

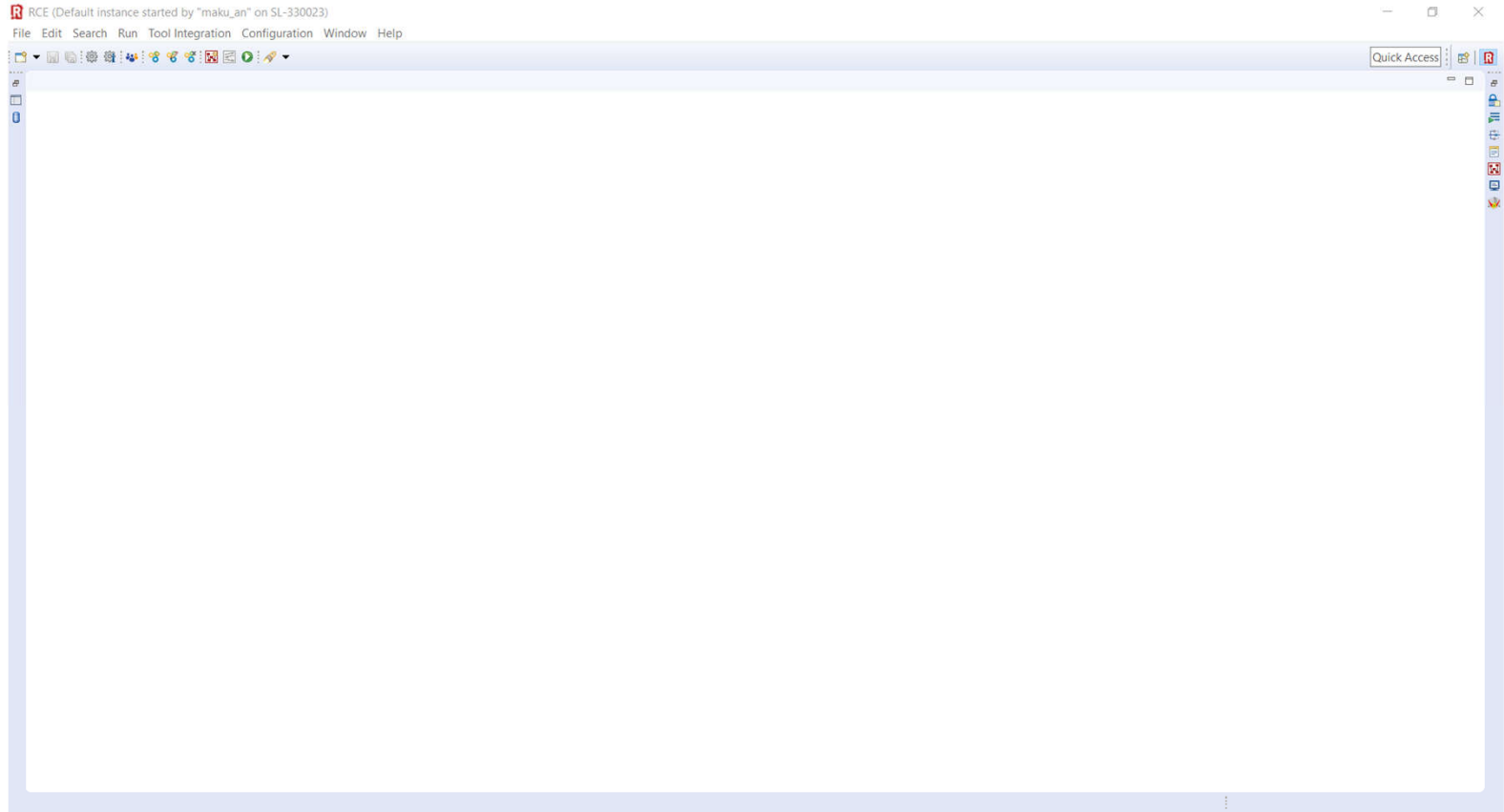
RCE Tool Integration – Step by Step



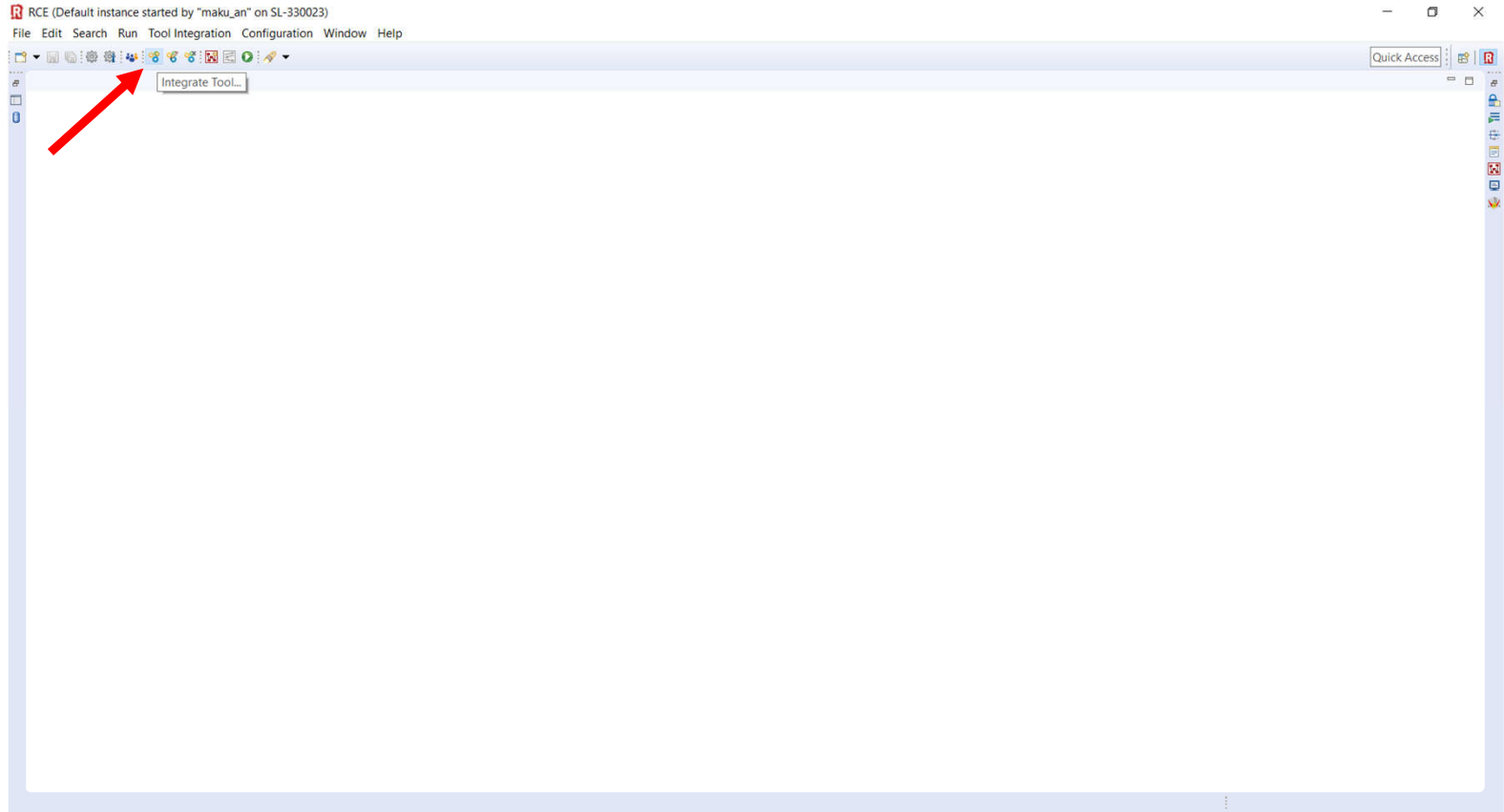
**Deutsches Zentrum
für Luft- und Raumfahrt**
German Aerospace Center
System Architectures in Aeronautics, Hamburg
Aircraft Design & Systems Integration
MDO Group



