

# Template for specifying the installation actions of any perfSONAR service

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## Document Change Log

<b>As SA3-WI15 Document</b>			
<b>Version number</b>	<b>Date</b>	<b>Description of change</b>	<b>People</b>
1	02-11-06	First draft issued	Roman Lapacz
2	13-11-06	Changed template and content based on Szymon's suggestions as seen in metadata configuration file	Loukik Kudarimoti
3	21-11-06	More descriptive text and some changes	Roman Lapacz
4	21-11-06	Extended Roman's descriptive text	Loukik Kudarimoti
5	22-11-06	Minor updates in the existing text	Roman Lapacz
6	22-11-06	Accepted most changes, corrected minor typos and also did minor updates	Loukik Kudarimoti
7	4-12-06	Added naming convention for service name	Loukik Kudarimoti

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## 1. Introduction

This document provides a specification for preparation service configuration files. It describes obligatory parts and provides a template for a description of configuration files that are required for running the service. This template must be filled by a service developer. Such description will detail all fields used within the file and will help the developers and users to properly configure and run the service.

## 2. Naming convention to be followed in your documents

service-type	= Possible values are: MA, MP, LS, AA, ToS
service-version	= A number
namespace-prefix	= Namespace prefix associated with namespace name
namespace-URI	= URI reference identifying the namespace name

## 3. Explanation of template

### 3.1. Header

#### Service Name

You MUST specify your service name here.

You MUST use the following Naming convention:

```
<unique_service_name>_Type_<service_type>-  
                                <service_version>
```

Example: RRD-Type\_MA\_1.1

#### Service Type

You MUST specify type of your service here.

#### Version/release

You MUST specify version number or bundle/suite

#### Service Description

You MUST provide some description of your service

### **Contact person (s)**

You MAY specify a contact person(s) for this service so that other users can contact in case of questions.

### **Contact Information**

You MUST specify some contact (preferably e-mail address) either with the above contact person or with your organisation.

### **Document change log**

You MUST write the date of creating this document with change description. You MUST update this field each time you update this specification.

## **3.2. Introduction**

You MAY provide some introductory text about your service.

## **3.3. Requirements**

You MUST provide a list of requirements needed to run defined actions.

## **3.4. Installation Sequence**

You MUST provide the sequence of commands needed to deploy your service.

Example:

- i. ant -q pre-install
- ii. ant -q configure
- iii. ant -q deploy

## **3.5. Main Actions**

The installation has been divided into 4 main phases: pre-install, configure, deploy, and test. The optional phase undeploy to uninstall the service has been defined as well. The following section explains what each phase can do and the information to be provided by following the template.

### **3.5.1. pre-install**

The pre-install action MAY include any or all of the following tasks

- Download any necessary dependency software. Note that the user MUST be prompted to find out if automatic download is preferred. Also note that appropriate security disclaimers about dependency software (such as not installing software as root) MUST be mentioned.
- Install any necessary dependency software. The software which has been downloaded (previously or manually) MAY be installed by this action as well (user should be prompted)
- Configure such dependency software. The dependency software MUST be configured to make it ready for usage by perfSONAR web service
- Download all necessary libraries/jars necessary for perfSONAR web service
- Configure ONLY the necessary variables (such as location of tomcat, etc) needed for installing dependency software. The user MUST be asked to specify values. Default Values MUST be provided AND used if user does not provide any values. Once a value has been obtained from the user, the user MUST NOT be asked again to provide the value.

The following information should be furnished when using the template.

### **Command**

You MUST provide the complete command which executes the pre-install action.

### **General description**

You MUST provide some general description of the action.

### **Detailed description**

If you are using Ant you MUST provide the description of each target used in the pre-install action. If you do not use Ant you MUST decide what details SHOULD be here.

### **Relationship between Ant targets**

This subsection is valid and SHOULD be present only if you are using Ant. If one target calls another one you MUST show such execution flow.

Example:

Target A -> Target B (dep)-> Target C

Target C calls target B, target B calls target A.'dep' in the brackets means that the target is called as a dependency instead of 'antcall' Ant task.

### **3.5.2. configure**

The configure action **MUST** be used in order to apply all necessary and also optional configurations for the service. Any special configurations should be made by this action as well. (for example, copying xml metadata configuration files into an XML database, setting property values in the configuration files, etc.) The action **MUST** also provide the capability to re-configure any configuration tasks (i.e., the action **MUST NOT** fail if the user wants to try to use it more than once).

#### **Command**

You **MUST** provide the complete command which executes the configure action.

#### **General description**

You **MUST** provide some general description of the action.

#### **Detailed description**

If you are using Ant you **MUST** provide the description of each target used in the pre-install action. If you do not use Ant you **MUST** decide what details **SHOULD** be here.

#### **Relationship between Ant targets**

This subsection is valid and should be present only if you are using Ant. If one target calls another one you **MUST** show such execution flow. Example:

Target A -> Target B (dep)-> Target C

Target C calls target B, target B calls target A.'dep' in the brackets means that the target is called as a dependency instead of 'antcall' Ant task.

### **3.5.3. deploy**

The deploy action sets up service resources in the right location (for example, copies perfSONAR service resources into an application server). It also makes sure that the perfSONAR service is running and available for other perfSONAR services and client applications.

