



# Client-Side Connector with Finster

Version 5.10

## Manual



Document: Manual - Client-Side  
Connector.docx



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## 1 General

### 1.1 Goal of this manual

This manual explains the installation of the client-side connector (CSC) with the Finster client of FORCAM FORCE™. The CSC is a prerequisite for the Detailed Order Scheduling (DOS) module, therefore its execution is also briefly described (chapter 5).

This manual assumes that you are already familiar with using FORCAM FORCE™, especially the Workbench.

 Deviations from this manual can lead to errors.

 See the Manual - Master Data and System Configuration for specific configuration instructions for the Workbench.

### 1.2 Concept

There are some instances where FORCAM FORCE™ applications such as Shop Floor Terminal or the Workbench need access to physical, client-side resources. These could be barcode scanners, printers, external file systems, and so on. In other instances, third-party programs must be called up, such as the Detailed Order Scheduling module.

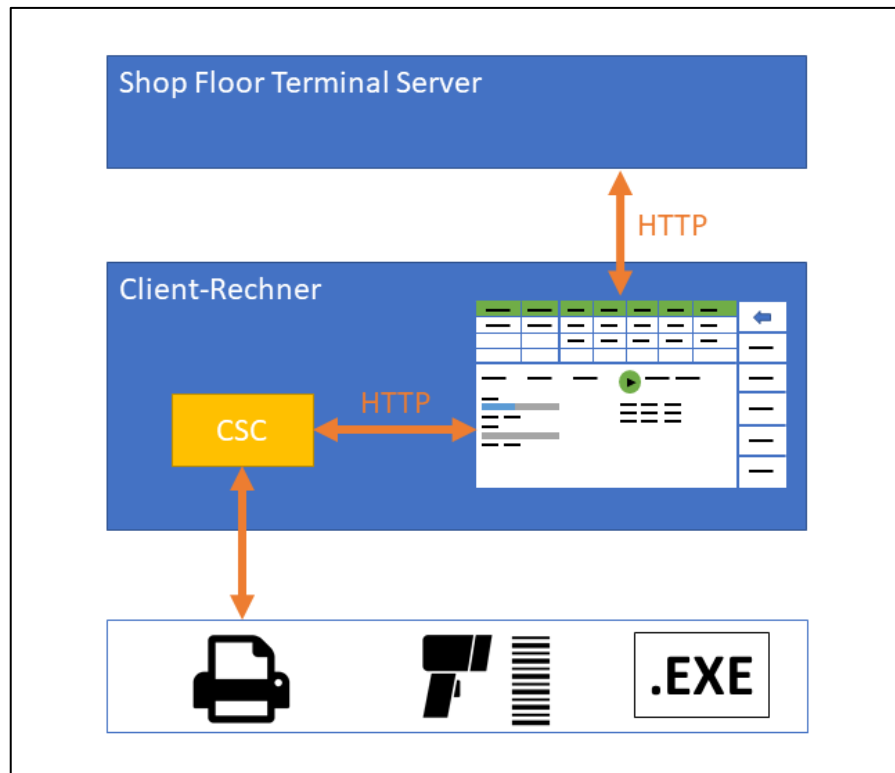
However, there are some limitations of HTML-based applications. One example is that they cannot access the client computer and its resources for unavoidable technical reasons such as security. This makes it impossible to operate devices or call up an EXE without elaborate modifications.

The Client-Side Connector application was developed as a solution for this HTML limitation.

The CSC is installed on the client computer. This client application is responsible for accessing the appropriate resources on the client computer to perform the specified functions.

Example using the Shop Floor Terminal (SFT):

Accessing and operating the SFT is done via HTTP through the browser. The CSC also communicates with the browser via HTTP and is able to receive data from external devices of the client computer and send data back. The data can then be sent back to the SFT server via the application.



**Fig. 1: CSC functionality with the Shop Floor Terminal**


## 2 Installing Java

The CSC was developed as a standalone Java desktop application that can be downloaded and started on the client computer. Before the CSC can be installed, Java must first be installed.

