

**ToolIP**  
**Tool for Image Processing**

Version 2026



Installation Guide

**Fraunhofer ITWM**

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In case of any problems concerning **ToolIP** or this document, please do not hesitate to contact us via e-mail at [toolip@itwm.fraunhofer.de](mailto:toolip@itwm.fraunhofer.de).

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# 1

## Introduction

This manual is short installation guide to the software **ToolIP** (Tool for Image Processing). **ToolIP** has been developed by the image processing department at Fraunhofer ITWM in Kaiserslautern, Germany. As graphical development user interface, it comes with an integrated image processing library developed at ITWM. This library contains a large variety of image processing and analysis algorithms that can be arranged in data flow graphs and thus combined to the solutions of complex inspection problems. Together with its library, **ToolIP** allows for solving complex image processing and analysis problems by visual programming. This approach has the advantage of being very intuitive, and so the user can start working productively after a very short training period. The descriptions of such data flow graphs can be saved and then immediately be used with a command line interpreter called **MAOcmd**. It is also possible to call a graph from inside a C or C++ application. This makes it easy to integrate a graph developed in **ToolIP** in an inspection system or a solution directly in the production line. **ToolIP** and its library are serving as the basis for many image analysis and quality assurance projects in the academic and industrial field.

## 2

# Installation

In this chapter, we describe the installation procedure of the software **ToolIP**.

## 2.1 Windows

During the first installation of **ToolIP** administrator rights are required since some environment variables need to be set. If you start the installer suitable for your operating system, you find the setup window as shown in figure 2.1(a). After clicking on Next, you have to agree to the license terms. The corresponding window is shown in figure 2.1(b). If you click I agree, you find the menu as shown in figure 2.2.

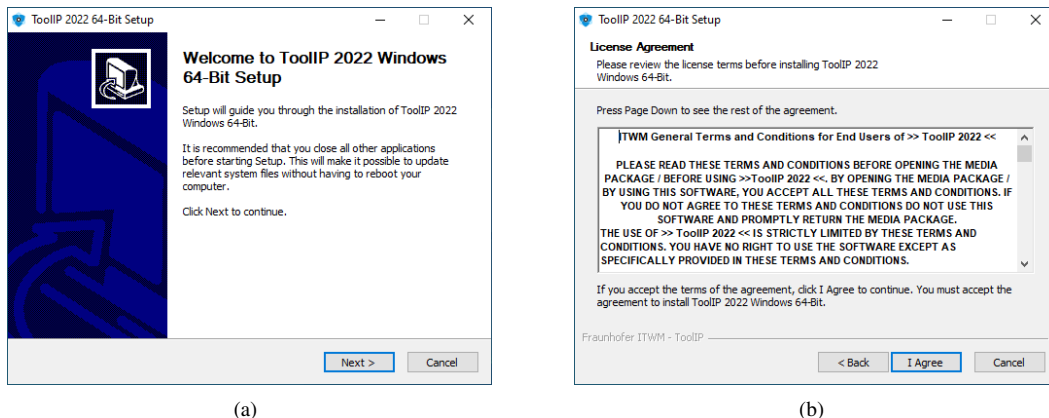


Figure 2.1: (a) Start of the installation process. (b) **ToolIP** license agreement.

In the drop-down menu, you can choose the option **Basic Install**, which will only install the **ToolIP** package. This might be sufficient if Microsoft Visual Studio 2014 is already installed on your computer. Nevertheless, if the version (including service pack number) of the compiler does not fit the binaries, there will be a problem during execution of the program. In case you are not sure, please tick the box **Vc Redistributable**. Furthermore, a plugin Software Development Kit (SDK) can be installed by ticking the corresponding box. The plugin SDK enables the user to write his own algorithms in C++ and integrate and use them in **ToolIP**.

After clicking on Next, a window appears. This window is shown in figure 2.3. You are asked to give a path for the installation directory. By default this path is set to:

```
C:\Program Files\ToolIP
```

This path is added to a new windows environment variable called `ITWMDIR`.

After you clicked on Next, you are asked to enter your license file name or the directory it is stored in. This is shown in figure 2.4.

