



**iPoint**

iPCA running with Java 11 – Installation notes

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# iPCA running with Java 11

Installation notes

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**iPoint**

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## 1 Introduction

With iPCA Release 16 the iPCA is updated to use Java 11. It is recommended to use the latest version of either Oracle Java 11 or OpenJDK 11 (e.g. Adoptium).

iPCA is a so-called Rich Client Application programmed in the Java™ language. It runs on the user's local computer and requires a so-called Java Runtime Environment (JRE). In the past, the runtime environment was provided by the supplier Oracle™.

iPCA is started from the web browser. To achieve this, a technology called "Java Web Start" (JWS) is part of the Oracle Java Runtime Environment (JRE). In 2017, Oracle decided to discontinue support for JWS. Starting with Java 11, JWS was removed from the JRE installation packages. As a result, workstations on which Java 11 is installed can no longer launch iPCA.

In parallel, Oracle discontinued free support for Java 8 in 2019. Companies will no longer receive free updates and security-related bug fixes for Oracle Java 8.

iPoint has therefore decided to update the Java version used in iPCA from Java 8 to Java 11. To start iPCA, an open-source alternative of the JWS must be installed locally on the user's workstation. An alternative recommended by iPoint is an open-source solution named "OpenWebStart" (OWS).

OWS is an open-source reimplementation of JWS technology. It provides the most used features of JWS and the JNLP standard so that your customers can continue using applications based on JWS and JNLP without any change. OWS is based on the JNLP specification defined in JSR-56. OWS is released under the GPL with Classpath Exception. More information can be found on the OWS Homepage: <https://openwebstart.com/>.

## 2 General information

In principle, there is no need to use Oracle Java Web Start (JWS) and OpenWebStart (OWS) in parallel, because OWS can manage and launch all applications that use JWS technology. It is also not usually necessary to keep Java 8 installed on your workstation together with Java 11, as Java 11 is backward compatible.

Nevertheless, it may sometimes be required that older Java 8 applications are launched with the JWS technology instead of with the OWS technology. In this case, the system must be configured in a way that both technologies can be launched independently of each other in parallel.

The solution for this is to use a different file extension (mime type) for each of these two technologies:

- the file extension **“.jnlp”** is associated with the JWS technology
- and the file extension **“.jnlpX”** is associated with the OWS technology.

In this user guide, you will find instructions that allow configuring your workstation computer depending on the Java policy of your company:

- either to install Java 11 and OWS and used them to launch all Java applications,
- or to install Java 11 and OWS and use them to launch iPCA but use Java 8 and JWS to launch all other Java applications

## 3 OWS Installation & configuration

### 3.1 Checking the installation requirements

Please ensure that the following installation requirements are met:

1. Your hard disk should have at least 300 megabytes of free memory.
2. You need administration rights for the installation on your workstation. If this is not the case, please contact your IT department.
3. You have a connection to the Internet.
4. An actual version of Microsoft Edge, Google Chrome, or Mozilla Firefox is installed on your computer.
5. You have **Java 11** installed. It is recommended to use the latest version of either Oracle Java 11 or OpenJDK 11 (e.g. Adoptium).

**PLEASE NOTE:** Before Java 11 is installed, ensure that you open the JWS Console and check possible settings like Proxy/Network or Security settings and clear the cache.

### 3.2 Installation

Please follow the installation instructions to install OWS on your workstation computer:

1. Open the web browser and visit the page: <https://openwebstart.com/download/>
2. Download the latest version of the OWS installation package (64-bit version).
3. Run the downloaded “.exe” file and perform the installation of the software.

**PLEASE NOTE:** During the OWS installation, you can select file associations for the file extensions “.jnlp” and “.jnlpX”.