### 2.1 Correct Java version

The CSC requires either **Java SDK** from Oracle or **Open JDK** from Sun. The version which was selected for the installation of the application server must be kept for the Java installation on the single client for Finster.

 Open JDK is only supported from FORCAM FORCE™ release version 5.10.

 Java is offered by Oracle and Sun both as a development kit and as a runtime environment. Finster, the installation software, strictly requires the **development kit**. The Java runtime environment is not supported.

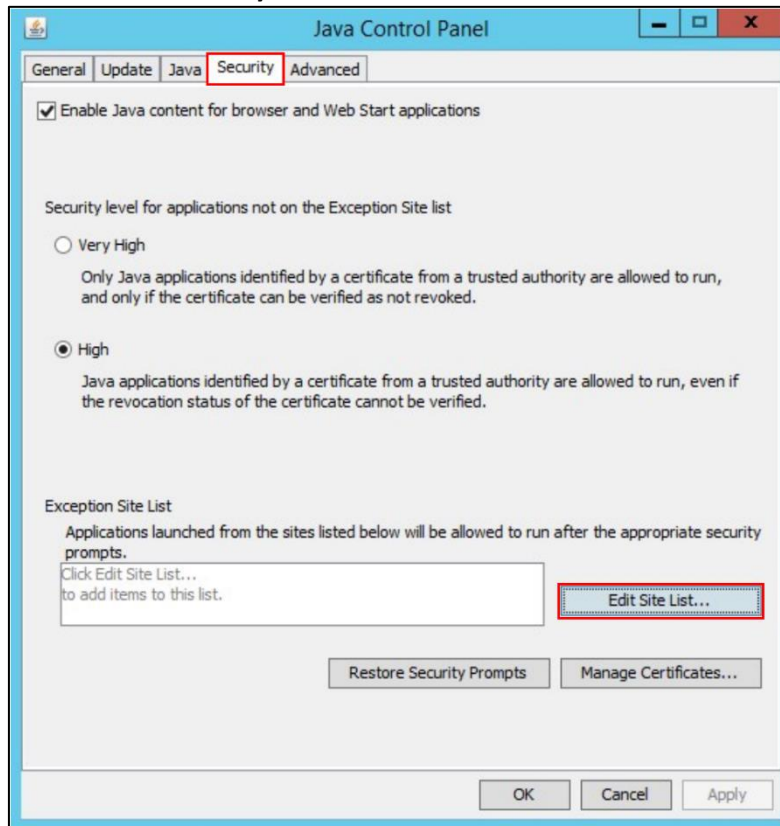
### 2.2 Adding Java exceptions (only with Java SDK)

If Java SDK from Oracle is selected for installation, the following must be added to the exceptions for CSC **FFWorker** and **FFWorkbench**:

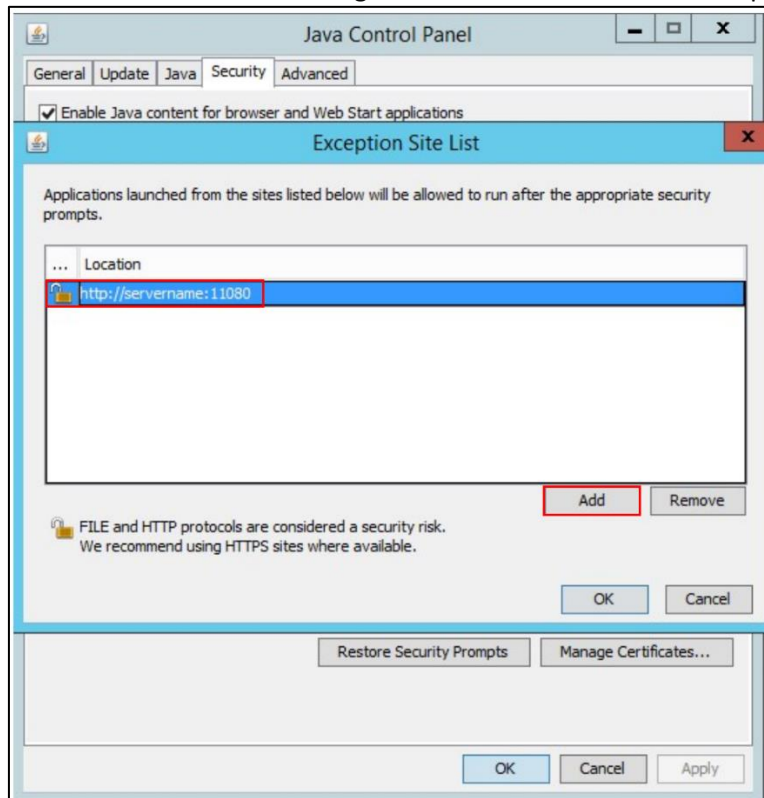
1. Open **Java control panel**.