By default this path is set to:

```
toolip.lic
```

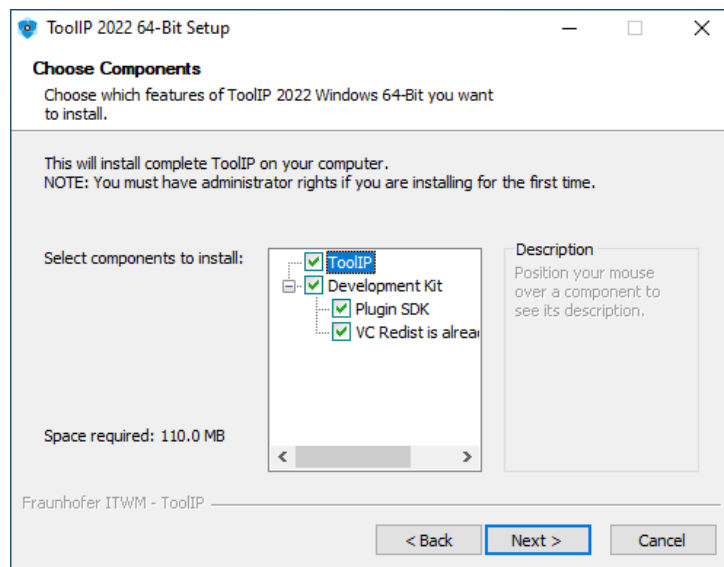


Figure 2.2: **ToolIP** installer menu.

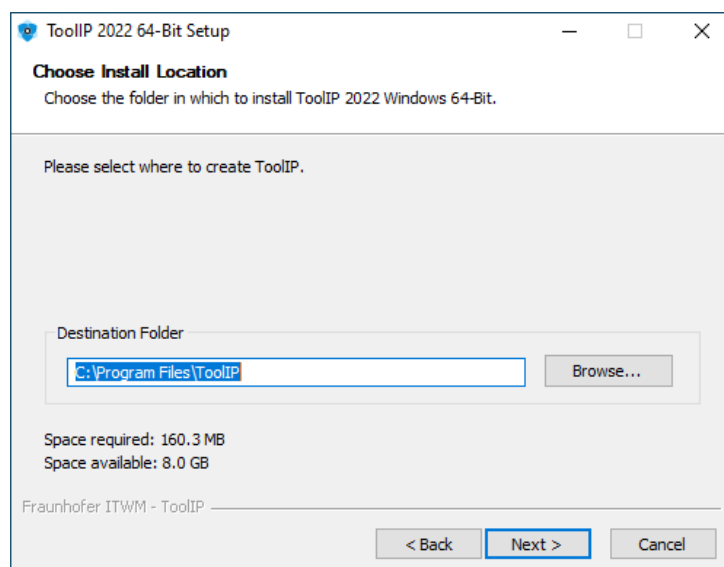


Figure 2.3: Choose the installation directory.

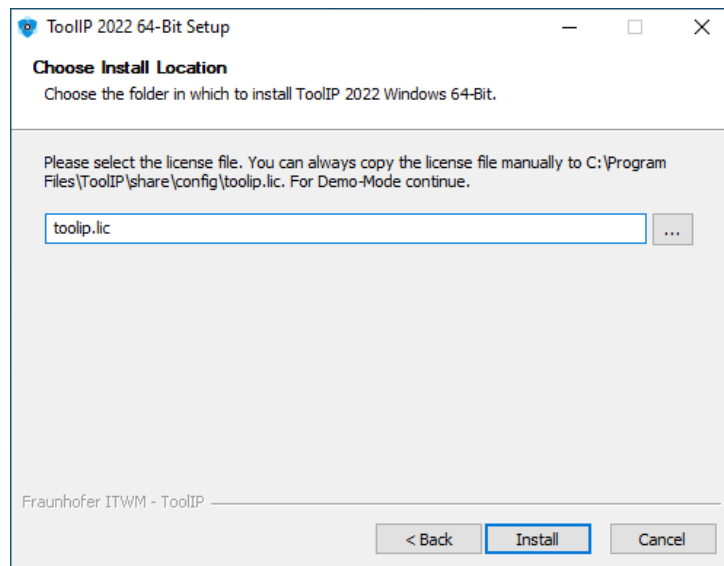
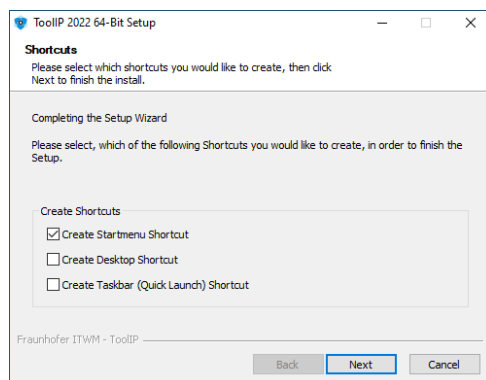


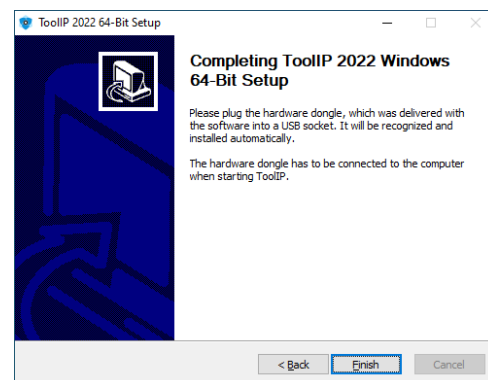
Figure 2.4: Choose the license directory.

