

RDC+

REFCON Data Collector

Operating the RDC+



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1 Operating the RDC+

Overview

This guide shows how to operate the RDC+ software installed on the Motorola Workabout Pro 4 or the Psion Workabout Pro 2 or 3, in the following referred to as the *handheld unit*. The RDC+ is the new generation of the RDC (REFCON Data Collector).

Note that the RDC+ must be seen as an integrated part of REFCON. To get an understanding of the entire concept and how to get data to and from the handheld unit you need to consult REFCON's online help (or the pdf-version of same). This is also where to find explanations to certain terms used in the present manual.

To exchange data with REFCON, simply connect the handheld unit – normally by placing it in the docking station – and then enter the appropriate commands from the REFCON Monitor PC.

Please note: The LogMan mentioned in various places might not be licensed on your handheld unit.

Handling the handheld unit hardware

Note: The keys mentioned in the following table are described below under [The touch screen and keyboard](#) ⁵⁷.

You can turn on and off and reset the handheld unit as follows:

Action	Result	Comments
Workabout Pro 2: Keep ENTER key pressed for a short while. Workabout Pro 3 and 4: Keep Power key pressed for a short while.	The handheld unit is turned on	If out of battery, nothing happens. Please place in docking to have batteries charged.
Workabout Pro 2: Press the blue FN key (short) and then the ENTER key (short).	The handheld unit turns to Standby mode or Suspend mode	See explanations below.
Workabout Pro 3 and 4: Keep Power key pressed for a few seconds. In Shutdown picture, select Standby and then OK.	The handheld unit turns to Standby mode	The display and keyboard turns off, but applications keep running. If not in docking the batteries will discharge, but slower than if display is on.
Workabout Pro 3 and 4: Press Power key shortly; or Keep Power key pressed for a few seconds. In Shutdown picture, select Suspend and then OK	The handheld unit turns to Suspend mode	Similar to "hibernate" on a PC. According to the Motorola/Psion manual, the batteries might very slowly discharge even in this state.
Press and keep the blue FN key and the ENTER key simultaneously for about 10 seconds.	The handheld unit and it's Windows Mobile restarts.	Similar to "restart" on a PC, that is, programs and files are reloaded.
1. Press and keep the minus key (see below), the blue FN key and the ENTER key simultaneously for about 10 seconds. 2. Press the "1" key.	<ul style="list-style-type: none"> The handheld unit is restarted and then awaits command. Windows Mobile starts etc. 	Similar to above, however, you have alternative options at step 2.

To save battery power you should turn to Standby or Suspend mode when the unit is not to be used for a few minutes.



With the standard configuration, the background light automatically turns off when not used for 1 minute. Any keystroke turns back on.

If the handheld unit cannot be turned on please check the batteries.

Do only use rechargeable batteries. Do always keep the handheld unit in the docking station when not used to have the batteries automatically charged.

If you have two handheld units and just one docking station, remember to exchange the two in the docking station to have both batteries charged.

The touch screen and keyboard

The RDC+ can be operated solely by means of the keys, or you can take advantage of the touch screen, using the special pen or similar or simply your finger (not recommended). As regards the touch screen, use pen/finger as you would use the mouse on a Windows PC.

The keys on the Workabout Pro S are in general used as follows:



The blue FN key:

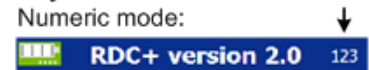
Press this key to change the function of the next key to the blue label. Example: Press "FN" and then "1" to enter "F1". Having pressed the second key, all keys return to normal function.



The yellow FN key:

Press this key to change to Alpha mode. Press "FN" once more to return to Numeric mode. In Alpha mode, the yellow labels of the numeric keys are active, and the numeric keys work like a mobile phone.

Key mode indication:



The ENTER key:

Works like the Enter key on a Windows PC. If the unit is turned off (display is black), keep the ENTER key pressed for a few seconds to turn on.



The ENTER key:

Works like the Enter key on a Windows PC.



The POWER key:

If the unit is turned off (display is black), keep the POWER key pressed for a while to turn on.



The minus key:

In a temperature entry field, this key inserts a minus if field is empty; otherwise it toggles the sign, that is, plus to minus and vice versa. If field is not numeric or value is 0, nothing happens.



The 4 arrow keys:

Up and Down move to the previous/next line or field. In textual edit field, Left and Right move to previous/next character, while in Inspection Survey they change pane.

