in MaintScape Explorer (see MaintScape Explorer, above).
<p>Relative Date Ranges</p>	<p>Using MaintScape, you can store queries (created using search windows) for re-use in MaintScape collection files (see MaintScape Collections, above). However a query created today specifying a date range covering the ‘next two weeks’ will not be useful if used in the future – i.e. two weeks from today the query will cover the ‘last two weeks’.</p> <p>To get around this problem, MaintScape supports ‘relative date range’ searches whenever searching by date. For example, a ‘relative date range’ can be specified as ‘next two weeks’. The actual dates to use for the query are computed when the query is executed.</p>
<p>Today’s Status</p>	<p>The "Today's Status" window displays a set of summary statistics by MaintScape object type (see MaintScape Window Types, page 3). For example, "today's status" for work orders may list: number of work</p>

⁸ If MaintScape is loaded on the computer receiving an e-mail with a collection file attachment, the recipient can double-click on the attachment to ‘run’ the collection (as further described).











	<p>orders closed last week, number of work orders due this week, number of work orders at least 2 weeks overdue, etc.</p> <p>Each statistic is computed by evaluating the number of records that satisfy a MaintScape query. The MaintScape query is composed in the standard search window for the object type (see MaintScape Window Types, page 3). The set of queries used for “today’s status” is stored in a MaintScape collection (see MaintScape Collections, above).</p> <p>Therefore the “today’s status” functionality is completely customizable.</p> <p>You can double-click on any “today’s status” statistic to display the actual query results in the appropriate search window.</p>
MaintScape Scheduler	MaintScape scheduler is a drag-and-drop tool for assigning staff to Work Orders.























Common Picture Buttons

















MaintScape uses picture buttons rather than text buttons to save screen space for data fields. If you mouse-over any picture button, you will see a description of the button action in the message line at the bottom of the MaintScape window.





Picture buttons ‘operate on’ the data they are grouped with. Picture buttons in a window toolbar generally are shortcuts for menu bar items (see Menu Bar Items, page 15).

The picture buttons most commonly used throughout MaintScape are described below.

	Action	Perform a general action. Clicking this button displays a pop-up menu of available actions.
	Attachment	View an attachment document using the attachment’s host program (e.g. AutoCAD, Microsoft Word, etc.). See Attachment, page 9.
	Calculate	Re-calculate fields – usually based on newly entered calculation parameters.
	Clear	Clear data fields, usually so that fresh data may be entered.
	Collection	Send MaintScape object(s) to a collection – see MaintScape Collections, page 10.
	Currency	<p>Toggle currency values between standard currency view and custom currency view.</p> <p>A MaintScape customer based in the USA would use \$US as ‘standard currency’ but may issue purchase orders in, for example, Pesos. MaintScape ‘multiple currency’ module is required for this functionality.</p>
	Data - Export	Export data from MaintScape.
	Data – Import	Import data into MaintScape.
	Delete	Delete data.
	Duplicate	Duplicate data.

	E-mail	Send e-mail message.
	Explore	Navigate to the MaintScape Explorer positioned according to button's data context. See MaintScape Explorer, page 10.
	Generate	Generate records or MaintScape objects.
	Go to	Navigate to window to display full information for button's data context.
	Help - Context	Display context sensitive online help.
	Help – index	Display online help index.
	Help - Quick Tip	Display a pop-up message with a brief help message.
	Inspect	Open inspector window to display and/or modify all data summarized in button's data context – see Inspector Window, page 4.
	Issue	Issue part from inventory.
	Main menu	Navigate to MaintScape main menu window.
	More	Open window to display and/or modify more data for button's context.
	New	Prepare to enter new data. For example, clear existing data from fields.
	Open	Display a pop-up window where a user can identify an object type (e.g. work order, part) and record to display. Object type defaults based on button's data context.
	Open	Display a pop-up window where a user can identify an object type (e.g. work order, part) and record to display. Object type does not default.
	PDA	Navigate to PDA functionality positioned according to button's data context. MaintScape 'PDA' module is required for this functionality.
	Print	Print data.
	Print Attachment	Print an attachment document using the attachment's host program (e.g. AutoCAD, Microsoft Word, etc.). See Attachment, page 9.
	Print Bar Code	Print bar code label(s).
	Print window	Print an image of the current window (screen print).
	Purchase	Purchase items (e.g. parts). Pop-up menu will ask whether to post items to purchase order or purchase requisition. MaintScape 'purchase order' and/or 'purchase requisition' module is required for this functionality.
	Receive	Create an inventory transaction of type 'receipt' – usually for the referenced PO or PR item. MaintScape 'inventory control' module is required for this functionality.
	Refresh	Re-retrieve data from the database. User will be asked to save or discard pending changes.

