Sterling Commerce

Monitor Business Process Deadline Events

Platform IFC 1.0

Sterling Commerce
An IBM Company

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Overview

Application provides several ways to monitor business process deadline events, you can:

✦ Set up an event listener in your environment to get notifications.

✦ Run offline notifications (e-mail or file), when Application goes offline.

✦ View events on the Operator Console (dashboard view), see *Performance and Tuning* for more information on using the Operator Console.

In Application, business process deadline events are generated if a business process does not reach the completed or terminated state before its deadline is reached. Business process states include:

✦ Active (running or queued)

✦ Waiting or Waiting on IO

✦ Halted, interrupted_man, interrupted_auto

✦ Terminated or Completed

The bpdeadline.log file has been added to the System Logs. You can access this log from the **Operations** > **System** > **Logs > Workflow Deadline**.

Types of Notification for Business Process Deadlines

Application provides the following two types of notifications:

✦ Batch notifications, which consolidates notifications by the business process state, then consolidates:

  ◆ All first notifications into a single event

  ◆ All second notifications into a single event

  ◆ All final notifications into a single event

  Note: The default for the amount of business processes that can be batch notified is set at 100.

✦ Single notifications, which provides a single notification for each first, second, and final notifications per business process

Offline Notifications for Business Process Deadlines

Application provides you with the ability to have offline notifications, when your Application goes offline, for example to apply a maintenance patch. You can set up your offline notifications to have either:

✦ All notifications sent to you in e-mail. E-mail addresses are defined in the bpdeadline.properties file.

✦ All notifications put in a text file located at:

  ◆ For UNIX, *install_dir/*deadlines

  ◆ For Windows, Drive:*install_dir*\SI\deadlines

Business Process Deadline Notifications

Business process deadline notifications are defined during the business process check-in process (Deadline Setting page). To define deadline notifications for business processes you must:

✦ Clear the Do not set deadline

✦ Enter the Complete by Deadline hours

✦ Enter the First Notification Hours (hours and minutes)

✦ Enter the Second Notification Hours (hours and minutes)

Application provides notifications at the following intervals:

✦ 1 - First notification

✦ 2 - Second notification

✦ 3 - Deadline notification completed (final)

Note: If your Application is offline during a notification interval, when the Application comes back online, you will get at least one final notice. See *Offline Notifications for Business Process Deadlines* on page 3.

Example of a Business Process Event Deadline

An example might be, if a business process deadline is reached when it is executing a service that consumes lots of time (like translation) or if Business process was errored or terminated, interrupted and deadlines were not issued and the business process owner was not alerted. This could cause businesses to run out of inventory or miss shipments, eventually impacting their bottom line profits. In this case, you might want to set up an event listener, so that you are notified when the inventory is low.

Example of Configuring the Event Listener for E-mail Notifications

You can set up an event listener in your environment to get business process deadline notifications by e-mail. The following is an example of how to set up an event listener for notifications by e-mail. The following properties are mentioned in the lweventrules.properties file. Define the following rules in the customer_overrides.properties file:

```
id.rule11=BATCH_FIRST_NOTIFY
levels.rule11=Normal
name.rule11=DEADLINE_BATCH_FIRST_NOTIFY_LEVEL_Normal
expression.rule11= contains(ExceptionLevel,'Normal') and
contains(eventType,'Workflow.DeadlineEvent.BATCH_FIRST_NOTIFY')
action.rule11.1=java:com.sterlingcommerce.woodstock.event.listeners.rule.EmailEventR
unnable
id.rule21=BATCH_SECOND_NOTIFY
levels.rule21=Abnormal
name.rule21=DEADLINE_BATCH_SECOND_NOTIFY_LEVEL_Abnormal
expression.rule21= contains(ExceptionLevel,'Abnormal') and
contains(eventType,'Workflow.DeadlineEvent.BATCH_SECOND_NOTIFY')
action.rule21.1=java:com.sterlingcommerce.woodstock.event.listeners.rule.EmailEventR
unnable
id.rule31=BATCH_FINAL_NOTIFY
```

```
levels.rule31=Exceptional
name.rule31=DEADLINE_BATCH_FINAL_NOTIFY_LEVEL_Exceptional
expression.rule31= contains( ExceptionLevel,'Exceptional') and
contains(eventType,'Workflow.DeadlineEvent.BATCH_FINAL_NOTIFY')
action.rule31.1=java:com.sterlingcommerce.woodstock.event.listeners.rule.EmailEventR
unnable
id.rule41=FIRST_NOTIFY
levels.rule41=Normal
name.rule41=DEADLINE_FIRST_NOTIFY_LEVEL_Normal
expression.rule41= contains(ExceptionLevel,'Normal') and
contains(eventType,'Workflow.DeadlineEvent.FIRST_NOTIFY')
action.rule41.1=java:com.sterlingcommerce.woodstock.event.listeners.rule.EmailEventR
unnable
id.rule51=SECOND_NOTIFY
levels.rule51=Abnormal
name.rule51=DEADLINE_SECOND_NOTIFY_LEVEL_Abnormal
expression.rule51= contains(ExceptionLevel,'Abnormal') and
contains(eventType,'Workflow.DeadlineEvent.SECOND_NOTIFY') action.rule51.1=
java:com.sterlingcommerce.woodstock.event.listeners.rule.EmailEventRunnable
id.rule61=FINAL_NOTIFY
levels.rule61=Exceptional
name.rule61=DEADLINE_FINAL_NOTIFY_LEVEL_Exceptional
expression.rule61= contains(ExceptionLevel,'Exceptional') and
contains(eventType,'Workflow.DeadlineEvent.FINAL_NOTIFY')
action.rule61.1=java:com.sterlingcommerce.woodstock.event.listeners.rule.EmailEventR
unnable
```