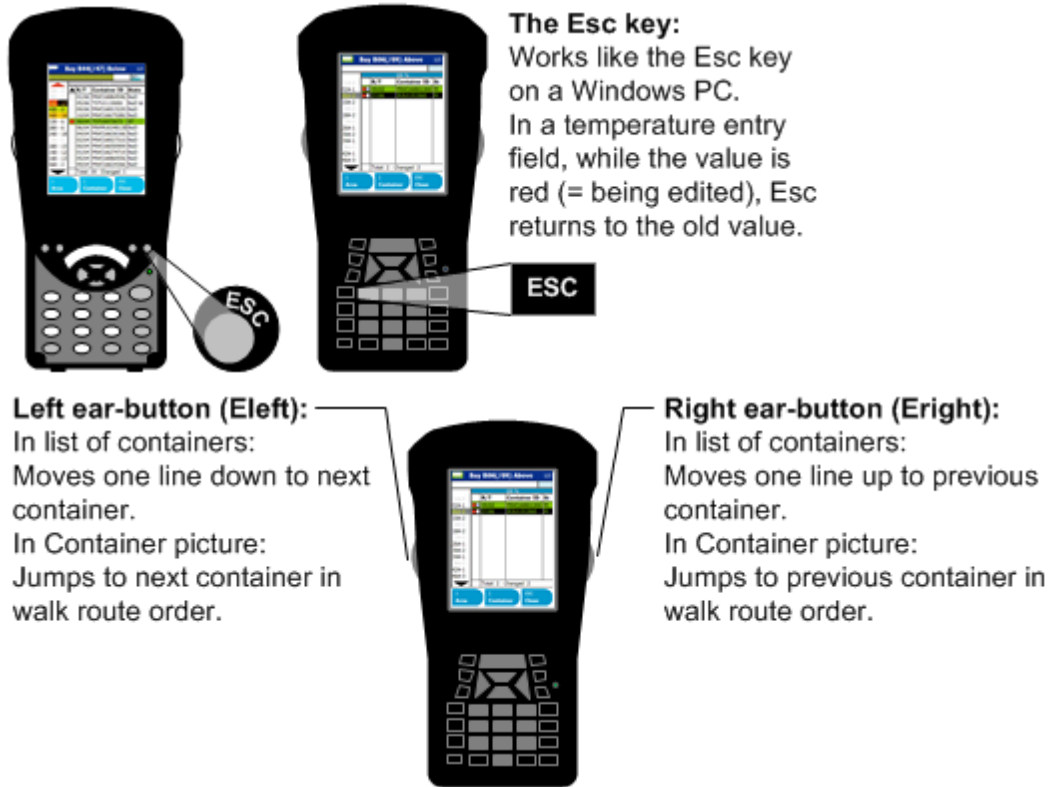


The Tab key:

Works like the Tab key on a Windows PC:
Jumps to the next field.



TAB



Some of the function keys F1..F9 (obtained by pressing the blue "FN" and then a numeric key) can be used for various purposes.

The "please wait" icon

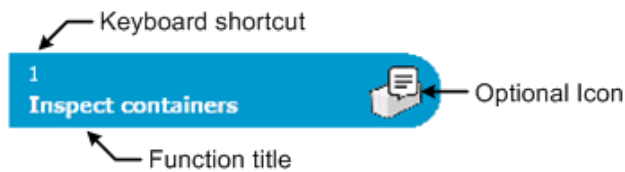
When the RDC+ software is launched, and in some cases when you change pictures in the RDC+ application, you will see the "please wait" icon:



It means that you will have to wait for a while before you can proceed.

The blue button

In most pictures you find one or more blue buttons:



The *Function title* is a very short description of the function of the button. In the above example, it opens the Inspection Survey with the list of containers.

- The button can be invoked in two ways:
- by "clicking" it directly on the touch screen, or
 - by pressing the shown keyboard shortcut.

Note that some shortcuts are single keystrokes, like the key "1" in the above figure, while others are dual. For example, if the shortcut is "F1", you must first hit the blue "FN" key and then the "1" key.



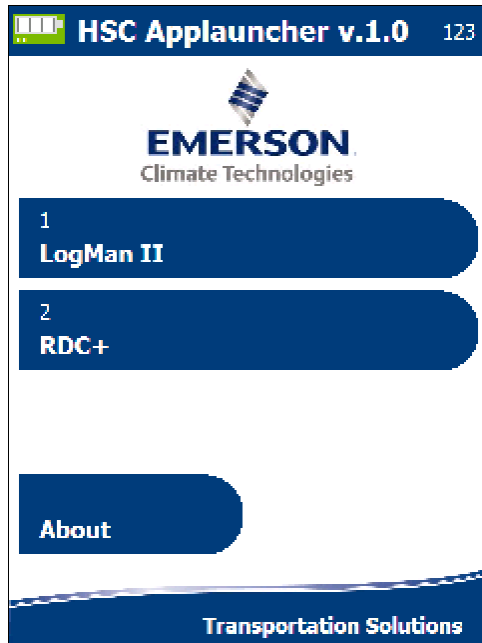
1.1 Start pictures

Overview

Below you find descriptions of the start pictures available on the handheld unit.

The Application Launcher

There will be one or more software applications installed on your handheld unit – the RDC+ software and then maybe the LogMan software or others as well. Therefore, the following start menu will appear on the handheld unit upon power-up, with one button for each of the available applications:

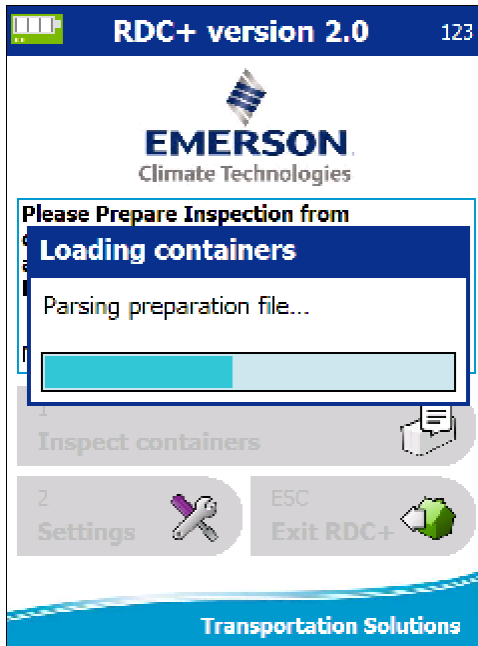


In this example you can press “1” to activate the LogMan Data Retriever Unit software, or “2” to activate the REFCON Data Collector (RDC) software. Also you can “click” the button on the screen.

What happens at start?

When the RDC+ application is started, the Start picture described below immediately opens; however, it is not really available until the application has checked for the possible Preparation File last received from REFCON.

If the file is found, it is read into memory. If it includes a large number of containers, the reading takes quite some time, maybe even minutes. While this takes place, the following progress bar is displayed:

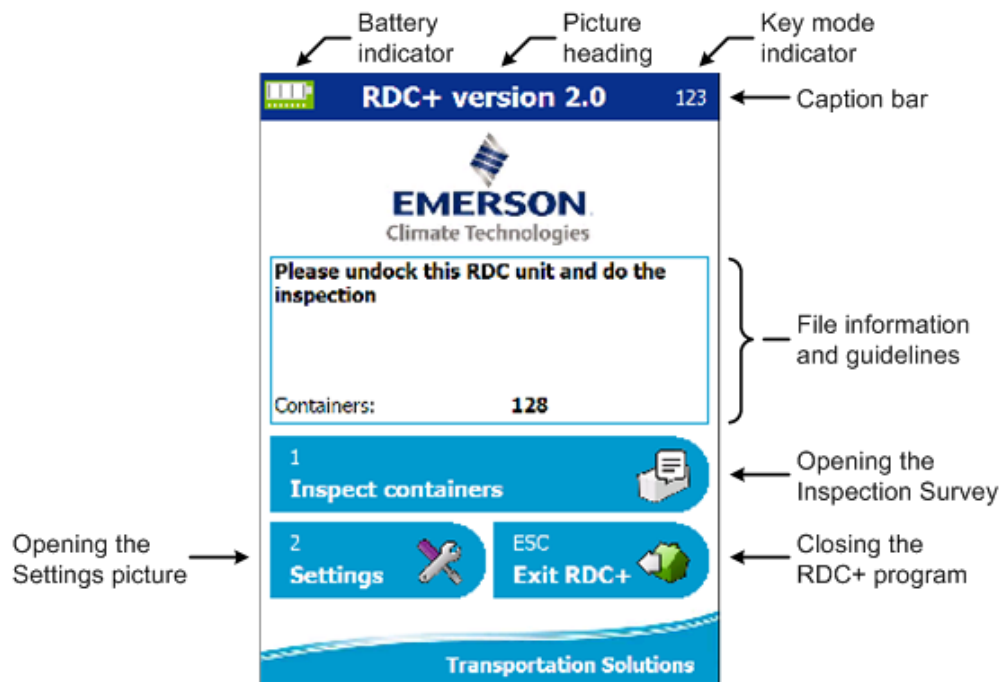


During this time you can not use the RDC+.

The result of the file check and reading is shown in the Start picture:

The RDC+ Start Picture

The Start picture basically looks like this:



Please follow these links to read about: the [Key mode indicator](#)^[5]; the [Inspection Survey](#)^[14]; and the [Settings picture](#)^[11]. The Picture heading displays as described in the respective picture topics.










The Battery indicator

The battery indicator consists of three main parts:

Part	Description
Battery symbol	See details below.
Rectangle background	Green: The handheld unit is connected to mains power. Dark blue: The handheld unit runs on battery.
Moving dots below battery symbol	Simply shows that the RDC+ application is running.

The battery symbol can be in the following states:

Symbol	State in words	Description
	All three squares steady white.	The battery is more than 70% charged. If connected to mains and not flashing: The battery is more than 98% charged.
	First two squares steady white.	The battery is more than 40% charged, but less than 70%.
	First square steady white.	The battery is more than 10% charged, but less than 40%.
	All three squares steady grey.	The battery is less than 10% charged.
	All three squares flashing.	The battery is charging, the level is more than 70% but less than 98%.
	First two squares flashing.	The battery is charging, the level is more than 40% but less than 70%.
	First square flashing.	The battery is charging, the level is less than 40%.

File information and guidelines

The screen area between the logo and the first blue button always displays guiding instructions and data relevant to the actual situation. The following tables show the possibilities.

When connected to PC ("docked"):

Information displayed	Explanation
Please Import data from connected REFCON Monitor Changed containers: 2	Having just docked after an inspection round, this is what you need to do: Select the "Import..." command from the REFCON Monitor PC. Check that the number of imported containers stated on the REFCON Monitor PC equals the number of changed containers stated on the RDC.
Please Prepare Inspection from connected REFCON Monitor No fresh container list available	Before starting a new inspection round you would normally select the "Prepare inspection" command from the REFCON Monitor PC.
Please Prepare Inspection from connected REFCON Monitor No container list available	Before starting your first inspection round you need to select the "Prepare inspection" command from the REFCON Monitor PC.



Information displayed	Explanation
<p>Please undock this RDC unit and do the inspection</p> <p>Containers: 77</p>	Having prepared the RDC you can read the number of containers in the preparation list, which should match the number stated on the REFCON Monitor PC.

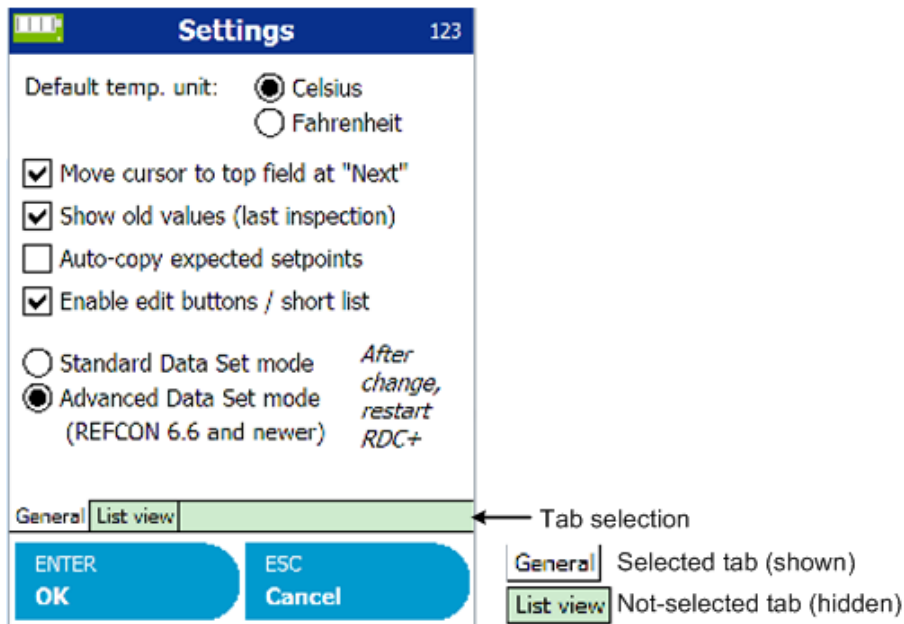
When not connected to PC ("undocked"):

Information displayed	Explanation
<p>Container list information:</p> <p>List age: 1 min</p> <p>Containers total: 77</p> <p>Changed containers: 0</p>	After preparation and undocking you will read these statistics.
<p>No container list available. You have to dock the RDC unit and Prepare it from REFCON</p>	You can not work without a list.

1.2 RDC+ Settings

Overview

Selecting "Settings" from the RDC+ [start picture](#) ⁹ will open the following picture:



In this picture you can make the choices described below. In general,

- To make changes: Alter the desired data fields, and then "click" the "OK" button or press the "ENTER" key.
- To leave without making changes: "Click" the "Cancel" button or press the ESC key.