	Report	Select a report to print or preview. This button usually appears in search windows (see Search Window, page 3). In this case, the report will print the results of the query specified by the search window's search criteria.
	Return	Create an inventory transaction of type 'return to vendor' – usually for the referenced PO or PR item or a 'receipt' inventory transaction. MaintScape 'inventory control' module is required for this functionality.
	Save	Save pending changes to the database.
	Schedule	Navigate to the MaintScape Scheduler positioned according to button's data context.
	Search	Perform a 'search' when this button appears on a search window – i.e. list the records that match the query specified by the search window's search criteria (see Search Window, page 3). Navigate to the appropriate search window when appearing elsewhere.
	Search preview	Display a textual description of the query specified by a search window's search criteria fields (see Search Window, page 3).
	Select	Select a MaintScape object or query back to a window where it is required. See Entering data in code fields, page 3.
	Select – cancel	Cancel 'select mode', usually in a search window. See Search Window, page 3, which also further describes 'select mode'.
	Stop	Stop a time consuming activity.
	Undo	Undo current changes to fields. This is similar to the  (refresh) button above, however data is not re-retrieved from the database.
	View first record	View first of a list of records.
	View last record	View last of a list of records.
	View next record	View next record relative to current record. This button occurring in a MaintScape object window toolbar scrolls the displayed record relative to the records listed in the current search window for the same MaintScape object type (see "MaintScape Window Types", page 3, "Window Navigation – 'Window' Menu Bar", item 'Current' page 19).
	View previous record	View previous record relative to current record. This button occurring in a MaintScape object window toolbar scrolls the displayed record relative to the records listed in the current search window for the same MaintScape object type (see "MaintScape Window Types", page 3, "Window Navigation – 'Window' Menu Bar", item 'Current' page 19).
	Window – back	Navigate to the MaintScape window that had focus before the current window. This button behaves like the 'Back' button in a web browser. This function is also available on the 'window' menu bar (see Window Navigation –

		'Window' Menu Bar, page 17) and by shortcut key (see Shortcut Keys, page 20).
	Window – close	Close a MaintScape window.
	Window – forward	Navigate to the MaintScape window that had focus before you last clicked the  (Back) button (if possible). This button behaves like the 'Forward' button in a web browser. This function is also available on the 'window' menu bar (see Window Navigation – 'Window' Menu Bar, page 17) and by shortcut key (see Shortcut Keys, page 20).
	Window – lock	See "Window Navigation – 'Window' Menu Bar", item 'Locked' page 18.

Menu Bar Items

MaintScape object and search windows (see MaintScape Window Types, Page 3) all share consistent menu bar conventions. These conventions are modeled on Microsoft Windows published standards. Not all menu bar items appear on all windows.

Menu Bar Item	Meaning
File	Perform an action on what is represented on the window 'as a whole'. For example, on an equipment object window, menu item: <ul style="list-style-type: none"> • 'File'/'Save' saves all changes pending to the equipment record. • 'File'/'Print' generates a printout of the full equipment record. The object 'as a whole' for a search window is a query (i.e. a combination of search criteria) and its results. See MaintScape Window Types, page 3 for a description of object and search windows.
Edit	Perform an action on 'a component' of what is represented on the window 'as a whole'.
View	Change how you are looking at data (not changing the data itself).
Shortcut	Navigate to another window to display data related to data displayed on the current window.
Options	View and set saved settings that are restored each time the window is opened.
Window	Navigate from window to window, and manage the set of windows that are open. See Window Navigation – 'Window' Menu Bar, Page 17.
Help	Online help functions.

Window Navigation – Basics

MaintScape is designed to operate well with many windows open at a time with the windows all inter-operating with each other.

