



Movicon NExT

15.0 Start Runtime

Ver.3.4.268

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1. Start Runtime

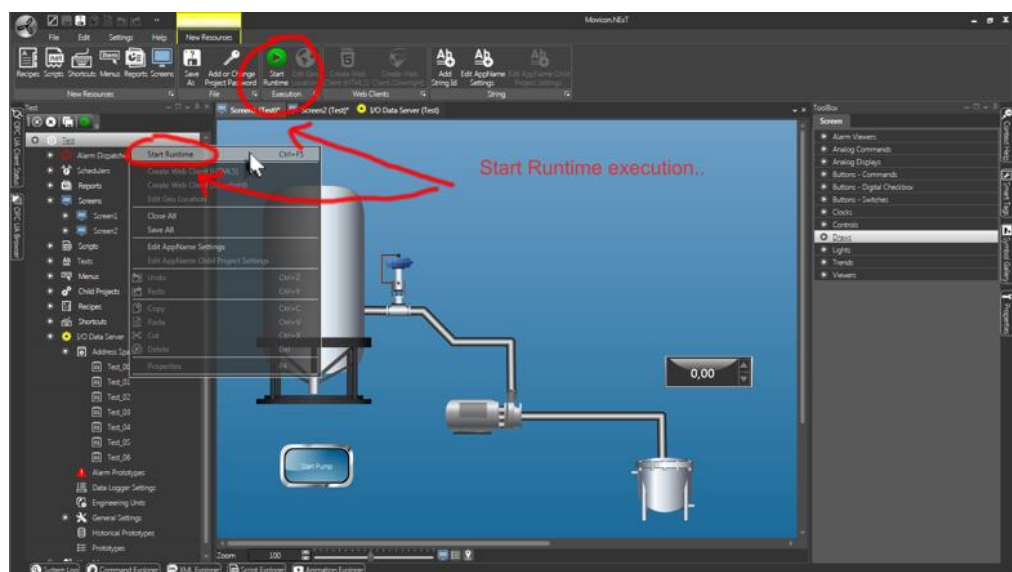
1.1. Starting Project up in Runtime

The Platform.NExT platform project is fundamentally composed one part Server, designated to perform communication tasks and manage data, and one part Client which is mainly composed of the Movicon.NExT for project's HMI graphical interface.



both the platform's Server and Client components are independent and therefore can be started up independently in runtime.

The whole project can be simply be started up in runtime directly from the platform's workspace using the **"Start Runtime"** command available from the workspace's main "Project Manager - New Resources" ribbon. The startup command can also be made available by right clicking to open the project's contextual menu in the Project Explorer Window.



The Start Runtime command starts Project up in runtime

When the "Start Runtime" command is activated Movicon will check whether the Server module has been started up. If this is the case the Client module will then be started up otherwise both Server and Client module will be started up together.

Starting up a Screen Run Test

While developing a screen it may be useful to test run the screen to control the results of any changes made to it. This can be done by using a command purposely disposed to startup the screen, that is currently opened in the workspace, in Runtime and not the whole project. This is very handy for carrying out test runs quickly because the screen

of interest is made available immediately saving the user time and effort to navigate for it and then loading it.

To startup a screen in Runtime use the "Run Test" command from the menu which appears with a right click on the screen. Once clicking on this command the screen will startup in Runtime. The screen "Run Test" command is also available in the quick Movicon access bar located in the applications title bar. This command is only active in the work space when the screen is opened.

Once the screen has been started up in runtime it can be closed using the "ALT + F4" keys or the "X" icon in the screen window's title bar normally used for closing screens. This command only shows if specified to do so in the screen's "WindowStyle" property.



As the screen's "Run Test" command does not run a check to see if the Server module has been started up, it is the programmer's responsibility to make sure the server starts up if needed.

1.2. Automatic project startup from command line

Each project can be started up automatically using a command line for the operating system, which is capable of starting the application by means of using a shortcut on the desktop or by means of executing the shortcut using the operating system's automatic run functions.

Described below are the command lines which vary according to whether the project resides in a XML file or on database or whether you intend to start the Client only or Server only or both.

Starting up Local Projects

Projects saved in XML format can be started up in Runtime directly without opening development mode beforehand by using this command line:

```
"C:\Program Files\Progea\Movicon.NExT\MoviconNExT.exe"  
E:\Projects\Test01\Test01.ufproject -start
```



The name of the Screen with which to start the project up can also be specified in the project's startup command line. The parameter to use is "-screen", followed by a space and then the path of the screen to be opened. The parameter must therefore contain the absolute path or path relating to the screen to be opened (e.g. "Screen\Screen1.xml"). The command line would therefore result as:

```
"C:\Program  
Files\Progea\Platform.NExT\MoviconNExT.exe""E:\Projects\Test01\Test01.UFProject"  
-screen Screen\Screen1.xml -start
```

where : "E:\Projects\Test01\Test01.ufproject" represents an example of a Platform.NExT project's path and position.

