ControlMaster controllers and indicators
ConfigPilot
Creating, uploading and downloading configurations

Measurement made easy

1 Introduction

A configuration for a ControlMaster (both controller and indicator) can be created, modified and backed up to a PC using the ConfigPilot software program.

ConfigPilot is a utility used in conjunction with a USB IrDA adaptor and is downloaded from:
http://new.abb.com/products/measurement-products/configpilot/download.

2 Items required

Description	Part no.
USB IrDA adaptor	B12895
This publication	IN/RandC/003-EN

Table 2.1 ConfigPilot kit CM30/0715

ABB

3 Firmware revision

The following ControlMaster firmware revisions are compatible with ConfigPilot:

ControlMaster	ABB firmware revision		Non ABB firmware revision	
CM15	CM15/P2/00.02.22 CM15/P2/01.02.22		CM15/P2/00.02.24 CM15/P2/01.02.24	
CM10	CM10/P2/00.02.22 CM10/P2/01.02.22	or later	CM10/P2/00.02.24 CM10/P2/01.02.24	or later
CM30	CM30/P2/00.02.22		CM30/P2/00.02.24	
CM50	CM50/P2/00.02.22		CM50/P2/00.02.24	
CMF160	CMF160/P2/00.02.22		CMF160/P2/00.02.24	
CMF310	CMF310/P2/00.02.22		CMF310/P2/00.02.24	

Table 3.1 ControlMaster firmware revisions

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i   **IMPORTANT (NOTE)** If using an earlier firmware revision, contact your local ABB representative for more information.

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4 Preparation

4.1 Minimum system requirements
— 2 GHz Intel pentium dual core processor (or equivalent)
— 4 GB RAM
— Windows 7 SP2, Windows 8 Pro or Windows 10
  (32 or 64 bit)

> **i IMPORTANT (NOTE)**
> Minimum version of windows 10 – version 1607, (OS build 14393.447) released November 8 2016.

— 200 MB free hard disk space
— 1024 x 768 minimum screen resolution

4.2 Installing ConfigPilot

> **i IMPORTANT (NOTE)**
> ConfigPilot can be installed on a PC by any user with a standard account type. Configuration files are transferred between ConfigPilot and a ControlMaster via IrDA using the recommended IrDA adaptor.
> It is recommended that you install a suitable anti-virus application.

1. Copy the ConfigPilot installation file to a local drive, unzip it (if necessary) and run 'Setup.exe'.
2. Follow the on-screen instructions to complete installation.

4.3 USB IrDA adaptor driver installation
The driver for the USB IrDA adaptor should install automatically when the adaptor is connected to a PC. If it does not install, follow the manufacturer's instructions supplied with the adaptor.

4.3.1 ControlMaster IrDA port location
Fig. 4.1 shows the location of each ControlMaster's IrDA port and the recommended distance between the adaptor and ControlMaster.

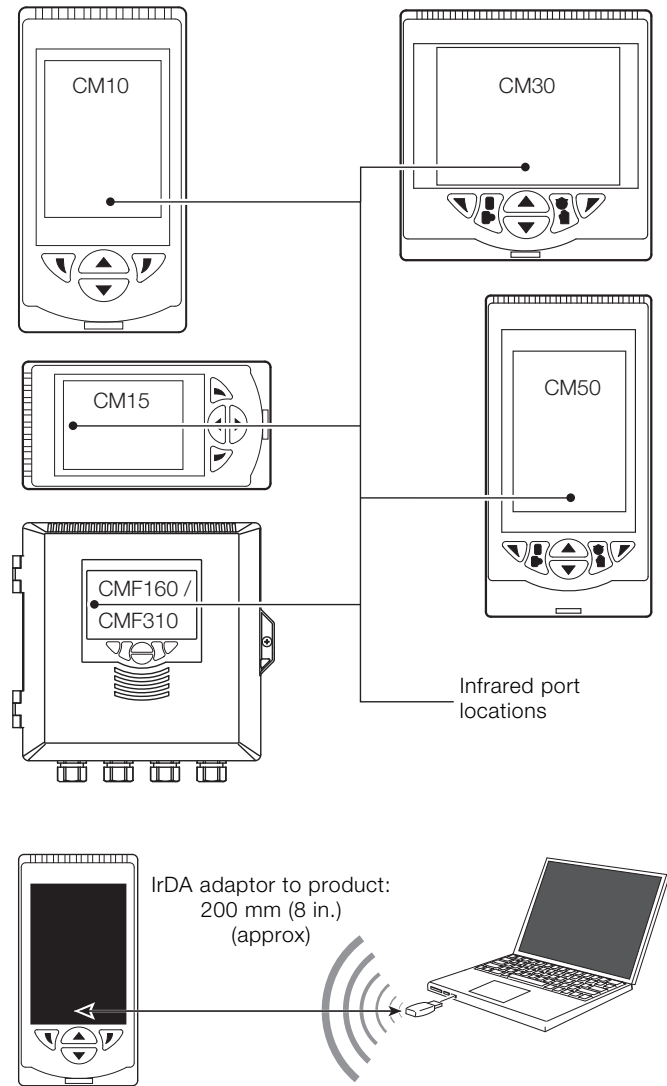Connect the USB IrDA adaptor to a PC and align it with the IrDA port on the front of the ControlMaster.
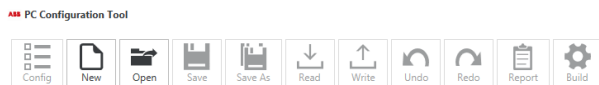