<p>Microsoft Windows conventions</p>	<p>You can use Microsoft Windows standard conventions to navigate between MaintScape windows which are currently open:</p> <ul style="list-style-type: none"> • Click on the MaintScape window’s icon on the task bar at the bottom of your window. • Key combinations: <Alt>+<Tab> and <Shift>+<Alt>+<Tab>.
<p>Right-Mouse Button pop-up Menus</p>	<p>You can right-mouse-click on any field on a MaintScape window if the field label is underlined. Many of the actions available will be navigational.</p> <p>Right-mouse click on such fields is indispensable to effective MaintScape operation.</p> <p>For example, you can right-click on an equipment ID in the work order window, then select action ‘Open’ to display the equipment in the equipment window.</p> <p>Right-mouse button items may also navigate to search windows – for example, from equipment ID to a work order search window listing all work orders for the equipment issued over the past year.</p>
<p>Menu bar item ‘Shortcut’</p>	<p>Navigate to another window to display data related to data displayed on the current window. Not all windows have ‘Shortcut’ menu bar items.</p>
<p>‘File’ menu bar item cache</p>	<p>The ‘File’ menu bar drop-down for MaintScape object and search windows lists the 4 ‘objects’ most recently accessed on that window. Click any of these items to display that object.</p> <p>Microsoft applications such as Word and Excel have this same feature.</p> <p>You can take advantage of this feature to display, for example, the last equipment record you viewed in the equipment window. Click the ‘equipment’ icon on the MaintScape main, then click action ‘New...’ to navigate to the equipment object window. Within the blanked-out equipment window, click on menu bar item ‘File’, then select one of the 4 records identified by the ‘cache’.</p>
<p>‘Window’ menu bar item</p>	<p>These actions navigate from window to window, and manage the set of windows that are open. See Window Navigation – ‘Window’ Menu Bar, Page 17.</p>
<p>Main menu window ‘Recent’ tab page</p>	<p>An entry is recorded at the top of the ‘recent’ list each time you display a MaintScape object in an object window and each time you execute a search in a search window. You can double-click on any of these entries to re-display that object or re-run the search.</p> <p>The recent list holds a maximum number of items where the oldest ones past the maximum fall off the list.</p>
<p>Main menu window ‘Bookmarks’ tab page</p>	<p>An item can be moved from the recent list on the ‘recent’ tab page to the ‘bookmarks’ list. Unlike the recent list, items remain on the bookmarks</p>

	<p>list until deliberately removed.</p> <p>MaintScape Collections are a much more flexible alternative to the bookmarks list, and should be used instead in most cases.</p>
<p>MaintScape Collections</p>	<p>MaintScape Collections are a list of one or more MaintScape object (e.g. equipment 'boiler 1', work order 1387) and/or one or more MaintScape queries as expressed by criteria in a search window (e.g. work orders due next week). Double-click on any collection item to display and populate the appropriate window.</p> <p>See MaintScape Collections, page 10 for more details.</p>