## Installing Java

- Switch to the **Security** tab and click on **Edit Site List...**:



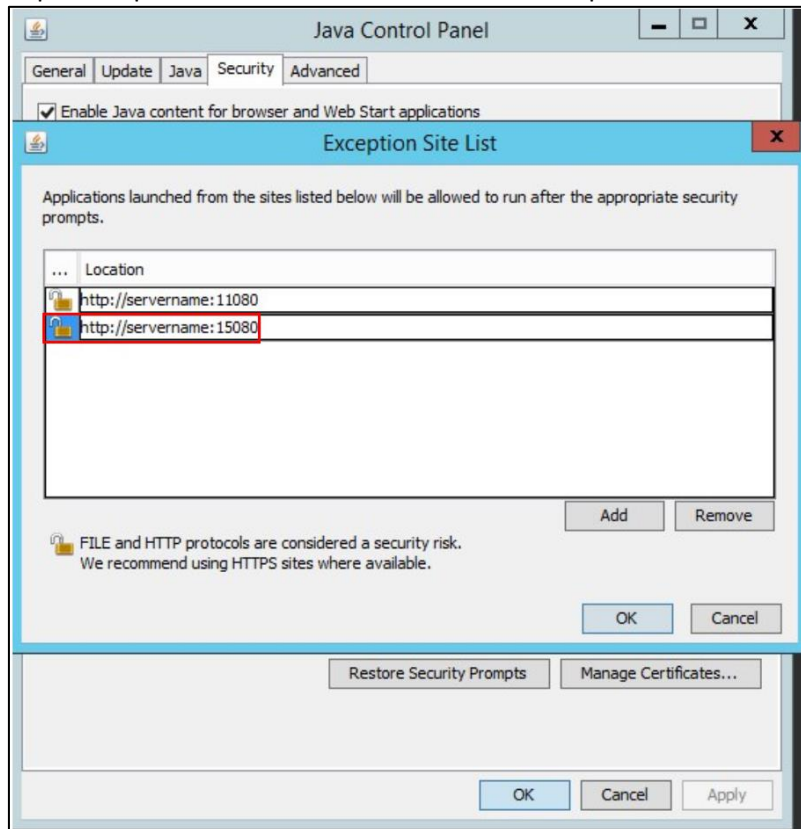
- Click on **Add** in the next dialog and enter the server name and port for **FFWorker**:



- A warning message appears that classifies the use of http (without HTTPS) as unsafe, however, the use of HTTP in the FORCAM-environment is harmless so it can be confirmed.

