

# SAGA-Torque Adaptor

## Install Guide

High Energy Accelerator Research Organization (KEK)  
Computing Research Center

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## 1 Introduction

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

## 2 What is STA?

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

### 2.1 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

## 3 How to install

This chapter describes how to install STA.

### 3.1 Pre-installation

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

#### 3.1.1 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".

### **3.1.2 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.

### **3.2 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
```

## 4 Configuration

This chapter describes configurations of STA.

### 4.1 Adaptor configuration file

This section explains about the adaptor configuration file that is `$SAGA_LOCATION/share/saga/saga_adaptor_torque_job.ini`.

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

*name*

"torque\_job" is specified. 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.

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

This is reserved for future use.

#### 4.1.3 [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.

## 5 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`.