The Settings picture is organised in "tabs". To change tab, click "General" or "List view" near the bottom of the picture.



Advanced Data Set mode and Standard Data Set mode

RDC+ can operate in two modes: Standard Data Set mode and Advanced Data Set mode.

In *Advanced Data Set mode* you will have the full benefits of the RDC+:

- You can see a larger set of Planning data and therefore benefit from extended knowledge about the container you are facing.
- You can type in literally any measuring value and setpoint of interest.
- You can report more than one alarm for a container, and you do it by selecting from a list or by alarm number.
- Each container is time stamped when the user finishes entering data for that container; that is, all containers will get different time stamps indicating the age of the data.

If, however, you are running an old version of REFCON (before REFCON 6.6), or you only need to deal with the most essential temperature and alarm data, you can choose to run in *Standard Data Set mode*. This limits the data set being exchanged with REFCON as follows:

- The only Planning data available are the Location and, in first inspection round only, the Expected Temperature Setpoint.
- Only the primary temperature values can be entered.
- There is only one alarm possible (for each container), and you have to type in the text.
- All data will get same time stamp - when imported into REFCON.

General settings

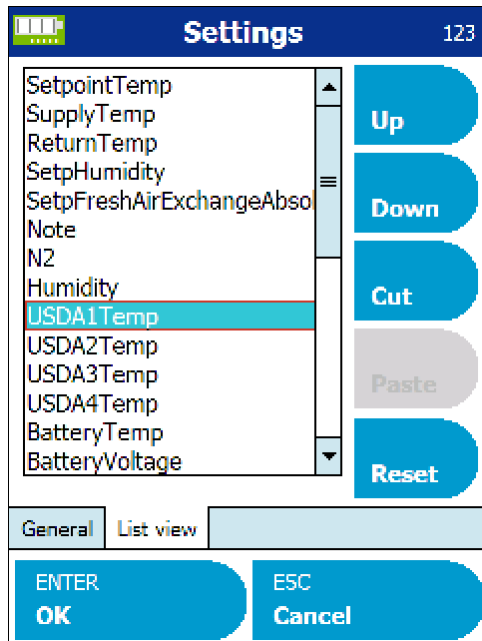
The General tab includes the following choices:

- "Default temp. unit": Whether Celcius or Fahrenheit is to be selected when opening the [Container picture](#)^[22]. Note that you can re-decide within the picture.
- "Move cursor to top": This setting works in the [Container picture](#)^[22] when selecting Next or Previous. If the setting is checked, the cursor will jump to the top-most input field in the List view; otherwise the cursor will stay where you left it.
- "Show old values": This setting works when reading the file received from REFCON. Provided that you have done an RDC inspection of the same containers before, the user-selected values from that inspection are included in the REFCON file. If the setting is checked, these values are read and displayed in the [Container picture](#)^[22]; otherwise the values are ignored and thus not shown. If you change this setting, you will either have to restart RDC+ or wait for the next inspection preparation from REFCON for the change to take effect.
- "Auto-copy expected setpoints": This setting works in the [Container picture](#)^[22], if the current setpoint is not reported by REFCON - which is typically on the first inspection round for the container. If this setting is checked, each known expected setpoint is copied to the corresponding current setpoint when opening the picture or getting to the container by Next or Prev commands. Note that even if the setpoints gets a value this way, you still have to do more to [make it green](#)^[22].
- "Enable edit buttons": When this setting is checked, there will be 5 data lines (in Standard Data Set mode: 7 data lines) and 4 edit buttons available in the [Container picture](#)^[22]. If not checked, there will be 7 data lines and no edit buttons.
- "Advanced Data Set mode" or "Standard Data Set mode" as described above. Please remember to restart RDC+ after any change of this setting.



List view settings

Select the "List view" tab to change the settings of the List view in the [Container picture](#) ¹²¹:



These settings decide which data points to appear in the List view, and in which order.

The currently active settings are shown in the listbox to the left. If the listbox is empty, select "Reset" to fetch the default data points.

To move a data point to another position in the list, highlight it and then do either of the following:

- Select the "Up" or the "Down" button to move it one step up or down, respectively.
- Select the "Cut" button. The data point disappears. Highlight the data point where you want the cut data point to occur. Select the "Paste" button.

Selecting "Cut" removes the highlighted data point. If you do not afterwards select "Paste", it is gone.

To regret your changes and return to the existing list view settings, select Cancel.

To make deleted data points re-appear, you need to start all over from the beginning by selecting "Reset".

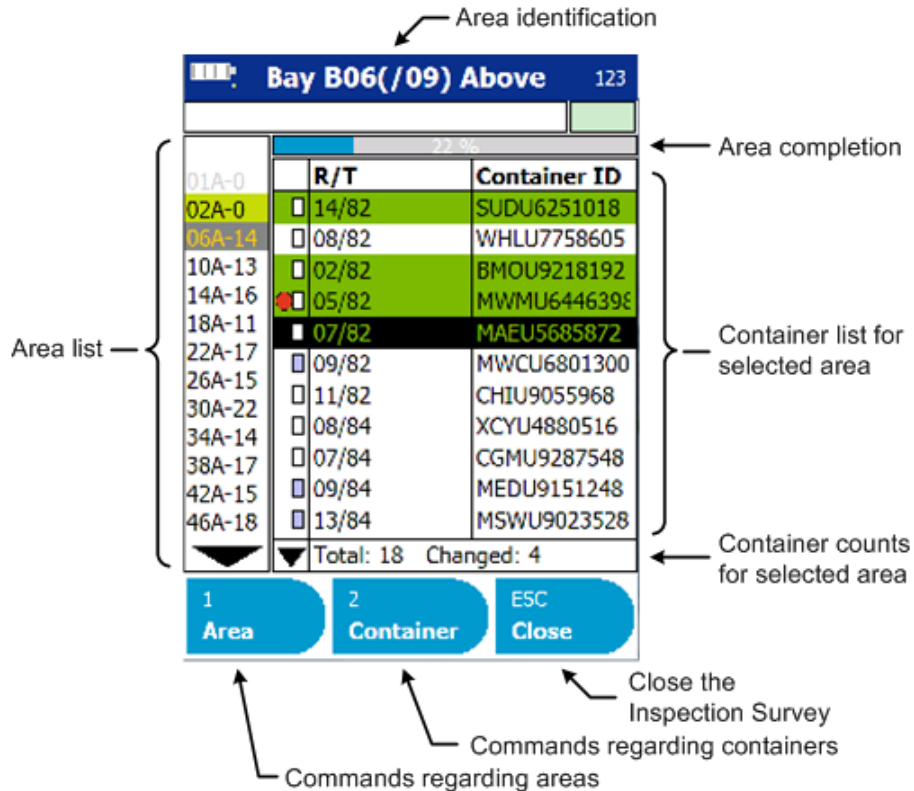
Note that the List view settings tab is not available in [Standard Data Set mode](#) ¹²¹.



