

KUKA KRC4

User Documentation

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The contents of this document have been tested with the described software. Since deviations cannot be excluded, no guarantee for full compliance can be taken.

Documentation validity

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History of the document versions

version	date	author	Reason for change / comment
1.0	07/08/2013	Christian Mayer	Initial creation
1.1	06/24/2013	Christian Mayer	Installation of KRC4 via WorkVisual as KOP

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Introduction

Target group

This documentation is intended for users with the following skills:

Usage of KUKA KRC4 robots

1.2 Representation of information



These notes indicate that death or severe personal injury will be safe or very likely to occur if precautions are not taken.



These notes indicate that death or serious bodily injury could occur if precautions are not taken.



These notes indicate that minor personal injury can result if precautions are not taken.



These notes indicate that damage may occur if precautions are not taken.



This manual contains useful tips or special information for the current topic.

1.3 Terminology used

Notion	Description
SmartPad	Handheld unit
KCP	KUKA Control Panel
smartHMI	KUKA operating interface
WoV	KUKA WorkVisual

Table 1-1: Used Terms

1.4 Trademarks

. **NET Framework** is a trademark of Microsoft Corporation.

Windows is a trademark of Microsoft Corporation.

2 Product description

The OrangeApps.Screenshot app provides a button directly on the SmartHMI to create a screenshot with just one push of a button and to save it automatically. In addition, a screenshot can be created from KRL using a Boolean flag. The screenshot is automatically saved on the USB stick on the SmartPad or the control cabinet or on drive D:.

features

- easy installation via WorkVisual or directly on the robot via 'Commissioning > Additional software'
- Screenshot at the push of a button
- Screenshot from KRL via \$FLAG[1017]
- The screenshot is saved on the USB stick on the SmartPad or the control cabinet, or directly on drive 'D:'
- Screenshot file contains robot name, date and time
- runs on the KRC4, OfficePC or OfficeLite
- supports "KUKA.SmartPadRotation"

Installation, uninstallation, update

Installation on the KRC4 is described below.

On the KRC4 the software is installed as KOP, i.e. the option package can be installed both via WorkVisual and directly on the robot controller.

System requirements for running 3.1

Minimum hardware requirements

- Installation on the KRC4: KUKA System Software 8.3.23
- When installing via WorkVisual: WorkVisual 5.x or higher

If the technology is to be installed on KRC4 robots with KSS version older than 8.3.23, this version is available from us. Please contact us.



If the software KUKA.CPC is used on the robot, a software certificate is needed to install the plugin.

In this case, please get into contact with our customer service (email to info@orangeapps.de) before purchasing this product.

3.2 Installation on KRC4



If an older version is already installed in the form of a Setup.exe, this must be deinstalled before installing the KOP.

3.2.1 Installation via Work Visual

3.2.1.1 Install or update Screenshot

The KOP is installed like a normal KUKA option package and must be installed via the option package management in WoV. It is then available as a catalog element.

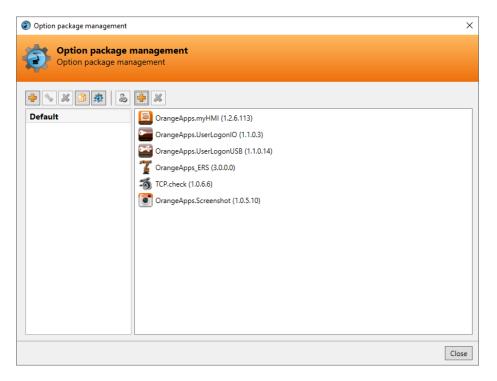


Figure 3-1: Option package management

The option package is then added to the project in WoV and automatically installed on the robot controller when the project is transferred.

In the event of an update, the previous version of the option package must first be uninstalled in WoV. All associated data should be archived before an update.

Overview of steps to install via WoV

- Install the option package in WoV as a catalog element
- Drag project from robot
- Insert option
- Register on the robot as an expert and transfer the project

Requirement

- At least user group Expert
- Operating mode T1 or T2
- No program is selected
- Network connection to the robot controller
- The KOP file of the software

Method

- 1. Only for an update: Uninstall the previous version of the Screenshot option package in WorkVisual.
- Install the Screenshot option package in WorkVisual.
- Load the project from the robot controller.
- 4. Add the Screenshot option package to the project.
- 5. Deploy the project from WorkVisual to the robot controller and activate it.
- 6. The request for confirmation **Do you want to activate the project [...]?** Is displayed on the smartHMI. When activated, the active project is overwritten. If no relevant project is overwritten: Confirm the guery with Yes.
- 7. An overview with the changes and a request for confirmation is displayed on the smartHMI. Answer this with Yes. The option package is installed and the robot controller performs a restart.



