



Quick Start Manual

Optix PC Biometric Integration-Finger Reader 4500

OPTIXPC-BIOMETRIC-QS001-EN-AUG-2025

Contents

End-User License Agreement (EULA)	2
Third-Party Trademarks Disclaimer	4
Introduction	5
Important User Information	6
Prerequisites	7
System used during testing - Hardware & Software.....	7
Sharadsoft software details	7
Biometric Integration in Optix PC	8
Biometric device and its connectivity	8
Configuration-MainWindow, Screens, Tags, RuntimeNetLogic.....	10
Runtime-Optix demo application.....	14

End-User License Agreement (EULA)

End-User License Agreement (EULA) for Software developed by Sharadsoft

Last Updated: 01-Mar-2025

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Introduction

We are pleased to deploy the library for Optix Studio, which was developed with a focus on fulfilling your specific biometric integration requirements at the PC level, running on the Windows platform. While this library offers the essential functionality you need, please note that it is designed to provide a simple and user-friendly experience, enabling you to achieve the desired outcomes of biometric integration at the Optix PC level.

Key Highlights:

1. **Simplicity and Efficiency:** Our library is designed to provide a straightforward and efficient way to implement biometric authentication functionality at the Optix PC level, without the complexity of Optix NetLogic development.
2. **Tailored to Your Needs:** We have prioritized the features most relevant to your biometric integration requirements, ensuring the tool meets your specific needs without overwhelming you with unnecessary options.
3. **Ease of Use:** Enables quick and easy integration, making it accessible to users with minimal technical expertise.
4. **Focused Functionality:** Although it may not offer all the advanced features of professional parameter configuration and feedback mechanisms, our tool is sufficient to handle your biometric authentication tasks effectively.

We understand that you may compare our library with more comprehensive professional alternatives. It's essential to recognize that our library is designed to provide the necessary functionality for your biometric authentication needs, with a focus on simplicity and ease of use. This approach allows us to deliver a solution that is both cost-effective and user-friendly.

Important User Information

- The points and notes mentioned in this manual are based on our sole understanding and the data available to us as of Aug 27, 2025. Please be aware that interpretations or meanings may vary. Kindly refer to the respective third-party manuals or documentation for further clarification or detailed information.
- The WinFingerReader4500Library library is compatible with Windows-based PCs only.
- Ensure the RTE (Runtime Engine) for the Biometric device is installed on the Windows PC, and then reboot the PC.
- Verify that the biometric device is shown in the Windows Device Manager without any errors.
- WinFingerReader4500Library.dll is developed for a specific biometric device, namely the Digital Persona U.are.U 4500 Finger Scanner.
- NetLogic developed for Biometric integration in the Optix SCADA sample program is for demonstration purposes. You can modify it as per your requirements, but refer to the demo application NetLogic for DLL functionality with input & output parameters.
- Images used in the demo application are for demo purposes only and licensed by Sharadsoft for their use in an application developed by Sharadsoft. To maintain optimal CPU performance, avoid using multiple images within the application. Excessive image usage can lead to increased processing demands, potentially impacting overall application efficiency.

Prerequisites

System used during testing - Hardware & Software

Description	Details
Demo App Development Software	FT Optix Studio v1.6.2
Windows Operating System	Windows 11 Pro
Visual Studio	2022
Workstation RAM	8 GB or more
Sharadsoft Software	1.00.00
Biometric Device	USB-based Finger Reader, Digital Persona U.are.U 4500

Sharadsoft software details

Description	Activation	Functionality
WinFingerReader4500Library	Requires *1,2	Biometric integration for Optix PC users

Note:

1. WinFingerReader4500Library is a separate purchase and requires an individual activation key.
2. Without activation, it will allow three users to enroll.

Biometric Integration in Optix PC

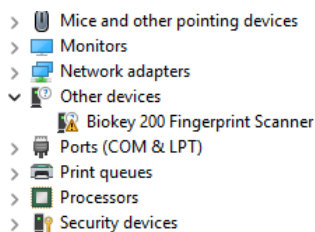
Biometric device and its connectivity

We are using Digital Persona U.are.U 4500 Finger Reader as a biometric device. It is a USB-based fingerprint scanner.