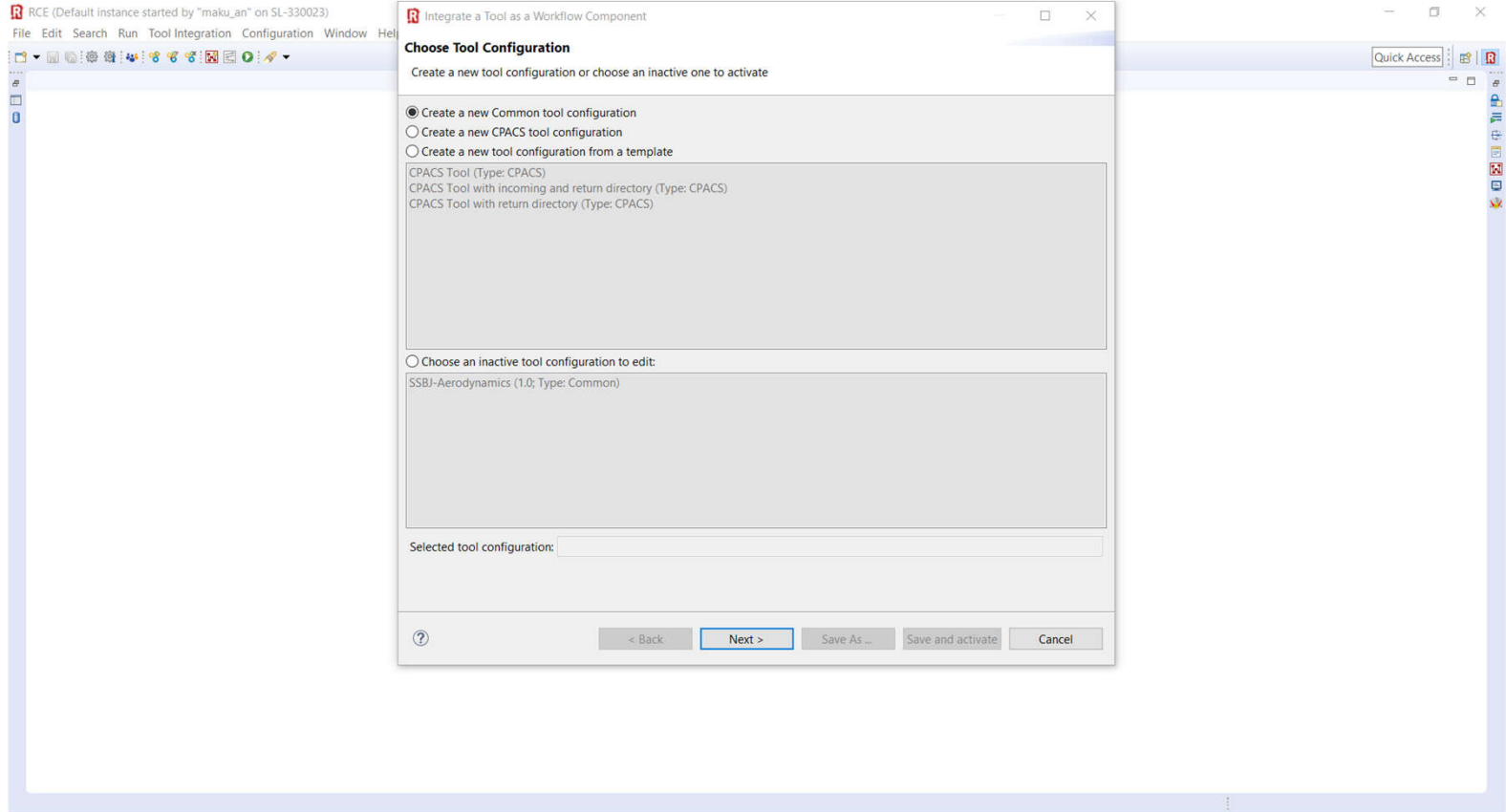
Knowledge for Tomorrow



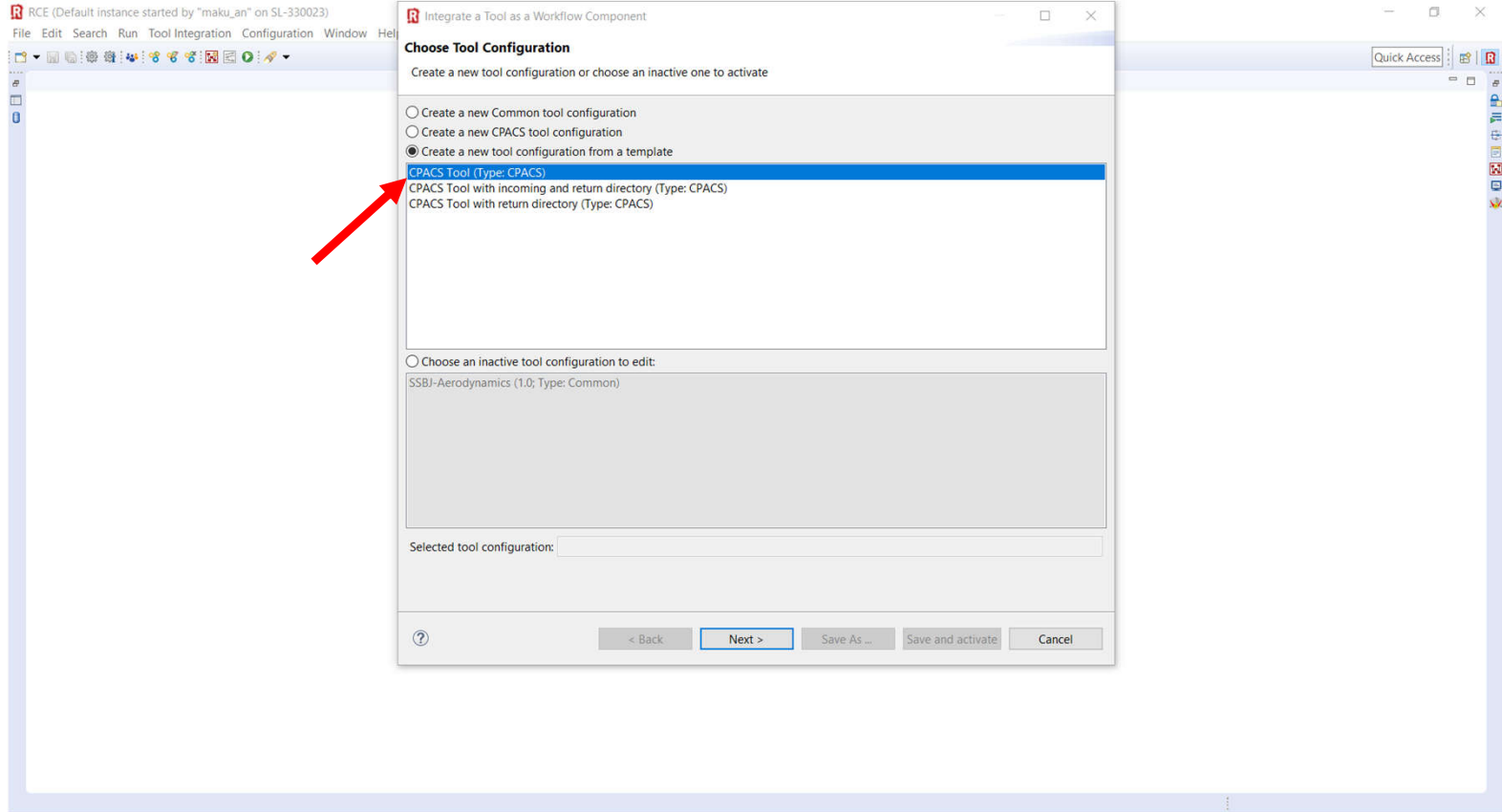
[Download](#) and open RCE



Click the “Integrate Tool” button



This opens the tool configuration wizard



Create a new tool configuration or select from a template. The “CPACS” template is convenient to use even when your tool does not use the CPACS schema. It follows a convenient pre-defined folder structure. Select the “CPACS Tool” template and click “Next”.

