# 1. REVISIONS DC2 4.1.0

1.1. MICROCONF

- Code no longer needed to activate track/wheel control
- Order of bootload changed. If both CM and TM selected, TM will bootload first and then CM. This is because there is now a safe state after bootloading. Consequently, you only need to restart the system once. Microconf notifies you in a dialog box that the system must be restarted after the bootload.
- The green lines on the Wheel Control tab that indicate the current direction are now thicker to be more visible.
- Longer display of tooltips in Microconf. Tooltips will now be displayed for as long as the mouse pointer hovers over the yellow info box. Previously, it would disappear after 5 seconds.
- Feeder switching can now be activated directly in Microconf. Previously, this was only possible with the parameter file. Activated with check box on the logic tab.
- At present, there is a problem with the tiltrotator module bootloader that prevents bootloading when QLM and/or C2C is engaged on the same CAN bus. Now there is a dialog box in Microconf, which describes this and requests the user disengage these units while bootloading. This box indicates a failed bootloading provided the tiltrotator bootloader is version 2 or lower. The tiltrotator bootload version is now available on the IO tab in the tiltrotator module system information.

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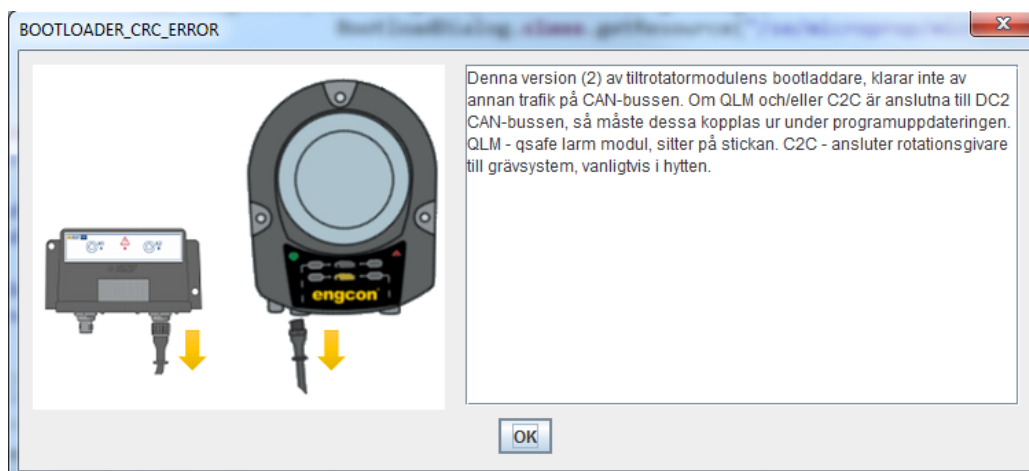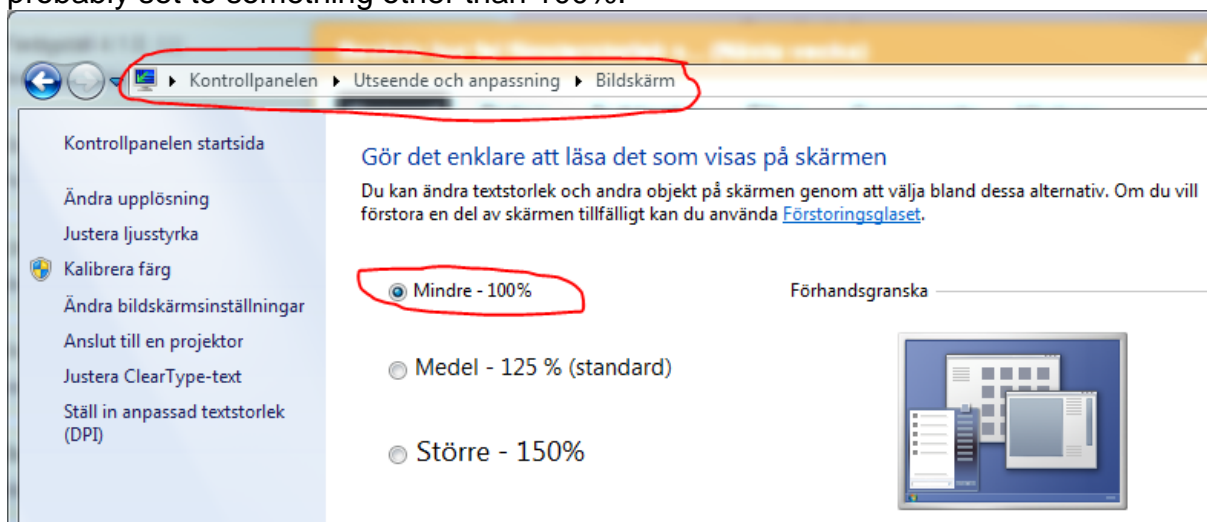
- Wizard changed so the window can be closed with the X in the top right corner. Previously, nothing happened when the X was pressed.

