

Solution

Document versus plant structure?

Standard-compliant designations from a single source – according to IEC 61355 and IEC 81346

Overview of benefits:

- Mapping of all levels of the document structure in the tree
- Standard-compliant document and plant structure according to IEC 61355 and IEC 81346 from a single source
- Automatically consistent document designation
- Impossible to forget hierarchies from the designation of the assigned objects
- Forms with the document level entered automatically
- Significantly faster finding and changing of documents and objects

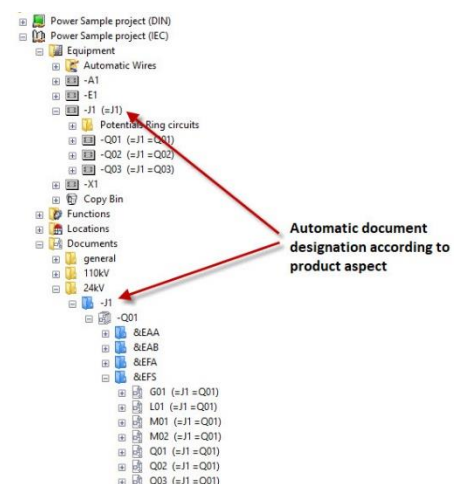
Challenges

Whether for maintenance, revamping or malfunction purposes, the rapid finding of the current documentation of devices, connections or sub-systems is always helpful, and sometimes decisive. A systematic document structure with classification and designation of the documents leads to a useful and comprehensible storage system. But which system makes the most sense? How is such a document structure compatible with plant structuring according to IEC 81346?

Solution and challenge

The creation of IEC 61355 resulted in a standard for document structure that specifies unique object identifiers, a document classification code, and the document sequence number. The object identifier must also be structured within this already complex structure. If you work simultaneously with the plant reference designation according to IEC 81346, then you generally use one of the aspects described in it.

If one accepts the recommended assignment of documents to aspects in IEC 61355, parts from the IEC-81346-compliant object designation must be found in the document structure tree. It is important that you do not forget any hierarchy levels from the object designation. Thus, although the IEC 61355 standard is a solution for a useful document structure, it is also a challenge if the plant structure according to IEC 81346 has to be considered at the same time.



Solution

The whole depth

First of all, Engineering Base (EB) can automatically create the document structure according to IEC 61355, thus enabling standardized, easily comprehensible organization in which everyone can find their way around. The object-oriented and data-driven platform allows any number of layers to be displayed in the tree. EB is the only system that can fully meet the standard and even exceed it because the document level can be linked to drawing objects, and thus the complete hierarchy depth can be displayed. However, an object does not necessarily have to be mapped in the document that is assigned to it in EB. The data-driven view means that EB basically "knows" all assignments and does not know any unrelated texts in the document. This is the first time that IEC 61355 can be implemented down to the smallest detail.

Two standards in one go

EB also offers an important advantage for the implementation of IEC 61355: the linking of the document structure to the plant or object structure according to IEC 81346. Furthermore, EB is not only the sole system capable of doing so, but it also does it in a highly efficient manner!

It is usually advisable to choose the product aspect for association as it is clear and comprehensible to everyone. First, the plant model is developed according to the product aspect. Sub-systems with existing levels, such as field and voltage levels, can be copied and pasted. If a typical is included in the documentation, EB also sorts its document type directly into the corresponding document level.

Changing automatically

Each time a device's name is changed because another one has been put in front of it, thus changing the numbering, EB also automatically adjusts the document designation thanks to the link. Due to its data-driven nature, EB finds all hierarchy levels from the object name and automatically adopts them.

Benefits

Engineering Base offers standard-compliant document and object designations from a single source. Standardization does justice to both perspectives and greatly facilitates their combination. EB enables all users to have clean structuring for fast access to the plant system and for the rapid finding of documents and objects.

All levels of the document tree can be mapped which, without EB, would only be possible via tricks and many detours.

The association of document and object structure automatically ensures consistent designations and structuring of documents. It is not possible to forget any hierarchy level from the object tree. Automated texts in each form map the document level without any manual effort.

The significant error minimization and quality improvement of the documentation greatly accelerates the design and every change process.