RCE (Default instance started by "maku_an" on SL-330023)

File Edit Search Run Tool Integration Configuration Window Help

Integrate a Tool as a Workflow Component

Quick Access

Tool Description

Define some information for the tool

Tool characteristics

Name:

Icon path: ... ☒ Copy into configuration folder

Group name: ...

Documentation: ...

Description:

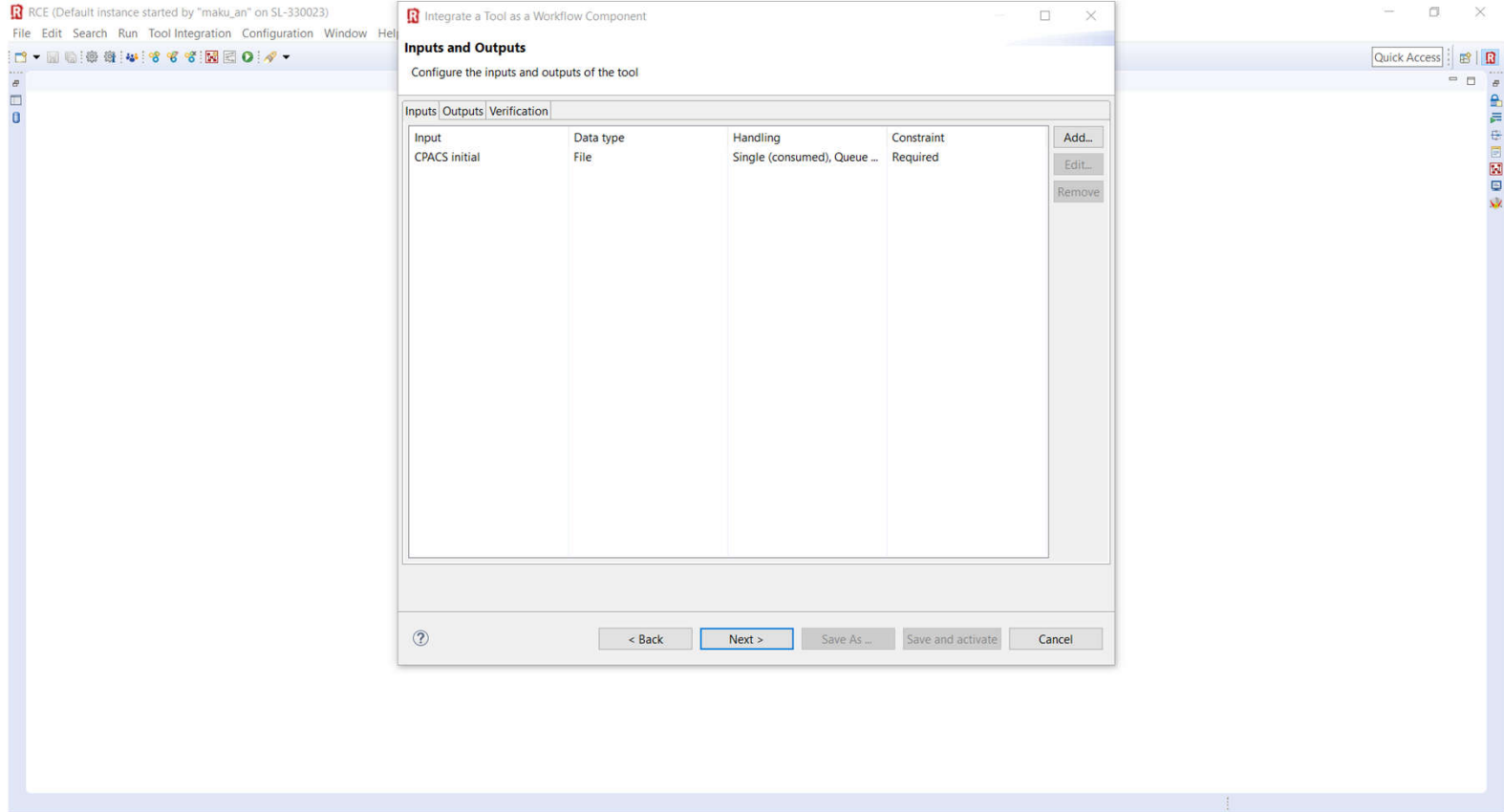
Contact Information

Name:

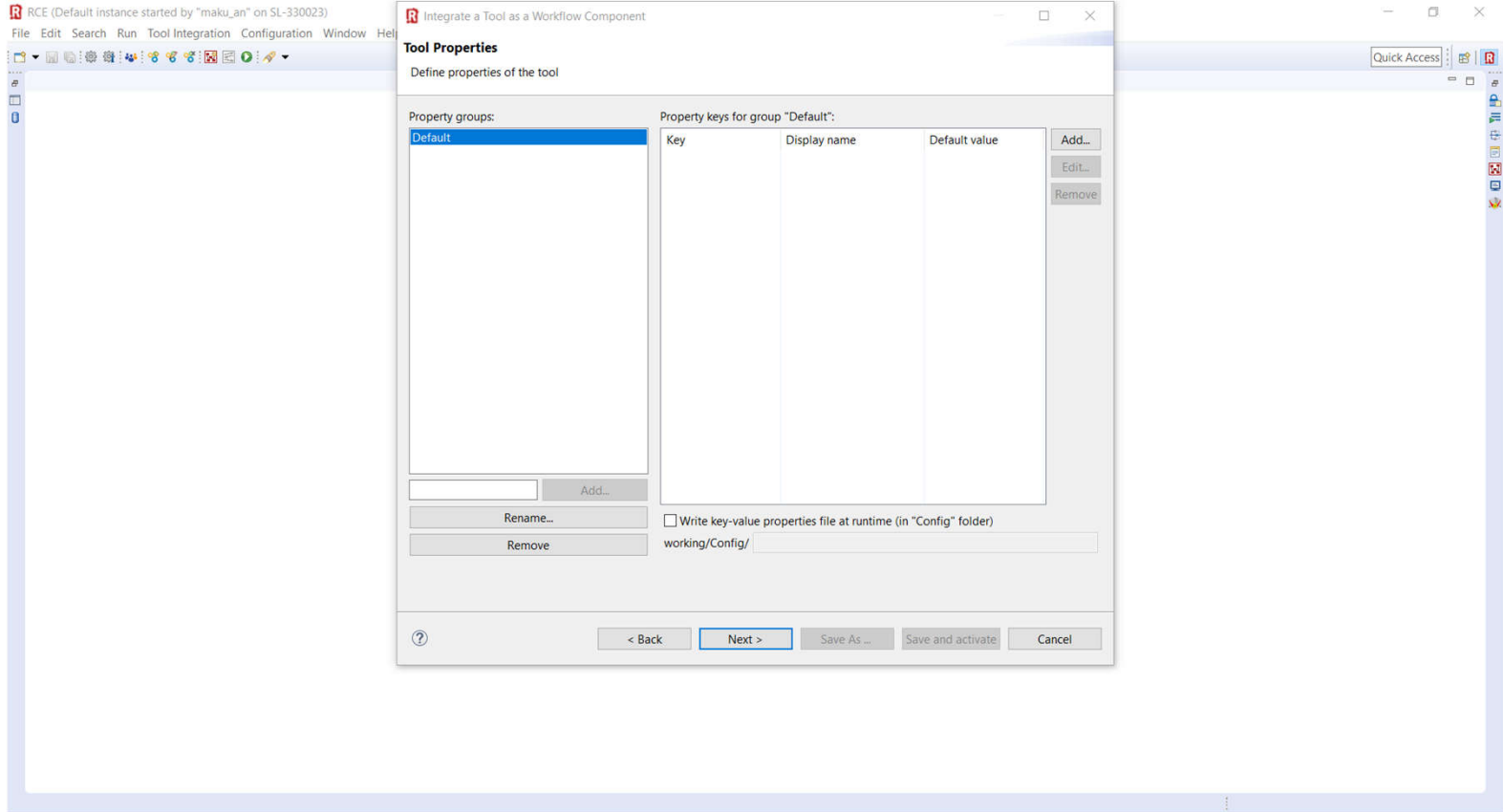
E-Mail:

? < Back Next > Save As ... Save and activate Cancel

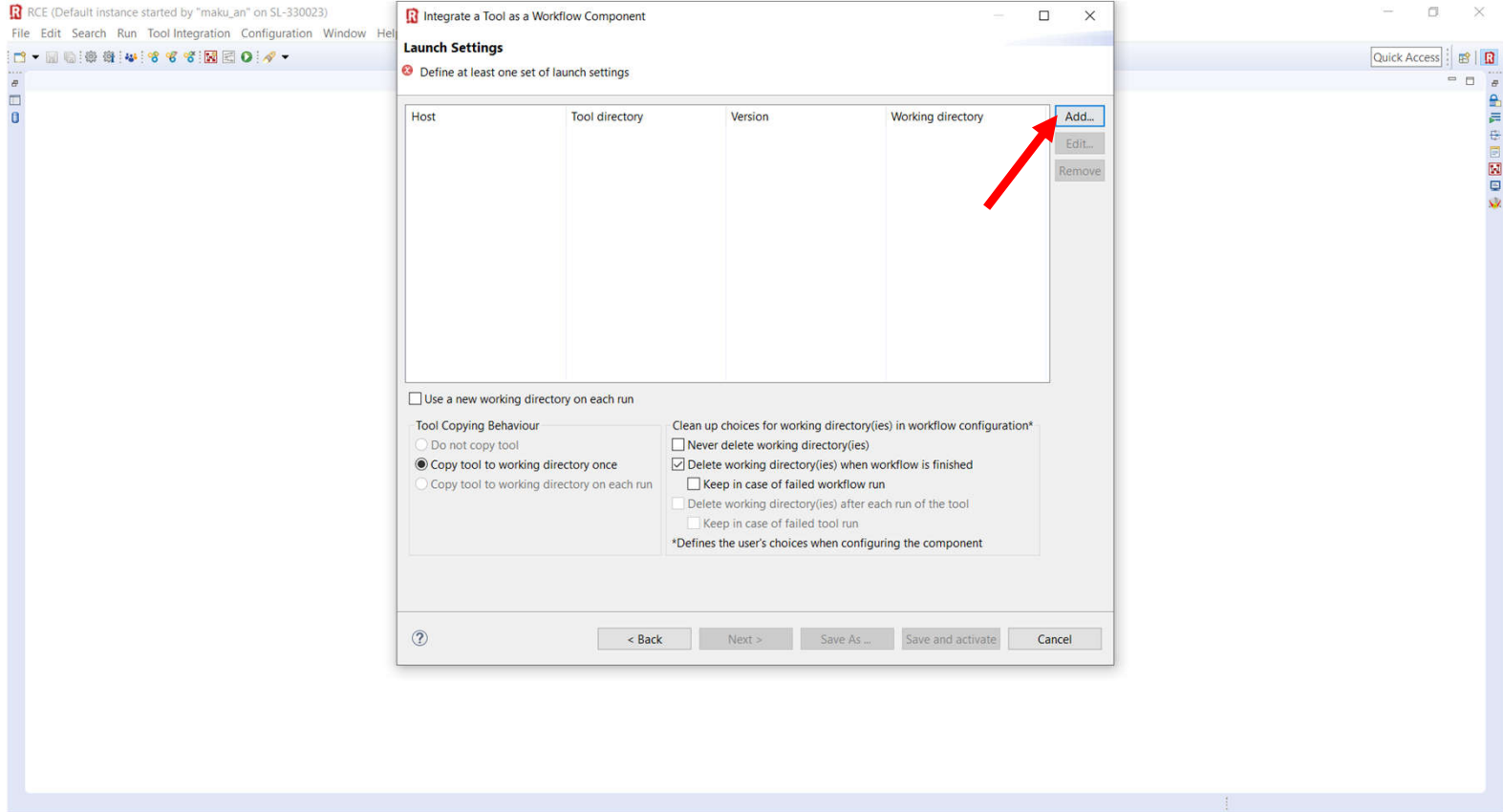
Enter your tool name. For convenience, select a group name where you tool will appear. Click “Next”.



