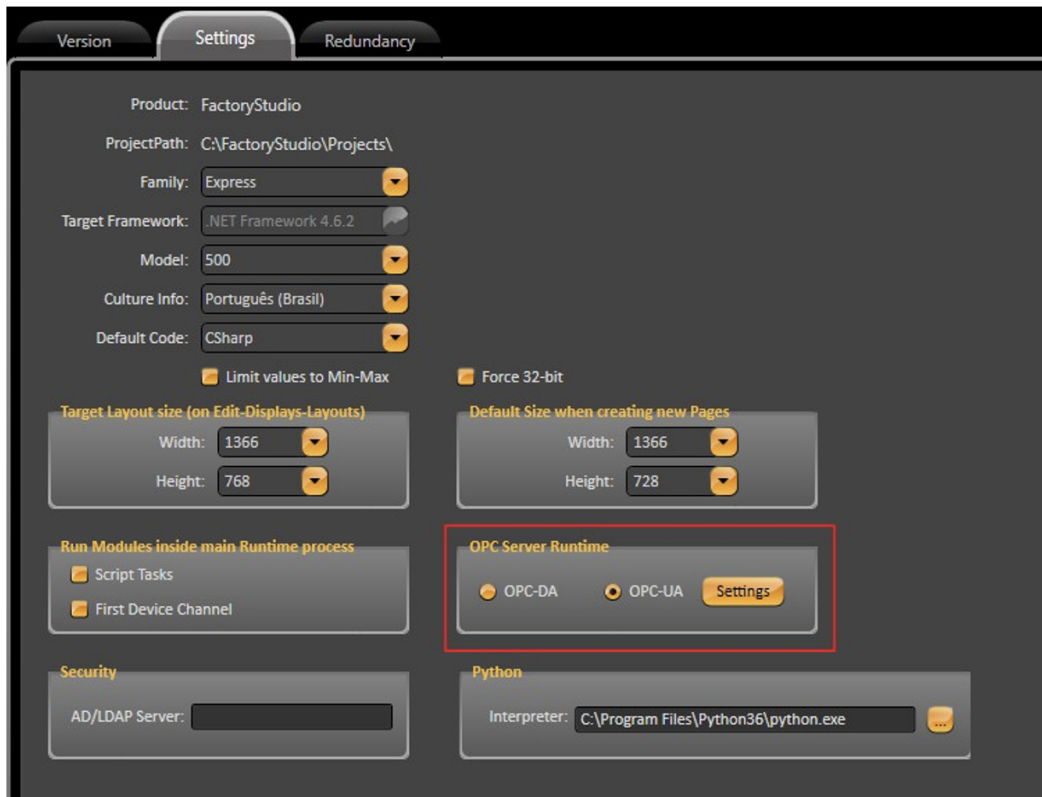


How to make your project on OPC Server UA

OPC UA Server Configuration

In the Engineering Environment, navigate to the **Info > Settings** tab, and look for the **OPC Server Runtime** configuration. Select the **OPC UA**, and click on **Settings**.



An OPC Server configuration dialog will open that will request admin privileges. In the configuration manager, we can configure Endpoint characteristics for the server, manage Client certificates, and create a certificate for the Server.

Endpoints

In this tab, you can define the Endpoints in which the OPC Server will be deployed, select the Security Policies, and enable/disable anonymous user log in.

Clicking on the **Add** or **Edit** buttons will open a popup that allows the user to select the IP Address and Port number. Its also possible to define the IP for a specific network adapter that is available in the system. This can guarantee some security to your OPC; like making it inaccessible for anyone outside of your network.

It is important to make sure the defined ports are not blocked by the OS firewall.

UA Server Configuration Helper

Endpoints | Client Certificates | **Server Certificate**

URLs

opc.tcp://localhost:4840

Add Edit Remove

Security Policies

| | |
|---|---|
| <input type="checkbox"/> Basic256Sha256 | <input checked="" type="checkbox"/> Sign |
| <input type="checkbox"/> Basic256 (Deprecated) | <input type="checkbox"/> Sign And Encrypt |
| <input type="checkbox"/> Basic128Sha15 (Deprecated) | |
| <input checked="" type="checkbox"/> None (Insecure) | |

Authentication Settings

☒ Allow Anonymous Logon

Server must be restarted to apply changes

OK Cancel

The OPC Server's user management is done by the project's Security Module. The existing Users and Runtime Users, and their associated passwords, can be used to allow client connection.

