



Infor PLM Accelerate 11

Scheduler Service

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About this guide

Intended audience

This guide is intended for system administrators. This document assumes that you have at least some knowledge in:

- System architecture and function for your Infor system
- SQL Server database

For the most up-to-date list of software and hardware requirements for Infor products, see the documentation for your system.

Related documents

You can find the documents in the product documentation section of the Infor Xtreme Support portal, as described in the "Contacting Infor" section below.

Contacting Infor

If you have questions about Infor products, go to the Infor Xtreme Support portal at www.infor.com/inforxtreme.

If we update this document after the product release, we will post the new version on this Web site. We recommend that you check this Web site periodically for updated documentation.

If you have comments about Infor documentation, contact documentation@infor.com.

Chapter 1. Overview

The Infor PLM Accelerate Service is a Windows executable program that runs as a Windows Service (refer to the figure below). It is used to automatically run Methods on a periodic schedule, as specified in the InnovatorServiceConfig.xml file.

A single running instance of the Infor PLM Accelerate Service can be configured to periodically connect to any number of Infor PLM Accelerate Servers, and for each Infor PLM Accelerate Server, run any number of Methods. The standard Windows Event Viewer is used for logging of program status and error messages.

Examples of when the Infor PLM Accelerate Service should be used are:

1. Running a Method that creates and sends Workflow reminder emails
2. Running a Method nightly that creates a report and mails it to a set of users

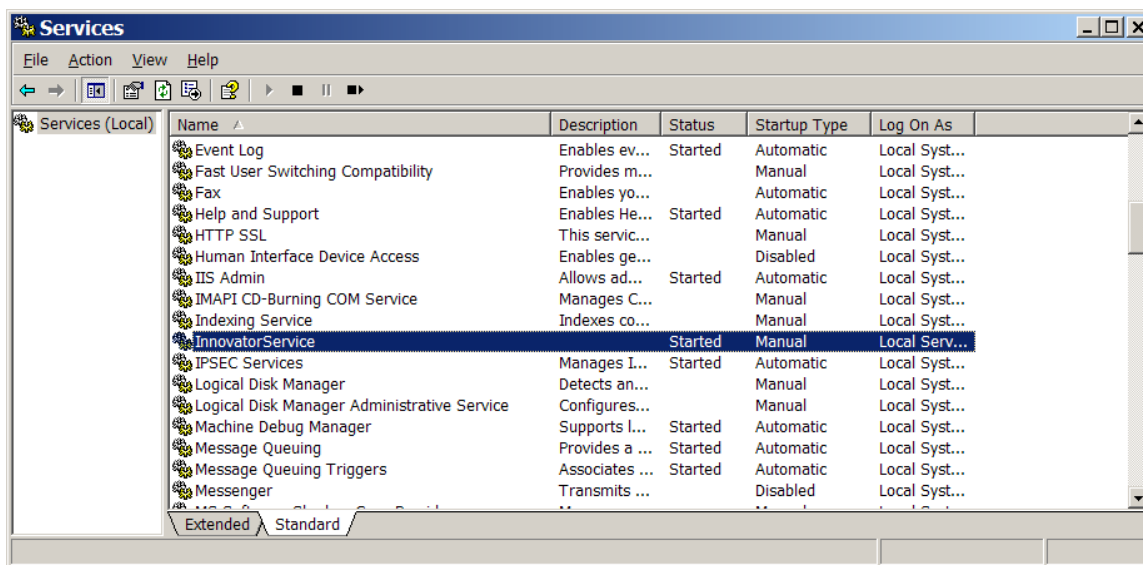


Figure 1.

Components

- **InnovatorService.exe**: Windows executable program
- **InstallService.bat**: Batch file to install the Scheduler Service
- **UninstallService.bat**: Batch file to un-install the Scheduler Service
- **InnovatorServiceConfig.xml**: Configuration file

Chapter 2. Installation and Configuration

Installation

The components listed in the Components section can be found on the Infor PLM Accelerate CD in the Scheduler folder.

1. Copy the InnovatorService.exe file and the two BAT files into any Folder.
2. Copy the file InnovatorServiceConfig.xml into the same folder.
3. In the Folder selected in step 2, run the BAT file InstallService.bat. This program runs the standard .NET utility named INSTALLUTIL. This program leaves a set of .NET log files in the working directory which should be checked for error messages, and then deleted. You need to specify the .NET framework you are installing against in the command.

(i.e. C:\InnovatorService\InstallService 2.0)

Note: If you are running a .NET framework higher than 2.0, still, select 2.0

4. INSTALLUTIL prompts you for a windows authentication user name and password for the machine on which you are installing the service, use a fully qualified user name like domain_name\user_name. If the user name and password are not valid, the installation fails.
5. Verify that the Windows Service named 'Innovator Service' was added to the management console (refer to the previous figure displaying the screenshot). Specify whether the service should be started automatically or manually. The user name and password for the service can be edited from the LogOn tab in the service Properties.
6. Edit the configuration file and then start the service.