This needs to be done depending on the Java policy of your company:

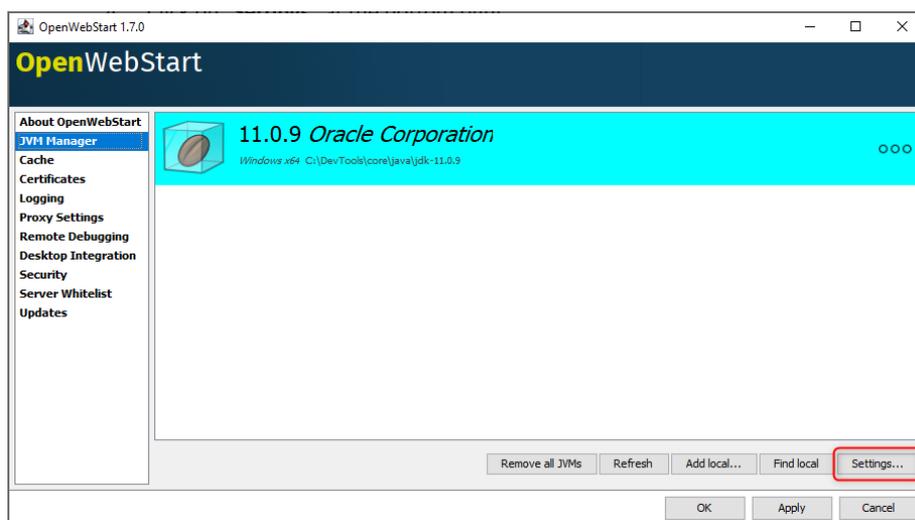
- either select file extensions “.jnlp” and “.jnlpX” to install OWS and use it to launch all Java applications,
- or select only file extension “.jnlpX” to install OWS and use it to launch iPCA but use Java 8 and JWS to launch all other Java applications

Further installation hints are in the OWS user guide: <https://openwebstart.com/docs/OWSGuide.html>

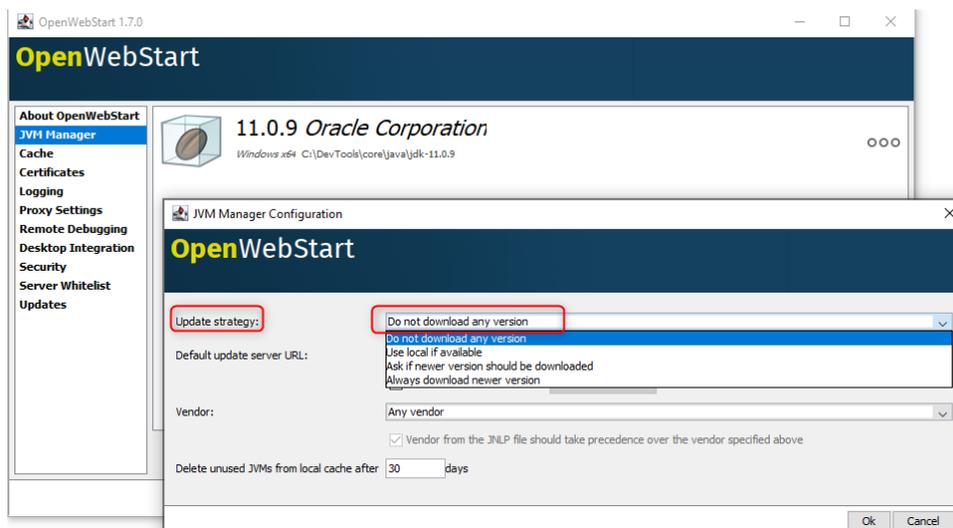
### 3.3 Configuration

Please follow the configuration instructions to configure OWS on your workstation computer before starting iPCA for the first time:

1. Start "OpenWebStart/OpenWebStart Settings" from the Windows Start menu.
2. In the "OpenWebStart Settings" switch to the tab "JVM Manager".



3. Check that Java 11 is displayed and selected.
4. Click on "Settings" at the bottom right.
  - a. Change "Update strategy" to "Do not download any version"
  - b. Select wished "Vendor", if required/wanted



5. If necessary, switch to the tab "Proxy Settings" and enter your proxy settings (that you took from Java 8 installation).

Please contact your IT department if you need assistance.

### 3.4 Verification of the associations for file extensions “.jnlp” and “.jnlpX”

This is an optional step that can be done if you want to confirm the application(s) associated with the file extensions “.jnlp” and “.jnlpX”.