Window Navigation – ‘Window’ Menu Bar

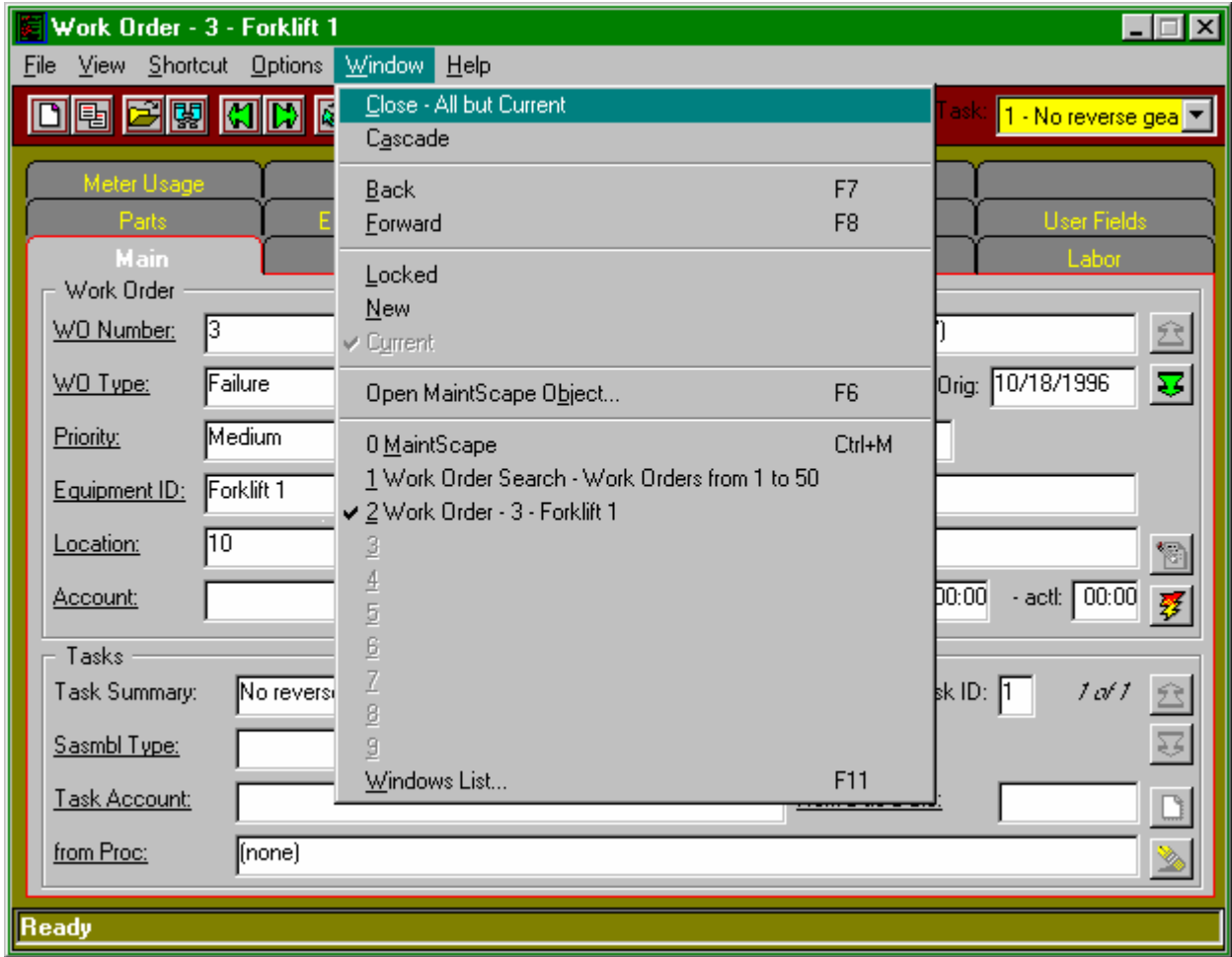
The ‘Window’ menu bar available on all MaintScape main windows supports easy switching between windows and window management.

One of the most valuable uses for the ‘window’ menu bar is to manage multiple instances of a window of any type. For example, you can have open: 3 Equipment windows, 2 Work Order search windows, 2 MaintScape Explorer windows, etc.

Examples of how this is valuable:

- You may be entering data into one Work Order window, and then have a need to inspect another work order without wanting to interrupt your work on the first.
- If you have a large screen, you may want to display 2 Work Order windows side-by-side for on-screen comparison.

The number of open windows is only limited by the amount of memory in your computer.



Close – All but Current	This action is valuable when you have many MaintScape windows open and want to shut most of them down. Use the ‘Windows List...’ action (see below) to select a smaller set of windows to close.
Cascade	Arrange all open and non-minimized MaintScape windows in a ‘cascaded’ fashion. Bear in mind that a MaintScape window of a given type (e.g. equipment object, work order search) will open at the same position it was at the last time it was closed.
Back	Navigate to the MaintScape window that had focus before the current window. This button behaves like the ‘Back’ button in a web browser. This function is also available on the window toolbar and by shortcut key (see Shortcut Keys, page 20).
Forward	Navigate to the MaintScape window that had focus before you last selected the ‘Back’ action (if possible). This button behaves like the ‘Forward’ button in a web browser. This function is also available on the window toolbar and by shortcut key (see Shortcut Keys, page 20).
Locked	Selecting this menu item toggles a ‘check mark’ which indicates whether