1.3 The Inspection Survey

Overview

Select the "Inspect containers" button in the [RDC Start Picture](#)^[9] to open the Inspection Survey.



A fundamental idea in the Inspection Survey is that the complete amount of containers are organised in [areas](#)^[17]. The walk route chosen in REFCON decides what areas are defined, and what containers belong to what areas. The [container list](#)^[20], occupying the major part of the Inspection Survey, shows the containers included in the selected area. Note that the area list etc. is not found when running in [Standard Data Set mode](#)^[12].

Operating the Inspection Survey









You can select areas and containers in the following ways:

- "Clicking" on the touch screen immediately selects the area or container that you hit. "Click" just above or below the list to scroll.
- Use the Up and Down arrow keys to move selection up and down in the list already chosen - the Area list in above figure (black highlight).
- Use the Right and Left arrow keys to switch between the Area list and the Container list.
- Use the left and right [ear buttons](#)^[5] to select next and previous container, respectively. For example, if you press the left ear button when the last container in an area is selected, the first container in the next area will be selected, if possible.
- Use the blue buttons "[Area](#)"^[19] and "[Container](#)"^[21] to choose area and container, respectively, and to choose various options.
- Use the [search function](#)^[16] (see below) to jump to a specific container.
- Having selected (= highlighted) a container, you open the [Container picture](#)^[22] by "clicking" it (once more), by using the Enter key or by selecting the Enter command from the Container menu.



General colour codes in the Inspection Survey

You should interpret the colours as follows:

Colour	In text	Explanation
Text	Black text on white background	Area or container not selected, data not updated.
Text	Grey text on white background	Area includes no containers to be visited.
Text	Black background, any text colour	This area or container is selected, and the list has the keyboard focus.
Text	Grey background, any text colour	This area is selected, but the Area list does not have the keyboard focus.
	Green background or fill	Data update has completed in this area / for this container or device.
	Yellow steady background	Some but not all data have been updated in this area.
	Circle flashing red/yellow	Alarm on container, reported during the present inspection round.
	Circle steady red	Alarm on container, informed by REFCON, and thus origin from previous inspection or PCT.
	Flashing background or fill	There is one or more alarms in this areas / on this container.
	Flashing triangle, pointing up or down	There is one or more alarms in one or more not-shown areas / containers.
 or 	Small square, light blue or white, in first column of container list	Light blue: This container is or has been equipped with a power cable modem, according to the Global Monitoring Server. If automatic data retrieval does not work, please repair the modem. White: This container is not known to have a modem, according to the Global Monitoring Server. If this is true, manual data typing is necessary.



The Container Search Function

Select F5 in the Inspection Survey picture to search for a location or a Container ID:

When opened, the Search picture is blank.

The first three fields in the Search picture can be used individually or in combination.

The first two fields, *Container ID* and *Location*, are text string fields. Use alphabetic and numeric keys when entering the criteria. The search is NOT case sensitive. Type any part of the string you are searching for. Examples:

- Typing “omu” in the Container ID field finds any ID starting with “SOMU”, but also “DOMU”, “NOMU” etc.
- On a ship, typing “06” in the Location field finds any container in bay 06, but also those in row 06 in any bay, and those in tier 06 in any row in any bay.

In the *State* field you can choose the following options (using touch screen or TAB and left/right arrow keys):

- **Any:** Search through all containers (as decided in the other two fields).
- **Not updated:** Search for containers that have **not** yet been updated.
- **Updated:** Search for containers that **have** been updated.
- **In alarm:** Search for containers that have alarms.

Note that while entering your search criteria, the larger list box updates, displaying all current matches. If the list is or gets empty, either you have not entered any criteria or your criteria did not produce any hits.



Search for container 123

Container ID:

Location:

State:

060082	PONU4861189
060182	PONU4733974
060382	PONU4810664
061084	PONU4971890
060312	PONU4728520
050614	TTNU1703916

ENTER OK ESC Cancel

To jump to the container of interest,

- either "click" it in the list
- or use up and down arrow keys and "ENTER".

In both cases,

1. the search picture closes;
2. the Area list jumps to the area holding the selected container;
3. the selected container is highlighted in the Container List.

1.3.1 The Area List and the Area concept

Overview

First of all, be aware that areas are defined by the walk route selected in REFCON. You are able to change the walk route, and thereby you eventually decide the areas and how these are understood. The following description therefore shows the philosophy behind the area concept.

Also note that the area list etc. is not found when running in [Standard Data Set mode](#) ¹².

The idea is that most ships and terminals can reasonably be divided into areas that will work as useful "units" while you do your inspection round. You may think of areas as "rooms": You go to the first room, deal with all containers in the room, then go to the next room, etc. We imagine that the area holds an manageable amount of containers, making it easy to decide when the inspection job in the area is done.

On a ship, an area *could be* a bay. Maybe the bay would be divided in two areas, above and below deck (this is how the default walk route for ships are organised, and the examples in this manual are created).

On a terminal, an area *could be* a limited number of stacks of containers being geographically separated from other stacks.

If no preparation file is used, or no walk route is used, there will be one area, called "Div". You will always find the "Div" area even if areas *are* defined by the walk route / preparation file, in which case it is the last area in the Area list. "Div" may be empty.



Area identification

Each area is identified by

- a very short name "Short area id", used in the Area list
- a longer name "Full area id", used in the caption of the Inspection Survey.