#### **Command**

You MUST provide the complete command which executes the deploy action.

### **General description**

You MUST provide some general description of the action.

### **Detailed description**

If you are using Ant you MUST provide the description of each target used in the pre-install action. If you do not use Ant you MUST decide what details SHOULD be here.

### **Relationship between Ant targets**

This subsection is valid and should be present only if you are using Ant. If one target calls another one you MUST show such execution flow. Example:

Target A -> Target B (dep)-> Target C

Target C calls target B, target B calls target A.'dep' in the brackets means that the target is called as a dependency instead of 'antcall' Ant task.

## **3.5.4. undeploy**

The undeploy action stops the service and removes service resources from deployment location (e.g. application server). It MUST NOT delete any applied configurations. It MUST only stop the perfSONAR service from processing any requests.

### **Command**

You MUST provide the complete command which executes the undeploy action.

### **General description**

You MUST provide some general description of the action.

### **Detailed description**

If you are using Ant you MUST provide the description of each target used in the pre-install action. If you do not use Ant you MUST decide what details SHOULD be here.

### **Relationship between Ant targets**

This subsection is valid and should be present only if you are using Ant. If one target calls another one you MUST show such execution flow.



Example:

Target A -> Target B (dep)-> Target C

Target C calls target B, target B calls target A.'dep' in the brackets means that the target is called as a dependency instead of 'antcall' Ant task.

### **3.5.5. test**

The test action provides the capability to do tests of various types on the installed service. These tests are aimed to help the user in ensuring that when installing the service, the user is informed whether the installation has been successful or not. It should also help the user in verifying on a regular basis whether the installed service is functioning properly. The outcome of the tests SHOULD be able to help with some sort of a diagnosis of the problem.

- The tests provided as part of this action MUST be able to help the user in doing some basic tests in order to verify the success of the installation process. These basic tests MUST NOT need any detailed configuration or any data to be configured by the user. (For Example, in RRD MA service, a dummy configuration file and a dummy RRD data file are used. Such dummy files and configurations should be used wherever applicable).
- The basic tests ideally SHOULD be easily modifiable via interactions with the user where possible so that they can be used with customized configurations and customized data (but this constraint won't be applied for version 1.1 of perfSONAR bundle release).
- The purpose of the tests is to find out whether the service is working OK and also to diagnose any problems. Hence, smaller tests which specifically test certain parts of the service MAY be provided so that diagnosis can be done easily.

#### **Command**

You MUST provide complete the command which executes the test action.

#### **General description**

You MUST provide some general description of the action. You MUST list out all the tests that can be done using this action. For each test, you MUST also provide information on what modifications can be made to these test actions (such as change input/output file, change JVM

properties, etc). These descriptions must be aimed at helping the user in customizing the test scripts if needed at any point.

### **Detailed description**

If you are using Ant you **MUST** provide the description of each target used in the pre-install action. If you do not use Ant you **MUST** decide what details **SHOULD** be here.

### **Relationship between Ant targets**

This subsection is valid and should be present only if you are using Ant. If one target calls another one you **MUST** show such execution flow. Example:

Target A -> Target B (dep)-> Target C

Target C calls target B, target B calls target A.'dep' in the brackets means that the target is called as a dependency instead of 'antcall' Ant task.

## **3.6. Other Information**

This part **MAY** contain any other information that may be of help to the user.

## **3.7. Known Problems**

This section **MAY** provide information on any known problems or issues such as a known problem where an action fails to work, etc.

# **4. Template for specifying installation actions**

-- Beginning of the template --

**Service Name:** <service-name>

**Service Type:** <service-type>

**Version/release:** <service-version>

**Service Description:** <service-description>

**Contact person (s):** <contact-person>

**Contact Information:** <contact-information>

**Document change log:** <change-log-entry>

## **1. Introduction**

<provide-introductory-text>

## **2. Requirements**

<needed-requirements>

## **3. Installation Sequence**

<provide-installation-sequence-for-your-service>

## **4. Main Actions**

### **4.1. pre-install**

#### **Command**

<specify-command>

#### **General Description**

<specify-general-description-of-action>

#### **Detailed description**

<specify-detailed-description>

## **Relationship between Ant targets**

<specify-relationship-between-Ant-targets>

### **4.2. configure**

#### **Command**

<specify-command>

#### **General Description**

<specify-general-description-of-action>

#### **Detailed description**

<specify-detailed-description>

## **Relationship between Ant targets**

<specify-relationship-between-Ant-targets>

### **4.3. deploy**

#### **Command**

<specify-command>

#### **General Description**

<specify-general-description-of-action>

#### **Detailed description**

<specify-detailed-description>

## **Relationship between Ant targets**

<specify-relationship-between-Ant-targets>

### **4.4. undeploy**

#### **Command**

<specify-command>

### **General Description**

<specify-general-description-of-action>

### **Detailed description**

<specify-detailed-description>

### **Relationship between Ant targets**

<specify-relationship-between-Ant-targets>

## **4.5. test**

### **Command**

<specify-command>

### **General Description**

<specify-general-description-of-action>

### **Detailed description**

<specify-detailed-description>

### **Relationship between Ant targets**

<specify-relationship-between-Ant-targets>

## **5. Other Information**

<provide-other-useful-information>

## **6. Known Problems**

<specify-known-problems> / None

-- End of template --