Structure plugin won't start

Question

I try to install (enable) Structure plugin, but it doesn't work. When I reload Plugin Manager page, Structure plugin is disabled. What is the problem?

Answer

Structure plugin may fail to start due to the following reasons. To better understand what's going on, check JIRA logs (`catalina.out` or `jira-application.log`) and verify each of the following possible causes.

1. Structure database cannot be created or opened, filesystem read-only or full

Structure stores all its data in `structure/` sub-directory of the JIRA home directory. At first launch, it tries to create that directory and shuts down if fails to do so. At every start it tries to open the database contained there and also shuts down if fails to do so. In all cases, there should be a big warning or error message in the JIRA log.

Possible actions:

- Create `structure` sub-directory manually and grant full permissions on it to the account that is used to run JIRA.
- Verify that filesystem is not read-only.
- Verify that there's enough free disk space (at least 100 MB).
- Verify that Structure's database is not opened with some other tool, like Derby console.

See also: Structure Files Location

2. Some of the required system plugins are disabled

Structure relies on some of the system plugins. If they are disabled, you may get all kind of weird messages from JIRA when it tries to start Structure.

Note that it is quite likely that the error messages will be completely unrelated to the disabled plugins. For example:

```
com.atlassian.plugin.PluginParseException: Unable to load the module's display conditions: Could not load 'com.
almworks.jira.structure.web.UserCanCreateStructureCondition' in plugin com.almworks.jira.structure
... stack trace ...
Caused by: com.atlassian.plugin.web.conditions.ConditionLoadingException: Could not load 'com.almworks.jira.
structure.web.UserCanCreateStructureCondition' in plugin com.almworks.jira.structure
... stack trace ...
Caused by: java.lang.IllegalStateException: Cannot autowire object because the Spring context is unavailable.
Ensure your OSGi bundle contains the 'Spring-Context' header.
... stack trace ...
```

Possible actions:

- Open **Administration | Plugins | Manage Plugins**, click **Show System Plugins**. Verify that all plugins are enabled. If some are disabled, enable them, then try to enable or reinstall Structure.

If for some reason you need to keep some of the plugins disabled, and Structure wouldn't start without them, please write to support@almworks.com.

3. Incomplete download or corrupt plugin JAR file

It is possible for the Plugin Manager to download the plugin JAR file only partially, if there are any problems with the server or the connection.

Also, it has been reported that if you download the plugin manually with Internet Explorer, it completely messes up the JAR file and turns it into a ZIP file with absolutely invalid content.

To verify that you have a correct JAR file, locate plugin JAR in `plugins/installed-plugins` directory under your JIRA home. Structure plugin has the word "structure" in its file name. Verify that the JAR file MD5 hash is the same as listed on the Download Archive page.

4. Incorrect JIRA setup

A symptom that provides evidence in favor of this cause is that JIRA application logs contain one or several lines that look like the following:

```
ERROR [plugin.osgi.factory.OsgiPlugin] Unable to start the Spring context for plugin com.almworks.jira.structure
```

In order for Structure plugin to work, it requires some of standard Atlassian plugins, such as the one that allows Structure to post to the Activity Streams. We have been reported of cases where these plugins cannot start because `-Datlassian.org.osgi.framework.bootdelegation` variable was set in `JAVA_OPTS` in `setenv.sh` (`setenv.bat`), as recommended in this comment to the Upgrade to JIRA 4.2 Guide. If you are using JIRA 5.0 or later, please try to remove the variable from `JAVA_OPTS` and see whether it resolves the problem.

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If none of the above help resolve the problem, please contact ALM Works support.