Client Certificates

In this tab, you can import Client Certificates and choose to Trust or Reject them.

UA Server Configuration Helper

Endpoints | **Client Certificates** | Server Certificate

Client Certificates

| Client | Status |
|-------------------------|--------|
| "KEPServerEX/UA Server" | True |
| UaServerNet | False |

Import Trust Remove

Server must be restarted to apply changes

OK Cancel

The list will display all Clients Certificates that were imported and their current trust status.

Server Certificate

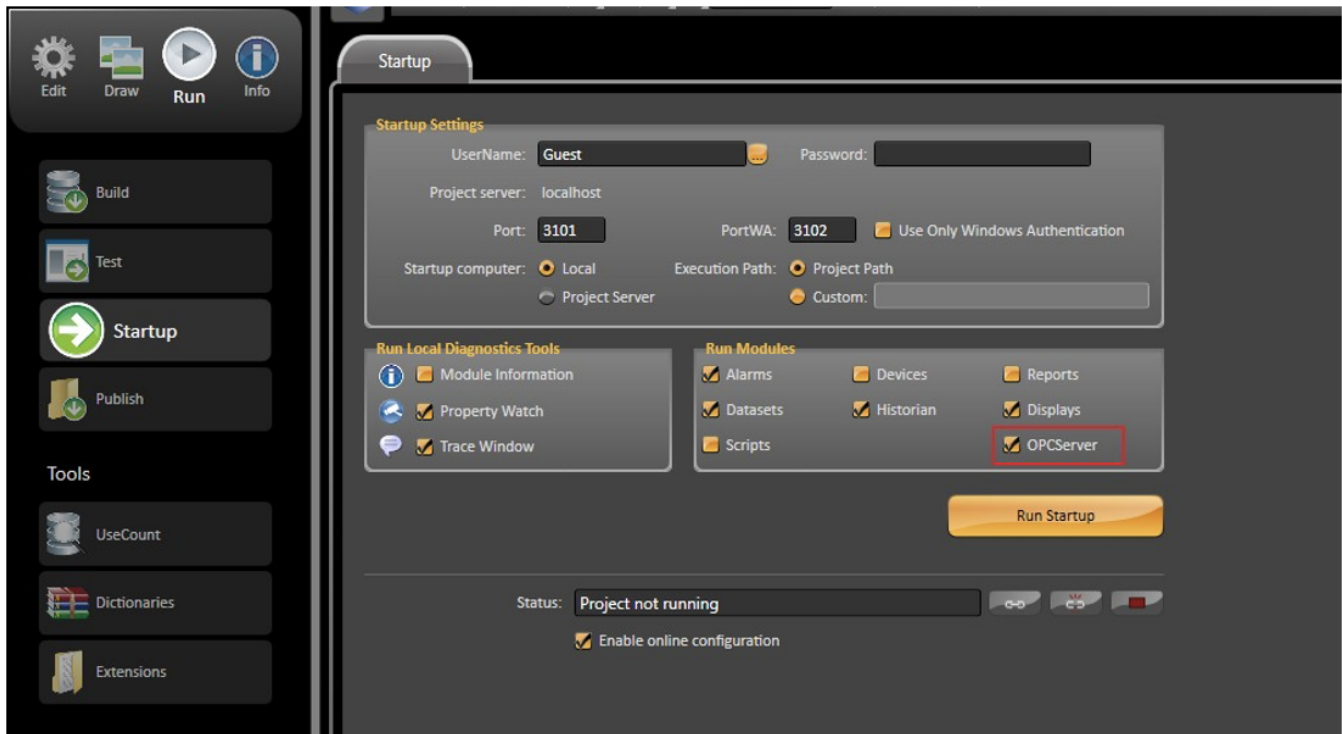
In this tab, you can view the details of the Server Certificate, export the file (to import and trust the OPC Client), and Reissue it.

When the Reissue option is selected, all existing trust relationships that depended on the Server Certificate will be invalidated.



