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 can be downloaded from: http://new.abb.com/products/measurement-products/configpilot/download.

2 Items required

Description	Part number
USB IrDA adaptor	B12895
IrDA mounting bracket	CM30/0716
This publication	IN/RandC/003-EN

Table 1   ConfigPilot kit CM30/0715

Sales

Service

3   Cyber security

This product is designed to be installed on a computer that can be connected to, and communicate information and data via, a network interface. It is your sole responsibility to provide and continuously ensure a secure connection between the product and your network or any other network (as the case may be). You shall establish and maintain any appropriate measures (such as, but not limited to, the installation of firewalls, application of authentication measures, encryption of data, installation of anti-virus programs etc.) to protect the product, the network, its system and the interface against any kind of security breach, unauthorized access, interference, intrusion, leakage and/or theft of data or information.

ABB Limited and its affiliates are not liable for damages and/or losses related to such security breaches, any unauthorized access, interference, intrusion, leakage and/or theft of data or information.

4   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		CM10/P2/00.02.24 CM10/P2/01.02.24	
CM30	CM30/P2/00.02.22	or later	CM30/P2/00.02.24	or later
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 2   ControlMaster firmware revisions

NOTICE

If using an earlier firmware revision, contact your local ABB representative for more information.

5   Preparation

Minimum system requirements

- Windows 7 SP2, Windows 8 Pro or Windows 10 (32 or 64 bit)
  Note. Minimum version of windows 10 – version 1607, (OS build 14393.447) released November 8 2016.
- 2 GHz Intel pentium dual core processor (or equivalent)
- 4 GB RAM
- 200 MB free hard disk space
- 1024 x 768 minimum screen resolution

Installing ConfigPilot

NOTICE

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.

Uninstalling/Updating ConfigPilot

Uninstalling
ConfigPilot can be uninstalled using the Add/Remove programs function in the Windows Control Panel.

Updating
Before installing an updated version of ConfigPilot, first uninstall the currently installed version as described in the previous section '**Uninstalling**'.

USB IrDA adaptor driver installation

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

> ### *NOTICE*
>
> Windows 10 users **must** install adaptor drivers using the supplied CD **before** plugging in the adaptor.

ControlMaster IrDA port location

Figure 1 shows the location of each ControlMaster's IrDA port and the recommended distance between the adaptor and ControlMaster for CMF160 and CMF310 products.

Connect the USB IrDA adaptor to a PC and align it with the IrDA port on the front of the ControlMaster. If using the optional IrDA mounting bracket, refer to Figure 2.
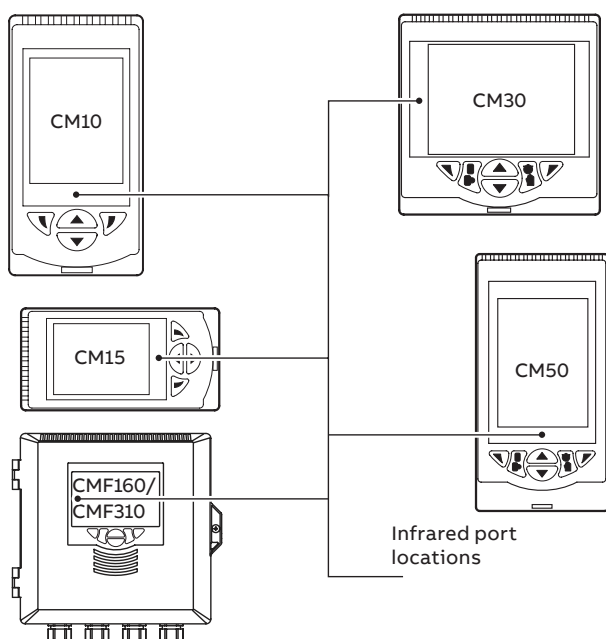
Note. For products with no IrDA mounting bracket slot (CMF160/CMF310) locate the IrDA adaptor a maximum of 200 mm (8 in) from the port location
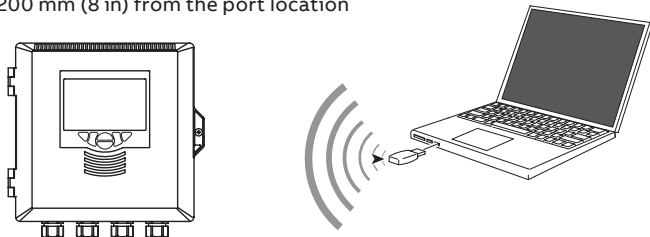
Figure 1   IrDA port locations

Fitting the IrDA mounting bracket

An (optional) IrDA mounting bracket can be used with CM10, CM15, CM30 and CM50 products to hold the (optional) IrDA adaptor securely in place.