  Tip!!
  If there is a problem viewing certain parts of the Microconf user interface or if they look as though they do not really fit in the window, the text size used in Windows is probably set to something other than 100%.

- Changed so that the dialog box for selecting machine model is displayed only in conjunction with wheel selection. Previously, only the Windows registry was checked for saved serial numbers. This meant the dialog was displayed again if a new computer was connected that had not been connected to the module before. Consequently, it will now be displayed only once (as from this version of Microconf only).
- Text in user interface changed from "Analogue outputs" to "Power outputs".

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- "Force Double Feeder" could be selected in Double Feeder. Now it can only be selected in USER1.
- On "machine function pwm2" tab: Text changed from: "bidirectional mode", to: Use as machine function with the assistance of a directional control valve (5/2 Spring return) in series, which controls A or B direction. Controlled by Do3 or Do4.
  New function: You can now select Do3 or Do4 to control the directional valve. However, Do3 cannot be selected if wheel control is active.
- Modulation of the feeder is now stopped if no heartbeat or single feeder. Previously, the feeder could be modulated by running a tiltrotator function, even when the tiltrotator module was not engaged.

1.2. CABIN MODULE

- The safe state name is now displayed in the cabin module display in addition to displaying only a numeric index. For example, it now says "SYSERR_CONTROL_VALVE1" in the display when in safe state 9.
- Alarm ACT. SWITCH NOT ACTIVE has been revised so it no longer beeps. The alarm is given when the operator touches the roller for the track or wheel control when it is not activated. This was disturbing as the function is always switched off each time the system is started and it is easy to touch the roller lightly while operating other functions. The alarm is still displayed but now, only the display lights up and there is no beep.
- The time a specific alarm is shown in the cabin module display has been extended so it is easier to read.
- Changed the way in which the System-inhibit alarm is handled in the cabin module. The alarm is displayed but the buzzer does not beep any more. The beep was considered disturbing.

1.3. THE SYSTEM

- Added EC204 to the list of selectable models in Microconf and the cabin module.
- 6 New functions. Now the following functions can be shifted in on a rolling basis:
  o PWM2
  o PWM3 A-B
  o PWM5
  o PWM6

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- o PWM7_A_B
- o PWM8_A_B

All of the above, with the exception of PWM2, are classed as machine functions and can therefore only be selected in user 1 and will then be valid for all users and in double feeder mode.

- It is now possible to select a or b direction for the tiltrotator after switching in the feeder switching function.
- Possibility to activate DO1 (safety valve CV1) when only single feeder installed. This means the system uses a safety valve in the same manner as double feeder mode. Activated with check box on the logic tab.
- PWM5 A-B can now be selected with a button in the same way as PWM6 A-B. Previously, this worked for PWM6 only. Common to pmm5 and 6 is that they cannot be selected in double feeder. However, these can be selected in user 1. This function is classed as a machine function and is therefore locked in all users, and thereby also available in double feeder.

1.3.1. Revisions to software compatibility regarding control of coupler lock.

- A tilt module with software 4.0.0 or later requires communication via a new protocol that is used between the tilt module and the cabin module so that the lock can be opened. This means that a cabin module with the older software that does not transmit commands via the new protocol can therefore not open the lock on a tilt module using software version 4.0.0 or later. Other tiltrotator functions are not affected by this and can still be controlled. If in the field, a tiltrotator with a new tilt module in connected to an old cabin module, the tilt module will trigger an interrupt alarm on the tool lock valve 15 seconds after start up. This is the only way the tilt module can communicate as the old cabin module does not know anything about this new protocol.
- A new cabin module 4.0.0 or later with an old tilt module will control the lock but it will trigger an alarm for old software in the tilt module.

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