When selecting another area, the caption of the picture changes similarly.

Area identification in default ship walk route

If you are using the default ship walk route (being used in the examples in this manual), you will see area identifications like this:

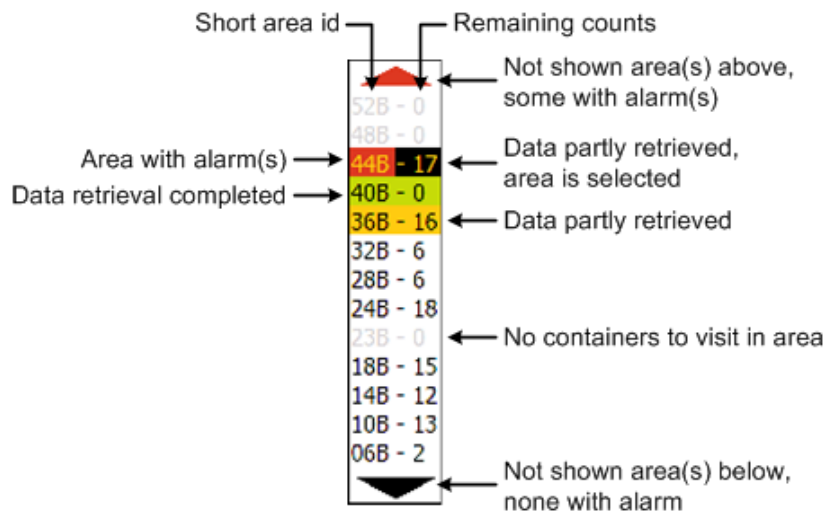
- "Short area id": "42B".
- "Full area id": "Bay B42(/45) Below".

The idea is that you have two areas for each 40" bay, one **a**bove deck (A) and one **b**elow (B).

For further information, please find the Default Walk Route description in REFCON's online help / manual.

The Area List

The Area list in the left side of the Inspection Survey can look like this:



The example corresponds to a ship's default walk route, but the explanations should be generally valid.

Part	Description
Short area id	The left part of the text of each area identifies it very shortly, as described above.
Remaining counts	The right part of the text of each area shows how many containers are left in the area that have not yet been inspected, that is, they need data update. The number counts down as you type in data. The counter only works as intended if you have complete preparation data from REFCON.
Triangle pointing upwards.	If not shown: You are viewing the top of the Area list. If shown: There are not shown area(s) above the visible list. - if black: No area above the list includes containers with (known) alarms; - if flashing: One or more areas above the list include containers with alarms. "Click" the triangle to scroll upwards.



Part	Description
Triangle pointing downwards.	If not shown: You are viewing the bottom of the Area list. If shown: There are not shown area(s) below the visible list. - if black: No area below the list includes containers with (known) alarms; - if flashing: One or more areas below the list include containers with alarms. "Click" the triangle to scroll downwards.
Row with black or dark grey background	Currently selected area. The containers included in the Container list belong to this area.

The Area completion progress bar

Just above the Container list in the Inspection Survey, you find the narrow progress bar:

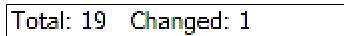


The progress bar only works as intended if you have complete preparation data from REFCON.

The bar moves from 0% to 100% as data are updated for the containers in the area.

The Area statistics

In the bottom of the Container list in the Inspection Survey, you find two counters:



"Total" is the number of containers in the selected area and thereby in the shown container list.

"Changed" is the number of these containers that have been updated.

The Area menu

At the bottom of the Inspection Survey you find the Area button. Selecting this opens the following menu:



In the example, the Top button is disabled because the topmost area is already displayed.

Select

- **Top** to jump to the topmost area (first in walk route).
- **Previous** to move selection upwards to the first area with containers. If none such above, it jumps to the end of the list and keep searching upwards.
- **Next** to move selection downwards to the first area with containers. If none such below, it jumps to the top of the list and keep searching downwards.
- **Bottom** to jump to the bottommost area (last in walk route).



1.3.2 The RDC+ Container List

Overview

The major part of the Inspection Survey is the Container List, including all containers in the currently selected [area](#) ¹⁷:

R/T	Container ID
14/82	SUDU6251018
08/82	WHLU7758605
02/82	BMOU9218192
05/82	MWUMU6446398
07/82	MAEU5685872
09/82	MWCU6801300
11/82	CHIU9055968
08/84	XCYU4880516
07/84	CGMU9287548
09/84	MEDU9151248
13/84	MSWU9023528
Total: 18 Changed: 4	

The example corresponds to a ship's default walk route, but the explanations should be generally valid.

Note that in [Standard Data Set mode](#) ¹², the heading of the second column ("R/T" in above example) is always "Location".

Container List parts

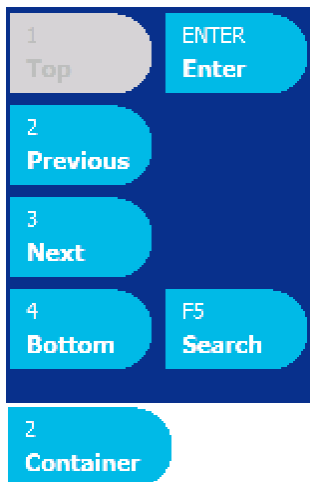
Part	Description
Location short	To save screen space, the walk route <i>can</i> define "short locations". If the heading reads "Location", the column shows the full location strings. In the ship example, we use R/T = row and tier as default. To get to know the complete location one must then watch the area id ¹⁸ and combine the two. The drawback, as by the default ship walk route, is that you can have two containers with same short location, appearing next to each other in the list; however, they will then physically be facing each other, so it should be possible to distinguish.
Container ID	The container's ID. If a container displays an ID starting with "RMMU" or "LOSU", something is wrong on the container; maybe the connection between the modem and the controller has broken?
Triangle pointing upwards.	If not shown: You are viewing the top of the Container list. If shown: There are not shown container(s) above the visible list. - if black: No container above the list has (known) alarms; - if flashing: One or more containers above the list have alarms. "Click" the triangle to scroll upwards.