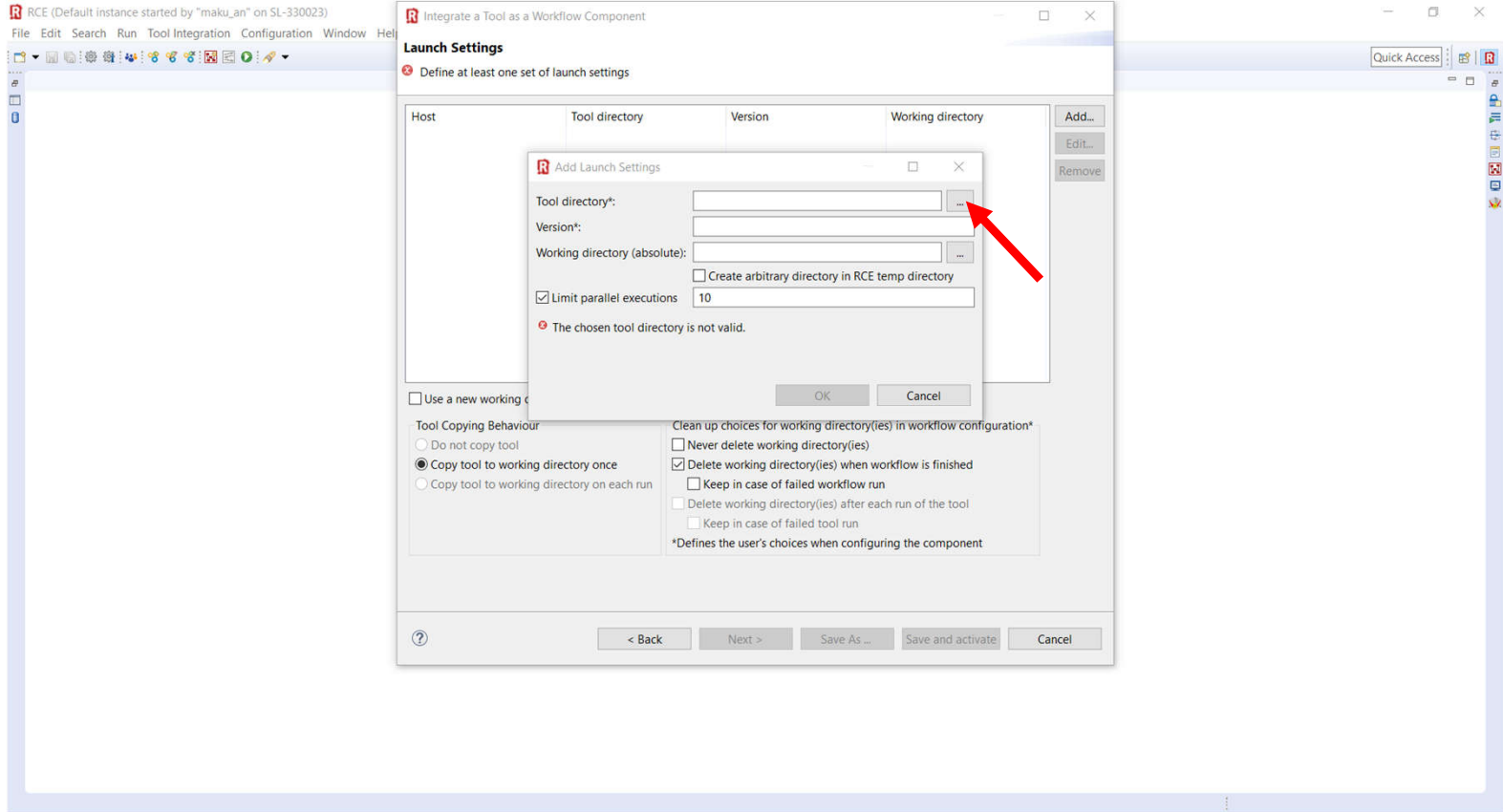
If you select the “CPACS” template, your tool inputs and outputs are set. Click “Next”.



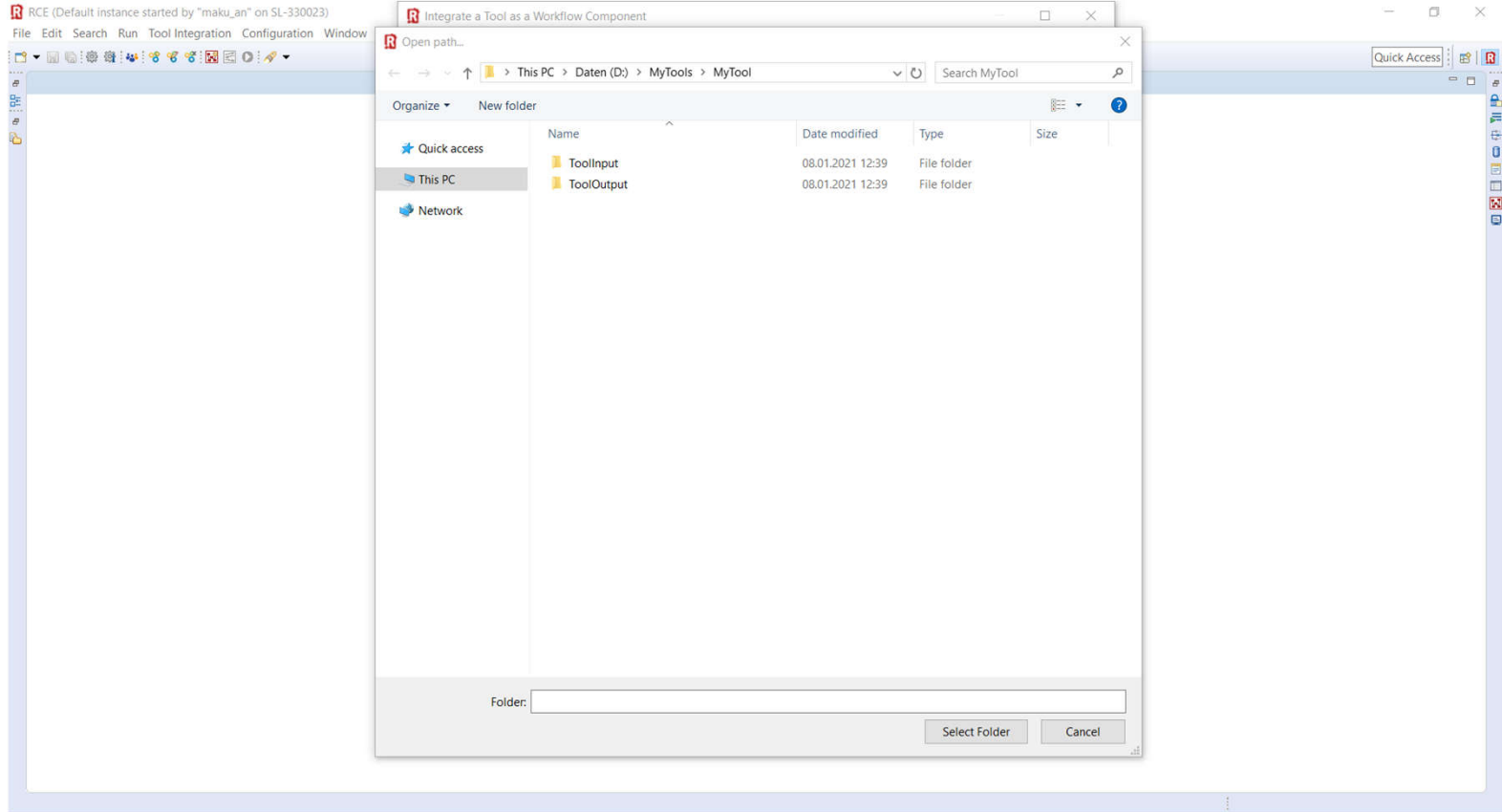
Skip Tool Properties. Click "Next".