Note: Starting and stopping the InnovatorService can be done using the Windows management console, or in a DOS command Window:

```
NET START INNOVATORSERVICE
NET STOP INNOVATORSERVICE
```

Configuration

The InnovatorServiceConfig.xml file is analogous to a UNIX CronTab file, specifying which processes to run, and when they should be run.

Example configuration file:

```
<?xml version="1.0" encoding="utf-8" ?>
<innovators>
  <innovator>
    <server>SERVER </server>
    <database>DATABASE</database>
    <username>USERNAME</username>
```

```

<password>PASSWORD</password>
  <http_timeout_seconds>600</http_timeout_seconds>
<job>
  <method>METHOD NAME</method>
  <months>MONTH STRING </months>
  <days>DAY STRING </days>
  <hours>HOUR STRING</hours>
  <minutes>MINUTE STRING</minutes>
</job>
</innovator>
<eventLoggingLevel>LOGGING LEVEL</eventLoggingLevel>
<intervalMinutes>INTERVAL</intervalMinutes>
</innovators>

```

Innovator Server Connection Properties:

- `<innovator>` tag is used to specify an Infor PLM Accelerate server to connect to. There can be multiple `<innovator>` tags in the configuration file.
- `<server>` is the HTTP URL of the server. This is the same URL that end-users use to run the standard Infor PLM Accelerate client
Example: `<server>http://localhost/InnovatorServer</server>`
- `<database>` is the ID of the database in the InnovatorServerConfig.xml. Note that this string is case sensitive.
Example: `<database>InnovatorSolutions</database>`
- `<username>` is the login account that should be used for running the Methods.
Example: `<username>admin</username>`
- `<password>` is the password for the login account, in plain-text.
Example: `<password>innovator</password>`

Job Control Properties:

For each `<innovator>`, there may be one or more `<job>` tags, specifying Methods that should be run. The * (asterix) is used as a wildcard in the scheduling tags.

- `<method>` is the Method name in the Infor PLM Accelerate instance.
Example: `<method>Workflow Reminders</method>`
- `<months>` is the month of the year that the Method should be run. Supports a comma delimited list of 1 through 12. January is month=1 and December is month=12.

Examples:

- `<months>2,5,8,12</months>` Run only in Feb, May, Aug, and Dec
- `<months>*</months >` Run every month

- `<days>` is the day of the week that the Method should be run. Supports a comma delimited list. Sunday is `day=0` and Saturday is `day=6`. A special value, 'last', is used to indicate the last day of the current month.

Examples:

- `<days>1, 5</days>` Run on Monday and Friday
- `<days>*</days>` Run every day
- `<days>last</days>` Run only on the last day of the month

- `<hours>` is the hours of the day that the Method should be run. Supports a comma delimited list of hour values from 0 through 23.

Examples:

- `<hours>6, 17</hours>` Run 6am and again at 5pm
- `<hours>*</hours>` Run every hour

- `<minutes>` is the minute of the hour that the Method should be run. Supports a comma delimited list of hour values from 0 through 59. A special value, 'once', is used to indicate the job should be run only 'once' when the `<hours>` criteria is met, but on which minute is not important.

Examples:

- `<minutes>0, 15, 30, 45</minutes>` Run every 15 minutes
- `<minutes>*</minutes>` Run every minute
- `<minutes>once</minutes>` Run only once when the `<hours>` pattern is met.

There is an implied tag of `<seconds>` with a value of `<seconds>once</seconds>`. All jobs are run only once within the minute that satisfies the scheduling criteria.

Innovator Service Operating Properties

Two tags are used to control the behavior of the running InnovatorService process:

- `<eventLoggingLevel>` sets the level of detail for messages that are sent to the Windows Event monitor.

Examples:

- `<eventLoggingLevel>0</eventLoggingLevel>` Service startup announcement and error messages from Infor LM Accelerate only
- `<eventLoggingLevel>1</eventLoggingLevel>` Announces the start of every Method run
- `<eventLoggingLevel>2</eventLoggingLevel>` Detailed reporting of every run cycle.

- `<intervalMinutes>` sets the Windows timer to control how often the InnovatorService is start and the `<job>` timing logic is tested. Any positive integer from 1 to 59 is supported.