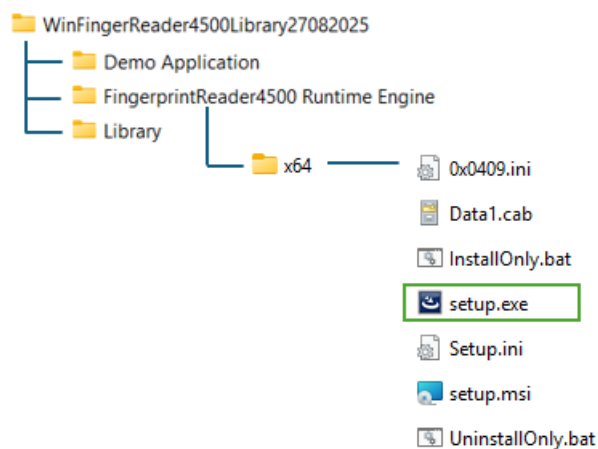


Installation steps for the biometric device:

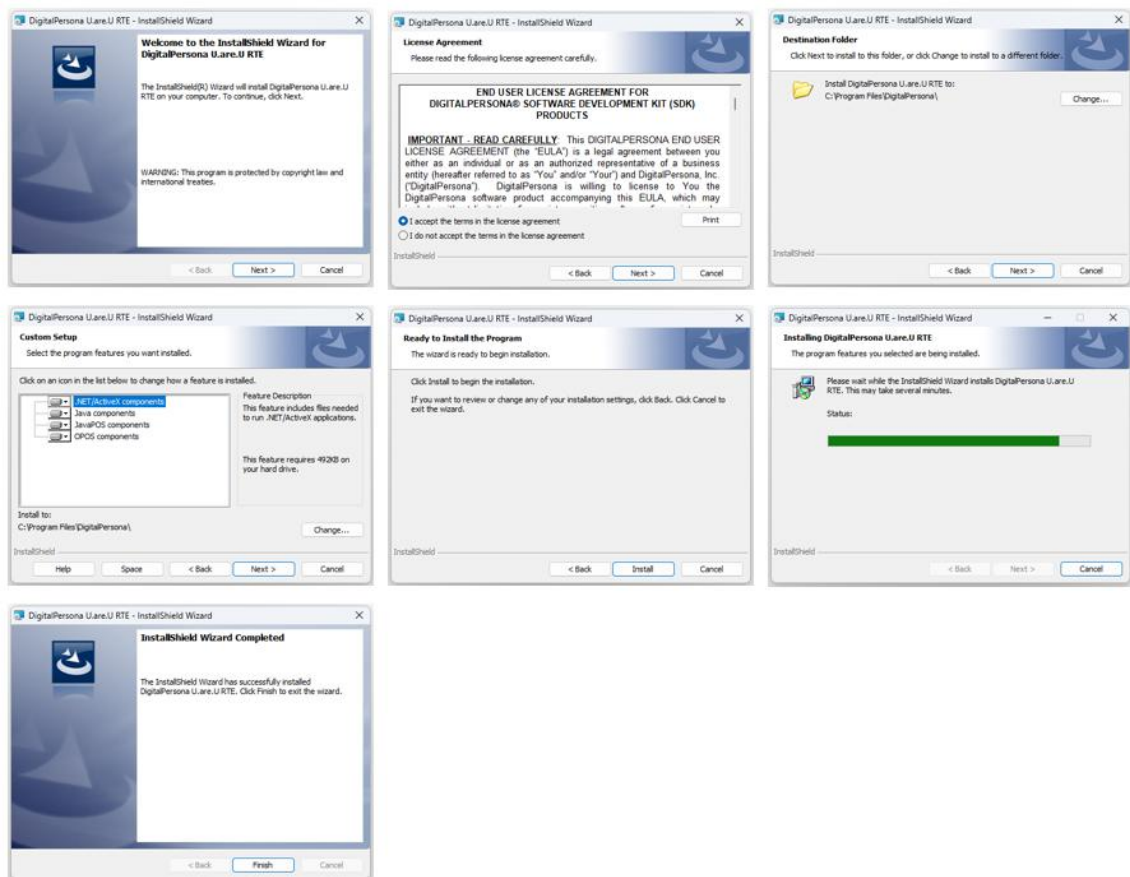
1. Plug the biometric device into a USB port.
2. Check the Windows Device Manager for its status.



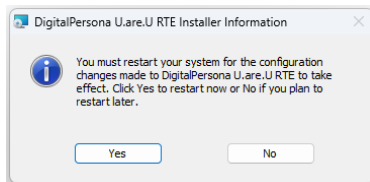
3. Execute the Runtime Engine setup for the biometric device



4. Follow the installation wizard to complete the RTE setup.



5. Restart the PC after RTE setup.



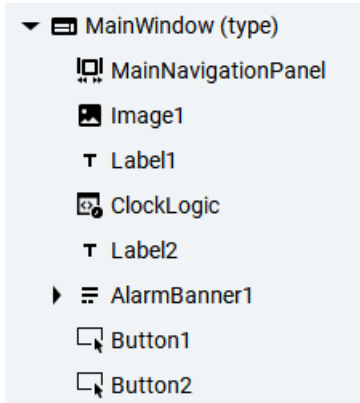
6. Verify installation using Device Manager. Confirm that the U.are.U Fingerprint Reader is listed and functioning.

