

Topic

- What do the abbreviations EDS / ESI mean?
- What is the EDS / ESI file used for?
- Where to find the *.eds / *.esi file of an EPOS, EPOS2, EPOS4, or MCD?

Solution:

The term "EDS" stands for "Electronic Data Sheet" of an CANopen device. In case of an EtherCAT device the corresponding file is called "ESI" (= "EtherCAT Slave Information").

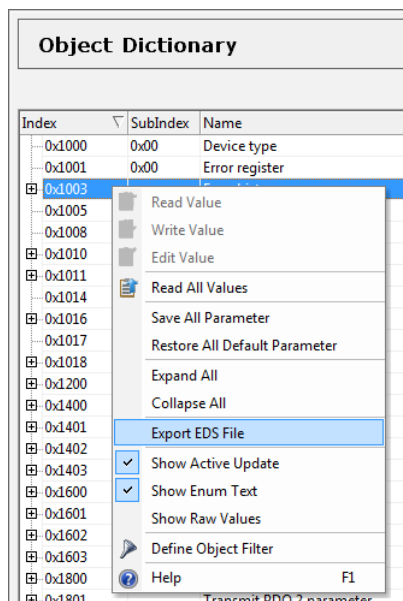
The *.eds / *.esi file holds all the details (e.g. object type, data type, access type, PDO mapping, default, value range) of each object supported by the CANopen resp. EtherCAT slave device. The *.eds / *.esi file (e.g. EPOS, EPOS2, EPOS4, MCD) is required to integrate the representation of the device (and its provided functionality) into the system manager of PLCs.

The content of an *.eds / *.esi file depends on the concrete controller type and its firmware version. Therefore maxon does not provide the *.eds / *.esi file as part of the documentation and not as a download file by the website. The *.eds / *.esi file of maxon controllers can be exported by EPOS Studio which ensures that the *.eds / *.esi file corresponds to the hardware and firmware of the controller actually in use.

Exporting the *.eds / *.esi file of an EPOS, EPOS2, EPOS4, MCD:

The export of the *.eds / *.esi file is quite easy to process:

- Start EPOS Studio
- Connect your EPOS, EPOS2, EPOS4, or MCD to EPOS Studio
- Open the **"Object Dictionary" tool**.
- **Right-click** on any line in the "Object Dictionary".
- Select **"Export EDS File"**:
(resp. "Export ESI File" in case of an EtherCAT slave device)



The name of the exported file holds the hardware and firmware number, as well as specific application information, e.g. maxon_motor_...

EPOS4_0140h_6350h_0000h_0000h.eds

corresponds to the standard firmware version 0x140 installed on the hardware product type 0x6350 (= "EPOS4 50/5").

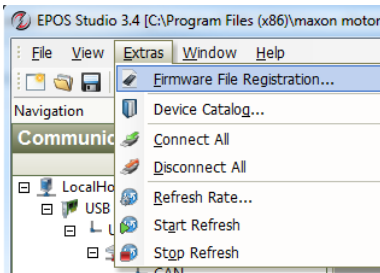
maxon motor control

maxon motor ag Brünigstrasse 220 CH – 6072 Sachseln www.maxonmotor.com	EPOS: Export of EDS / ESI file?	Version: 1.0 (Eng.) Author : WJ Date : 2018-11-28
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No controller available but *.eds / *.esi file is required?

There is also a possibility to export an *.eds/*.esi file even if no controller is connected. You just have to be quite careful to select the correct controller type and firmware version which will actually be in use by the PLC system later on.

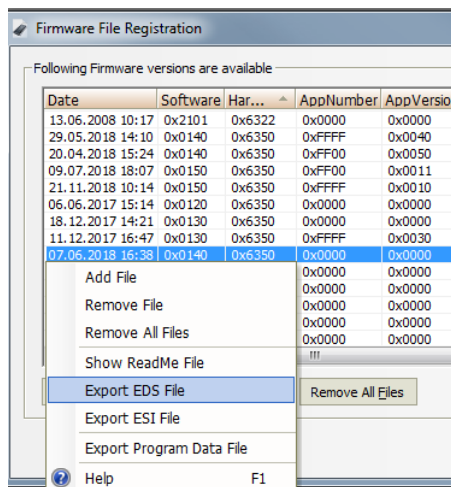
- Start EPOS Studio
- Click on the menu item **"Extras / Firmware File Registration"**



- **Select the line holding the Software / Hardware / AppNumber / AppVersion** which corresponds(!!!) to your EPOS product type which will be later on in use.
Remarks:

- ⇒ The AppNumber and AppVersion is always "0x0000" in case of standard firmware versions.
- ⇒ **Take care of the correct "Hardware" number!**
If you are not sure about the hardware number of EPOS product type, please ask for support!
- ⇒ **Take care of the correct "Software" number (= firmware version)!**

- **Right-click on the selected line.**
- Select **"Export EDS File"** (resp. "Export ESI File" in case of an EtherCAT device):



The name of the exported file holds the hardware and firmware number, as well as specific application information, e.g. maxon_motor_...

EPOS4_0140h_6350h_0000h_0000h.eds

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Additional Remark:

The *.eds / *.esi file is an "Electronic Data Sheet", i.e. it does not(!) hold the currently configured data values of the objects. If a configuration file with the currently valid object values in addition is required for documentation or setting up a system with the same parameters, the so-called *.dcf file has to be exported. The *.dcf file can be also exported easily by the "Parameter Export/Import" wizard of maxon's "EPOS Studio" software. Please find the information how to export the *.dcf file in this article:

["EPOS Export of parameter configuration in a *.dcf file"](#)

The *.dcf file is quite similar to the *.eds / *.esi file but holds the currently configured values of the objects in addition.