ARGENT Encyclopedia

How Argent Job Scheduler Works





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How Argent Job Scheduler Works

Argent Job Scheduling consists of two components:

1. Argent Scheduler

The Argent Scheduler consists of a service and a client GUI. In most cases the service and client GUI are installed on the same machine.

You can also install just the client GUI of the Argent Scheduler on the desktops of users who need to schedule jobs regularly.

A frequently asked question is,

"If I install the client GUI on the desktops of three different users, will they see each other's jobs?"

The short answer is yes, and the long answer is it depends.

Every client GUI connecting to the same service is sharing the same database holding the Job Classes, Alerts, Macros, Calendars, etc. So, in a default installation (no changes in configuration) all client GUIs can see all jobs in the shared database.

But you can set security in the Job Classes and you can tie a Job Class to a specific W200x user group, thus giving you control of which users see which jobs.

Of course, you can also have completely separate installations of the Argent Scheduler services. In this case there are distinct and independent databases, and any client GUIs connecting to one service will only see the jobs for that service. You might want to go this route if you have multiple departments submitting jobs unrelated to each other.

Remember: the Argent Scheduler simply submits jobs to one or more Argent Queue Engines. It does not "run" these jobs - jobs are run by the Argent Queue Engines.

The Argent Scheduler connects to the Argent Queue Engines, and when the time comes for the jobs to run the Argent Scheduler submits the jobs to the appropriate Argent Queue Engines.

The Argent Scheduler's role is to keep track of schedule and ensure jobs run when and where they should.

2. Argent Queue Engine

Argent Job Scheduling consists of two products: the Argent Scheduler and the Argent Queue Engine. Both products consist of a service and a GUI client. The normal installation will configure a server and use the service account.

The Argent Queue Engine is installed on all servers where jobs run - the Argent Queue Engine runs the actual jobs, the Argent Scheduler submits the jobs to one or more Argent Queue Engines for execution; the Argent Scheduler does not run jobs.

The client GUI for the Argent Queue Engine is used to optionally control jobs in just one Argent Queue Engine server at a time. In contrast, the Argent Scheduler GUI shows all jobs for all Argent Queue Engine servers on a single screen.

Because the Argent Queue Engine service runs in the background, it requires an account to "log in". This account must have administrative privileges; the tasks being performed by this account are usually reserved to Administrators.

On the other hand, the Argent Queue Engine GUI client installs only files necessary to connect to a control database.



Active Directory

The Argent Job Scheduler security implementation is fully-compliant with Active Directory.

User accounts and passwords used by Job Scheduler are defined through Windows tools.

Argent Job Scheduler does not have a separate or private mechanism to define user accounts or passwords.

Fail Over Procedure

Argent Queue Engine does not implement a failover methodology.

Customers can easily configure alternate Argent Queue Engine servers to be selected if a given Queue Engine server fails.

Argent Job Scheduler has a failover/failback methodology requiring two separate machines.

Argent Job Scheduler is installed on both machines with configuration values to control whether the server is operating in a primary or a secondary role.

When a failover outage occurs on the primary machine, the secondary server takes over and continues running jobs.

SNMP Flags

Argent Job Scheduler does not use SNMP.

Argent Job Scheduler does not expose an SNMP MIB.

Customers that want to check on the status/health of an Argent Queue Engine server, for example, should strongly consider Argent's XT technology.

Argent Job Scheduler servers and Argent Queue Engine servers can be discovered by SNMP crawlers.

Support of Virtual Environments

Argent does not recommend using Virtual Machines for critical production products such as the Argent Job Scheduler and the Argent Queue Engine.

Virtualization itself is a double-edged sword. While it allows you to get more out of a physical server by using otherwise underutilized CPU, memory, and disk resources, you are putting all your eggs in one basket. If the host system fails, so do all the virtual machines (known as guests) running on it.

Trigger On/Trigger Off?

Triggers are a way to change the functionality of a SQL-compliant database.

Argent Job Scheduler does not use any triggers in the database schema.

Argent does not support customers adding triggers to the Argent Job Scheduler tables.

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