	<p>or not this window is 'locked'. A locked window will not be used to display data should a window of the same type be required.</p> <p>For example, say you are editing a work order in a work order window, and then interrupt to perform other MaintScape operations. If you do not want this work order window to be used to display another work order should a work order window be needed, then 'lock' the window with the work order you are editing.</p> <p>There is overlap between the 'Locked' and 'Current' menu items: Locking a window disables it from being the 'current' window of the type, and setting a window to be 'current' for the type disables the 'locked' state.</p>
New	Open a new window of the current window type and mark the new window as 'current' for the window type (see below).
Current	<p>This item is only meaningful when more than one window of a given type (e.g. equipment object, work order search) is open. It identifies the 'current' window of the type with a check mark. The 'current' window of a type will display an object when a window of the type is required.</p> <p>The 'current' menu bar item is disabled when checked – this is because you cannot 'unset' a window from being current. You can only set another instance of a window to current.</p> <p>There is overlap between the 'Locked' and 'Current' menu items: Locking a window disables it from being the 'current' window of the type, and setting a window to be 'current' for the type disables the 'locked' state.</p>
Open MaintScape Object...	<p>Display a pop-up window where a user can specify a work order, part, equipment record, etc. which they want to display. The user will select an object type (see MaintScape Object Types, page 5) and the object code (e.g. work order number, equipment ID).</p> <p>This function is useful if the user knows the object code. Otherwise the user should use the appropriate search window (see Search Window, page 3).</p> <p>This function is also available on the window toolbar and by shortcut key (see Shortcut Keys, page 20).</p>
0 MaintScape	This action navigates to the MaintScape main menu window. This function is also available on the window toolbar and by shortcut key (see Shortcut Keys, page 20).
1, 2, ..., 9	These items list the open MaintScape main windows and let you switch to any of these windows.
Windows List...	Displays a window listing open MaintScape main windows, letting you switch to any window or close any combination of windows. This is especially useful when more main windows are open than can display in items 1, 2, ..., 9 described above.

User Administration and Security

<p>Setting up a MaintScape User</p>	<p>You must be logged on as user ‘dba’ (MaintScape Administrator) to set up MaintScape users.</p> <p>A “staff” record must exist in the MaintScape database for the MaintScape user – create one if necessary (see MaintScape Object Types, page 5).</p> <p>Grant, revoke or modify MaintScape access to a staff record on the “MaintScape User” tab of the staff window.</p>
<p>Security permissions</p>	<p>You must be logged on as user ‘dba’ (MaintScape Administrator) to modify security permissions.</p> <p>Security permissions are assigned to ‘Security Levels’, and security levels are then assigned to MaintScape users (i.e. staff records granted MaintScape access – see above). This convention simplifies security administration.</p> <p>To access the Security Level administration window: Click on main menu icon “Security”, then select pop-up item “Security Levels”.</p> <p>MaintScape security is largely based on securing “actions” permitted on MaintScape objects.</p>

Shortcut Keys


Many of the shortcut keys are described in terms of operations on MaintScape object and search windows (see MaintScape Window Types, page 3).

Key	Description
<i>General shortcut keys</i>	
F1	Context-sensitive help.
F4*	Display drop-down list box if such a field has focus.
F3	Display a pop-up menu when focus is on a field with an underlined label. This is the same as right-mouse clicking on the field.
F10*	Activate the window’s menu bar.
<i>Standard shortcut keys available on object and search windows and generally other ‘main’ windows. The fact that these keys are available can be seen on the window’s menu bar menus. Other window-specific keys may be available and can be seen similarly.</i>	
F5	<p>Re-retrieve data from the database. User will be asked to save or discard pending changes.</p> <p>This is a shortcut for menu bar action “File” / “Refresh” and for toolbar action “Refresh”.</p>
F6	<p>Display the ‘Open MaintScape Object’ window so a user can identify an object to display (e.g. equipment ‘Boiler 1’).</p> <p>This is a shortcut for item “Open MaintScape Object...”, described in section “Window Navigation – ‘Window’ Menu Bar” (page 19).</p>
F7	Navigate back to the MaintScape window that had focus before the current

