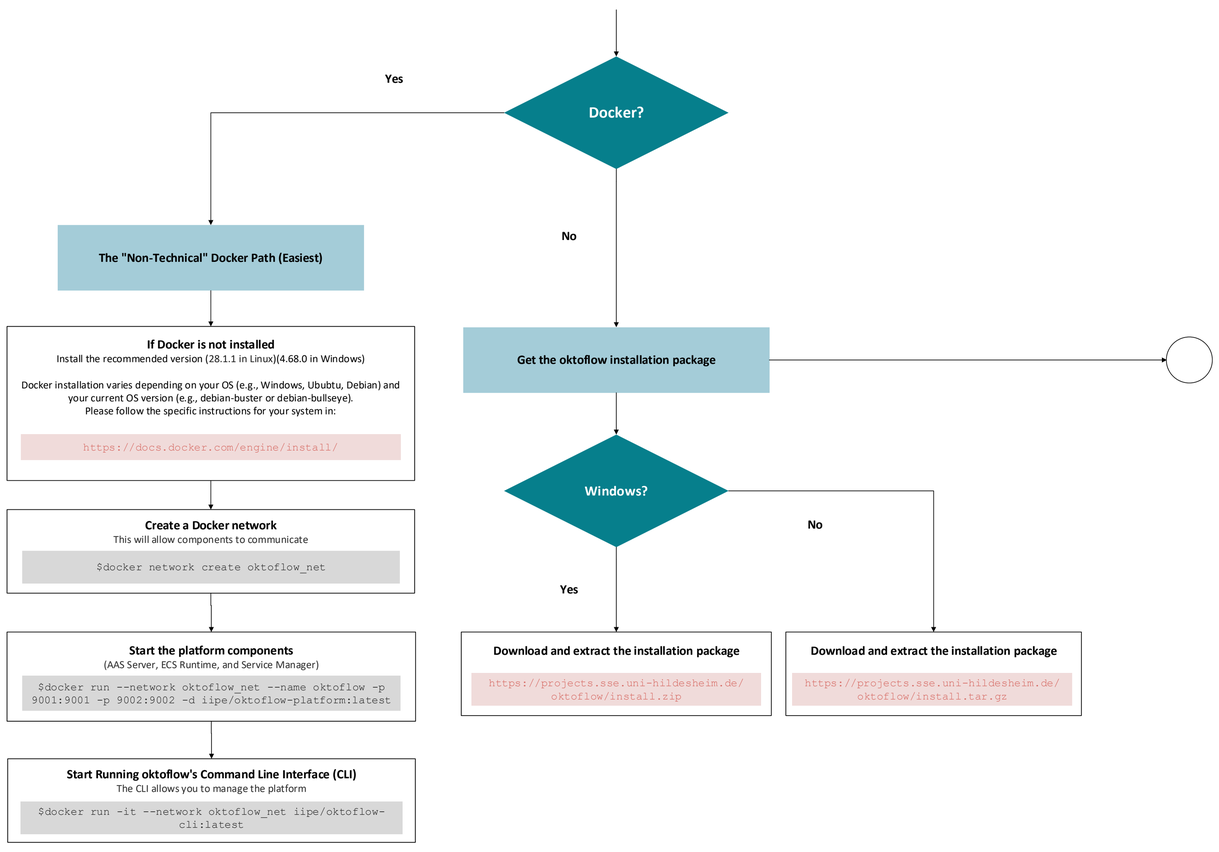
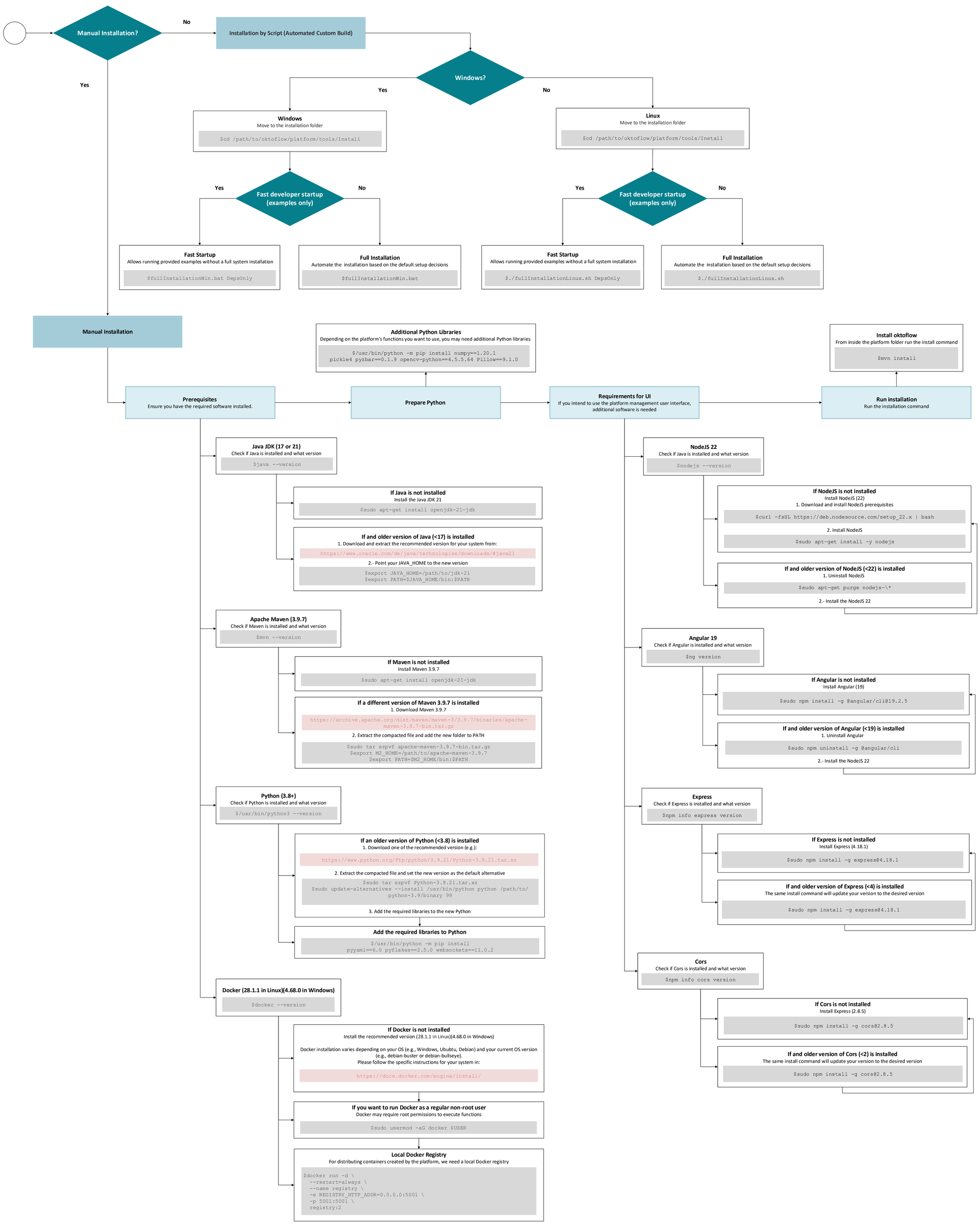

Docker?
Yes
No
The "Non-Technical" Docker Path (Easiest)
If Docker is not installed
Install the recommended version (28.1.1 in Linux)(4.68.0 in Windows)
Docker installation varies depending on your OS (e.g., Windows, Ububtu, Debian) and your current OS version (e.g., debian-buster or debian-bullseye).
Please follow the specific instructions for your system in:
https://docs.docker.com/engine/install/
Create a Docker network
This will allow components to communicate
$docker network create oktoflow_net
Start the platform components
(AAS Server, ECS Runtime, and Service Manager)
$docker run --network oktoflow_net --name oktoflow -p 9001:9001 -p 9002:9002 -d iipe/oktoflow-platform:latest
Start Running oktoflow's Command Line Interface (CLI)
The CLI allows you to manage the platform
$docker run -it --network oktoflow_net iipe/oktoflow-cli:latest
Get the oktoflow installation package
Windows?
Yes
No
Download and extract the installation package
https://projects.sse.uni-hildesheim.de/oktoflow/install.zip
Download and extract the installation package
https://projects.sse.uni-hildesheim.de/oktoflow/install.tar.gz


Manual Installation?
No
Yes
Installation by Script (Automated Custom Build)
Windows?
Yes
No
Windows
Move to the installation folder
$cd /path/to/oktoflow/platform/tools/Install
Linux
Move to the installation folder
$cd /path/to/oktoflow/platform/tools/Install
Fast developer startup (examples only)
Yes
No
Fast Startup
Allows running provided examples without a full system installation
$fullInstallationWin.bat DepsOnly
Full Installation
Automate the installation based on the default setup decisions
$fullInstallationWin.bat
Fast developer startup (examples only)
Yes
No
Fast Startup
Allows running provided examples without a full system installation
$./fullInstallationLinux.sh DepsOnly
Full Installation
Automate the installation based on the default setup decisions
$./fullInstallationLinux.sh
Manual Installation
Prerequisites
Ensure you have the required software installed.
