SAS® Grid Administration Made Simple

Scott Parrish, Linda Zeng, and Paula Kavanagh, SAS Institute Inc.

ABSTRACT

Historically, administration of your SAS® Grid Manager environment has required interaction with a number of disparate applications including Platform RTM for SAS, SAS® Management Console, and command line utilities. With the third maintenance release of SAS® 9.4, you can now use SAS® Environment Manager for all monitoring and management of your SAS Grid. The new SAS Environment Manager interface gives you the ability to configure the Load Sharing Facility (LSF), manage and monitor high-availability applications, monitor overall SAS Grid health, define event-based alerts, and much, much more through a single, unified, web-based interface.

INTRODUCTION

The purpose of this paper is to provide an overview of SAS Grid administration in SAS 9.4M3. As compared to previous releases, the SAS 9.4M3 release provides a "one-stop shop" for SAS Grid administration through the use of SAS Environment Manager.

This paper will begin with a brief overview of the two software applications that make up the SAS Grid administration environment in SAS 9.4M3, followed by a closer look at the features and functionality provided by these packages.

OVERVIEW

With the release of SAS 9.4M3, your SAS Grid can now be administered through SAS Environment Manager. This is made possible by the following two software applications:
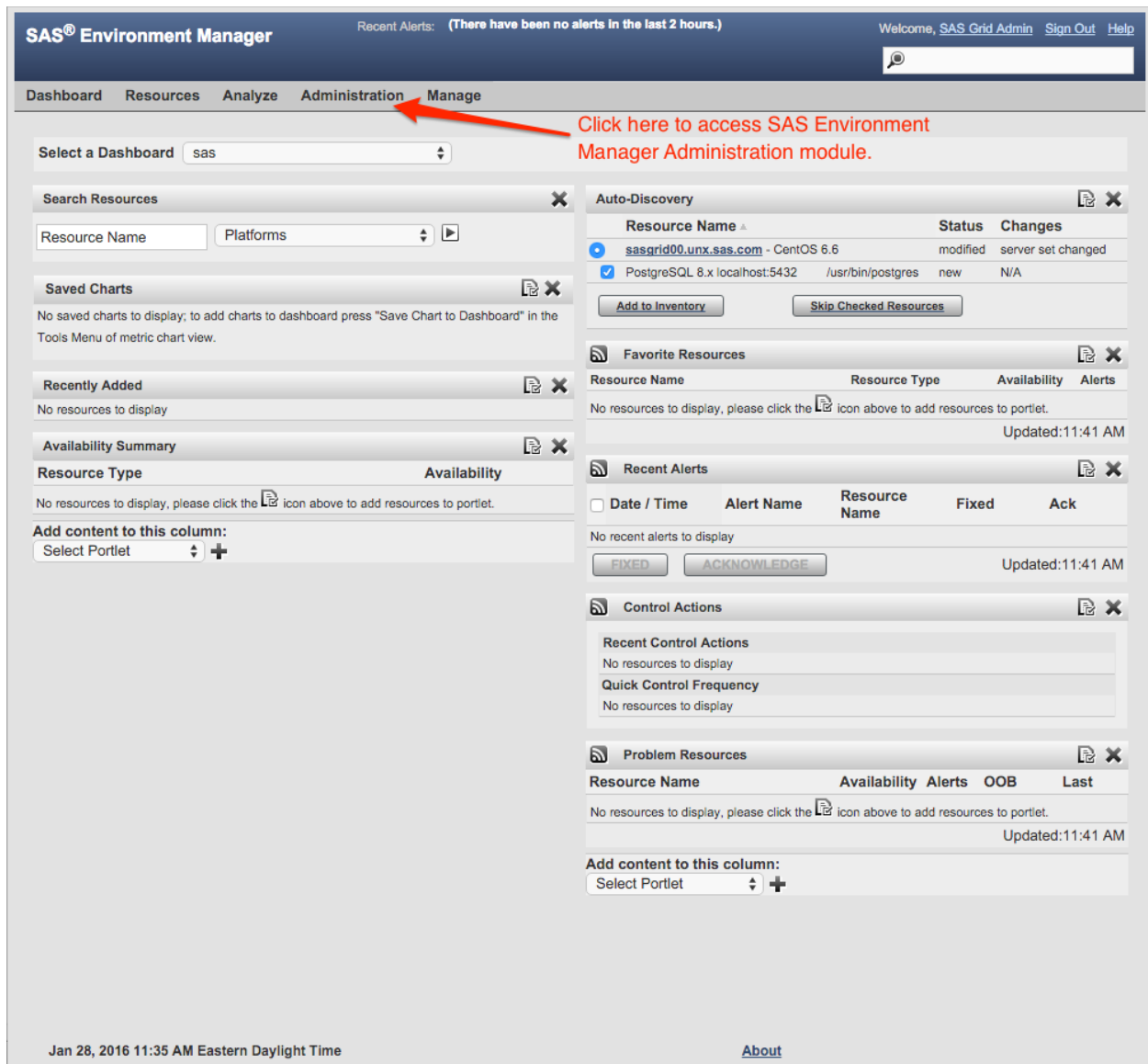
- SAS Grid Manager Module for SAS Environment Manager

- SAS Grid Manager Agent Plug-in for SAS Environment Manager

SAS GRID MANAGER MODULE FOR SAS ENVIRONMENT MANAGER

The SAS Grid Manager Module for SAS Environment Manager (referred to in this paper as the "module") is a stand-alone web application that consists of both server-side (Java) and client-side (JavaScript) pieces. The server-side portion of this application is deployed in a SAS Web Application Server running in the SAS Middle Tier. The client-side portion runs in a web browser.

The module is normally launched from the SAS Environment Manager Administration tab. (See Figure 1.) However, the application can also be accessed directly. The primary use case for launching the application directly is to provide end-users with the ability to check the status of their own Grid jobs without giving those users access to SAS Environment Manager.

The module provides many of the capabilities previously available through Platform RTM (part of Platform Suite for SAS) including LSF configuration management, high-availability configuration management, Grid monitoring, and Grid management.

Figure 1: SAS Environment Manager Administration Tab

SAS GRID MANAGER PLUG-IN FOR SAS ENVIRONMENT MANAGER

SAS Environment Manager is designed with a pluggable architecture. One type of plug-in supported by SAS Environment Manager is known as an agent. Agents are small software bundles (typically distributed as JAR files) that run on each host or machine within a SAS deployment. Typically, agents collect information about the host on which they are running and report that information back to the SAS Environment Manager server, where it can be used for a variety of purposes including graphing, alert generation, and reporting.

The SAS Grid Manager Plug-in for SAS Environment Manager (referred to in this paper as the "plug-in" or "agent plug-in") is one of these agents. Its purpose is to periodically collect information about the SAS Grid. Previously, much of this same information was available through RTM.

Because the volume of information about SAS Grid administration exceeds the space available for this paper in the proceedings, you can access the remainder of this paper at http://support.sas.com/rnd/scalability/grid/gridpapers.html - p41.

CONTACT INFORMATION

Your comments and questions are valued and encouraged. Contact the authors at:

Scott Parrish
100 SAS Campus Drive
Cary, NC 27513
SAS Institute, Inc.
Scott.Parrish@sas.com

Linda Zeng
100 SAS Campus Drive
Cary, NC 27513
SAS Institute, Inc.
Linda.Zeng@sas.com

Paula Kavanagh
100 SAS Campus Drive
Cary, NC 27513
SAS Institute, Inc.
Paula.Kavanagh@sas.com