	<p>window.</p> <p>This is a shortcut for item “Back”, described in section “Window Navigation – ‘Window’ Menu Bar” (page 18).</p>
F8	<p>Navigate forward to the MaintScape window that had focus before you last navigated backward (if possible).</p> <p>This is a shortcut for item “Forward”, described in section “Window Navigation – ‘Window’ Menu Bar” (page 18).</p>
<Shift>+F7 <Shift>+F8	<p>These keys are shortcuts for the “green arrow” toolbar buttons described for object windows in section MaintScape Window Types (page 4).</p> <p>These keys scroll the contents of an object window along on the results displayed in the current search window for the same object type. For example, if you are viewing work order 123 and a current work order search window lists work orders 100, 105, 123, 130, 132 in its results list, then keys <Shift>+F7/F8 will change your display to work orders 105, 130 respectively.</p>
<Ctrl>+C*	Copy selected text to the Windows clipboard.
<Ctrl>+M	Navigate to the MaintScape main menu window.
<Ctrl>+N	<p>Create a ‘new’ instance of whatever is displayed in the current window.</p> <p>For example, in an equipment window, the window fields are cleared for data entry of a new equipment record. In a search window, the search criteria fields are cleared for entry of new search criteria.</p>
<Ctrl>+O	<p>‘Open’ another record in the currently active window.</p> <p>This shortcut key displays the ‘Open MaintScape Object’ window as is done by shortcut key F6, however the ‘object type’ to open is defaulted based on the window which is current.</p>
<Ctrl>+P	<p>Print the data represented on the current window.</p> <p>For an object window, create a detailed printout of the object currently represented (e.g. work order 123 – in this case you get the work order printout). For a search window, print the current results list in the order as it appears on screen (remember – you can click on a column heading to sort by that column).</p>
<Ctrl>+S	Save changes pending on the current window.
<Ctrl>+V*	Paste Windows clipboard text (the cursor must be in a modifiable field).
<Ctrl>+X*	Cut selected text to the Windows clipboard.
<Ctrl>+Z*	Undo typing (the cursor must be in a modifiable field).
<i>Shortcut keys available when focus is on a tab page</i>	
<Ctrl>+<Pgup>	Switch to the prior tab page.
<Ctrl>+<Pgdn>	Switch to the next tab page.
<Shift>+F11	Displays a window listing all tab pages, letting you switch to any one. This is especially useful for viewing the shortcut key for directly accessing individual tab pages.
<i>Shortcut keys available in a field of a data group with ‘green arrow’ scrolling keys and text indicating, ‘<n> of <m> records’ (may not be available in all cases).</i>	
<Pgup>	Scroll up one record.
<Pgdn>	Scroll down one record.
<Ctrl>+<Home>	Scroll to the first record.
<Ctrl>+<End>	Scroll to the last record.

* Shortcut key is a Microsoft Windows standard.

Frequently asked Questions

<p>How do I print a report in MaintScape?</p>	<p>MaintScape reports are produced from search windows (see page 3). If you want to report on work order data, navigate to the work order search window, enter search criteria to select records you wish to report on, click the  (report) button, then select a report.</p> <p>Therefore the full flexibility of MaintScape search criteria is available for driving any MaintScape report.</p>
<p>How do I create a custom report for MaintScape?</p>	<p>You can create a custom report using any ODBC compliant reporting tool such as Microsoft Access and Crystal Reports. All serious reporting tools are ODBC compliant. Your MaintScape representative can provide documentation on connecting to the MaintScape database using reporting tools.</p> <p>You need some understanding of MaintScape data structures to create custom reports. Full documentation of these structures can be printed from within MaintScape: click on main menu icon, 'Inquiry and Reports', then select action, 'MaintScape Database Structure Reports...'. GrandRavine Software or your MaintScape representative can help you further understand the MaintScape database structures, and can help you produce a query to drive the report you want to create.</p> <p>It is also possible to integrate custom reports directly into MaintScape. This is somewhat technical, and most customers choose to ask GrandRavine Software to do this for them for a reasonable fee.</p>
<p>Why does MaintScape keep saying 'not found' when I try to type into a field?</p>	<p>See Entering data in code fields, page 3.</p>
<p>What is an Equipment Type?</p>	<p>See Equipment Type, page 6.</p>