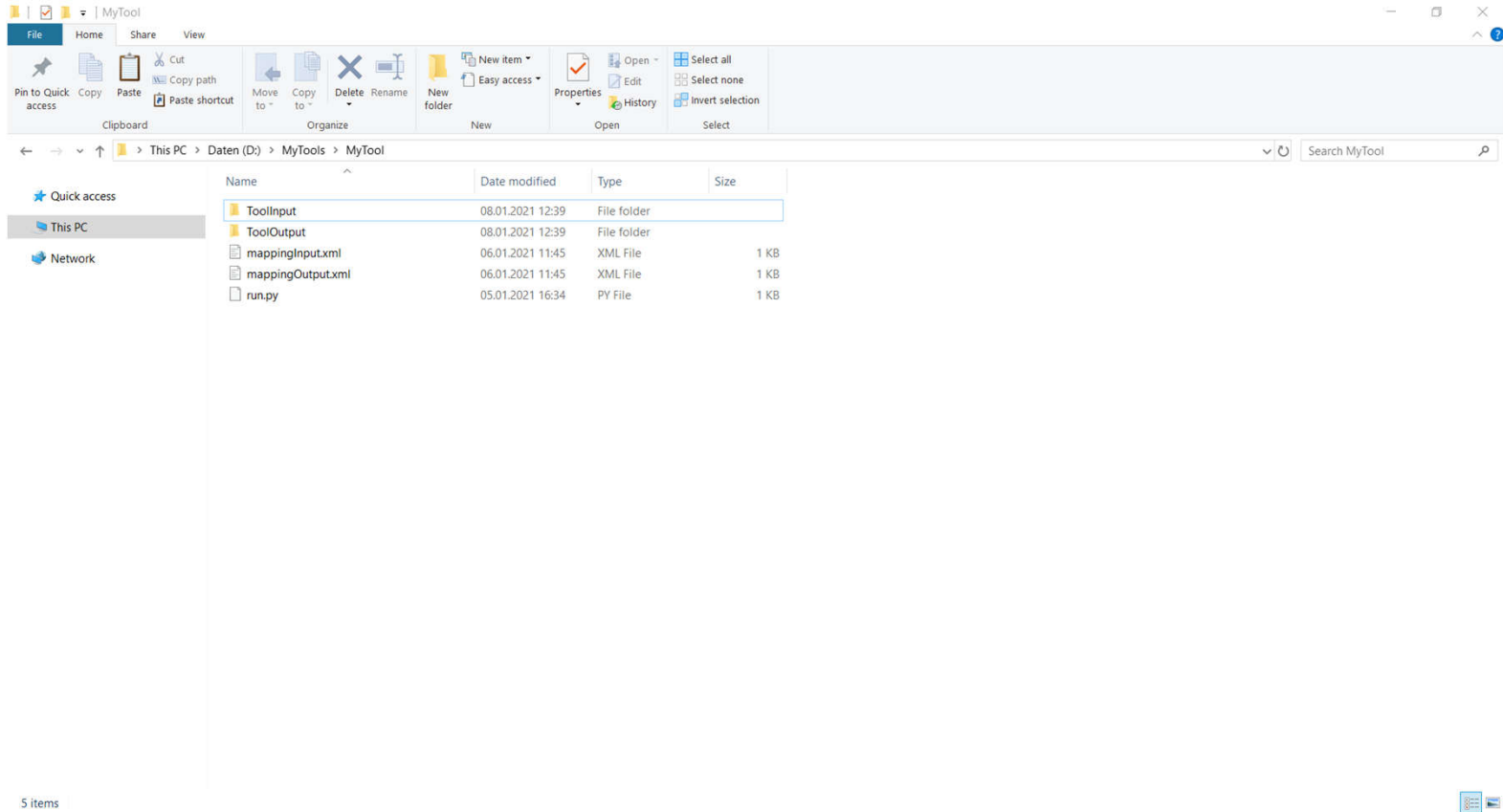
To define your Launch Settings, click “Add...”.



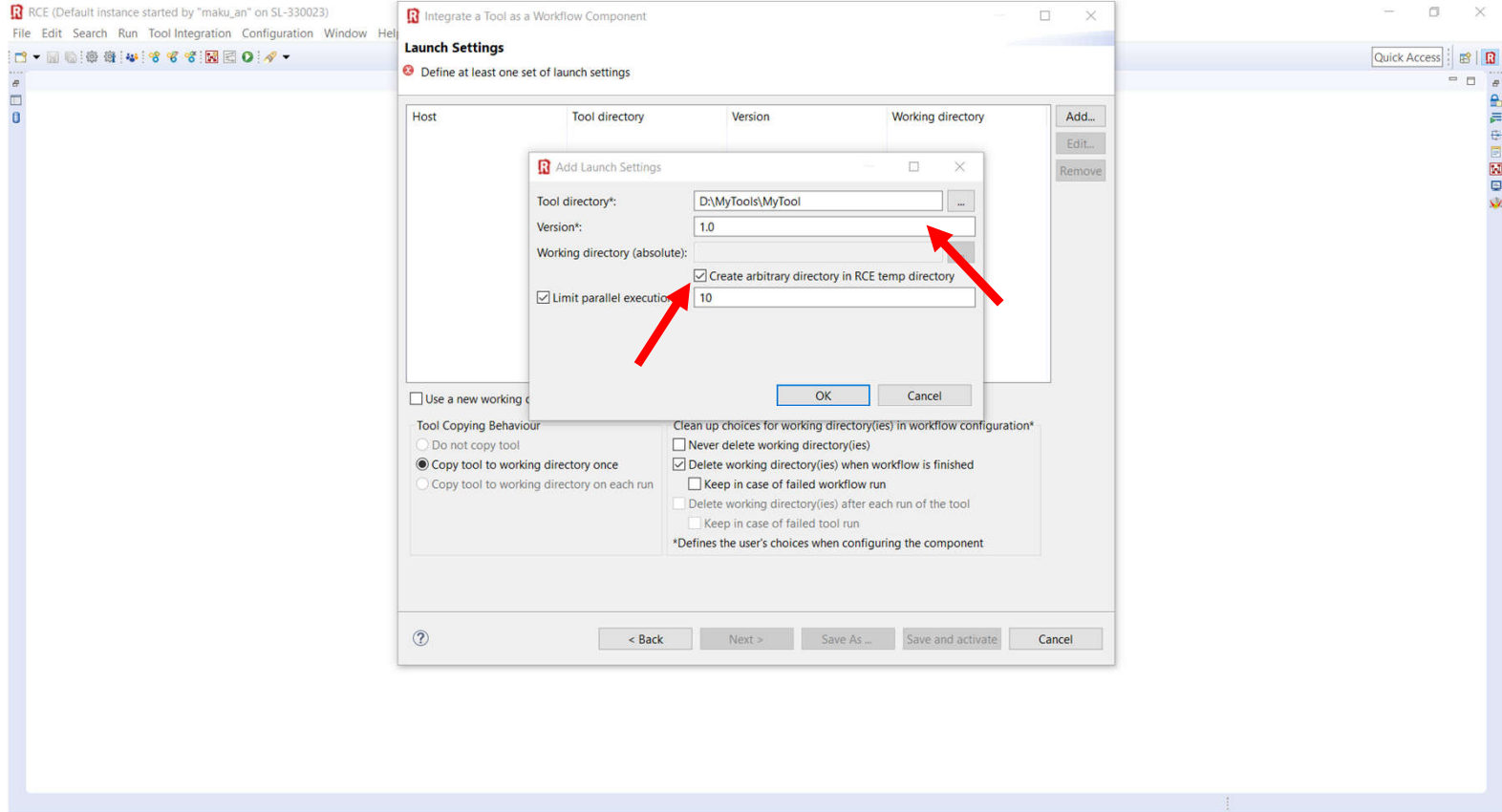
Select your tool directory...