## Installing Java



4. Repeat steps 2-3 and enter the server name and port for **FFWorkbench**:




5. Confirm both dialogs.

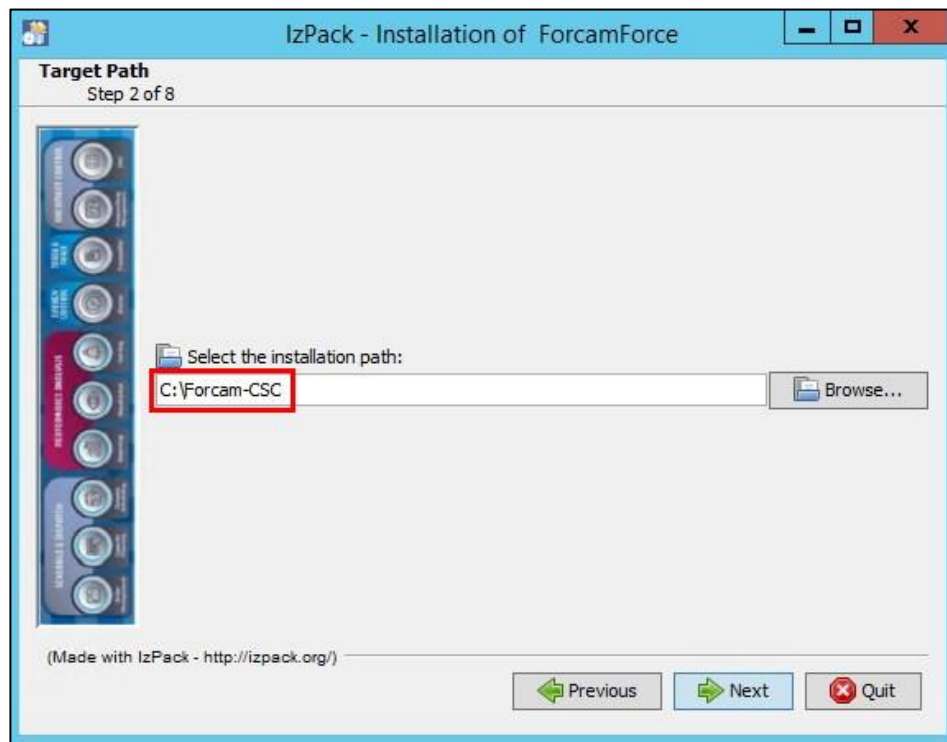
### 3 Installing the CSC

The CSC is installed via the Finster client, which ensures a secure and stable installation.

-  The Finster client is only available in English.
-  The Finster version must match the FORCAM FORCE™ version. A discrepancy in the version will cause an error (e.g. using Finster version 5.9.2 for FORCAM FORCE™ version 5.10.0 will not work).

1. Select the installation path for the Finster client.

-  The path must be the same for all client computers that will have the Finster client installed.