Starting up Remote Projects

When needing to start up a project that is not local but in a network path, you will need to specify the "-file=" parameter before the project's path.

For example:

```
C:\Program Files\Progea\Movicon.NExT\MoviconNExT.exe" -  
file="\\PCName\Projects\Test01\Test01.ufproject" -start
```

Starting up Projects in SQL Database

If you wish to start a Project up directly in Runtime without opening it in development mode first, you can use the following command line when the project has been saved in DB format:

```
"C:\Program Files\Progea\Automation Platform.NExT\MoviconNExT.exe"  
"XpoProvider=MSSqlServer;data source=DB_Instance_Name;integrated  
security=SSPI;initial catalog=NextProjectDB" -start
```

The above is valid in cases in which the DB's User Authentication has not been enabled. If this is not the case, you will need to set:

```
"C:\Program Files\Progea\Automation Platform.NExT\MoviconNExT.exe"  
"XpoProvider=MSSqlServer;data source= DB_Instance_Name;user  
id=Username;password=Password;initial catalog=NextProjectDB;Persist Security  
Info=false" -start
```

Where "DB_Instance_Name" represents the name of the DataBase instance to connect to. The name of the instance can be specified as local to the machine or remote. For example:

possible local instances:

- (local)
- (local)\SQLEXPRESS

possible remote instances:

- ServerName
- ServerName\SQLEXPRESS



Using these command lines, which can be created with a shortcut or defined in the automatic Windows startup, the project's Server module and Client module will be started up. However it is also possible to set one of these two modules to startup.



Attention! the *-start* and *-client* commands are KeySensitive!

1.3. Startup Client Only in Runtime

Unless specified otherwise the platform's startup command generally entails both the project's Server and Client sides. However the system provides the option to allow the project to startup with Client only or Server only according to user requirements and the license type purchased.

When using the project as "Server Only" you will need to manage the project as Windows "Service", according to the procedures described in the appropriate paragraph.



A project can be managed as "Client Only" for example for simple HMI applications where the server is located elsewhere, for example directly in the PLC device (OPC UA Server), or where the Platform.NExT project Server is centralized in another station.

This presupposes that the screen objects are connected to Tags that do not reside locally on the client but in a OPC UA server, that may also belong to a third party. Therefore the server will not only have the task of communicating with the field but also the task of managing the alarms and historicals. Please also be reminded that the Movicon.NExT Client supports the OPC UA specifications as Alarm & Events or Historian as well.

In cases where the project needs to be started up as Client locally, the project's startup command line must be set as described below:

Starting up project as Client only

In cases where you wish to start the project up for the Client module, you must also specify the *-client* parameter in the command line. Therefore the command line should result as follows:

```
"C:\Program Files\Progea\Movicon.NExT\MoviconNExT.exe"  
E:\Projects\Test01\Test01.ufproject -start -client
```



Warning! The *-start* and *-client* commands are KeySensitive!



Attention! In cases where the Client module must connect to a NExT Server module, you will need to set the *HostName Renamed* parameter to *Edit Application Name* as described in "Redefining Local Client Tags towards another Server"

1.4. Aborting Project Runtime

The **"ALT+F4"** system keys can be used for stopping project runtime after project has been started up.

It is also possible to predispose useful command objects or menus in the project to startup and stop project runtime according to the commands provided in the object command list.

You can also predispose a close window command in the title bar of the corresponding window display according to Windows standards. However this is only possible if specified in the screen "WindowStyle" property.

1.5. Starting up as Service

The Platform.NExT Data Server can also be installed as a **Windows Service**. The Windows Services allow applications that support this functionality to run automatically

at startup independently from the local operating system or Domain user authentication.

The **"Service Manager"** command is located in "I/O Data Server" ribbon, It is used to access the installation Tool and the Data Server as Windows Server management. By using the Service Manger window you will be able to manage your Data Server project as Service.



How to install and configure the Service

In order to make the Server project startup as Windows Server you first need to install it in the Windows Services and configure any startup authentication and security procedures.



The Windows Services are specific applications that are run within the context of the Operating System independently or potentially independent from the user interface and Windows Log On. Therefore you need to consider that a Service is a Server application that can be run in the local context or with local or domain security policies as we will see ahead.

To install your Server project as Service use the "Install Service" command from the "Service Manager" window which is activated by means of using the i/O Data Server's Service Manager Ribbon.

This window is used to enter the credentials that will be used by the Service. When no credentials are entered here, the Service will be run on the 'Local' context. Otherwise, the desired credentials are entered as described below.

