

# Install guide

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## Run the CBR system:

1. Install Knoplerfish Pro CVIS 3.2.0
  - a. Extract kfpro\_cvvis\_3.2.0.zip given from NPRA
  - b. Follow the install guide (NOTE: The file, org\_npra\_ven-1.0.0.jar, created by Jo Skjeremo, has to be included)
2. Install the CBR system
  - a. TrafficCbr is the CBR system. The config.java in the project has to be updated with the correct paths to the case base and the images used to animate the traffic light. These files are included in the project. (NB: use full paths)
  - b. Create the folder ...\\kfpro\_cvvis\_3.2.0\\osgi\\jars\_kfpro\\svv if it doesn't exist, and copy the TrafficCbr-1.0.0.jar to this folder (TrafficCbr-1.0.0.jar is created by Eclipse and stored in the out folder, this file is always updated as long the project is saved)
  - c. To start different bundles in Knoplerfish Pro CVIS 3.2.0 go to \\kfpro\_cvvis\_3.2.0\\osgi\\init.xargs at the bottom of the file. Add the following lines of codes to start TrafficCbr-1.0.0.jar and org\_npra\_ven-1.0.0.jar:

```
-startlevel 11
-istart npra\\org_npra_ven-1.0.0.jar
-startlevel 12
-istart svv\\Sliding-1.0.0.jar
-startlevel 13
-istart svv\\TrafficCbr-1.0.0.jar
```
3. Intention system
  - a. Install these frameworks/libraries: OpenCV, OpenNI, NITE and Boost C++ library.
  - b. Copy *Sliding-1.0.0.jar* to ...\\kfpro\_cvvis\_3.2.0\\osgi\\jars\_kfpro\\svv from the out folder in the sliding bundle project
  - c. To start the bundle add the line displayed above under –startlevel 12 in the init.xargs file.
  - d. To start the intention system, run the sliding.exe file, which is compiled for 64-bit Windows.
4. Start Knoplerfish Pro CVIS 3.2.0
  - a. Run the command line
  - b. Go to ...\\kfpro\_cvvis\_3.2.0\\osgi
  - c. Run the following command: java -jar framework.jar –init
5. Start SCANer Studio and run one of the test roads we have created (Computer from NPRA)
6. To communicate with the real traffic light, run a program that Jo Skjeremo has created with name “lyskasse.bat”. This program is controlled by the CBR system.

## Create a bundle that sends information to the CBR system:

1. Create a Knoplerfish OSGI bundle in Eclipse EE
2. Include required CVIS libraries given from NPRA
  - a. Right click the project, then click properties
  - b. Go to the java build path
  - c. Add the required libraries
3. To send information to the CBR system, use the following example code that will send a normal pedestrian:

```
ServiceReference reference =
Activator.bc.getServiceReference(VenSend.class.getName());
VenSend service = (VenSend)Activator.bc.getService(reference);
```

```
ArrayList<String> pedestrianType = new ArrayList<>();  
pedestrianType.add("Normal");  
service.sendMessage("KINECT", "TYPE", pedestrianType);
```

4. In the code `service.sendMessage` it is possible to send "INTENTION" and "TYPE".
5. The information sent from other bundles are received in the method `handleEvent(Event eve)` in the class `TrafficEventHandler.java` (package `com.svv.util`). Here it's possible to add either code to receive other type information or edit the existing code.