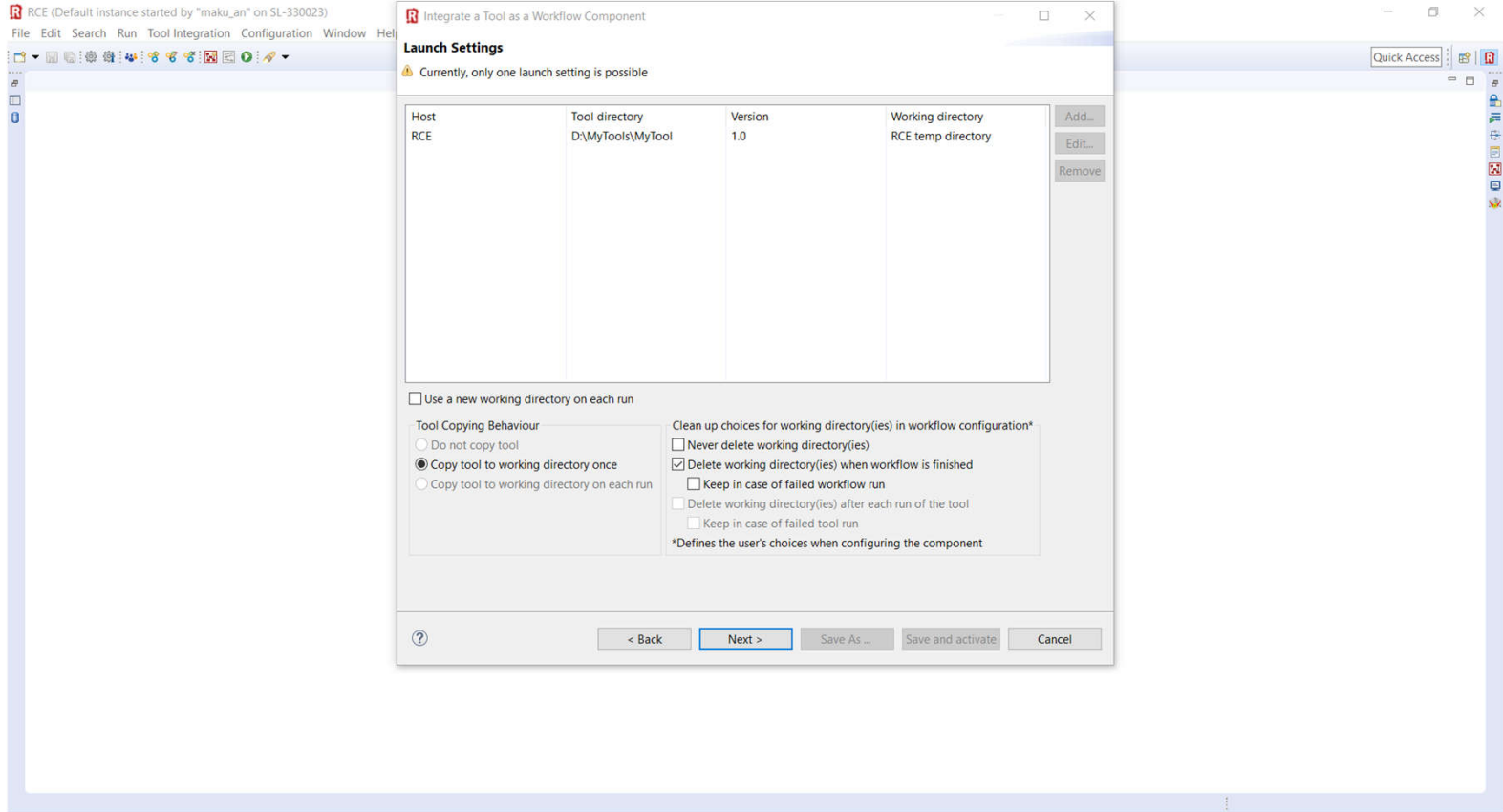
By navigating to the working directory of you tool. Select the parent folder.



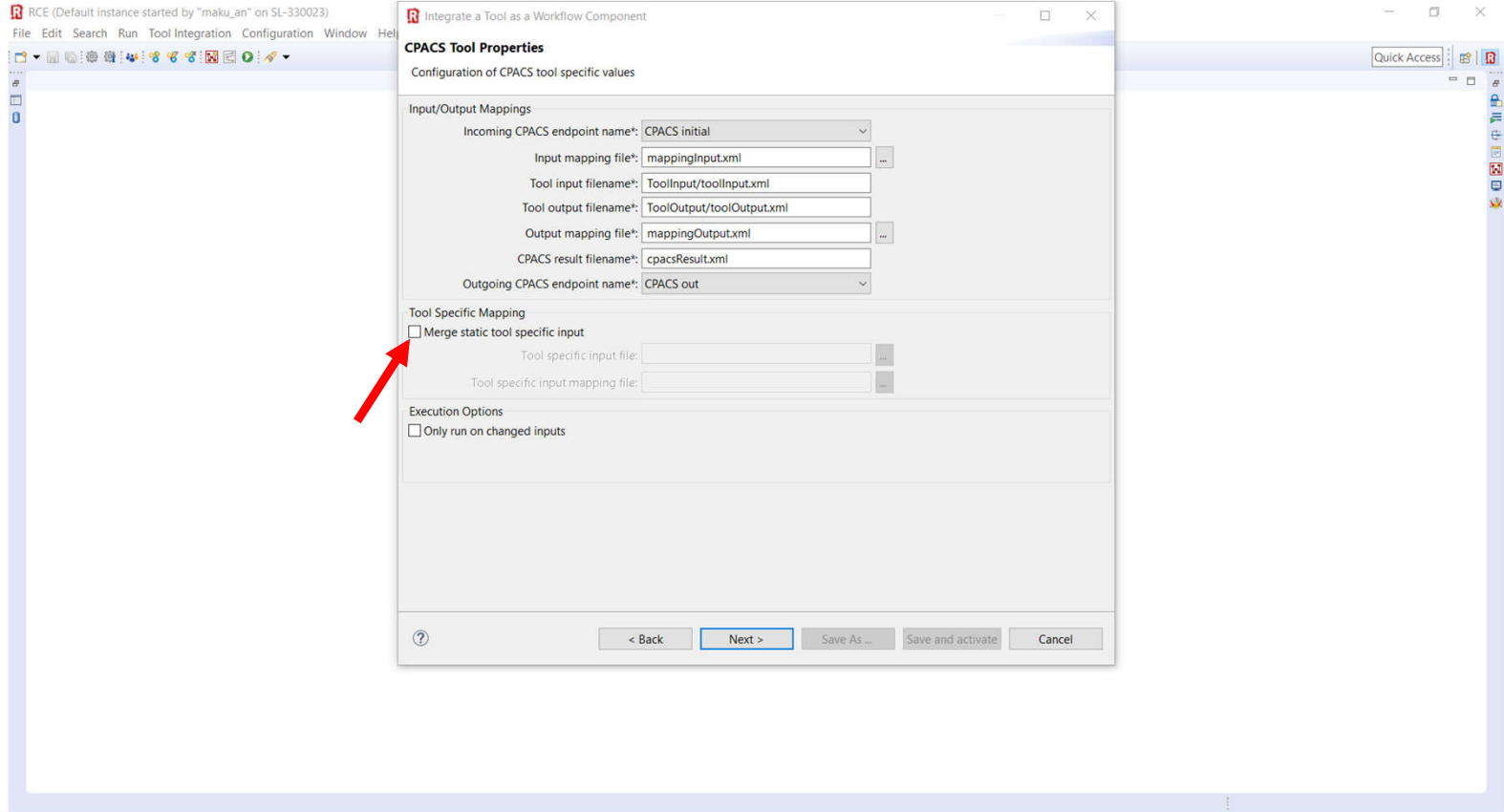
Your tool working directory should contain the tool input and output folders, the mapping files, and the entry point that is called from RCE (in this case, *run.py*).



