

1 FR Quick Start Guide

General

Wavesys Face Recognition (further referred to simply as FR) is a biometric face recognition application designed to work with Wavesys video management platform. Leading-edge technology assures optimal system performance and reliability with real time face detection, concurrent multiple face recognition and instant face matching in 1-to-1 and 1-to-many modes.

This document will guide you through the process of product installation, activation, and first start. The product installation contains a full documentation package with the detailed setup guidelines, configuration tips, and troubleshooting advice.

Architecture

Wavesys Face Recognition operates based on video streams provided by one or multiple Wavesys servers. It does not work directly with streams from IP cameras. Each recognition event is then sent back to Wavesys, allowing you to react to these events and search the result history.

- The recognition results are stored on the FR server: result database + frame archive.
- Notifications about live recognition events are sent to Wavesys Console for E&A rules, and also to Wavesys Monitor for live popup in the FR channel notification area.
- These notifications include details about the recognition events.
- Wavesys Monitor allows searching recognition history based on time, subject's name and/or image.

Supported Wavesys editions are Wavesys S and Wavesys Global, starting from the software version 1.17.0.

For Wavesys Global, FR can work either with the whole system at once (connected to the central server), or with any of the Wavesys Recording Server machines directly.

Licensing


Wavesys Face Recognition license defines the maximum number of subjects in the matching database.

Features	Figures
Number of faces in the subjects' database	from 100 to 10 000 000, or unlimited**
Number of connected servers and channels*	Not limited
Number of connected channels*	Not limited

*Server hardware must comply with recommendations

**Only limited by database size

System Requirements

 Wavesys server version must be **1.17.0 or newer**.

Microsoft Windows 64-bit versions only, **no** 32-bit (x86) version support: Windows 8.1/10, Windows Server 2012 R2/2016/2019. FR requires that **.NET 4.5 and 4.7** framework is installed on the server. Please also ensure that the target OS has all the latest **updates**.

Hardware: Intel CPUs with [AVX/AVX2 support](#) (produced after 2011, please verify before choosing your FR server hardware).

Minimum hardware requirements **per FR channel: 2 physical cores 2.4GHz, 2GB RAM**, for ~1080@20FPS channel with average people flow (Wavesys not included).

Face recognition result precision greatly depends on the quality of input image quality; pay attention to the camera installation and preliminary work with FR configuration. Please consider the recommendations in the main FR administration manual and use them as a checklist when deploying your FR system.

Product Installation

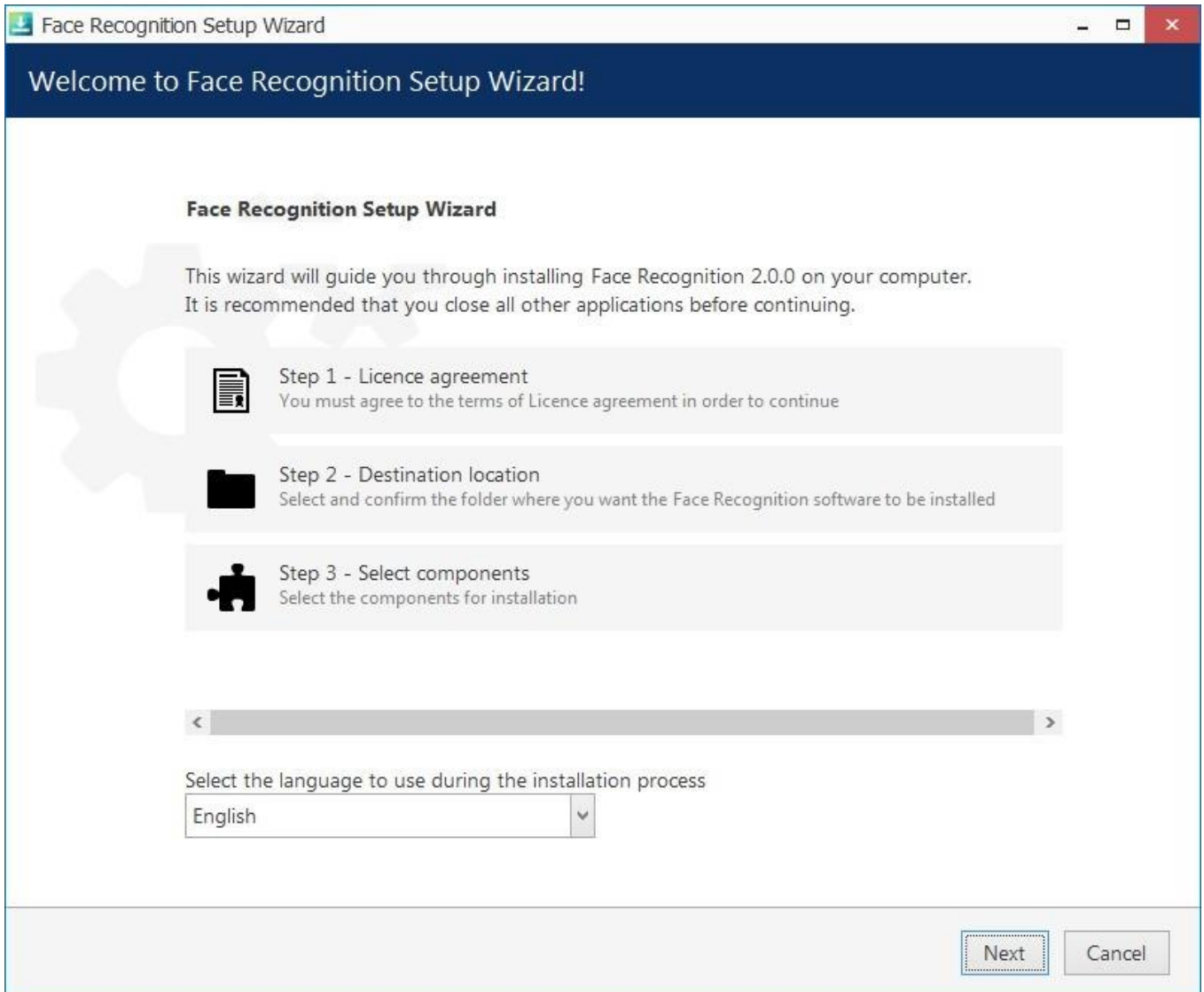
Run Wavesys Face Recognition installation package and go through the steps to set it up on your system. You will be asked to agree to the EULA, as well as choose the installation folder and product language.