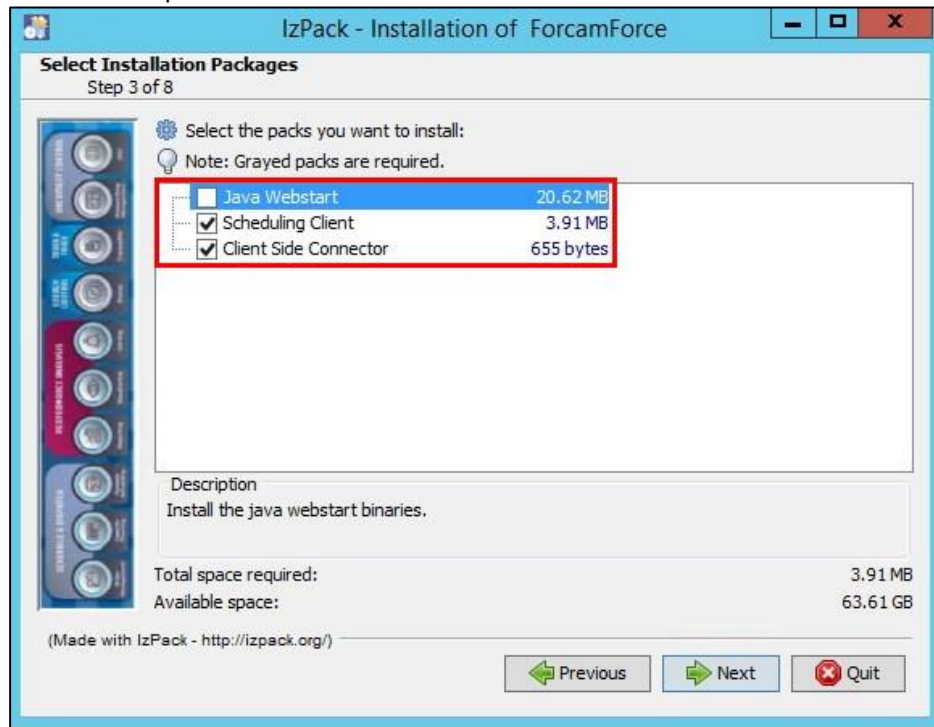


2. Click on **Next**.

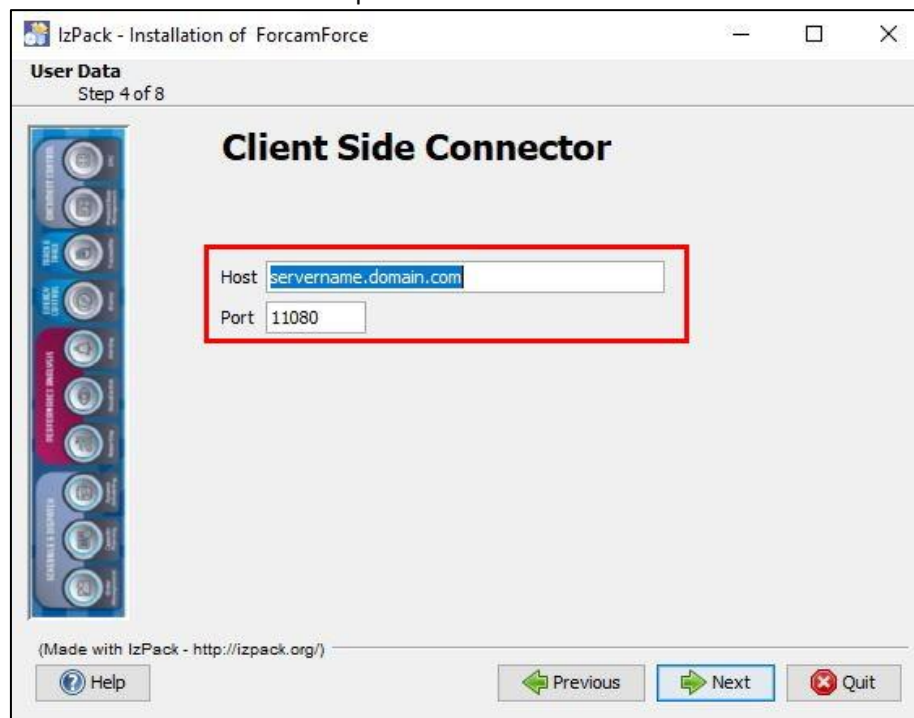


## Installing the CSC

3. Select **Scheduling Client** and **Client Side Connector** from the list.  
Depending on the Java version installed, **Java Webstart** is either selected or unselected:
  - Leave unselected with Java SDK
  - Select with Open JDK