Referring to Figure 2:
1 Locate IrDA mounting bracket Ⓐ in mounting slot Ⓑ and carefully push into position.

2 Fit IrDA adaptor Ⓒ to the mounting bracket as follows:

   • use slot Ⓓ for CM30 products
   • use slot Ⓔ for CM10, CM15 and CM50 products

   (the adaptor face should be just proud of the bracket).

CM30 only
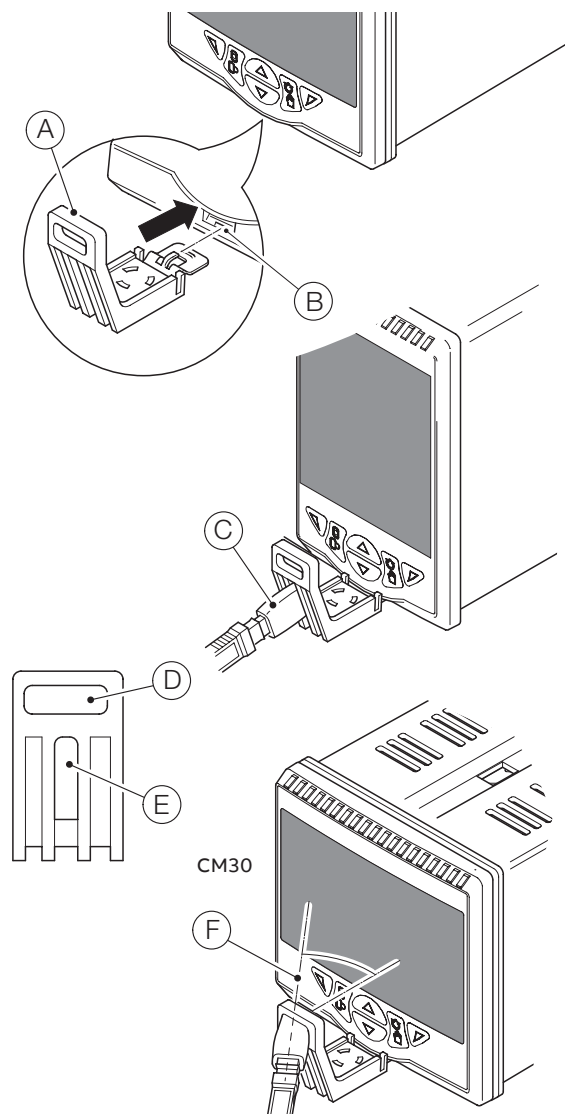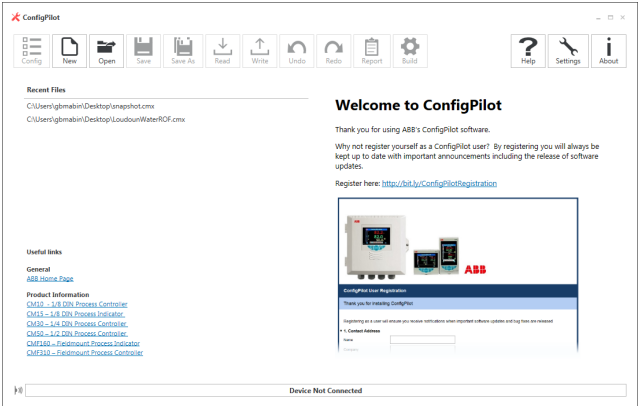3 Incline the IrDA adaptor to position Ⓕ to align with the CM30's infrared port.

Figure 2   Fitting the IrDA mounting bracket

6 Getting started

1 Start the applic ation 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 – see Figure 3.

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 a 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 8 explains the purpose of each of the icons.

Note. Click the 🏠 icon to return to the Home view from the **Configuration** view.

7 Excluded configuration parameters

The following configuration parameters are not included in the PC configuration software:
- Passwords to access configuration mode (see also Table 3)
- 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.

Figure 3   Icon ribbon

| ControlMaster | Configuration source | | Read from ControlMaster (regardless of ControlMaster software version) |
	Newly created in ConfigPilot	Opened from file	
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 3   Effect on ControlMaster's password when a configuration is written to it using ConfigPilot

8   Configuration

Creating a new configuration

1   Click the ⬜ 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.

Opening an existing configuration

1   1. Click the 📂 icon.

2   Navigate to the required location and select the configuration file you wish to open.

3   3. Click the **Open** button to open the file and load the **Configuration** window.

Saving a configuration file

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.