- > Audio inputs and outputs
- ▼ Authentication Devices
 - U.are.U® 4000B Fingerprint Reader
- > Batteries

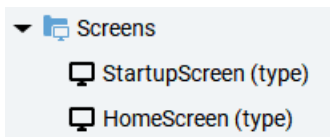
The next step will be to create the Optix application for PC using Optix Studio.

Configuration-MainWindow, Screens, Tags, RuntimeNetLogic

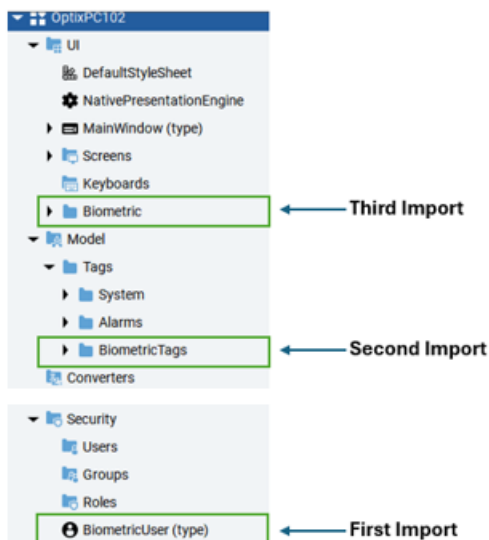
1. Configure the 'MainWindow' section with your required screen navigation option. For the demo application, we have used a navigation panel as follows:



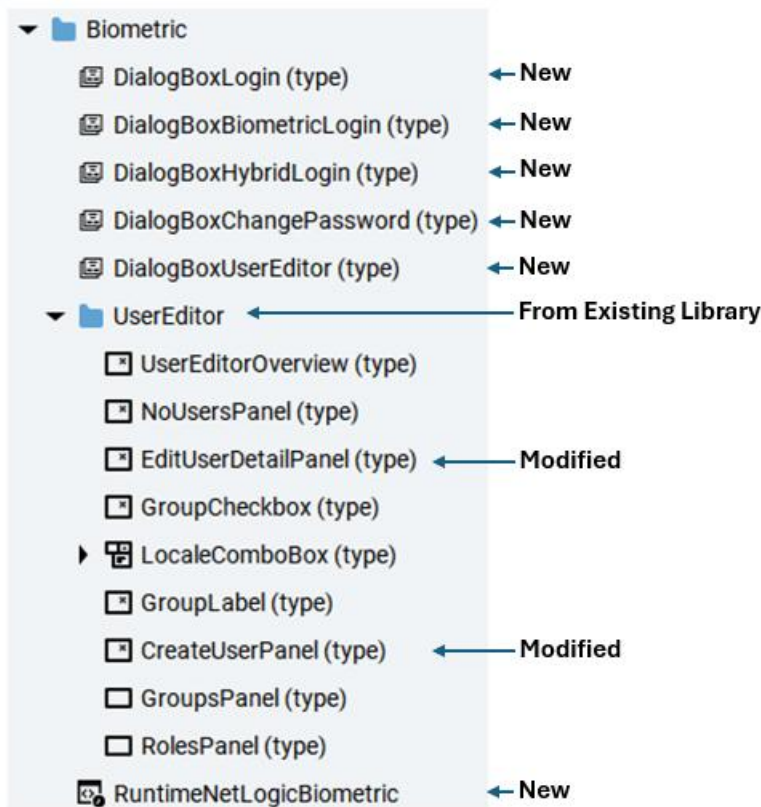
2. Create and configure the required screens for your application. For the demo application, we have created and configured 'StartupScreen' and 'HomeScreen' named screens and added them to the main window navigation panel.



