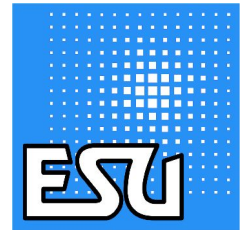# ECoS E S U C O M M A N D S T A T I O N
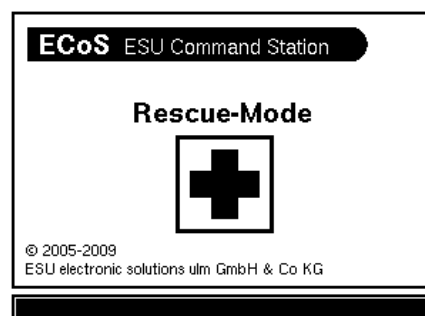# Software 3.0.0
Brief instructions

02.04.2009

Installation

The installation process for the update 3.0.0 differs from previous updates. To install ther version 3.0.0 on an ECoS with software version 1.1.3 and less, the intermediate-update 2.51. has to be installed first. The reasons for this are internal reorganisations of the software system which allow the reactivation of an ECoS after failed updates (see „Restore after failed update").

For the update, please proceed as follows:

1. Befrore starting the actual update, the user data should be backuped via the webinterface in the event of problems during the update process. As a general rule, your data (locos, turnouts, etc.) will not be lost.

2. Please install the intermediate-update 2.5.1 (file: *EcoS_rescue-update_2-5-1.bci*) on your ECoS. The installation process may take up to 10 minutes. Do not disconnect the ECoS from the power supply during the installation!
   When the installation is finished and after an automatic reset of the ECoS, the following screen will appear:

   You may now reload the ECoS webinterface in your browser.

3. Now you can install the software 3.0.0 (file: *EcoS_update_3-0-0.bci*) as usual.

Please note: Downgrading from version 3.0.0 to a previous software-version will not be possible. Also, the use of backuped user data from version 3.0.0 will not be possible on version 1.1.3 and below.

Troubleshooting:

Is case your ECoS is not accessable via networt after the installation of the intermediate-update 2.5.1, please disconnect the ECoS from the power supply. The following key combinations will change the network-settings of your ECoS:

- **–** Stop-key and function-key F7 left (key right above the stop-key): The ECoS will get the IP-address by a DHCP-server.

- **–** Stop-key and function-key F6 left: Set the ECoS's IP static to 192.168.1.151 (netmask 255.255.255.0).

Please keep the keys pressed until the boot-process of the ECoS is finished.

In case the update 3.0.0 will not install, this may be caused by the user data. To delete all user data, please disconnect the ECoS from the power supply and press the stop-key and the function key F5 left (third key counting from bottom). After the installation of software 3.0.0 you may restore your backuped data to the ECoS.

Brief instruction ECoS modes

The ECoS now has a modified main menu, in which the operation-mode of the ECoS can be selected.

Control   Signal box   Graphical control board (GCB)   Setup
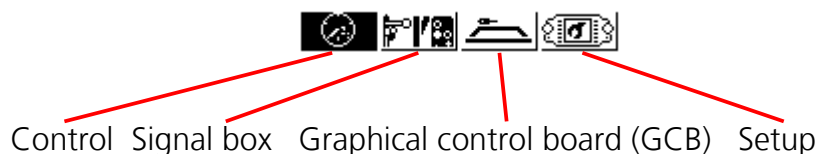
Depending on the operation-mode, a submenu will appear at the bottom on the screen in which actions corresponding to the current operation-mode can be taken.

Control

In this mode, locos can be controlled (on single screen or the known multi-loco-screen).

Signal box

In the signal box mode swiching accessories and routes can be placed on different panels and may be switched. In this mode, swiching accessories and routes can be created and modified.

Graphical control board (GCB) mode

In this mode, swiching accessories and routes can be placed on the screen corresponding to the actual layout and may be swiched.

Setup

In this mode, the ECoS's settings may be modified. Furthermore, the current monitor, which allows you to view the ECoS's voltage, current and temperature, is now located here.

Modifications to the user interface

Some items on the user interface have been made over:

– **Loco configuration**
   The menu may now be accessed by clicking the suitable icon right of the loco's name.