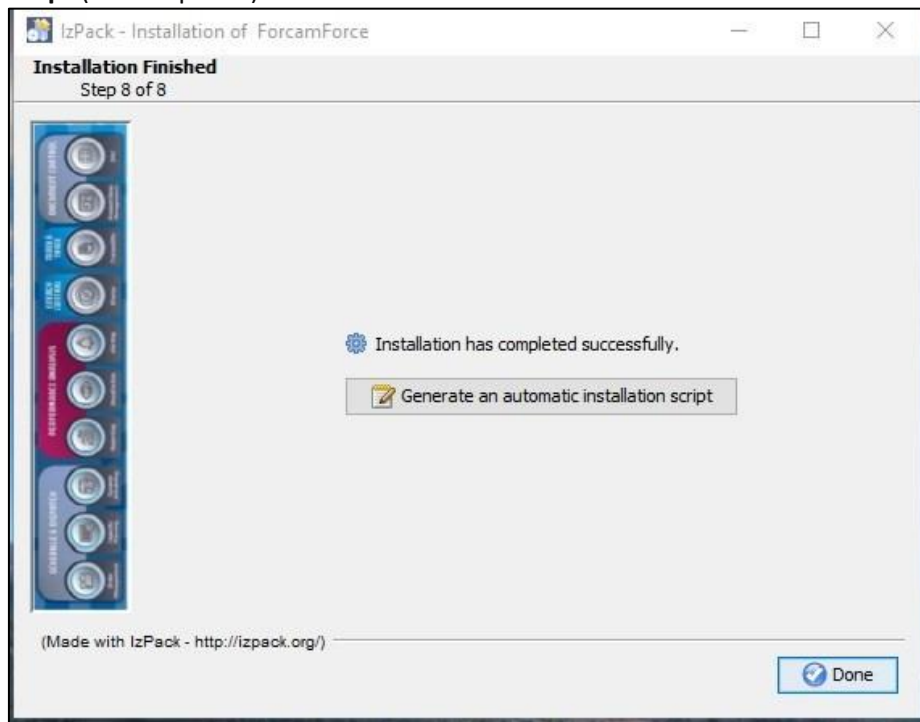



4. Click on **Next**.
5. Enter the complete server name of the FORCAM FORCE™ application server under **Host**. Enter 11080 under **Port**. The port number for HTTPS must be 11443.



6. Click on **Next** and follow the dialogs until the installation is completed.  
→ The last dialog will display the successful completion of the installation.

- (Optional:) To save a script of all settings made, click on **Generate an automatic installation script** (see chapter 4).



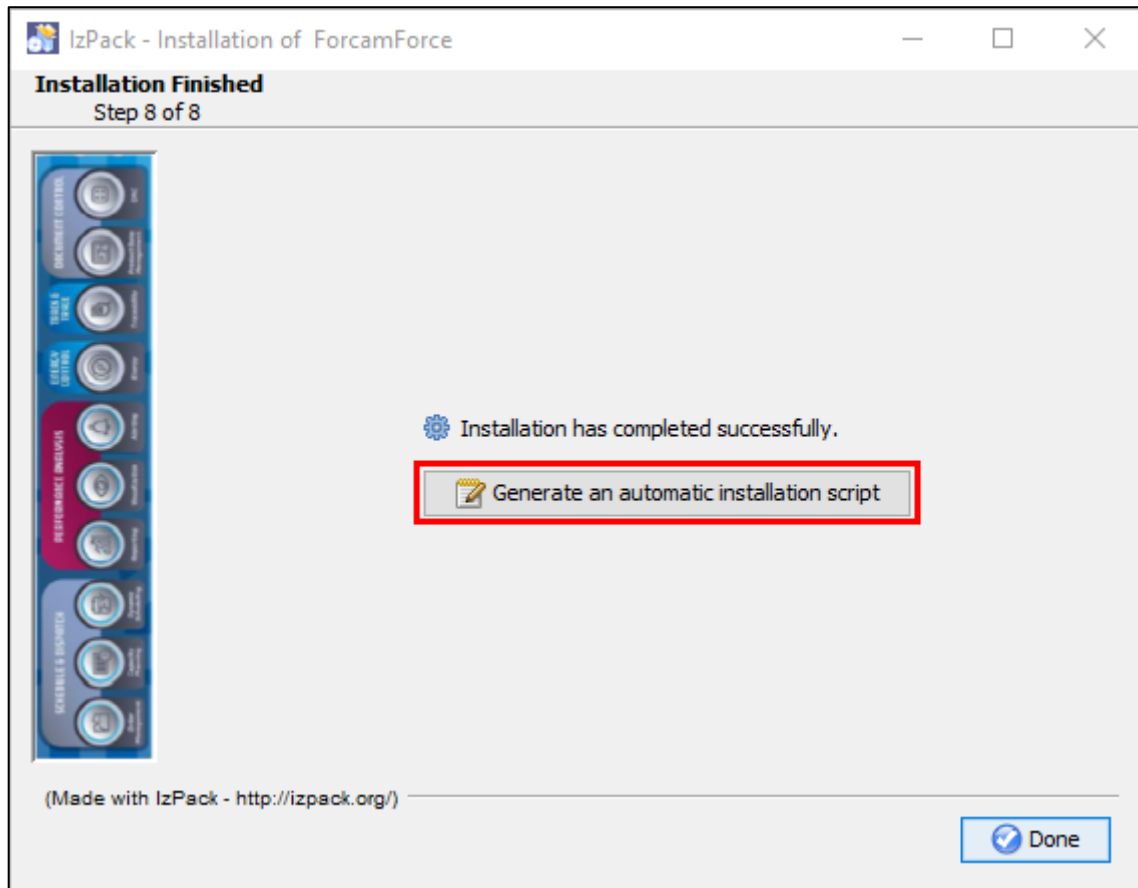
- (Optional:) Start the CSC manually at first to enable a quick start:  
Double-click on **ClientSideConnector.jnlp**.  
Sample path: C:\Forcam\ForcamForce\sft\ClientSideConnector.jnlp.  
➔ After a restart, the CSC will start automatically.  
A green signal  will be displayed in the task bar.