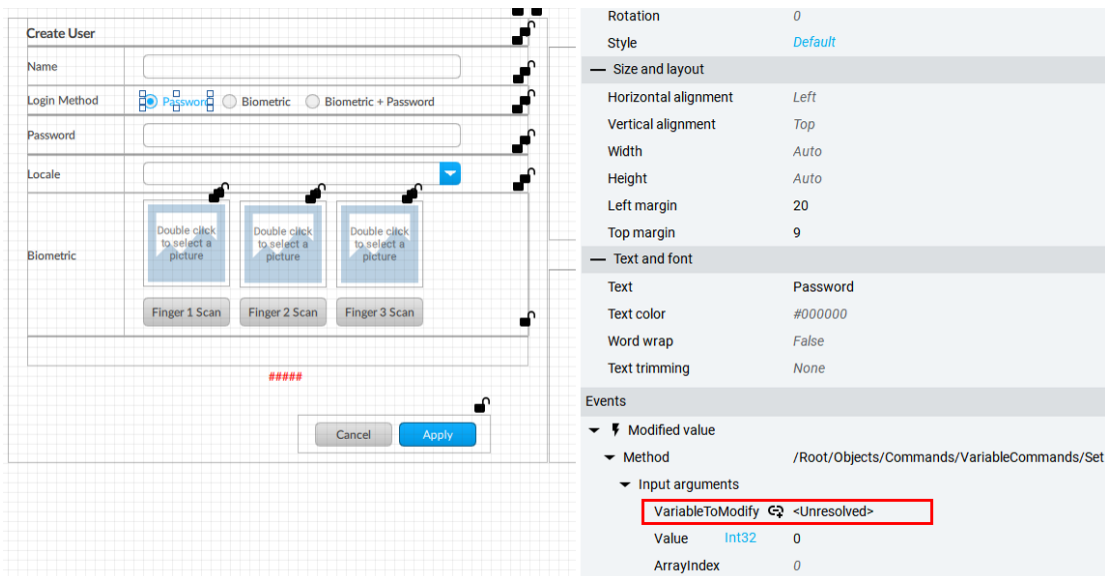
3. First Import 'BiometricUser' type as a type (not as an instance) under 'Security' folder, then import 'BiometricTags' under 'Model\Tags' folder, and finally import 'Biometric' folder under 'UI' folder from the demo application in your application.



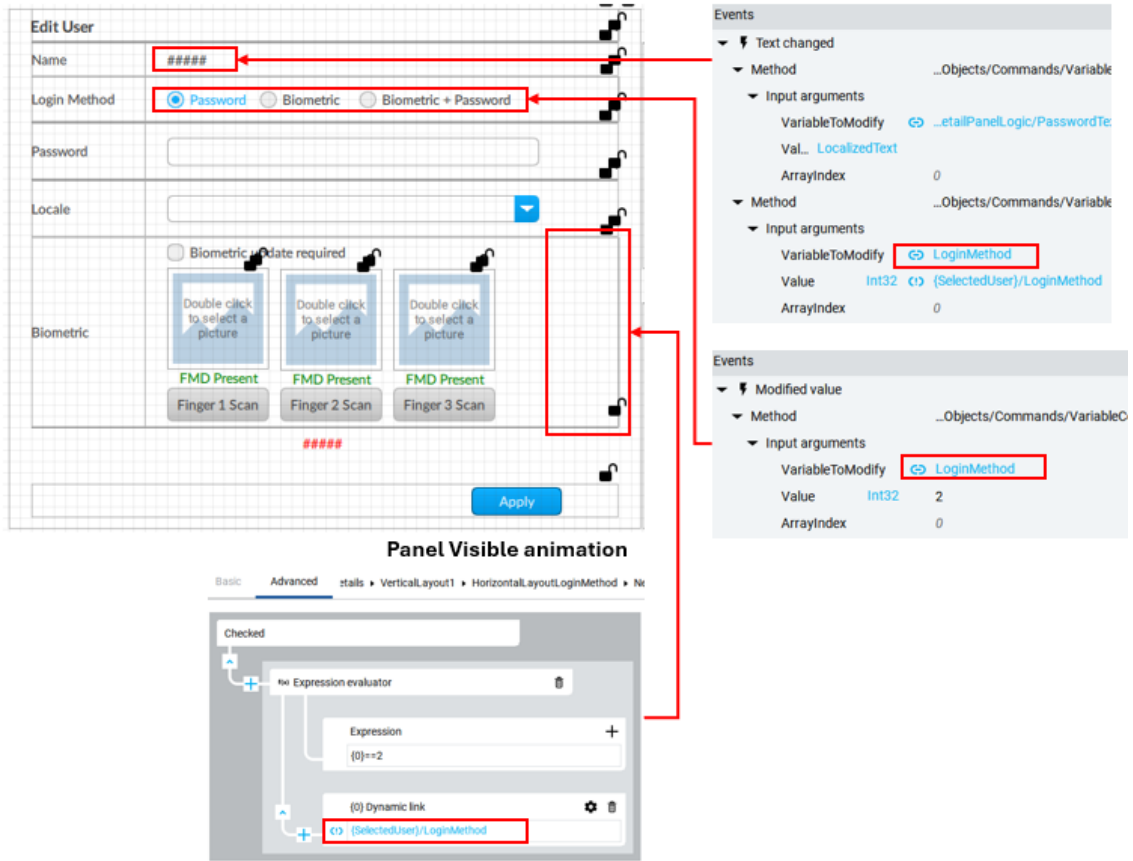
4. The biometric folder under 'UI' folder is as shown below;