Fig. 4.1 IrDA port locations

5 Getting started

1. Start the application from the Windows® Start menu (or desktop shortcut if available).
2. When the application starts, the application home page is displayed:

The home page is divided into a number of sections:

a. The main features of ConfigPilot are accessed from the icon ribbon located at the top of the main window:

b. The window on the right hand side displays information from the dedicated ConfigPilot website when connected to the internet.
c. The *Recent Files* window displays a list of the most recently opened configuration files. Clicking on the file name opens the file and opens the configuration window.
d. The *Useful Links* window displays a number of useful links such as the ABB website and links to product documentation.

Section 7 explains the purpose of each of the icons.

> **i IMPORTANT (NOTE)**
> Select the *Home* (🏠) icon to return to the *Home* view from the *Configuration* view.

6 Excluded configuration parameters

The following configuration parameters are not included in the PC configuration software:

— Passwords to access configuration mode (see also Table 6.1)
— Display contrast and brightness settings
— Analog input zero, span and sensor user calibration adjustments
— Ethernet communication:
   DHCP settings, IP address, subnet mask and default gateway
— RS485 MODBUS:
   Device address

These parameters are not included when reading or writing a configuration to or from a ControlMaster or when saving a configuration file, therefore, they must be configured manually in the ControlMaster.

ControlMaster software version	Configuration source		
	Newly created in ConfigPilot	Opened from file	Read from ControlMaster (regardless of ControlMaster software version)
XX.02.22 / 23	Defaulted to '0' (password disabled)	Value held in file written	Value read from ControlMaster written
XX.02.24 or later	Not changed	Not changed	Not changed

Table 6.1 Effect on ControlMaster's password when a configuration is written to it using ConfigPilot

7 Icons

7.1 Creating a new configuration
1. Select the *New* icon.
2. Select the product that you wish to configure from the displayed options and click *OK*.
3. Select the required *Build Options* and click *OK*.
4. The configuration window is displayed.

7.2 Opening an existing configuration
1. Select the *Open* icon.
2. Navigate to the required location and select the configuration file you wish to open.
3. Click the *Open* button to open the file and load the *Configuration* window.

7.3 Saving a configuration file

> **ℹ IMPORTANT (NOTE)**
> When saving a configuration file, it is recommended that suitable access rights control is implemented on the PC running ConfigPilot to ensure that the file cannot be opened by unauthorized users. It is also recommended that configuration files are stored in a secure location, where unauthorized access can be prevented.

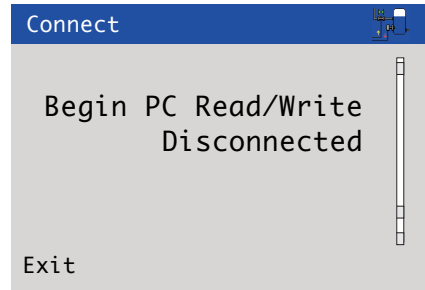### 7.3.1 Saving a configuration file with the same filename
Select the *Save* icon to save an open configuration file with the same file name.

7.3.2 Saving a configuration file with a new filename
1. Select the *Save As* icon to save an open configuration file with a different filename.
2. Navigate to the required storage location and enter the required filename.
3. Click on the *Save* button to save the file with the new file name.

7.4 Reading a configuration from a connected ControlMaster
1. Ensure the USB IrDA adaptor is plugged into the PC.
2. On the ControlMaster, press either the left- or right-hand key to display the *Access Level* page.
3. Select *Advanced* (enter any password required).
4. Select the *Device Setup* page.
5. Use the up / down keys to select *IrDA configuration*.
6. Highlight *Connect* and press *Select*. The following screen is displayed:


```
Connect

      Begin PC Read/Write
             Disconnected


Exit
```

7. Align the USB IrDA adaptor with the ControlMaster to establish a connection.
   When a connection is established the 🔊 icon in the bottom left-hand corner of the application window turns green and the *Connected device* box is populated as shown in Fig. 7.1, page 6.
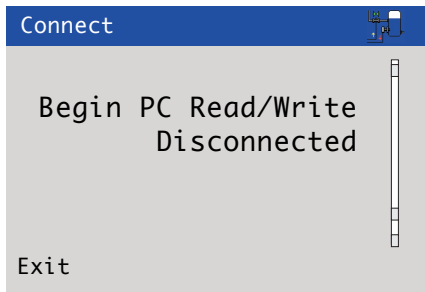8. Select the *Read* icon.

