

RegMan

Technological Data Master Registry Management

VISION

Systematic management of master technological registers of large industrial units which forms the boundary between plant design and plant operation. Single place for processing engineering data from change projects. And single source of these data for software systems supporting the operation of the plant.

BENEFITS

Unified alphanumeric digital model

The basis of the digital model (digital twin) of the technological unit are mainly alphanumeric object-oriented registers of technological positions, physical equipment, technical documents and references between such objects. These data are in a controlled way managed in the RegMan system and RegMan, as master register, forms a single point of truth at the boundary between the technology supplier and its operator.

Data Availability

The alphanumeric digital model in RegMan is linked by software to the data sources and to the systems that use the data. At any point in time, newly created engineering change data can be compared against records in master registers, and it is also possible to verify from operational systems whether a given object in the master register is valid or undergoing change.

Change Management

The user interface easily displays the differences between the engineering change data and the documented status. Once the engineering change is verified and approved, the master registers are updated in a controlled manner. Individual master register objects retain information about their history and link with the implemented change.

Data Consolidation

For the purpose of consolidation, data from existing technological registers can be uploaded into the RegMan system. This uploaded data can be compared to the data in the master registers and the digital model can be enriched subsequently in a controlled manner. You can add or update some attributes or introduce new records. This module can also be used to initially populate the master registers.

Data Modification

Some attributes of master register object may not have a primary data source in any design or information system. The values of such attributes can be changed individually or in bulk directly in the RegMan system.



DESCRIPTION

Most typical engineering objects can be configured in RegMan – a technological position, a physical equipment, a document, a link between a technological position and a document, or a link between a physical equipment and a document. Any set of attributes can be configured for each object class, and validation, normalization, and denormalization functions, or functions for calculated attributes, can be added. For the document object, the RegMan system works as a metadata registry for technical documents (it does not contain the binary form of the document or perform other functions of DMS systems).

Individual master registers can be browsed and previewed in the Consolidated Data Database module. The object detail contains all stored attributes and information about changes made, their originators, systems to which the object is propagated, etc.

During change management or data consolidation, the RegMan system works with so-called Work Areas. Work areas consist of source extracts, into which the user pulls an appropriate subset of objects (from the Master Registry, from design tools, from external lists or other registries), and a cumulative extract, in which the source extracts are merged together. The cumulative extract shows the user the differences between the data sources or the values that have not been validated. Differences and missing data have to be resolved by the user, and only fully validated records can be written back to the Master Register and subsequently propagated to external systems.

Work areas and extracts can work over the same objects and you can create more of them at a time. For example, it is possible to compare the data of individual engineering projects or to separate the work of individual professions.

A sophisticated authorization system allows you to set permissions down to the level of specific object attributes and to the level of individual work areas (can also be used for controlled access of engineering change suppliers).



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			0000000528	1	NN1	1LX01.2#07	1LX01.2#07		ODBOČKA 1TP12508-M1	ANO	n/a	n/a
			0000000536	1	NN1	1LX01.6#08	1LX01.6#08		ODBOČKA 1TQ30503-M1	n/a	n/a	n/a

IT DESCRIPTION

RegMan is a powerful three-layer solution with its own repository database and a modern web-based user interface. It uses both specific and generic interfaces for data import and export. An import and data export in MS Excel or CSV format is standard. Import and export interfaces are also available for the Bentley Axsys.Engine (database design), our SSK solution (cable management), the AVEVA.NET system (Information Management), the IBM ECM/FileNET solution (Document Management) or the ABB/Hitachi AssetSuite system (Enterprise Asset Management). Due to the alphanumeric form of the processed data, additional interfaces can easily be added.

RegMan uses standard REST API interface for integration into plant operation systems. For authentication, it uses a standard connection to the Active Directory.

REFERENCES

ČEZ, a. s., Nuclear Power Plants	RegMan system for Dukovany and Temelin NPPs	2019
ČEZ, a. s., Fossil Power Plants	Central Registry of PSK system	2021

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