

Service Integration: How to use the Development Container

Gefördert durch:



Bundesministerium für Wirtschaft und Klimaschutz

IIP-Ecosphere Platform



- The Development Container
- Using the UI
- Eclipse
- Container Persistence
- Using the Terminal



The Development Container

- Docker based development environment for IIP-Ecosphere
 - Enables the development on every platform that can run docker
 - There is no need for outside installation
 - The container is portable
 - Container runs Ubuntu 20.04



Getting the Container

- On first start:
 - Make sure docker is running (Windows, depending on installation)
 - •Run "docker run -p 6080:80 -v /dev/shm:/dev/shm iipecosphere/dev-container:0.2" to get the image from docker hub and start it
 - Start a browser and type "localhost: 6080" in the upper search bar



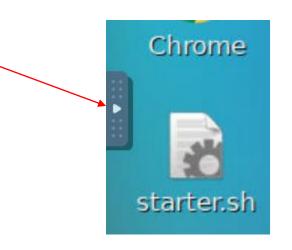
- The development container
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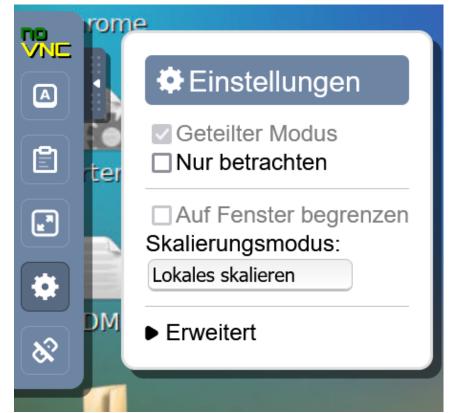
Using the Container UI (1)

- Start a browser and type "localhost: 6080" in the upper search bar
 - To make the image fill the screen: set "Skalierungsmodus" to "Lokales

skalieren"







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Using the Container UI (2)

- Changing the resolution:
 - The container UI will take the screen resolution available when loading the UI in the browser for the first time after the container start
 - It cannot be changed otherwise



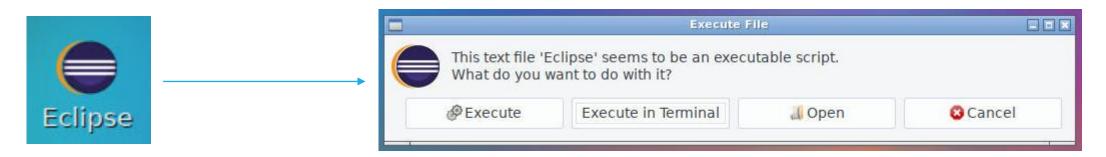
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• A specific Eclipse is installed

Start Eclipse

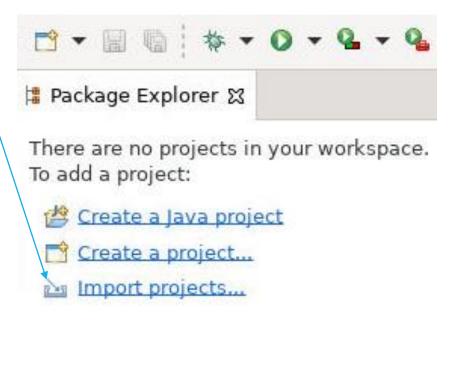


- It will NOT ask for a workspace on start
- Initially the workspace is empty
- Import the project from "/root/Desktop/eclipse-workspace"



Eclipse: Import Project (1)

• Import the project from "/root/Desktop/eclipse-workspace"



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Eclipse: Import Project (2)

• Import the project from "/root/Desktop/eclipse-workspace"

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- The development container
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Container Persistence

- To keep the changes done the container needs to be stopped
 - •Use "docker ps" to list all containers
 - Use "docker stop <containerID>" to stop the container
- To re-run the container
 - $\bullet Use \ \mbox{``docker ps -a"}$ to list all containers including the stopped once
 - Use "docker start <containerID>"
 - Load "localhost: 6080" in a browser to see the container UI



- The development container
- Getting the Container
- Using the UI
- Eclipse
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Using the Terminal (1)

- Even though Eclipse has a Maven integration it tends to work best to directly use the terminal
 - Does not work!

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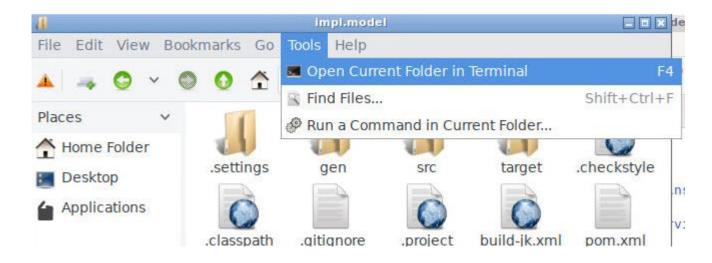
Using the Terminal (2)

eclipse-worksp...

root

• You need to navigate to the files via explorer

• When in the correct directory





Using the Terminal (3)

If Eclipse does not reflect the change directly after successfully executing a
 Package Explorer 32

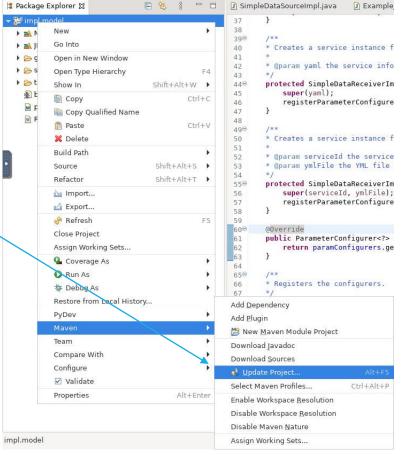
Maven command in the terminal

Select the project in question

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If there are errors present: try Maven update

If a directory does not show up: try refresh





Copying item into the Container (Windows)

- To get files into the container utilise the command "docker cp"
- Syntax: "docker cp <src_path> <dest_path>"
- One of the two paths should be inside the container and is given as "<containerID>:path"
- When docker is installed using Windows Subsystem Linus you might need to add "wsL" in front of the command
- From container to Windows: start "<dest_path>" with "/mnt/" as this is how WSL sees the filesystem. E.g. "/mnt/C/work/..."
- Example:
 - •wsl docker cp C:/work/Text.txt 4d39848b0dff:/root/Desktop



Summary

- What we learned
 - How to start and utilise the development container
- How to go on
 - How to edit datatypes