   The configuration may only be selected in the single control screen (not in the multi-loco-screen).

– **Loco selection**
   The loco selection menu may only be accessed by clicking the button in the control mode.
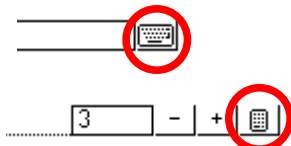

   As before, the loco selection can be called by joystick. In this case, the control mode will automatically be selected.

– **Keyboards**
   Many input boxes now don't have a keyboard which is always visible. The keyboard may in these cases be selected by clicking the „keyboard"-Icon.
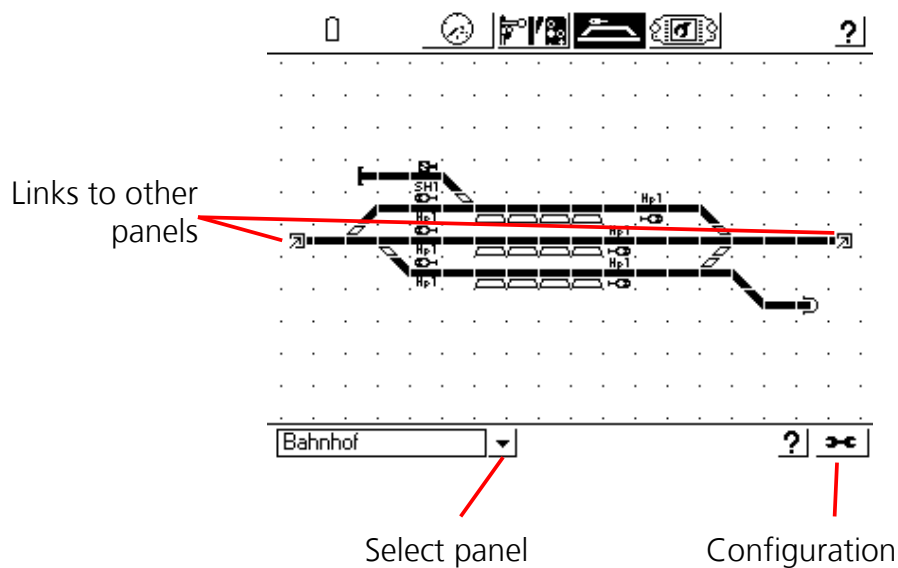   Numerical input boxed do have a corresponding icon as well.

Brief instruction GCB

The Graphical Contol Board (GCB) offers the possibility to place accessories and routes on the screen corresponding to your actual track layout.

16 different panels are available.

GCB operation mode

Links to other panels

Select panel   Configuration
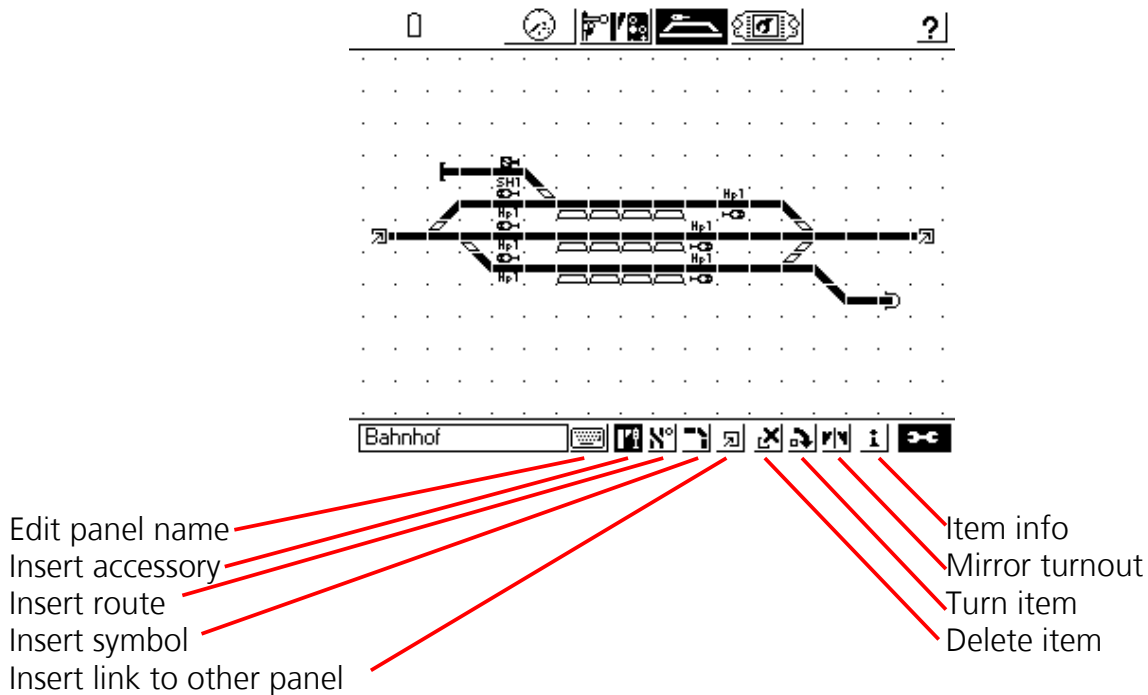
To switch an item, just click on it. In case of an item with more than two states, a selection box will appear. When clicking a link, the linked panel will be loaded on the screen.