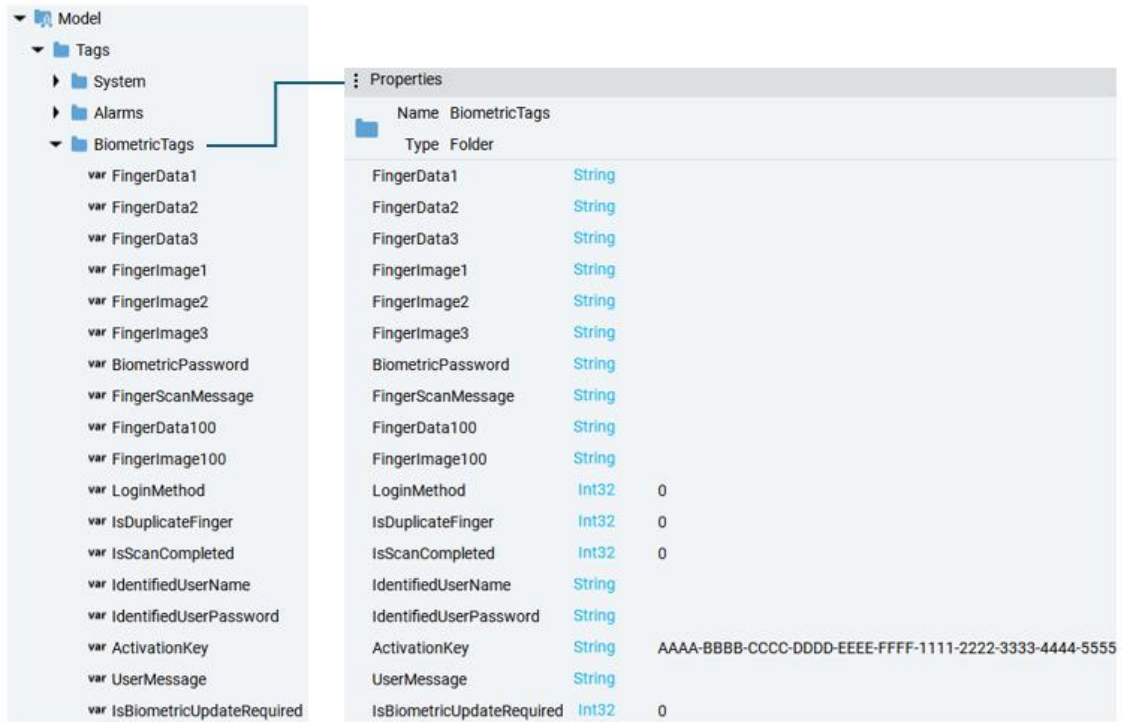
Note: After importing, ensure that no unresolved connections are pending. An unresolved connection will impact biometric functionality.



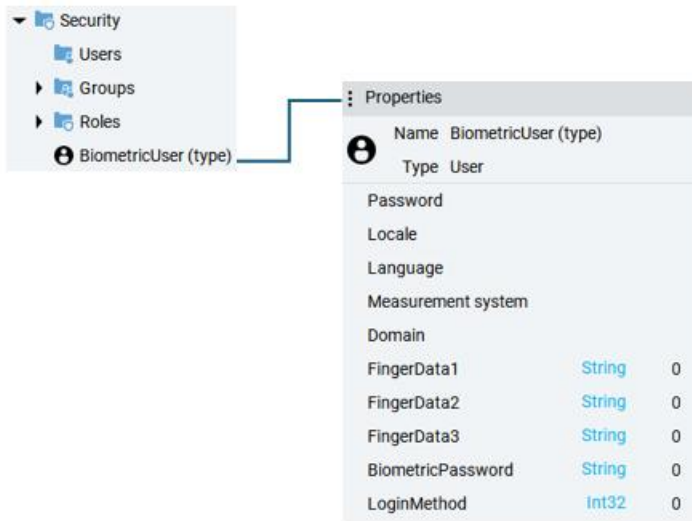
In that case, please refer to the demo application and assign the tag. During testing, we encountered a condition for 'LoginMethod' tag assignments in the 'EditUserDetailsPanel' & 'CreateUserPanel' panels.