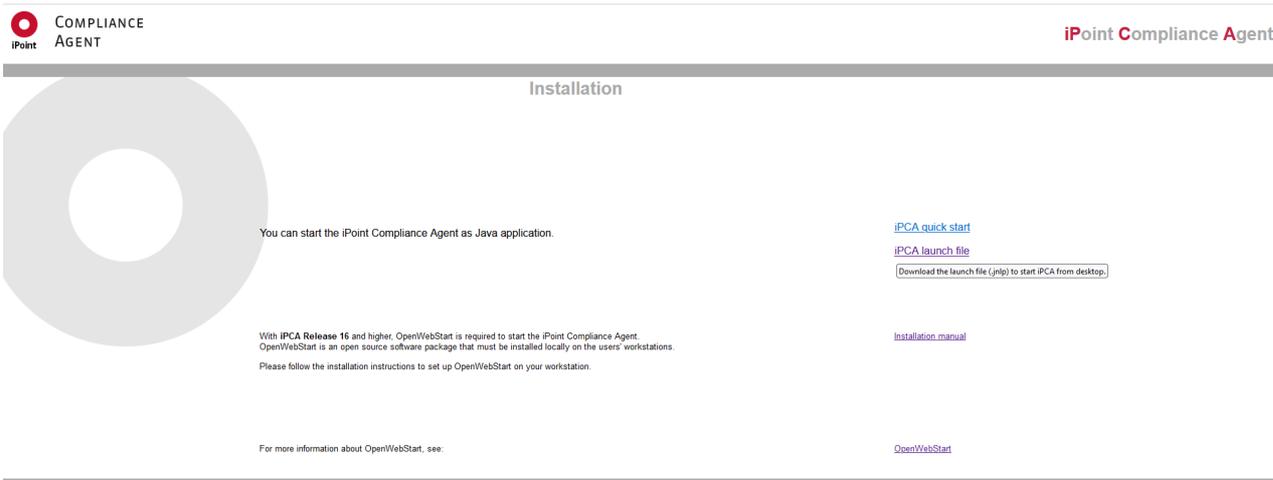
1. Open Windows Explorer.
2. Navigate to the “.jnlp” file.
3. Do mouse right-click on the file and select the context menu option “**Properties**” and check the value set in the “**Open with**”
  - if OWS should be used to launch all Java applications, the option “**Launcher for .jnlp applications according to JSR-56**” is required,
  - if JWS should be used to launch all Java applications except for iPCA, the option “**Java(TM) Web Start Launcher**” is required.
4. Navigate to the “.jnlpX” file.
5. Do mouse right-click on the file and select the context menu option “**Properties**” and check the value set in the “**Open with**”. The option “**Launcher for .jnlp applications according to JSR-56**” is required,

If this file association is not set for any of the file extensions, it can be created via the context menu by using the context menu option “**Open with → Choose another app**”.

## 4 Starting iPCA

Please follow the instructions to launch iPCA 16:

1. Open the web browser and visit the iPCA landing page.



The screenshot shows the iPoint Compliance Agent installation page. The page has a header with the iPoint logo and 'COMPLIANCE AGENT' on the left, and 'iPoint Compliance Agent' on the right. The main content area is titled 'Installation' and features a large grey circle graphic on the left. The text reads: 'You can start the iPoint Compliance Agent as Java application.' Below this, it states: 'With iPCA Release 16 and higher, OpenWebStart is required to start the iPoint Compliance Agent. OpenWebStart is an open source software package that must be installed locally on the users' workstations. Please follow the installation instructions to set up OpenWebStart on your workstation.' There are four links: 'iPCA quick start', 'iPCA launch file', 'Download the launch file (.jnlp) to start iPCA from desktop.', and 'Installation manual'. At the bottom, there is a link for 'OpenWebStart' and a note: 'For more information about OpenWebStart, see:'.