Information on processes in WorkVisual can be found in the documentation of WorkVisual.

LOG file

A LOG file is created under C:\KRC\ROBOTER\LOG.

Entry in the main menu

Entry in the information window

After a successful installation, an entry "OrangeApps.Screenshot" is displayed under Help > Info > Options.

Changed robot system files

3.2.1.2 Uninstall Screenshot

All related data should be archived prior to deinstallation.

Overview of steps to uninstall via WoV

Drag project from robot

- Remove option
- Register on the robot as an expert and transfer the project

Requirement

- At least user group Expert
- Operating mode T1 or T2
- No program is selected.
- Network connection to the robot controller
- The option package is available as a LAD file.

Method

- Load the project from the robot controller.
- 2. Add the Screenshot option package to the project.
- 3. Transfer the project from WorkVisual to the robot controller and activate it.
- The request for confirmation Do you want to activate the project [...]? Is displayed on 4. the smartHMI. When activated, the active project is overwritten. If no relevant project is overwritten: Confirm the query with Yes.
- An overview with the changes and a request for confirmation is displayed on the smartHMI. Answer this with Yes. The option package is uninstalled and the robot controller performs a restart.



Information on processes in WorkVisual can be found in the documentation of WorkVisual.

LOG file

A LOG file is created under C: \ KRC \ ROBOTER \ LOG.

3.2.2 Installation via smartHMI

3.2.2.1 Install or update Screenshot

Requirement

- At least user group Expert
- Operating mode T1 or T2
- No program selected
- USB stick with the option package (KOP file)
- KSS 8.3 or higher

Method

Installation takes place via Commissioning -> Additional software in the main menu.

- Copy the KOP file either to a USB stick or directly to a drive of the target system (e.g. d: 1.
- When installing from a USB stick, connect it to the control PC or the smartPad. 2.
- 3. In the main menu select **Startup** \rightarrow **Additional software**.
- 4. Click the button New Software
- 5. You will receive a list of software available for installation. If there is no entry OrangeApps.Screenshot in the list, click on Refresh. If the entry is now displayed, continue with step 8.
- 6. If the entry is not displayed, the drive from which the software is to be installed must first be configured. To do this, choose *Configuration*. In a new window you can now select the path under which the *OrangeApps.Screenshot* option package can be found.
- In the area *Installation paths for options*, highlight an empty cell and choose *Path* **Selection**. The existing drives are displayed. Select the drive where the OrangeApps.Screenshot option is available and save your selection with Save. The window closes. An entry *OrangeApps.Screenshot* should now appear in the list. If this is not the case, press *Update* and / or repeat steps 7 and 8.
- Highlight the *OrangeApps.Screenshot* entry and press *Install*. Confirm the installation 8 instructions with **OK**
- The request for confirmation *Do you want to activate the project [...]?* Is displayed on the smartHMI. When activated, the active project is overwritten. If no relevant project is overwritten: Confirm the guery with Yes.
- 10. An overview with the changes and a request for confirmation is displayed on the smartHMI. Answer this with Yes. The option package is installed and the robot controller performs a restart.
- 11. If applicable, remove the USB stick.

LOG file

A LOG file is created under C:\KRC\ROBOTER\LOG.

Entry in the main menu

Entry in the information window

After a successful installation, an entry OrangeApps.Screenshot is displayed under Help → Info → Options.

Changed robot system files

3.2.2.2 Uninstall Screenshot

Requirement

- At least user group Expert
- Operating mode T1 or T2
- No program selected

Method

The deinstallation takes place via **Startup** \rightarrow **Additional software** in the main menu.

- 1. In the main menu choose **Startup Additional software**.
- Mark *OrangeApps.Screenshot* and press **Uninstall**.
- The request for confirmation Do you want to activate the project [...]? Is displayed on the smartHMI. When activated, the active project is overwritten. If no relevant project is overwritten: Confirm the query with Yes.
- An overview with the changes and a request for confirmation is displayed on the smartHMI. Answer this with Yes. The option package is installed and the robot controller performs a restart.

LOG file

A LOG file is created under C: \ KRC \ ROBOTER \ LOG.

Create Screenshots

To create a screenshots, press the button



in the HMI or set \$FLAG[1017] to TRUE.

The generated image is saved under Robotname_Date_Time.PNG either on a USB stick connected to the SmartPad or the robot controller or directly on drive D:

Example KRL

\$FLAG[1017] = TRUE; create screenshot WAIT FOR \$FLAG[1017] == FALSE ; optional, wait until screenshot is created