To choose the right location click onto the three dots next to the path label. After clicking on Install the actual installation procedure starts.

Next, the **ToolIP** installer should show the window in figure 2.5(a). Select the shortcuts you would like to create and click on Next to finish the install. You should now see the window in figure 2.5(b). By clicking the Finish button the installation process is completed and you can start **ToolIP** from the Windows start menu.



(a)



(b)

Figure 2.5: (a) Choose which shortcuts you would like to create. (b) **ToolIP** installer: Installation complete.

## 2.2 Linux

**ToolIP** can also be used under some Linux distributions. So far, there is no installer for those platforms available in the download section. If you are interested in using **ToolIP** with Linux, please contact us at [toolip@itwm.fraunhofer.de](mailto:toolip@itwm.fraunhofer.de) for further information.

## 2.3 Starting ToolIP

After a successful installation you are now able to start **ToolIP**. Depending on whether you use the full or the demo version, the functionality of your software will be different.

### 2.3.1 Full Version

The full version of **ToolIP** is delivered with a USB dongle and a license file. The license file must be in the following location for **ToolIP** to find it:

```
%ITWMDIR%\share\config
```

After starting the software with dongle in USB slot the application main window will appear on the desktop. This will look like the screenshot in figure 2.6. You are now able to start using **ToolIP**.

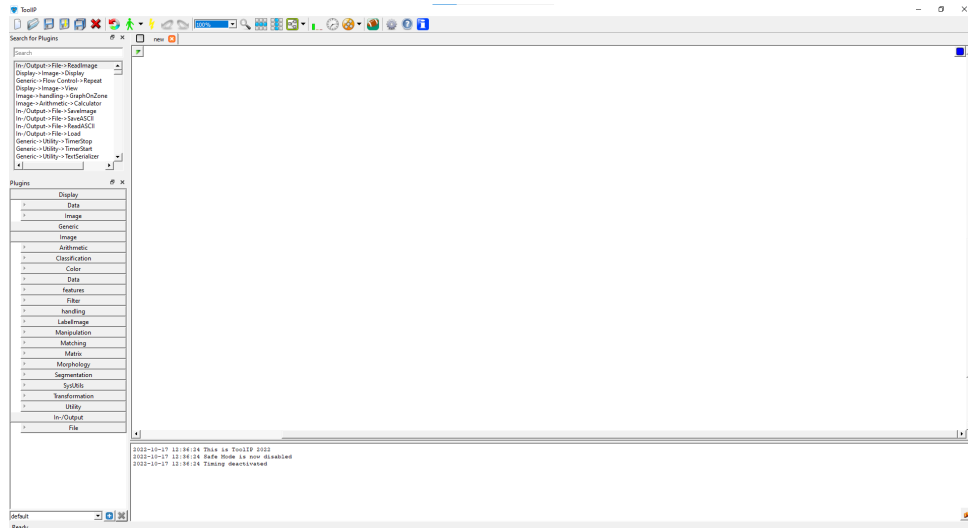


Figure 2.6: The main window of **ToolIP** after the first start.

If the dongle is not found, that is **ToolIP** starts in demo mode even with dongle in USB slot, please re-install the dongle driver. You find the installer in

```
%ITWMDIR%\support\matrix\inf_inst.exe
```

### 2.3.2 Demo Version

If **ToolIP** is started without dongle or license file, the software will work in demo mode. This is indicated with the message shown in figure 2.7.

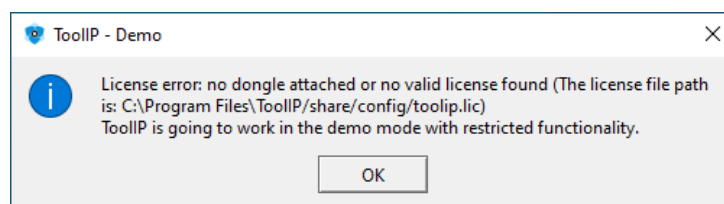


Figure 2.7: **ToolIP** will start in demo mode.

Note: The demo mode comes with the following restrictions:

- All input images larger than 256x256x8 pixels are cropped to those respective size in each coordinate direction. This is also the case for **ToolIP**'s command line interpreter MAOIcmd.
- The save option for images is not available.

If you want to purchase a full version, please contact the **ToolIP** mailing address [toolip@itwm.fraunhofer.de](mailto:toolip@itwm.fraunhofer.de) for further information.