Before implementing in a productive environment, the paths for Workbench, Office and Shop Floor Terminal should be assigned on all relevant computers (replace localhost with IP):

- <http://localhost:15080/ffworkbench/>
- <http://localhost:19080/ffnewoffice/>
- <http://localhost:11080/ffworker/>

## 4 Reinstalling CSC Automatically

If the CSC was installed as described in chapter 3, an XML file can be created in the last dialog which contains all parameters configured during the first installation, such as paths and ports. Additionally, selected or unselected options are stored here (e.g. selection of the components to be installed).




To install the CSC with the same configuration on a new machine, it is sufficient to run the Finster jar file from the command prompt, for example, and the XML file can be given as an argument. The CSC is then automatically installed without using Finster and the parameters are set according to those defined in the XML.

Example for a cmd-box: `ForcamForce-Client-5.10.0-201910140854-install.jar auto-install.xml`.

```
C:\Users\... \Downloads>ForcamForce-Client-5.10.0-201910140854-install.jar C:\Forcam\auto-install.xml
```

## Reinstalling CSC Automatically

The parameters can be edited in the XML directly without the need to use Finster. The following figure shows, with red markings, which parameters are defined via the Finster client. The steps given in the legend refer to the instructions in chapter 3.



```
1  <?xml version="1.0" encoding="UTF-8" standalone="no"?>
2  <AutomatedInstallation langpack="eng">
3    <com.izforge.izpack.panels.licence.LicencePanel id="licence"/>
4    <com.izforge.izpack.panels.target.TargetPanel id="TargetPanel_1">
5      <installpath>C:\Users\MMustermann</installpath>
6    </com.izforge.izpack.panels.target.TargetPanel>
7    <com.izforge.izpack.panels.treepacks.TreePacksPanel id="TreePacksPanel_2">
8      <pack index="0" name="JWS" selected="true"/>
9      <pack index="1" name="SCH" selected="true"/>
10     <pack index="2" name="CSC" selected="true"/>
11   </com.izforge.izpack.panels.treepacks.TreePacksPanel>
12   <com.izforge.izpack.panels.userinput.UserInputPanel id="csc">
13     <entry key="SFT_PORT" value="15080"/>
14     <entry key="SFT_HOST" value="servername.domain.com"/>
15   </com.izforge.izpack.panels.userinput.UserInputPanel>
16   <com.izforge.izpack.panels.summary.SummaryPanel id="SummaryPanel_4"/>
17   <com.izforge.izpack.panels.install.InstallPanel id="InstallPanel_5"/>
18   <com.izforge.izpack.panels.process.ProcessPanel id="ProcessPanel_6"/>
19   <com.izforge.izpack.panels.finish.FinishPanel id="FinishPanel_7"/>
20 </AutomatedInstallation>
21
```