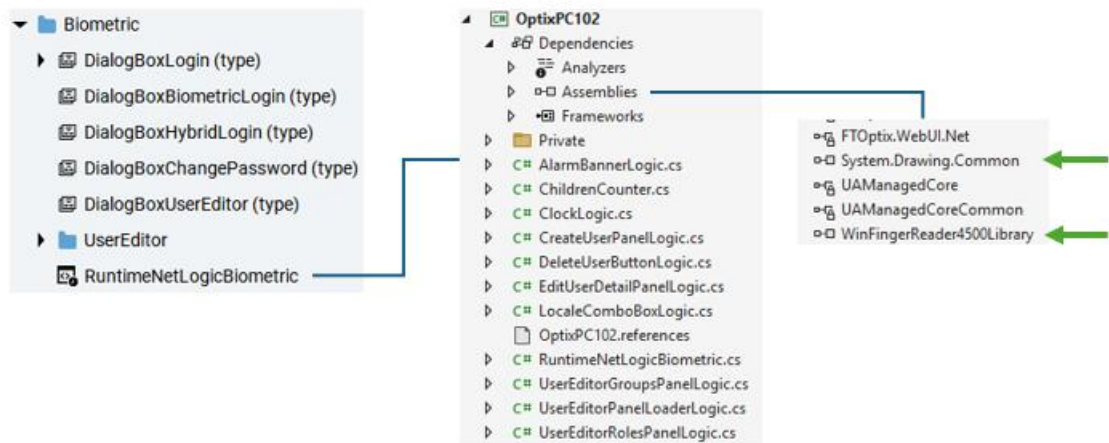
5. 'BiometricTags' folder under 'Model\Tag' is as shown below;



6. 'BiometricUser' is the inherited and enhanced type for the existing 'User' type. It must be placed under the 'Security' folder. Its properties are shown below;

