

Release Notes for Software 4.1.0 for ECoS 50200 / ECoS 50000 / Central Station Reloaded

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Main target of this firmware version was to improve the computer interface. Now a computer software can access the ECoS' programming track. Further performance problems and crashes under heavy load should be eliminated. Last, but not least we changed the consist mode behaviour of the ECoS.

Release notes:

Features:

- Modified behaviour for consists. Now, you can select any locomotive that is in a consist and control the speed of all locomotives that belong to the consist. Further, you can control the function buttons of each locomotive that is in a consist individually. The traction itself shows the functions of the first locomotive only and can change these, too.
- In the web interface you can now see the position and the trigger conditions of routes
- New decoder profiles for new hardware revisions of LokSound decoders.
- ECoS is now equipped with a DHCP-Server. This can provide IP-addresses for clients. Do not use if another DHCP-Server is in your network already!. A configuration setup menu for the ESU Mini Accesspoint is enabled, too.
- PC-Interface 2.0 (see below).

Bugfixes:

- Sometimes, F8-F12 could sometimes not be disabled / enabled.
- It is no longer possible to create invalid consists.
- "No control" is handled properly now and will be displayed on the throttle
- Address conflicts will be handled correctly now and showed in the throttle
- Locomotives that are used in consists will show a symbol in the throttle now
- Several crashes with Three- or four-aspect accessories are fixed now.
- Selectrix programming on the programming track now writes correct values.
- Editing routes now disables the automatic switching of a route and does no longer trigger other routes
- When creating track feedback icons in the track diagram, the system crashed sometimes when there was no real ECoSDetector attached.
- Some problems with placing address feedback symbols in the track diagram are fixed.
- Some charset problems in combination with feedback module's names are fixed.

- Fixed multiple update/redraw bugs in the GUI
- The log event window will be updated now.
- ECoS crashed sometimes on connection lost between PC software and ECoS.
- Hotkey to Reset the internal settings now works again.
- The Java-Applet to show the screen content in the webbrowser shall now work using Java8, too.

PC-Interface 2.0:

The PC Interface is completely recoded and we hope it performs much better now. There are just a few minor changes in the specification (only when absolutely necessary or obviously wrong in the past). Most PC software / Apps should therefore work as before without any problem.

However, some problems showed compatibility issues, therefore we added an additional menu to Setup 3 to configure the PC interface.

- Enable warnings should be used only while developing. If enabled, the ECoS will send additional return commands and hints to show you wrong usage of the interface. Especially TouchCab does not like these warnings.
- For Koploper and ControlGUI you need to enable the "Legacy-Mode". Then the ECoS performs as previous software versions.

Here is some highlights of the new PC interface implementation:

- New buffer handling: Now, more memory is temporarily available. Performance bottlenecks should be eliminated now.
- The parser is more strict now. Wrong syntax will not be accepted any longer. The error messages are more comprehensive now, too.
- Using Setup 3, you can now opt for error messages of the PC interface to be written into the ECoS event log.
- ECoS can now enable a watchdog for PC connections on object 1. Optional, a Stop could be triggered on timeout. See `help(1,set,watchdog)` for details.
- Using object 1, you can now query a blinking go-key (`status2`), M4 detection (`m4-status`), RailComPlus detection (`railcomplus-status`) and the programming status (`prog-status`). Further, new detected locomotives can be taken over. In addition, events could be stored in the ECoS-log (`writelog`).
- The Icon shown when accessories are thrown (two arrows) are now also available in the PC interface.
- When creating a view, using the update option you can now get the current values, so that you don't need the `get` any longer.
- Using the option `updateonerror`, you can globally define that (some) failed set commands return the current values automatically.
- `Get` can be used in a more common way now. `get(100,func)` for example now returns all existing functions while `get(1000)` returns all implemented attributes.
- Now, views on manager objects will return information about the changed items. You will also see which objects are changed.
- Using manager objects, `request(10,view,listattribute[addr])` will return updates of changed attributes of the objects managed by the manager object.

- Using the attribute option, you can restrict the view to one object.
- There is a simple implementation (read-only, now update events) of the turnout control manager. `get(31,link[0])` will return the content of the first page of the turnout control panel for example.
- Access to the ECoS programming track. Please note: You need a view on the programming track, because the data will be returned in an update event. At this moment, we implemented DCC direct mode read/write and Motorola 6021 write. For example: `request(5,view)`
`set(5,mode[readdccdirect],cv[1],cv[2])`. Please note that you shall use `set` instead of `get`, even when reading Cvs. Further information shows `help(5,set,all)`.

Further information about the specification can be found using telnet Port 15471 and `help()` for the online help system.