



## **OSCVANTAGE – Central Power Production Information System**

OSCVANTAGE represents a complex solution of the acquisition, processing, archiving and presentation of process data.

The main characteristic of the **OSCVANTAGE** system is the safe storage of process data, administration and additional processing. The flexible approach to both original data and processing results is another important feature.

The **OSC**VANTAGE system consists of the **OSC**DEPOT module, which is used to acquire process data from heterogeneous sources, saving, and archiving it in the **OSC**ASSEMBLY module where the data is processed and controlled access is given to users.

API

Web interface

Data processing

Data acquisition

MS SQL ODBC ORACLE OSCART OTHER

## **Function description**

**OSC**ASSEMBLY

OSCDEPOT

**Data acquisition** allows connection to ordinary data sources (known manufacturers' databases). It is also possible to connect other data sources if their manufacturer has published the interface. Control systems can be used as data sources as well. The **OSC**ART system (OSC product) is connected as standard usually used as the core of the real-time control and information systems.

**Archive** is used for storing of acquired data. The main advantage is the support of time lines (saving

time courses of variables) which often occur in process data. Data archiving may be set either periodically or in changes. The archive volume depends on the volume of archived data; in practice it is attain an archive length of several months.

## Modularity

The modular concept of this system enables flexible reaction to user requirements.

**Data processing** is the main task of the **OSC**ASSEMBLY module. The module itself consists of calculation procedures which process the data. The module contains a set of standard procedures for ordinary data operations (summarizing, aggregation, some statistical functions). A delivery usually includes the creation of customer procedures according to specified user requirements (e. g. cross checks, estimations, and derived data calculations). Calculation procedures are activated either at the request of a user (via the web interface or API), or may be set to start at a certain moment.

## Scalability

This system concept allows easy adaptation of small, medium and large volumes of processed data.

**Web interface** is used to make processed data accessible to end users. Calculation procedures process data into 'data views' which are available to users via a web interface.

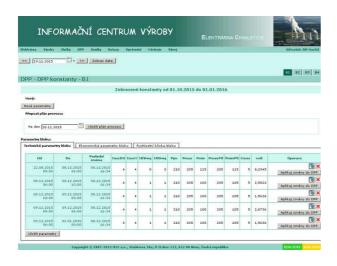
A data view is an arrangement of individual data items, which are interesting for a particular user. The items are mainly tables, charts, parts of technological designs and their combinations.

The web interface uses Internet (intranet) technology; the client software on the user side consists of an Internet browser. The output code of the web interface uses the HTML 4, Javascript and CSS2 standards.



Using the web interface it is possible to export the contents of the data view in some formats suitable for further processing or archiving (PDF, CSV).

**Application interface (API)** ensures that the *OSCVANTAGE* system is open and makes it easy to incorporate into the plant information system. The application interface allows access to both processed data (data views) and archived data has not been processed.



The application interface behaves like an SQL server and accepts selective queries. The query results may be accessed as XML files. Special user permission within *OSCVANTAGE* is required to use API (see data security).

**Data security** is, in the *OSCVANTAGE* frame, handled consistently by the separate administration of user accounts and permissions, which is implemented into the *OSCASSEMBLY* module. Each user is authenticated (name and password) and then is given access to a group of data (data views) according to the rules defined in his user account. The use of this method maeans that access to the data content is strictly selective via both the web interface and application interface (API).



Administration of user accounts is only accessible via the web interface for users with special permissions.

**OSC**VANTAGE was delivered to ČEZ in 2004 as a general company system for processing and visualizing process data.

OSC, a.s., company covers with its activities the area of production and distribution of electricity and heat. The Company provides a wide spectrum of engineering services, repair and consultancy services, and supplies complex, key ready sets of technical means for up to date control systems, systems for data and information processing and transfer, and simulation systems; the Company also develops special electronic elements and devices.