GCS Configuration

Different actions can be taken here:

Edit panel name
Insert accessory
Insert route
Insert symbol
Insert link to other panel

Item info
Mirror turnout
Turn item
Delete item

The configuration mode can be left by clicking the wrench symbol.

Insert accessory / route

1. Select the corresponding edit icon (Insert accessory / Insert route).

2. Select the position.

3. Select the accessory item / route.
   Please note: The item or route must be created before placing it on the GCS. This can be done in the signal box mode.

Insert symbol

1. Choose the edit icon „Insert symbol".

2. Choose the position.

3. Choose the symbol.
    Hint: When creating straight tracks it is useful to create one track item first. This item may then be rotated in the right orientation (vertical/horizontal). All further symbols will then be created with the same orientation as the first symbol.

Create link to other panel

1. Choose the edit icon „Link".

2. Choose the position.

3. Choost the panel that will be linked to.

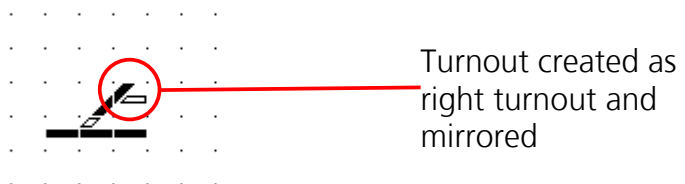## Delete item

In this mode, clicked items will be deleted.

Turn item

In this mode, clicked items will be rotated clockwise.

Mirror turnout

To create so-called track harps, it may be necessary to mirror turnouts. A left turnout will become right and vice versa. The turnout state will also be inverted.

Example:

Turnout created as right turnout and mirrored

Please note: Only right and left turnouts can be mirrored.

Info

In this mode, informations about clicked accessories and routes will be displayed.

Notes to M4

With software 3.0.0, the ECoS is capable of generating the mfx®-compatible data protocol M4. The M4 protocol is not activated by default and can be activated in the menu Setup-Setup2-Protocol.

M4 Operation

Decoders which are capable of the M4- or mfx®-track-protocol may not be created manually but will enroll automatically. Locos with M4 and compatible decoders may not be controlled with the Motorola®-address if M4 is activated. With deactivated M4, these locos are of course available under their Motorola-addresses.

M4-locos will only enroll at the ECoS's internal booster and at connected ECoSBoost.

The enroll-process will be visualized in the control mode by two „M4"-buttons in the submenu. When the process is finished (Buttons not dashed), the loco can be assigned to the control screen by pressing the corresponding button.

After restoring user-data via webinterface or after a factory reset of the ECoS, all M4-locos will enroll anew.

M4 Programming

The configurable values of an M4-decoder (CVs) will be detected automatically be the ECoS.

During the programming process, a symbol will appear which informes about the ongoing programming.

The programming can be done „live" (Values are written on change) oder by pressing the „accept"-button.

