SAGA-PBSPro Adaptor

Install Guide

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1 Introduction

This document is the SPA (SAGA-PBSPro Adaptor for Job Management) Installation guide.

2 What is SPA?

SPA is the SAGA adaptor that is required to use a cluster system by PBSPro (Portable Batch System Professional Edition).

2.1 Files to be installed

SPA will be installed under the directory specified in the environment variable, $SAGA_LOCATION. The following files will be installed.

$SAGA_LOCATION/lib/libsaga_adaptor_pbspro_job.a
　　　　SAGA Job Package archive library for SPA

$SAGA_LOCATION/lib/libsaga_adaptor_pbspro_job.so
　　　　SAGA Job Package shared library for SPA

$SAGA_LOCATION/share/saga/saga_adaptor_pbspro_job.ini
　　　　SAGA Job Package adaptor configuration file for SPA

3 How to install

This chapter describes how to install SPA.

3.1 Pre-installation

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

3.1.1 Requirements

The following is required to install SPA.
- SAGA Environment

- SAGA source code

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

3.1.2 Environment variables

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

- 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 SPA 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 SPA.

(1) Extract the distributed file.
> $tar jxvf spa-1.0.tar.bz2

(2) Change directory to pbspro_job directory.
> $ cd spa-1.0/adaptors/pbspro/pbspro_job

(3) Execute "make install"
> # make install

4 Configuration

This chapter describes configurations of SPA.

4.1 Adaptor configuration file

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

4.1.1 [saga.adaptors.pbspro_job]

name

"pbspro_job" is specifed. No change in typical use.

path

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

enabled

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

4.1.2 [saga.adaptors.pbspro_job.cli]

This is reserved for future use.

4.1.3 [saga.adaptors.pbspro_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 SPA. If JobContact is not specified, you will get an error in loading SAP adaptor.

5   Usage Note

If names of standard output or error files are not specified in the job description, SPA 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.