

Project Proposal

On Windows machines Jenkins master and agents can be installed as Windows Services in order to get better robustness and manageability within the system. This is a functionality bundled into the Jenkins core directly. When installed as a service, Jenkins uses the [Windows Service Wrapper](#) executable (.NET, written in C#) which is being configured by XML config files. Currently there are only few configuration checks there (no XML Schema, limited validation, etc.), and it's often that the service wrapper is misconfigured by Jenkins users.

In this project we propose to update Windows Service Wrapper to support YAML files as configuration inputs and to introduce better configuration validation during the service installation and startup. Usage of YAML should simplify configuration management in Jenkins, especially when automated tools are used. On the Jenkins side, patches could be proposed to the Jenkins Core and Windows Agent Installer module to switch them from XML to YAML once the new version of WinSW is integrated.

In this project students can also propose various extra enhancements to the Windows Service Wrapper project, especially around logging and diagnosability.

Links

- Windows Service Wrapper: <https://github.com/kohsuke/winsw>
- Jenkins Windows Agent Installer Module: <https://github.com/jenkinsci/windows-slave-installer-module>
- Jenkins WMI Windows Agents Plugin: <https://github.com/jenkinsci/windows-slaves-plugin>
- Windows Service Lifecycle in the Jenkins core:
<https://github.com/jenkinsci/jenkins/blob/0795e89b308ec7fcbda097858d58763d8531be8c/core/src/main/java/hudson/lifecycle/WindowsServiceLifecycle.java>

Quick Start

Newbie-friendly issues

- WinSW:
<https://github.com/kohsuke/winsw/issues?q=is%3Aissue+is%3Aopen+label%3A%22good+first+issue%22>

Project Metadata

Created on: Jan 12, 2018

Title: Jenkins Windows Services: YAML Configuration support

Summary: Enhance Jenkins master and agent service management on Windows by offering new configuration file formats and improving settings validation

Champion: Oleg Nenashev

Champion Github Id and link: <https://github.com/oleg-nenashev>

Champion Jenkins JIRA/LDAP id: oleg_nenashev

Champion Time Zone: UTC +1/+2

Champion Role: I am making this proposal as a **mentor**

Technical advisor: Oleg Nenashev

Advisor Github Id and link: <https://github.com/oleg-nenashev>

Advisor Time Zone: UTC+1/+2

Project Category: Core, Tools

SIG/subproject: platform

Project Gitter chat room: <https://gitter.im/platform-sig>

Potential Mentors

The potential mentors are:

- 1) Oleg Nenashev, <https://github.com/oleg-nenashev>
- 2) Arnab Banerjee, <https://github.com/arnab1896>

Skills to improve/study

- C#
- .NET
- Windows
- Windows Services
- YAML
- Java (optional)