Example: `<intervalMinutes>1</ intervalMinutes>` Service is run every minute (recommended setting)

Configuration file example

The following example will run the three methods nightly. First, it runs the Send Email Reminders method to execute Workflow Activity Notification reminders at 00:02. Second, it runs the Check Escalations method to automatically escalate and designated Workflow Activities at 00:12. And finally, it runs the dailyUpdate method to update all active Project items in Infor PLM Accelerate at 00:22.

```
<?xml version="1.0" encoding="utf-8" ?>
<innovators>
  <innovator>
    <server>http://localhost/InnovatorServer</server>
    <database>InnovatorSolutions</database>
    <username>iservice</username>
    <password>innovator</password>
    <http_timeout_seconds>600</http_timeout_seconds>
    <job>
      <method>Send Email Reminders</method>
      <months>*</months>
      <days>*</days>
      <hours>0</hours>
      <minutes>2</minutes>
    </job>
    <job>
      <method>Check Escalations</method>
      <months>*</months>
      <days>*</days>
      <hours>0</hours>
      <minutes>12</minutes>
    </job>
    <job>
      <method>dailyUpdate</method>
      <months>*</months>
      <days>*</days>
      <hours>0</hours>
      <minutes>22</minutes>
    </job>
  </innovator>
  <eventLoggingLevel>0</eventLoggingLevel>
  <intervalMinutes>1</intervalMinutes>
</innovators>
```

Event Monitor

The standard Windows Event Monitor is used for logging. Scheduler Service logs startup and shutdown messages. All error messages returned by the Infor PLM Accelerate Connection, or by the Methods are also logged to the Event Monitor.

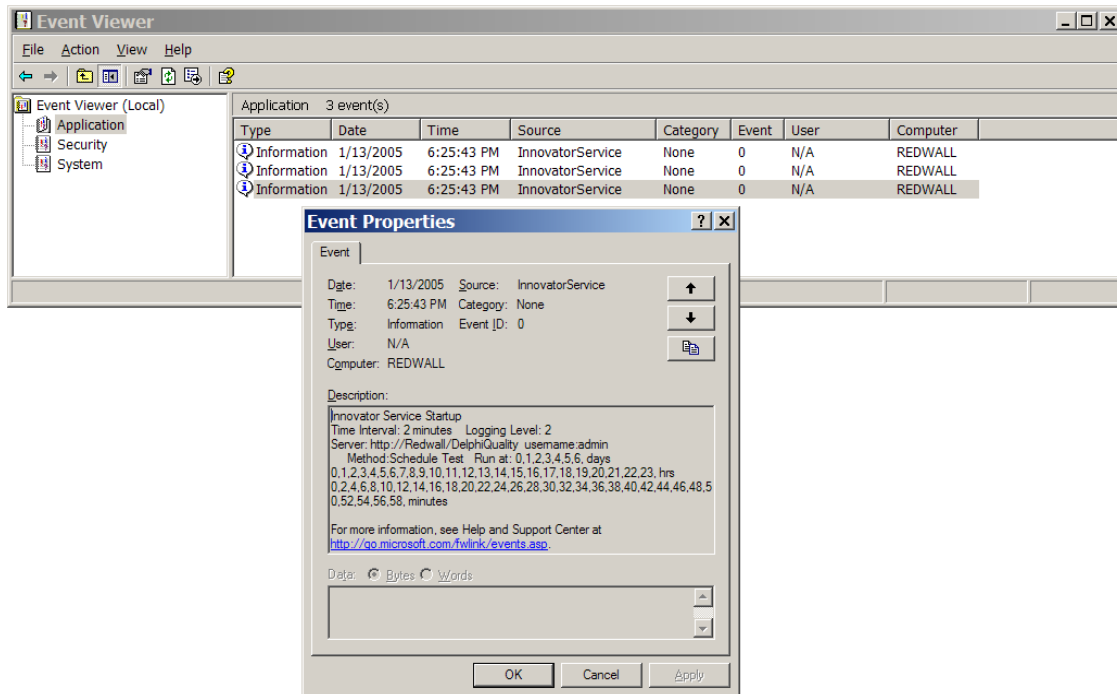


Figure 2.

The level of logging information displayed is configured in the InnovatorServiceConfig.xml file.

Scheduler Service Method Sample

The method executed by the Scheduler service must be a server side method within Infor PLM Accelerate. Your method must return a result as seen below in the following sample:

```
Innovator inn = this.getInnovator();
//set time of execution
Item schedServ = inn.newItem("variable", "merge");
schedServ.setAttribute("where", "[variable].name='Scheduler Execute Time'");
schedServ.setProperty("name", "Scheduler Execute Time");
schedServ.setProperty("value", DateTime.UtcNow.ToString());
schedServ=schedServ.apply();
//must return a new Result after execution of service
if(schedServ.isError())
{
    return inn.newResult("Scheduler Failed");
}
return inn.newResult("OK");
```