Part	Description
Triangle pointing downwards.	If not shown: You are viewing the bottom of the Container list. If shown: There are not shown container(s) below the visible list. - if black: No container below the list has (known) alarms; - if flashing: One or more containers below the list have alarms. "Click" the triangle to scroll downwards.
Row with black background	Currently selected container. If there is no such row, the Area list has the focus - change this by pressing the right arrow button or "clicking" the row on the screen.
Flashing circle in leftmost column	The container has one or more alarms.
White or light blue square in leftmost column	See General colour codes in the Inspection Survey ^[15] .
Green background	Data for this container has been successfully updated.

The Container menu

At the bottom of the Inspection Survey you find the Container button. Selecting this opens the following menu:



In the example, the Top button is disabled because the topmost container is already displayed.

Select

- **Top** to jump to the topmost container (first in walk route in selected area).
- **Previous** to move selection to previous container.
- **Next** to move selection to next container.
- **Bottom** to jump to the bottommost container (last in walk route in selected area).
- **Enter** to open the [Container picture](#)^[22]. Note that you can use the Enter key to do so even without opening the Container menu.
- **Search** to open the [Container Search picture](#)^[16]. Note that you can use the F5 key combination to do so even without opening the Container menu.



1.3.3 The Container picture

Overview

The purpose of the Container picture is to allow you to type in data for the container. You can type in key temperature values and other measures as well as note and alarms.

Making a container green

Simplified, the user's job during an inspection round is to make all containers green in the Inspection Survey. So, how do you make a container green?


Having selected the container in the Inspection Survey and opened the Container picture, there are a few possibilities:


- If no data were ever entered for the container, that is, all input fields are empty, you need to enter data in at least one field, by typing or copying. After this, selecting Next, Previous or OK makes the container green.
- If data exist from a previous inspection, and you are **sure** the data are still valid, you still need to do some change before selecting Next, Previous or OK to make the container green. For example, if a field reads 0.5, and this is correct, you could write 0.5 anew, or you could hit "Decr" and the "Incr" to obtain an unchanged value.


Important warning: Be careful not to make a container green unintentionally! If the Container picture displays a certain container with existing data, and you are not ready to inspect that container, **always** select **Cancel** to get away from the container without marking it green.

Opening and navigating the Container picture

To open the Container picture, select a container in the Inspection Survey and then

- either press the Enter key;
- or "click" it;
- or select the "Enter" button in the [Container menu](#) .

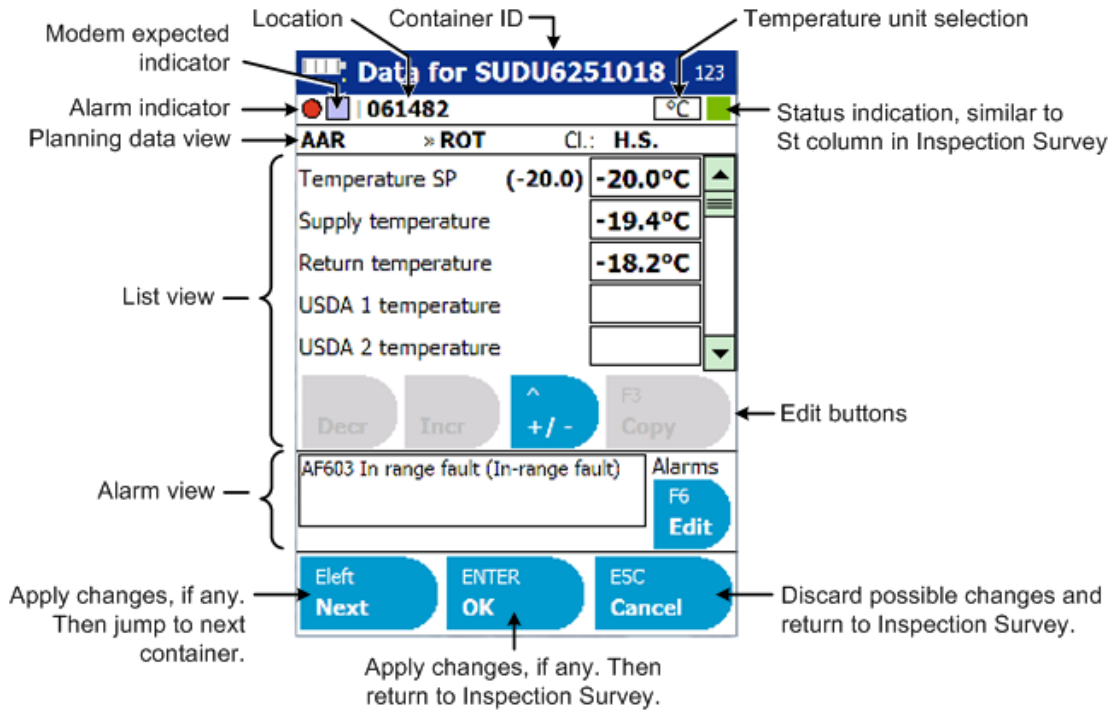
Having the Container picture open, jump to the next container in the walk route order by selecting the "Next" key lower left in the picture or by pressing the left [ear button](#) .

You can similarly press the right [ear button](#)  to jump to the previous container, even though there is no Previous button because of the limited screen space.



Container picture elements

The Container picture basically appears like this:



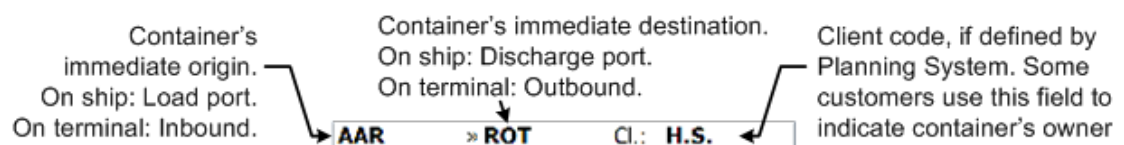
Near the top of the picture you find:

Part	Description
Alarm indicator	White if no (reported) alarms on this container. Flashing red if alarm was reported during the current inspection round. Steady red if alarm was reported during a previous inspection round.
Modem expected indicator	Similar to square symbol in Container List, see General colour codes in the Inspection Survey ¹⁵ .
Location	Container's location according to Planning data.
°C / °F selection	The field shows the current unit selection. "Click" the field to have the temperatures displayed in °C or °F, or use the "F2" key combination to toggle. Note that temperatures are always stored in °C. When you choose ° F, conversions take place, which might result in rounding errors of up to ±0.2°C.

