

Access to NPE/iMod devices by means of a WWW browser



- ▶ Remote management of the NPE/iMod computer
- ▶ Administration of system services and applications
- ▶ Control of I/O interfaces
- ▶ Real-time data monitoring
- ▶ Control and execution of user commands
- ▶ Telnet access through www
- ▶ Log-in service and capability of using VPN networks and SSL encryption
- ▶ Remote software pack updates
- ▶ Management of GPRS connection
- ▶ Dedicated user charts
- ▶ Easy-to-use SDK
- ▶ More functions coming soon

Basic information

- ▶ **NX Dynamics is a modern web visualization platform (SCADA web type) dedicated for cooperation with NPE/iMod series devices through an internet browser**
- ▶ **The basic installation contains modules/control charts and charts monitoring the operation of the NPE computer/iMod, which include: a system resource monitor, Ethernet and GPRS configuration charts and management of software packs**
- ▶ **The user interface is designed to present data dynamically even on low-speed links (e.g. GPRS) and to minimize data transfer between a device and a web browser.**
- ▶ **The data presented on the charts always present the current status and do not require refreshing of the page**
- ▶ **For the needs of visualization of very rapid changes in data values, e.g. downloaded from I/O input interfaces, NX Dynamics has effective communication with the browser, eliminating the effect of slow access connections**

NX Dynamics SDK qualities

- ▶ Makes it possible to tunnel telnet connections using a standard HTTP protocol
- ▶ Creation of new modules does not require familiarity with programming languages or HTML
- ▶ The graphics editor* in the WYSIWYG system and DRAG&DROP technology make the creation of effective charts/web pages a pleasant experience
- ▶ Capability of cooperation with the iMod platform
- ▶ 4 types of communications channels adapting to the type of operations being carried out
- ▶ Development of the platform will cause new capabilities to appear, that is, operation in a VPN network, control through a portal or an interface for mobile devices
- ▶ Full technical support through a dedicated portal and TechBase Solution Partner

Qualities of integrated modules

- ▶ Fast start-up with the NPE/iMod device
- ▶ Configuration and supervision of device operation and installed applications
- ▶ Management and monitoring of GPRS connection and DYNDNS service status
- ▶ Remote updating of NX Dynamics software and of other packs
- ▶ Access to NPE/iMod device search
- ▶ Scanning and monitoring capability of devices/sensors on the 1-Wire bus
- ▶ Access to a local database
- ▶ Direct telnet access to a device, also accounting for temporary connection loss (reconnect function)
- ▶ Full technical support through a dedicated portal and TechBase Solution Partner

*the graphics editor is software supplied by the Adobe® company

Additional information

NX Dynamics: never has control over the web been so easy and impressive

NX Dynamics is **2 products in 1**:

- ▶ A ready web application for management of NPE/iMod industrial computers
- ▶ An SDK platform enabling the addition of new models designed in a graphics editor

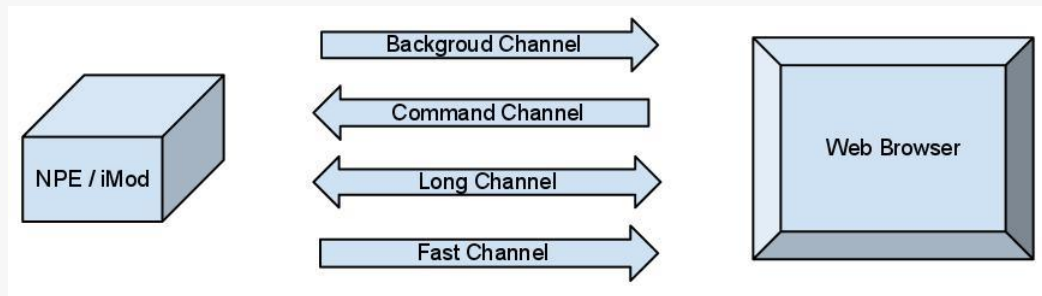
Both of these products use the same communication functions and advanced user controls. The remaining controls can be used from the Adobe Flash Builder© graphics editor library.

Technology

NX Dynamics operates using the FLEX technology of the Adobe© company. This is currently the most advanced and also verified web access technology, in which the logic of the user application and output loads related to it are transferred to the so-called client page, that is, the internet browser. This is of fundamental significance for web access to embedded devices, the excessive loading by user actions of which is highly inadvisable. **The selected technology guarantees that loading of the server, being the NPE/iMod computer, will be minimal.**

The second significant quality to be considered during cooperation of automated and telemetric systems is **maintenance of as small data transfer as possible**. In this scope, NX Dynamics gives full control over the transmission of data and significantly reduces it.

For communication to be effective and for the user not to have the feeling of waiting or have to manually refresh the page, **NX Dynamics offers as many as 4 methods of communication** with the device.



- ▶ **Background channel** - a channel for cyclic downloading of values or after an event requiring such refreshing
- ▶ **Command channel**
- ▶ **Long channel** – e.g. a command for remote installation of a software pack
- ▶ **Fast channel** - e.g. monitoring of input/output interfaces

Thanks to the fact that all the channels carry out their operations independently, there is no e.g. blocking of refreshing of the current status by execution of a remote pack installation in the telnet window at the same time.

Additional components

- ▶ **VPN/SSL pack** makes it possible to encrypt transmissions and create virtual device networks
- ▶ **iMod pack** makes it possible to transform an NPE computer into a ready telemetric solution
- ▶ **1-Wire pack** makes it possible to communicate with sensors and devices connected to this bus
- ▶ **postgreSQL and MySQL pack** enable communication with databases
- ▶ **NPE PLC** - allows for the execution of ladder algorithms