M4-decoders cannot be progammed in the setup-mode.

Changes

– **CHANGE: User interface**
   Notes see above.

– **ADD: M4-Support**
   Notes see above.

– **ADD: M4-Programming**
   Notes see above.

– **ADD: GCS**
   Notes see above.

– ADD: Restore of Märklin® Central Station user data
  Please note: The usage of ECoS 3.0.0 data on Central Station with software 2.0.4 and below will not be possible.

– ADD: 2. Variant für 3-stated signals
  Variant 1 is for light signals with signal-decoder, only 3 ports will be accessed as follows:
  1. Address red: Hp0
  1. Address green: Hp1
  2. Address green: Hp2
  The second address red is available for further accessories.

  Variant 2 is for light signals which are directly connected to solenoid decoders with continuous current output (e.g. K84 or SwitchPilot in K84-mode). The ports will be accessed as follows:
  1. Address red: red light
  1. Address green: green light
  2. Address green: yellow light
  The second address red cannot be used for further accessories in this variant.
  Variant 2 is needed for some older light signals with double solenoid drive.

– ADD: Turntable LokPilot Motorola.

– ADD: Light key for Turntable LokPilot DCC.

– ADD: Create loco from database

– ADD: Mobile Station shows DCC locos as DCC.

– ADD: Computer interface: Railcom-Information about wrong turnout states.
  The events will be of the following format:

  <EVENT 20000>
  20000 position[ok]
  <END 0 (OK)>

  <EVENT 20000>
  20000 position[wrong]
  <END 0 (OK)>

  ADD: Computer interface: Impulse function in keyboard mode (Traincontroller)
  Further parameter will be „+" (on) or „-"(off):

  set(11,switch[MOT3g+]) bzw.
  set(11,switch[MOT3g-])

  This function only makes sense in combination with the Motorola-Protocol. DCC decoders switch off by themselfes.

- ADD: Computer interface: View on keyboard mode(Traincontroller)
  A view on the accessory manager needs to be registered with the parameter „viewswitch":

  request(11, view, viewswitch)

- ADD: 2-stated semaphores with limit stop in combination with SwitchPilot Railcom possible.
- CHANGE: Multi-Loco-Screen: Improved highlighting of the current loco.

Bugfixes

- Loco edit – advanced: Sporadic abends.
- Railcom is activated globally for operation of local detectors.
- Aberrant address conflict with 2nd motorola address.
- Computer interface: Abbend after connection loss.
- Copputer interface: Wrong events with inconsistent IDs.
- Setup-Network: Display of wrong IP-Address without connected network.
- Networkl: ECoS identifies belated activation of networt interface.

Ausblick auf die nächste Version:

- Edit loco: Change of motor characteristic / speedtable.
- Internationalization: Translation of newly inserted texts.

Restore after failed update

As of version 3.0.0 it is possible to reactivate the ECoS after a failed update without external help. This may be necessary if the ECoS is cut from the power supply during the setup process.

To start this process, the function keys F1 and F6 left (the second key counting from bottom and second key counting from top) have to be pressed when connection the ECoS to the power supply. A corresponding screen will be displayed during the installation process.

After finishing the installation of the rescue system, a software verion 3.0.0 or above may be installed via the webinterface. It may be necessary to reload the webinterface in your browser.

Is case your ECoS is not accessable via networt after the installation of the rescue system, please disconnect the ECoS from the power supply. The following key combinations will change the network-settings of your ECoS:

– Stop-key and function-key F7 left (key right above the stop-key): The ECoS will get the IP-address by a DHCP-server.

– Stop-key and function-key F6 left: Set the ECoS's IP static to 192.168.1.151 (netmask 255.255.255.0).

Please keep the keys pressed until the boot-process of the ECoS is finished.

Deleting user data

Your ECoS not booting correctly may be a result of inconsistent user data. In this case you may delete the data during startup manually.

To delete all user data, please disconnect the ECoS from the power supply and press the stop-key and the function key F5 left (third key counting from bottom). Please keep the keys pressed until the boot-process of the ECoS is finished.

The data is now deleted and your ECoS shall boot correctly.