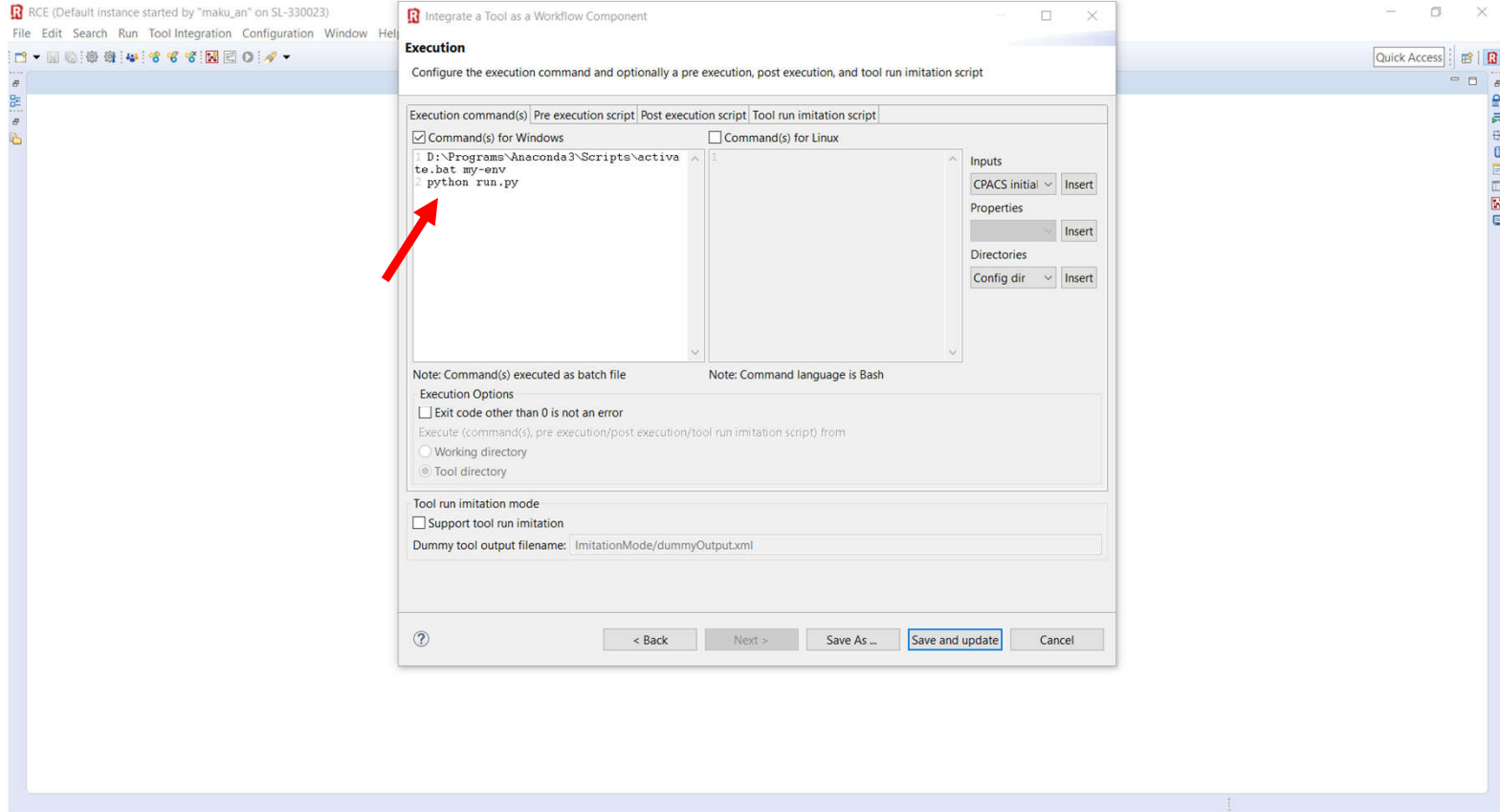
Make sure to set the correct Version number. RCE will not recognize your tool when opening an existing workflow if the version number does not match. Set a checkmark to use temporary directories and click “OK”.



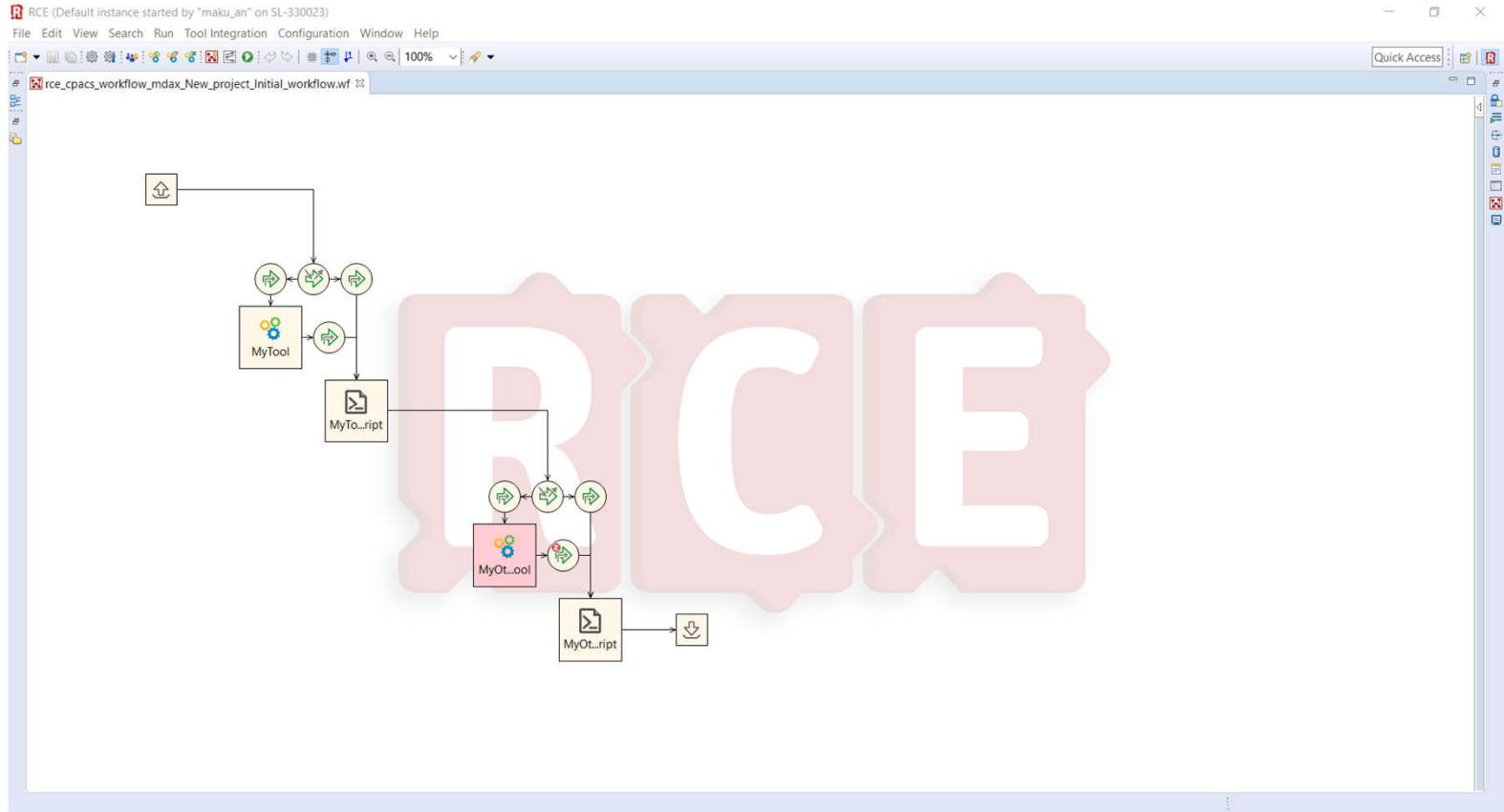
Now that the Launch Settings are defined, click “Next”.



In Tool Properties, uncheck the Tool specific Mapping and click “Next”.



For the Execution, define your launch commands. If you use Python and Anaconda (highly recommended), make sure to activate your environment when running your python file. Click “Save and update”.



Now, when importing an existing workflow, your integrated tool should have a white background. Any tools that are not integrated have a red background. Always make sure that the tool names and versions correspond to your integrated tools.

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