⚠ Important: for CPUs without AVX/AVX2 support, you need to download an additional *.msi package (usually provided together with the main FR installation file). Put it into the same directory as the main installation package (otherwise, you will be prompted to browse for it during installation).

Without the extra package, FR operation on older CPUs may be unstable or impose higher CPU load. We strongly recommend using newer CPUs with AVX/AVX2 support, and do not guarantee FR operation on older ones.

If something goes wrong during the installation:

- make sure the host system meets the system requirements listed above
- ensure you have the latest FR release version
- contact support@wavesysglobal.com for assistance



Run the Face Recognition installation wizard

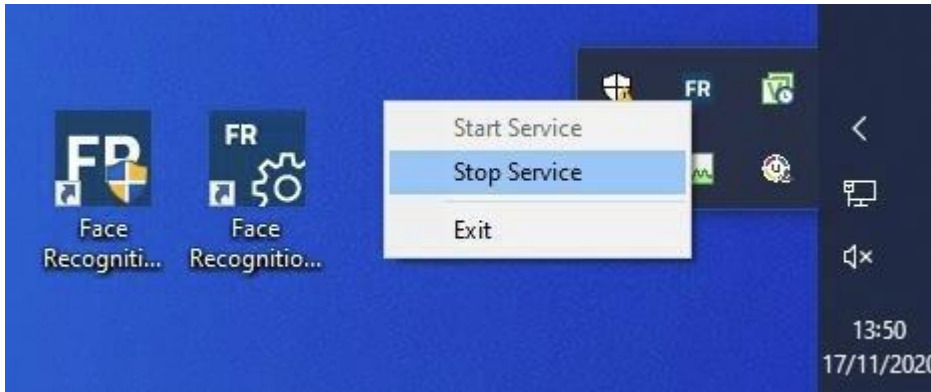
Click *Finish* to close the wizard.

As a result, Wavesys Face Recognition will appear in the list of Windows services. Immediately after the setup is complete, the FR service will be started automatically and you will be able to run FR as described below.

First Run

Start the FR service shell by launching the *Face Recognition Service Tray Tool* **shortcut** from your Desktop. FR icon will then appear in your system tray, allowing you to **start and stop** the service simply by right-clicking the tray icon and choosing the corresponding option.

The Face Recognition server itself has no graphics user interface, running silently as a Windows service, but has a Web based management console, easy to access and to use.



FR shortcuts and tray tool

Having installed and launched the FR service, you can access its control UI either by clicking the *Face Recognition Service Configuration* icon or your Desktop, or by typing in the address manually in the Web browser using the following **default parameters**:

Address: localhost or local IP address

Port: 8085

Username: **admin**

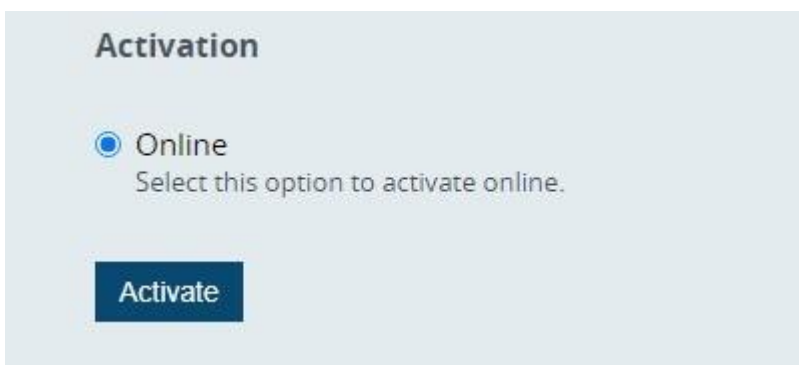
Password: **admin**

You will be able to change these settings via Service Settings after you log in.

For the parameters above, the FR Web UI access link will look like <http://localhost:8085>.

License Activation

When you open the FR Web management console for the first time, you will be asked to activate your license key in order to proceed.




FR license activation options

When navigated away from the Web Management console main page, you will still see your license information and a link to the license manager in bottom left corner of the page.

The following options are available:

Online activation: Internet access is required at the activation stage, but will not be necessary for further FR operation.

 Note that Wavesys Face Recognition license is bound to the server **hardware** set.

ONLY activate FR on the ultimate hardware set, and **do not remove the hardware components after activation**. This includes HDDs, NICs, graphics cards etc.

Simply enter your FR license key and click *Activate*: the form will automatically connect to the activation server and get back to you with a confirmation and license info. FR license limits the number of faces in the subjects' database, so you will see the maximum number of subjects in the summary.

License Info

Status Activated

License Key ZpRv8wrTBdlpBqdcZybwosf2g5wxdkQaHN+uYx

Subject count 100

Change

License summary

Offline activation is not available at this point. If you wish to obtain an **trial** license for preliminary testing, kindly contact our support engineers at support@wavesysglobal.com.