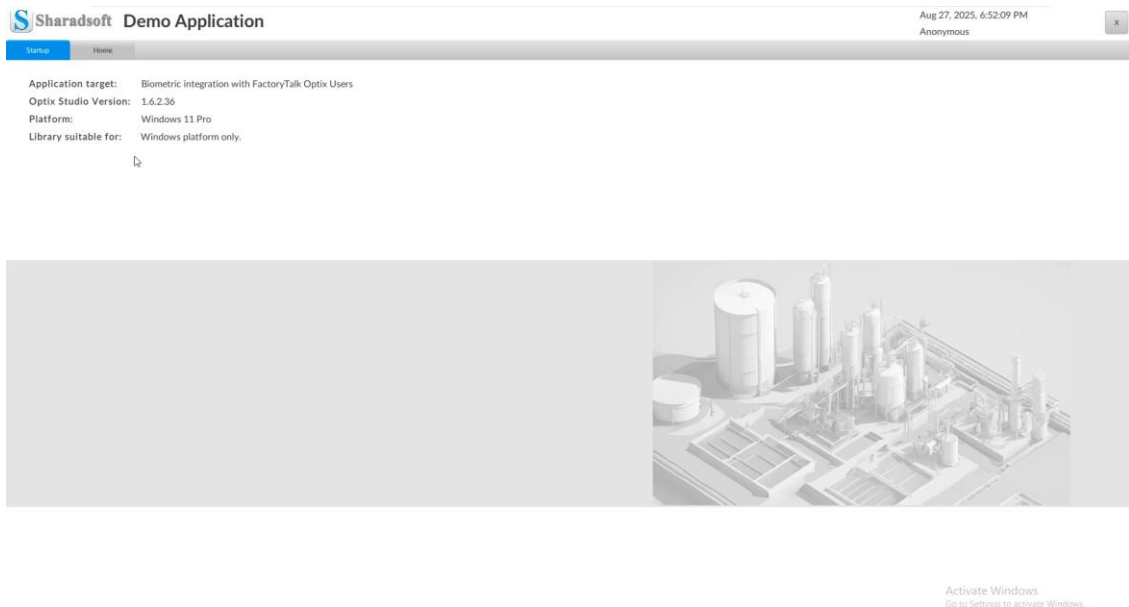


7. Add the given DLL to the NetLogic-dependencies section as shown below;

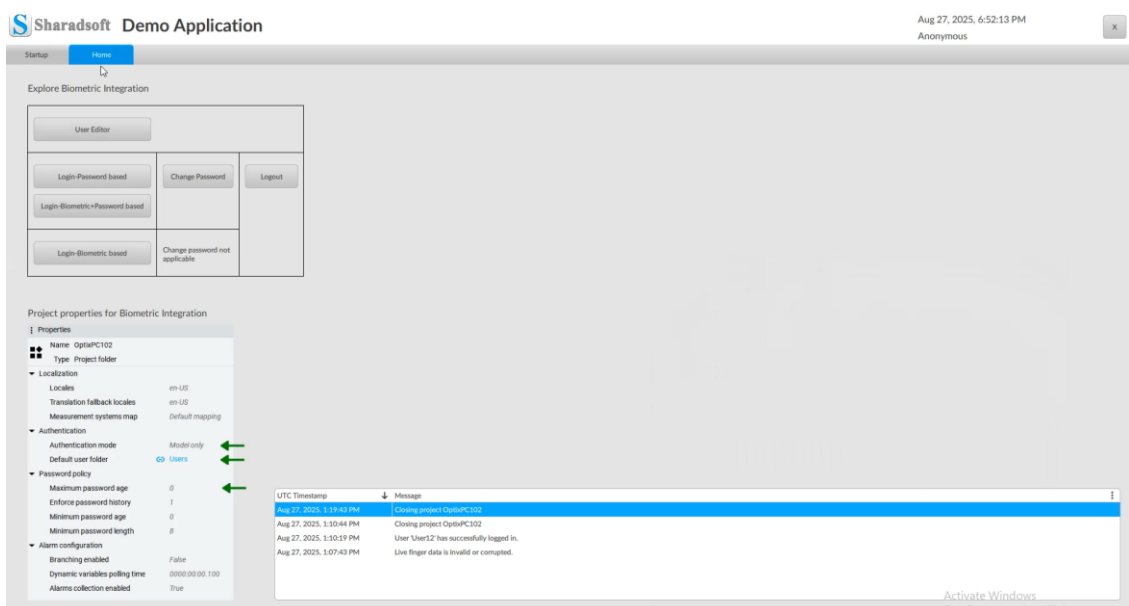


Runtime-Optix demo application

1. The MainWindow is designed for common elements, such as the app close button and a DateTime label at the top of the MainWindow.