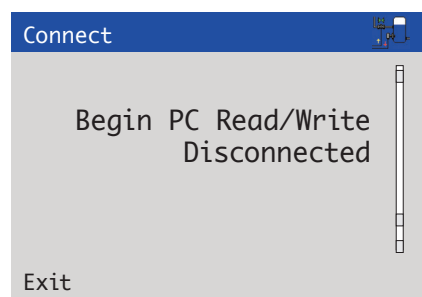**Saving a configuration file with the same filename**
Click the 💾 icon to save an open configuration file with the same file name.

Saving a configuration file with a new filename
1   Click the 💾 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.

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 ▽ or ▷ key to display the **Access Level** page.

3   Select **Advanced** (enter any password required).

4   Select the **Device Setup** page.

5   Use the △/▽ keys to select IrDA configuration.

6   Highlight **Connect** and press the ▷ key (**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 ConfigPilot main window turns green and the **Connected** device box is populated as shown in Figure 4 on page 6.

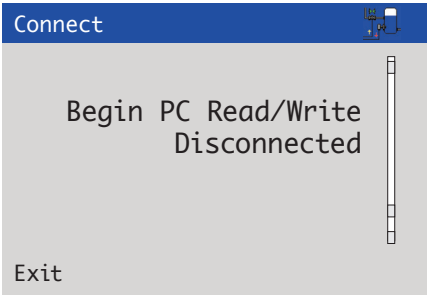**8**   Click the 📥 icon on the ConfigPilot icon ribbon.

   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   Click **Yes** to continue or **No** to abort the read. If **Yes** is clicked the configuration is read from the ControlMaster to ConfigPilot. An information dialog is displayed to indicate a successful or unsuccessful read.

...8   Configuration

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 ▽ or ▷ key to display the **Access Level** page.

3 Select **Advanced** (enter any password required).

4 Select the **Device Setup** page.

5 Use the △/▽ keys to select **IrDA configuration**.

6 Highlight **Connect** and press the ▷ key (**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 ConfigPilot main window turns green and the **Connected** device box is populated as shown in Figure 4.

8 Click the ⤒ icon on the ConfigPilot icon ribbon.

Note. A warning dialog is displayed to indicate that the existing configuration will be overwritten – a warning **is not** displayed on first read.

9 Click **Yes** to continue or **No** to abort the read.

10 If **Yes** is clicked the configuration is written from ConfigPilot to the ControlMaster.

11 An information dialog is displayed to indicate a successful or unsuccessful write.

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* |

Figure 4   Connected device box showing connection established

Undo/Redo

Use the ↺ / ↻ icons to undo or redo changes made to a configuration.

Changed parameters are indicated by the ✏ icon. The icon is also displayed in the parameter tree to indicate where configuration changes have been made.
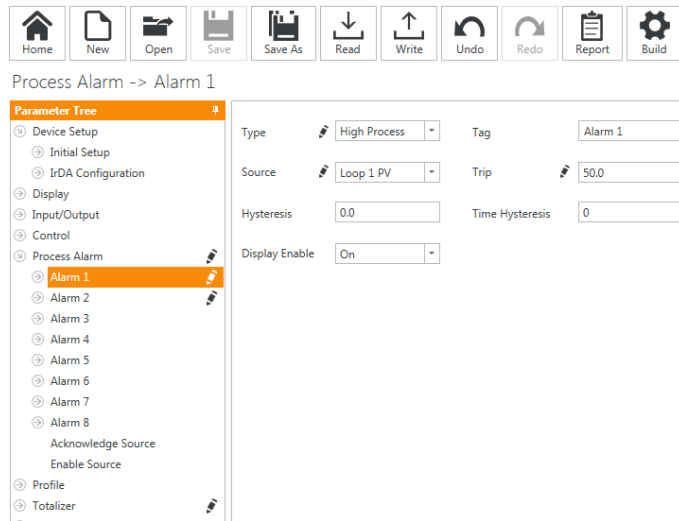
Note. The ✏ icon disappears when a configuration is saved, but if ConfigPilot is closed without saving a configuration, any changes that are marked with ✏ are lost.

Generating a configuration report

1 Click the 📋 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 be saved in Word®, Excel® or PDF formats, or printed directly from the application.

Changing build options for the configuration

1 Click the ⚙ icon to open the build options window.

2 The build of the ControlMaster you want to create a configuration for can be modified.

Once completed, click **OK** to return to the **Configuration** window.

9 Application settings

Click the 🔧 icon to change the application language and theme.

10 Application information

Click the ℹ icon to change the application and compatible ControlMasters.

> **NOTICE**
>
> 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).

Acknowledgement

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