- When the project is installed as service, it is identified with the same project name among the Windows Services so that other projects can be installed as service at the same time.

Service User Credentials and Security

As mentioned beforehand, installing the Server project as Service is done using the Service Manager Tool from the Platform.NexT editor.

When installing the service leaving the credential fields empty, the service will be run only within the "local" context (Local System).

If you wish to used Windows Security instead, you will need to use the access credentials for running the service.

Based on the credential of the user name, the server can be run as:

- Local User Password
- Domain User

Local User Password

When entering a User Name and Password that have not been registered or do not belong to a Domain, they will be used with the local user security policy and not those of a network user.

Domain User Password

When entering a User Name and Password that belongs to a domain, the security politics of the Domain network of which the Server is part of will be used.

User Security

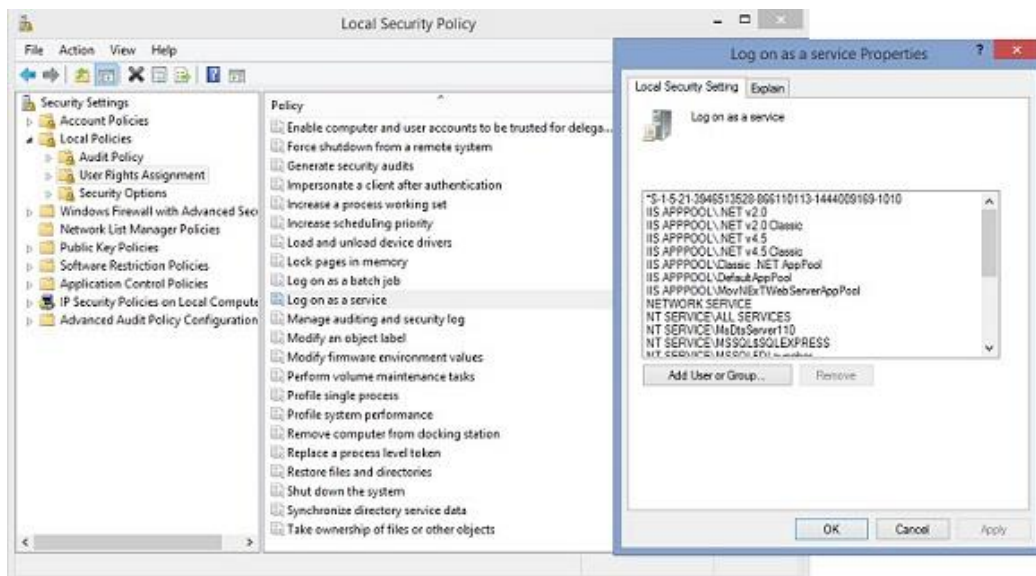
It is important to make sure that the user with which is used to start up the server has been set with the **"Access as Service"** rights. This settings are done in the following way:

1. open the "Control Panel -> Administrative Tools -> Local Security Policy"
2. select "Local Policies"
3. select "User rights Assignment"
4. add user to the "Log on As Service" polity

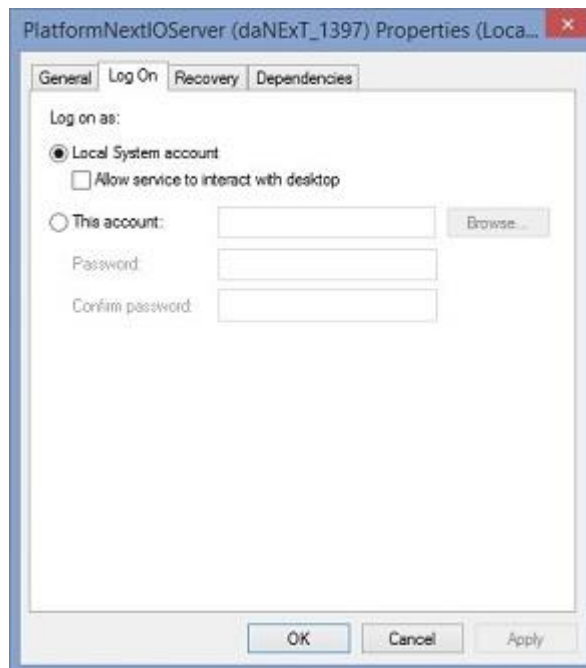
When indicating the User Name and Password of a local user you will need to check whether the user used for installing the sercie has the necessary requirement to start it up afterwards. These requirements are verified or configured in the PC's local security policy (Security Policy: *Control Panel> Administrative Tools>Local Security Policy>Local Policies>User Right Assignment>Log-On As a Service*)



The Security Policy modification requires administrator user log on.



Once these operations have been completed it will be possible to start the Server up using the "Start Service" command in the window.



Here the Service properties show that the Server has been installed as Local System Account.