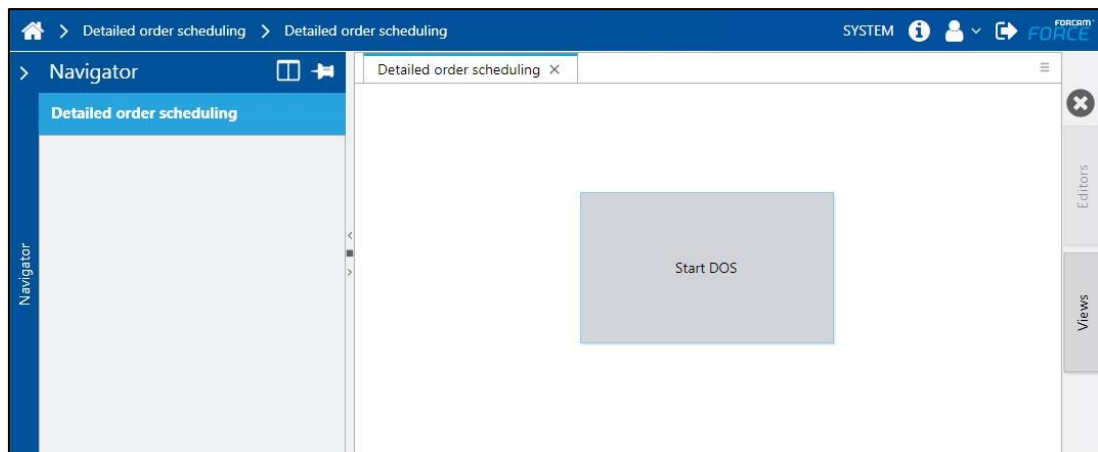
- (1) Installation path (step 1)
- (2) Selected or unselected components (step 3)
  - JWS: Java Web Start
  - SCH: Scheduling client
  - CSC: Client-Side Connector
- (3) Server name and port (step 5)

## 5 Starting FFScheduler

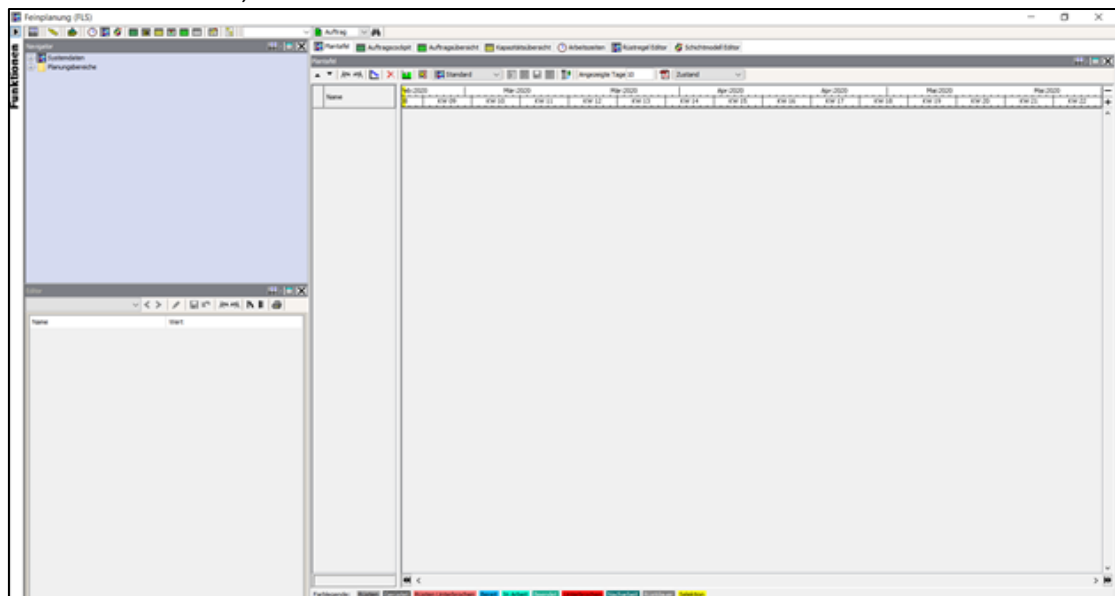
- ✓ The module Detailed Order Scheduling is available in the Workbench.
- ✓ The **address of the DOS server** and the **command Start DOS** are found in the Workbench under Configurations > System > Modules > Detailed order scheduling.

9. Navigate to **Detailed order scheduling** in the Workbench.

10. Click on **Start DOS**.



→ After a few seconds, the DOS will start in a new window.



## 6 Annex

### 6.1 Change log

Date	Changes	Chapter
18.02.20	Created	

### 6.2 Abbreviations and terms

Abbreviation/Term	Description
CSC	Client-Side Connector
Finster	<b>FORCE Installer:</b> Client for the installation of FORCAM FORCE™
DOS	Detailed Order Scheduling
SFT	Shop Floor Terminal