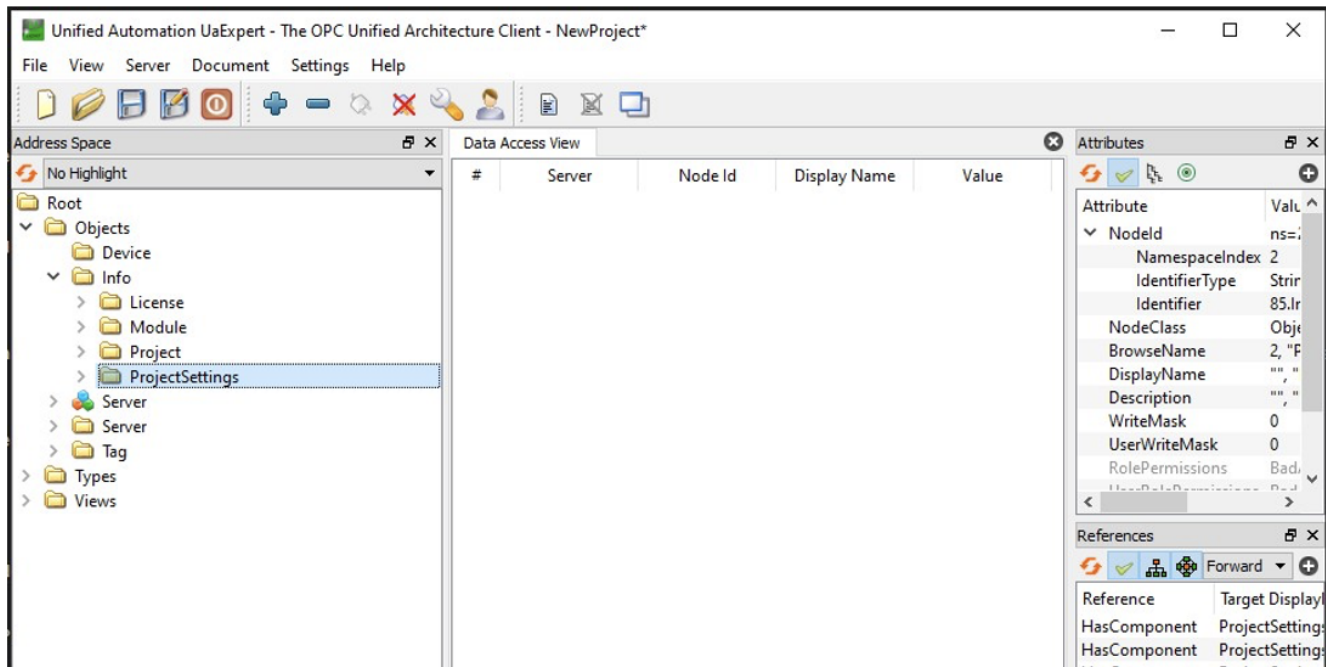
Project Runtime

Once all the configurations are done, you can launch the Project to test the communication exchange. Remember to have the *OPC Server* Module enabled in **Run > Startup**.



Open your OPC Client of choice (that is trusted by the OPC Server) and connect to the Endpoint defined to it. If all your configuration was done correctly, you should see the following Folders in the Server Address Space:

- **Tag:** Contains the Project Tags with properties based on the Visibility (defined in *Edit Objects*).
 1. Public: Can be read and write in your OPC
 2. Protected: Can only be read
 3. Private: will not be seen or browsed.
- **Device:** Information of the existing communication Nodes [Read-Only].
- **Info:** Contains the following subfolders:
 1. License: Details on the current license applied to the Project Server [Read-Only].
 2. Module: Details on every Module of the Product (Alarms, Scripts, Report, etc) [Read-Only].
 3. Project: Project information available at *Info Version* [Read-Only].
 4. ProjectSettings: Project information available at *Info Settings* [Read-Only].
- **Server:** Information available at the Server Namespace (ComputerIP, PrimaryIP, IsRedundancyEnabled, etc) [Read-Only].



TroubleShoot

The status of the Server can be observed through the Diagnostic tools, which are:

- **Trace Window:** Enable the OPC Server and Debug CheckBoxes (in the settings menu) to visualize all information about this Module.
- **Module Information:** Here you should be able to see the following information:
 - State: Whether the Server is running, paused or stopped state.
 - Available Items: Amount of variables in the Address Namespace.
 - Last Error: Last error message that happened in the connection.
 - Last Error Timestamp: Timestamp when the last error happened.
 - OPC Clients Connected: Amount of clients connected to the Server.
 - OPC Client: Individual information for each client connected (Name, Identity and Connection Time).