**SAGA-Torque Adaptor**

**Install Guide**

High Energy Accelerator Research Organization (KEK)

Computing Research Center

January 4, 2010

Index

[1 Introduction 3](#_Toc250370664)

[2 What is STA? 3](#_Toc250370665)

[2.1 Files to be installed 3](#_Toc250370666)

[3 How to install 3](#_Toc250370667)

[3.1 Pre-installation 3](#_Toc250370668)

[3.1.1 Requirements 3](#_Toc250370669)

[3.1.2 Environment variables 4](#_Toc250370670)

[3.2 Compile and Install 4](#_Toc250370671)

[4 Configuration 5](#_Toc250370672)

[4.1 Adaptor configuration file 5](#_Toc250370673)

[4.1.1 [saga.adaptors.torque\_job] 5](#_Toc250370674)

[4.1.2 [saga.adaptors.torque\_job.cli] 5](#_Toc250370675)

[4.1.3 [saga.adaptors.torque\_job.cli.description] 5](#_Toc250370676)

[5 Usage Note 6](#_Toc250370677)

# Introduction

This document is the STA (SAGA-Torque Adaptor for Job Management) Installation guide.

# What is STA?

STA is the SAGA adaptor that is required to use a cluster system by Torque.

## Files to be installed

STA will be installed under the directory specified in the environment variable, $SAGA\_LOCATION. The following files will be installed.

$SAGA\_LOCATION/lib/libsaga\_adaptor\_torque\_job.a

SAGA Job Package archive library for STA

$SAGA\_LOCATION/lib/libsaga\_adaptor\_torque\_job.so

SAGA Job Package shared library for STA

$SAGA\_LOCATION/share/saga/saga\_adaptor\_torque\_job.ini

SAGA Job Package adaptor configuration file for STA

# How to install

This chapter describes how to install STA.

## Pre-installation

There are requirements and environmental variables to be prepared before to install STA.

### Requirements

The following is required to install STA.

- SAGA Environment

- SAGA source code

In order to setup SAGA environment for STA, please refer to "STA Environment Setup Guide".

### Environment variables

The following environment variables are required to compile and install STA.

- SAGA\_LOCATION

It is the directory where SAGA is installed. (i.e. /usr/local/saga)

- SAGA\_ROOT

It is the directory where SAGA source code exists.

(i.e. /home/user/work/saga-cpp-1.3.3)

$SAGA\_LOCATION is required to compile and execute SAGA applications. $SAGA\_ROOT is required to compile STA but it is not specified when SAGA applications are compiled and executed.

## Compile and Install

The following is the steps to compile and install STA.

(1) Extract the distributed file.

$tar jxvf sta-1.0.tar.bz2

(2) Change directory to torque\_job directory.

$ cd sta-1.0/adaptors/torque/torque\_job

(3) Execute "make install"

# make install

# Configuration

This chapter describes configurations of STA.

## Adaptor configuration file

This section explains about the adaptor configuration file that is $SAGA\_LOCATION/share/saga/saga\_adaptor\_torque\_job.ini.

### [saga.adaptors.torque\_job]

*name*

"torque\_job" is specifed. No change in typical use.

*path*

"[saga.location]/lib" is specified. No change in typical use.

*enabled*

You can disable STA by specifying "false" here. No change in typical use.

### [saga.adaptors.torque\_job.cli]

This is reserved for future use.

### [saga.adaptors.torque\_job.cli.description]

*JobContact*

The email destination from PBS server should be specified in the form :

mailto:user@host

This value will be used if a user submits a job without saga::job::description::description\_job\_contact. Also, this value will be always used when a user submits a job by calling saga::job::service::run\_job() method.

Specifying JobContact is mandatory to use STA. If JobContact is not specified, you will get an error in loading STA.

# Usage Note

If names of standard output or error files are not specified in the job description, STA will automatically name them "saga-app.o[JobID]" or "saga-app.e[JobID]". (i.e. "saga-app.o123" or "saga-app.e123") Those files will be saved in the local working directory that is specified in saga::job::description::description\_working\_directory.