Selecting the Next or the OK button makes the container green in the Inspection Survey if (and only if) the above mentioned [conditions](#) ²² are met.

Planning data view

Near the top of the Container picture, selected data origin from the Planning System are indicated:





List view

In the middle of the Container picture, the List view of data points is found:

Temperature SP	(0.5)	0.5°C	▲
Supply temperature			☰
Return temperature		0.7°C	
Note	-		▼
Decr	Incr	+/-	F3 Copy

In the List View you find literally all possible measures that can be recorded regarding a container. The specific set of data points and the order of appearance can be changed in the [Settings picture](#)^[13]. Note, however: In [Standard Data Set mode](#)^[12], there is a limited, fixed set of data points available.

The list simply contains one measure a line. Use the scrollbar or the up and down arrow buttons to display not-shown parts of the list.

If the measure is an actual setpoint (as the "Temperature SP" in above example), the corresponding expected setpoint is indicated next to the label in parentheses, if specified. In such case you can use the "Copy" button to set the actual setpoint equal to the expected.

General data entry rules

In the List view you can type in data.

General editing hints:

To move the text cursor to another field	use the Tab key or the Up and Down arrow keys – or "click" the touch screen.
To type in a numeric value	the keyboard must be in numeric mode, indicated by "123" rightmost in the caption bar.
To type in text (in note and alarm field)	the keyboard must usually be in alpha mode, indicated by "abc" or "ABC" rightmost in the caption bar.
To toggle between numeric and alpha	use the yellow FN key.
To cancel all your changes in picture	select "Cancel" button (lower right in picture), or press the Esc button.
To store your changes	select "Next" button or "OK" button in the bottom of the picture, or press an ear button ^[5] or the Enter button.

Once you have typed in data in a field, it will stay until you make a new change, even during file transfers.

Additional measurement entry hints

When you type in temperatures or other measures, the four buttons at the bottom of the List view can be useful. Buttons that are not relevant at the moment are disabled. Note that in [Advanced Data Set mode](#)^[12] you can choose to not have these button visible.

Button	Description
Decr	Decreases the current value in the selected field by <ul style="list-style-type: none"> • 0.1 when it is a temperature field. • 1.0 in other fields.



Button	Description
Incr	Increases the current value in the selected field by <ul style="list-style-type: none"> • 0.1 when it is a temperature field. • 1.0 in other fields.
+/-	Toggles the sign of the current value in the selected field, from minus to plus and vice versa. If the field is empty, a minus-sign is inserted. Note that the shortcut "^" means the minus key ⁵⁾ of the handheld unit.
Copy	If the setpoint field is selected: <ul style="list-style-type: none"> • Copies the value of the expected setpoint to the selected field, if known.

All typed-in measures are range checked. If you enter a value outside the valid range shown in below table, field background changes to yellow. If/when you try to leave the field in this case, a message pops up showing the valid range. You have to choose a value in-range to proceed, unless you select Cancel/Esc to discard all pending changes. The valid ranges are:

Measure	Valid range
Temperature	-80°C to +90°C, corresponding to -112°F to +194°F
Pressure	0 to 50 bar
Percentage values	0 to 100 %
Air flow	0 to 300 m ³ /h
Voltage	0 to 100 V
Current	0 to 100 A

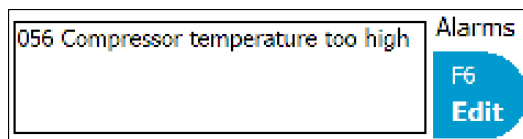
Values are rounded to one decimal.

If the sensor is in error, or the value is otherwise unknown, or you for some other reason don't want to enter a value, clear the field.

All temperatures are signed decimal values in the unit (°C or °F) shown uppermost on the screen.

The Alarms view

In the lower part of the Container picture, the Alarms view is found:



The list box to the left shows the reported alarm(s), if any. The alarms origin from

- the RDC user; or
- REFCON / Power Cable Transmission (PCT).

In the second case you can make changes, however, if the container is still communicating on the PCT, your changes are dismissed.

The Alarms picture

You add, change or remove alarm(s) by selecting the button, labeled "Add" or "Edit". This opens the following picture:



Alarm display number:

Controller type (opt.):

Alarm selection from list (recommended)

F6 Select F7 Remove

Free-text alarm (do normally not use):

ENTER OK ESC Cancel

In the example, no alarms have been selected, and the controller type is unknown.

The idea is that when facing the container with alarm, you read the alarm code in the controller display. It could for example read "AW955".

In the "Alarm display number", you can type in the entire alarm code, or you could simply type an easy fraction. You will see that, as you type, a list of possible alarms appears in the upper list box:

Alarm display number:

Controller type (opt.):

(StarCool) --655 Container air leak (operation) ▲

(StarCool) AA855 PTI Tset 5 (test alarm) ≡

(StarCool) AW955 Temp ref 2 LO (controller) ≡

(TK MP-3000) 055 Voltage too low on one pha ▼

(TK MP-4000) 055 Voltage too low on one pha ▼

F6 Select F7 Remove

In the example, having typed "55", the list shows that there are a number of alarms including these digits, on several controller types. You can narrow your search by typing more of the alarm code or by selecting a Controller type.

To finally select the specific alarm, you need to highlight it in the list box. You can do this by "clicking" it on the touch screen / scrolling the scroll bar, or you can use the Up and Down arrow keys.

As soon as an alarm is highlighted, the "Select" button gets enabled. "Click" this button, or select the F6 key combination, to select the alarm. This "moves" it to the lower list box, showing the actually selected alarms.

To remove an alarm, highlight it similarly in the lower list box, and select the "Remove" button.

Having finished your alarm selection, select the "OK" button or hit the ENTER key. You then return to the Container picture. Here you also need to select OK/ENTER, Next or Previous to have the alarm selections activated.



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