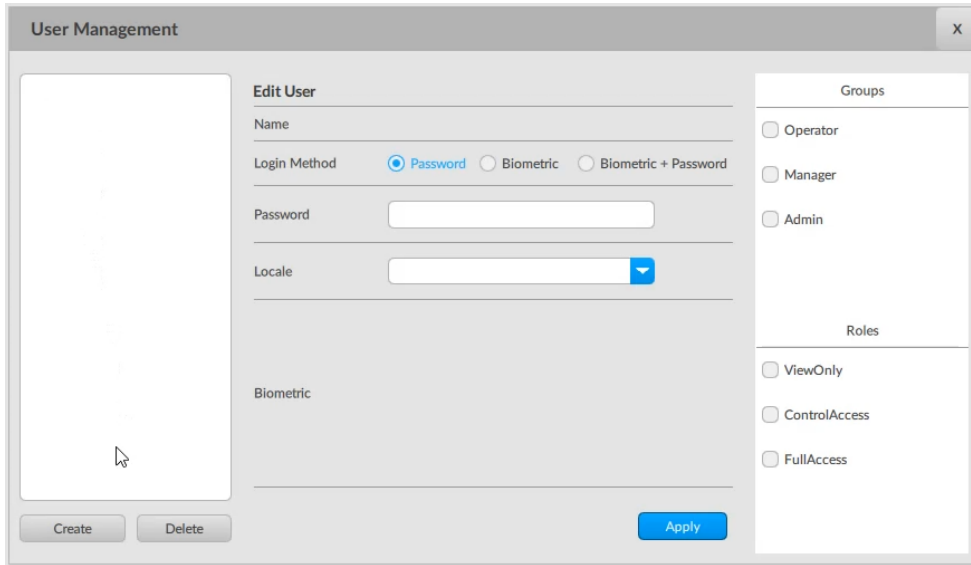


2. The home screen developed for the demo application is as follows:

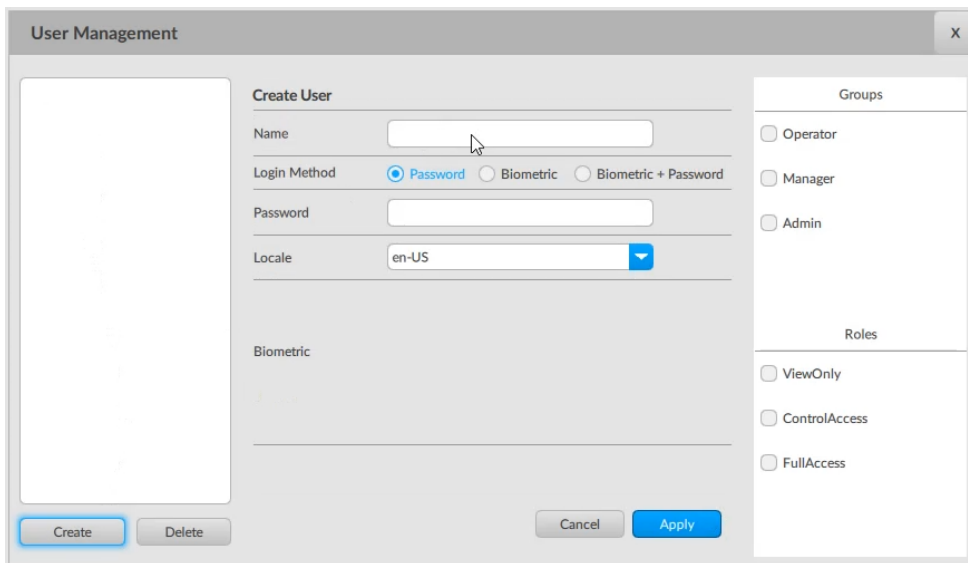


This screen is designed for the biometric enrollment and authentication demonstration. Using this screen, you can call the 'User Editor', 'Login dialog box for Password/Biometric+Password/Biometric based user', 'Change Password dialog box', etc. Optix project settings must be 'Default user folder-Users', 'Authentication mode-Model only' and for Biometric only authentication option 'Maximum password age-0'. The runtime output logger is displayed on the screen for the user's reference.

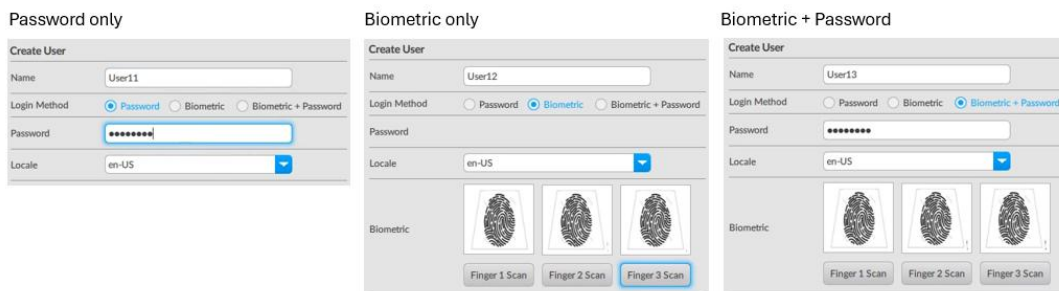
3. The User Editor dialog box is shown below;



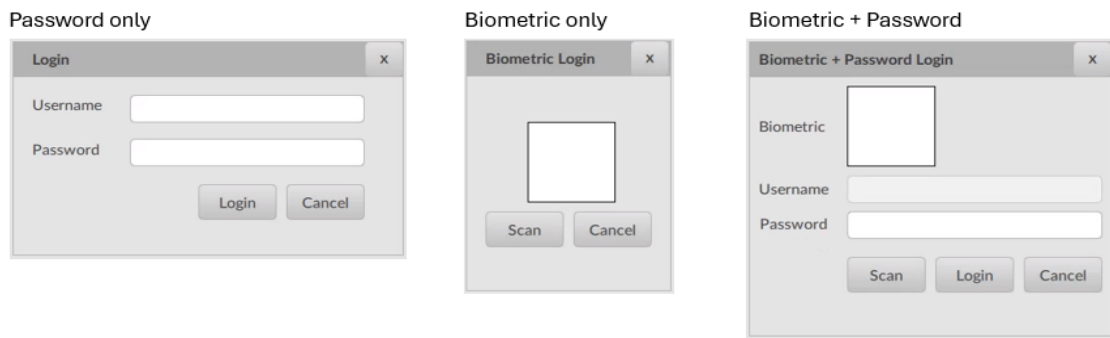
4. The Create User window will be displayed as shown below;



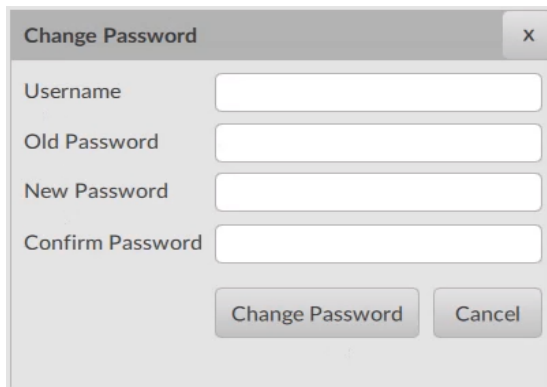
You can select one of the login methods (Password/Biometric/Biometric+Password) during the creation of a new user.



5. The login dialog box will allow the user to log in using their credentials, as shown below;



6. You can use 'Change Password' dialog box to change the password of a user whose login method is 'Password' or 'Biometric + Password'.



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Your comments will help us better serve your Optix PC-level biometric integration needs. If you have any suggestions/ require support, then drop an email to 'info@sharadsoft.com'.

Location: Mumbai, India.

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