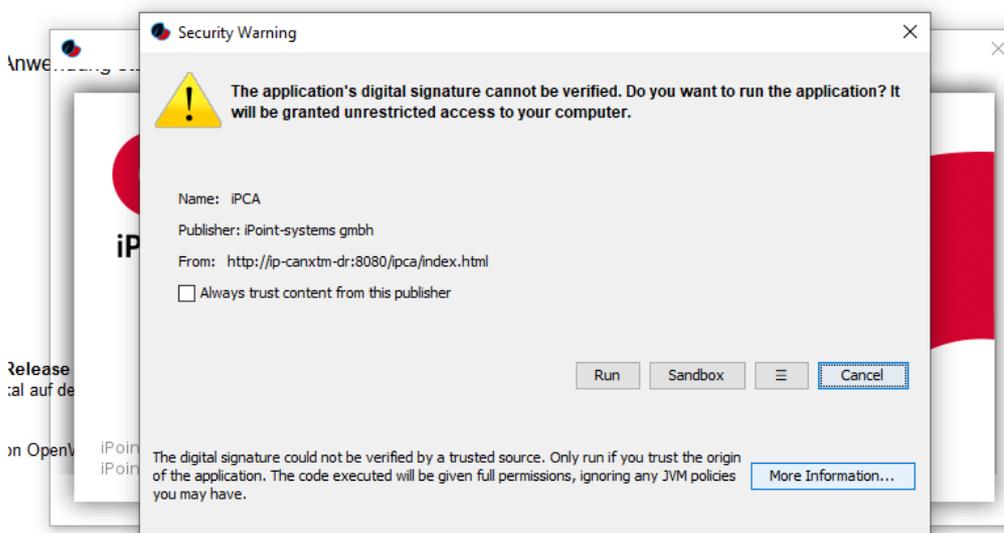
2. You have now the following options to start the iPCA application
  - By clicking the link “**iPCA quick start**” you can launch iPCA with just one click.
  - By clicking the link “**iPCA launch file**” you can download a “.jnlp” launch file. With this file you can start the iPCA application later from desktop.
3. Upon clicking on the “iPCA quick start” or upon executing the “.jnlp” launch file, the download of the iPCA Client begins after a while.



iPCA splash screen and the OWS application download progress dialog appear.



4. It is possible that a security warning appears. If this is the case and you do not want to display in the future, select the option "**Always trust the content from this publisher**" and then click on button "Run".



## 5 Troubleshooting

### 5.1 iPCA 16 does not start

Possible cause	Description
Java 11 is not installed	Verify that Java 11 is installed. If required, contact your company IT department.
OpenWebStart is not installed	Verify that OpenWebStart is installed. To install OpenWebStart, follow the chapter 3 in this user guide.
Java 11 is either not configured or misconfigured in Open WebStart	Verify the configuration of Java 11 in OpenWebStart. Follow the steps 1-3 in chapter 3.3 in this user guide.
Java update strategy is either not configured or misconfigured in Open WebStart	Verify the Java update strategy of Java 11 in OpenWebStart. Follow the step 4 in chapter 3.3 in this user guide. It might be required to uninstall newer version of Java (e.g. 17) that could have been installed due to the misconfiguration
Proxy settings are either not configured or misconfigured in Open WebStart	Verify the proxy settings in OpenWebStart. Follow the step 5 in chapter 3.3 in this user guide.
File extension “.jnlp” is not associated with OpenWebStart	Verify that file extension “.jnlp” is associated with OpenWebStart. Follow the chapter 3.4 in this user guide.
OpenWebStart pop up dialog with the following error message appears: “No suitable JVM was found to start the application.”	Verify the configuration of Java 11 in OpenWebStart. Follow the steps 1-3 in chapter 3.3 in this user guide.

**Table 1** Troubleshooting – iPCA 16 does not start

### 5.2 Other Java applications are started with OWS and Java 11 or do not start

Possible cause	Description
Lower version of Java than 11 is not installed	Verify that a lower version of Java than 11 is installed. If required, contact your company IT department.
File extension “.jnlp” is not associated with Java Web Start	Verify that file extension “.jnlp” is associated with Java Web Start. Follow the chapter 3.4 in this user guide.

**Table 2** Troubleshooting – Other Java applications are started with OWS and Java or do not start

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## 7 Change Log

Version	Date	Description
1.0	27.02.2023	First version of the document
1.1	13.03.2023	Improved version with more screenshots and detailed description
1.2	06.04.2023	Overworked version. Added information about how to use Oracle Java Web Start and OpenWebStart in parallel.
1.2.1	12.06.2023	Added new troubleshooting entry into the chapter 5.1

**Table 3** Change Log