Prepare Python
Additional Python Libraries
Depending on the platform's functions you want to use, you may need additional Python libraries
$/usr/bin/python -m pip install numpy==1.20.1 pickle4 pyzbar==0.1.9 opencv-python==4.5.5.64 Pillow==9.1.0
Requirements for UI
If you intend to use the platform management user interface, additional software is needed
Run installation
Run the installation command
Install oktoflow
From inside the platform folder run the install command
$mvn install
Java JDK (17 or 21)
Check if Java is installed and what version
$java --version
If Java is not installed
Install the Java JDK 21
$sudo apt-get install openjdk-21-jdk
If and older version of Java (<17) is installed
1. Download and extract the recommended version for your system from:
https://www.oracle.com/de/java/technologies/downloads/#java21
2.- Point your JAVA_HOME to the new version
$export JAVA_HOME=/path/to/jdk-21
$export PATH=$JAVA_HOME/bin:$PATH
Apache Maven (3.9.7)
Check if Maven is installed and what version
$mvn --version
If Maven is not installed
Install Maven 3.9.7
$sudo apt-get install openjdk-21-jdk
If a different version of Maven 3.9.7 is installed
1. Download Maven 3.9.7
https://archive.apache.org/dist/maven/maven-3/3.9.7/binaries/apache-maven-3.9.7-bin.tar.gz
2. Extract the compacted file and add the new folder to PATH
$sudo tar xzpvf apache-maven-3.9.7-bin.tar.gz
$export M2_HOME=/path/to/apache-maven-3.9.7
$export PATH=$M2_HOME/bin:$PATH
Python (3.8+)
Check if Python is installed and what version
$/usr/bin/python3 --version
If an older version of Python (<3.8) is installed
1. Download one of the recommended version (e.g.):
https://www.python.org/ftp/python/3.9.21/Python-3.9.21.tar.xz
2. Extract the compacted file and set the new version as the default alternative
$sudo tar xzpvf Python-3.9.21.tar.xz
$sudo update-alternatives --install /usr/bin/python python /path/to/python-3.9/binary 99
3. Add the required libraries to the new Python
Add the required libraries to Python
$/usr/bin/python -m pip install pyyaml==6.0 pyflakes==2.5.0 websockets==11.0.2
Docker (28.1.1 in Linux)(4.68.0 in Windows)
$docker --version
If Docker is not installed
Install the recommended version (28.1.1 in Linux)(4.68.0 in Windows)
Docker installation varies depending on your OS (e.g., Windows, Ububtu, Debian) and your current OS version (e.g., debian-buster or debian-bullseye).
Please follow the specific instructions for your system in:
https://docs.docker.com/engine/install/
If you want to run Docker as a regular non-root user
Docker may require root permissions to execute functions
$sudo usermod -aG docker $USER
Local Docker Registry
For distributing containers created by the platform, we need a local Docker registry
$docker run -d \
--restart=always \
--name registry \
-e REGISTRY_HTTP_ADDR=0.0.0.0:5001 \
-p 5001:5001 \
registry:2
NodeJS 22
Check if Java is installed and what version
$nodejs --version
If NodeJS is not installed
Install NodeJS (22)
1. Download and install NodeJS prerequisites
$curl -fsSL https://deb.nodesource.com/setup_22.x | bash
2. Install NodeJS
$sudo apt-get install -y nodejs
If and older version of NodeJS (<22) is installed
1. Uninstall NodeJS
$sudo apt-get purge nodejs-*
2.- Install the NodeJS 22
Angular 19
Check if Angular is installed and what version
$ng version
If Angular is not installed
Install Angular (19)
$sudo npm install -g @angular/cli@19.2.5
If and older version of Angular (<19) is installed
1. Uninstall Angular
$sudo npm uninstall -g @angular/cli
2.- Install the NodeJS 22
Express
Check if Express is installed and what version
$npm info express version
If Express is not installed
Install Express (4.18.1)
$sudo npm install -g express@4.18.1
If and older version of Express (<4) is installed
The same install command will update your version to the desired version
$sudo npm install -g express@4.18.1
Cors
Check if Cors is installed and what version
$npm info cors version
If Cors is not installed
Install Express (2.8.5)
$sudo npm install -g cors@2.8.5
If and older version of Cors (<2) is installed
The same install command will update your version to the desired version
$sudo npm install -g cors@2.8.5