> **ℹ IMPORTANT (NOTE)**
> If the configuration is already open, a warning dialog is displayed to indicate that the existing configuration will be overwritten – a warning **is not** displayed on first read.

9. Select *Yes* to continue or *No* to abort the read.
   If *Yes* is selected the configuration is read from the ControlMaster to the application.
   An information dialog is displayed to indicate a successful or unsuccessful read.

7.5 Writing a configuration to a connected ControlMaster

1. Ensure the USB IrDA adaptor is plugged into the PC.
2. On the ControlMaster, press either the left hand or right hand key to display the *Access Level* page.
3. Select *Advanced* (enter any password required).
4. Select the *Device Setup* page.
5. Use the up / down keys to select *IrDA configuration*.
6. Highlight *Connect* and press *Select*. The following screen is displayed:

```
┌─────────────────────────────────────┐
│ Connect                          🖳  │
│                                   ▓  │
│    Begin PC Read/Write           ▓  │
│            Disconnected           ▓  │
│                                   ▓  │
│                                   ▓  │
│                                   ▓  │
│ Exit                              ▓  │
└─────────────────────────────────────┘
```

7. Align the USB IrDA adaptor with the ControlMaster to establish a connection. When a connection is established the *Connected* icon on the bottom left hand corner of the application window will turn green and the *Connected device* box is populated as shown in Fig. 7.1.
8. Select the *Write* icon.

> **i   IMPORTANT (NOTE)**
> A warning dialog is displayed to indicate that the existing configuration will be overwritten.

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9. Select *Yes* to continue or *No* to abort the read.
10. If *Yes* is selected the configuration is written from the application to the ControlMaster.
11. An information dialog is displayed to indicate a successful or unsuccessful write.

> **i   IMPORTANT (NOTE)**
> If the ControlMaster build and the configuration build selected do not match, a warning dialog is displayed and an option is provided to continue or abort the write.

| 🖳 Instrument Type: *CM30* | I/O Build: *3* | Functionality: *Dual Loop* | Comms. Module: *Ethernet* | No. Analog Inputs: *4* | No. Analog Outputs: *2* | No. Relays: *4* | No. Digital I/O: *6* | Config. Description: |
| 📶 Instrument Type: *CM30* | I/O Build: *3* | Functionality: *Extended* | Comms. Module: *Ethernet* | Software Revision: */00.02.22* | Access: *Read / Write* |

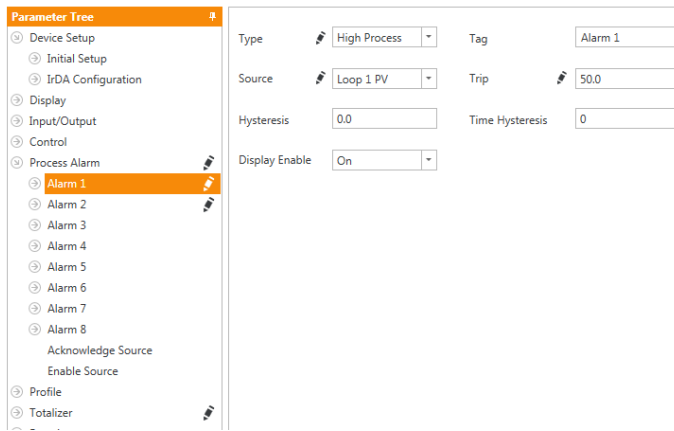Fig. 7.1 Connected device box showing connection established

7.6 Undo / Redo

Use the *Undo / Redo* icons to undo or redo changes made to a configuration.

Changed parameters are indicated by a pencil icon ( ). The icon is also displayed in the parameter tree to indicate where configuration changes have been made.

IMPORTANT (NOTE)

The   icon disappears when a configuration is saved, but if ConfigPilot is closed without saving a configuration, any changes that are still marked with   are lost.

7.7 Generating a configuration report

1. Select the *Report* icon to open the report generation window.
2. By default all parameters are included in the report. Parameters can be excluded / included at the menu level by selecting from the tree view on the left hand side and clicking on the *Update* button.
3. When the required parameters have been selected the report can by saved in Word®, Excel® or PDF formats, or directly printed from the application.

7.8 Changing build options for the configuration

1. Select the *Build* icon to open the build options window.
2. The build of the ControlMaster you want to create a configuration for can be modified.
3. Once completed, press *OK* to return to the *Configuration* window.

7.9 Application settings

Select the *Settings* icon to change the application language and theme.

7.10 Application information

Select the *About* icon to change the application and compatible ControlMasters.

IMPORTANT (NOTE)

Although it is possible to open multiple sessions of ConfigPilot, it is only possible to connect to a ControlMaster through the first session (only 1 session at a time may perform read and write operations to a ControlMaster).

Acknowledgements

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IN/RandC/003–EN Rev.B   01.2017