Note: You could choose to be notified in a different manner, by replacing the following rule:

```
action.rule31.1=java:com.sterlingcommerce.woodstock.event.listeners.rule
```

The rule mentioned above can be replaced with the following:

```
action.rule31.1=java:com.sterlingcommerce.woodstock.dmi.routing.RouterEv
entNotifier
```

You can configure dbDeadLineThread=true (default value is false) in noapp.properties. You can override the same property in the customer_overrides.properties file.

To receive deadline notification for a business process, you should edit the business process to be monitored, enable business process deadline settings, and configure first notification and second notification times appropriately.

Example of e-mail Notification for Single Business Process

The following is an example of an e-mail notification for a business processed called looper.

```
eventType: Workflow.DeadlineEvent.SECOND_ NOTIFY.1
ExceptionLevel: Abnormal
timestamp: 1158764871321
datestamp: 2006.09.20 11:07:51 EDT
STATUS: secondNotify
BP_STATE: ACTIVE
EVENT_TIME: Wed Sept 20 11:07:51 EDT
```

```
WFD_NAME: looper
EVENT_INFO: Firing deadlined bp
BP_ID: 8239
```

Example of e-mail Notification for Batch Business Processes

The following is an example of an e-mail notification for batched notification. Two business processes were running, looper and inventory, and they both were in the active state.

```
eventType: Workflow.DeadlineEvent.BATCH_FINAL_NOTIFY.1
ExceptionLevel: Exceptional
timestamp: 1160146355843
datetime: 2006.10.06 10:52:35 EDT
STATUS: FinalNotify
BP_STATE: ACTIVE
EVENT_TIME: Fri Oct 06 10:52:35 EDT 2006
WFD_NAME: BP_NAME_looper,BP_NAME_inventory,
EVENT_INFO: Firing deadlined bp events in batch at Fri Oct 06 10:52:35 EDT 2006
         Notify Time in batch is carried from the last event in the same group
BP_ID: WF_ID:7518_looper,WF_ID:7519_inventory,
```

Example of bpdeadline.log

The following is an example of a bpdeadline.log:

```
[2006-09-22 09:24:891] DEBUG 000110030038 WORKFLOW.DEADLINE.DED_Thread
"ArchiveInterval in hrs : 10.0 last startTime ms =115831442870 current time ms=
115931442882
[2006-09-22 09:24:892] DEBUG 999999999999 WORKFLOW.DEADLINE.DED_Thread1]
Kickoff deadline Archive thread
[2006-09-22 09:24:905] DEBUG 000110030041 WORKFLOW.DEADLINE.DED_Thread1]
Fire Deadline Interval: 20000 laststartTime=1158931442870 current time= 115893144870
[2006-09-22 09:24:02.964] DEBUG 000110030009
WORKFLOW.DEADLINE.DED_ArchiveFindWFs1 No archive bp found in bp_deadline table
[2006-09-22 09:24:03.075] DEBUG 000110030029
WORKFLOW.DEADLINE.DED_BasedBindBPs1deadline events:
{}
[2006-09-22 09:24:03.077] DEBUG 000110030043 WORKFLOW.DEADLine.DED_Thread3
```

Example of Offline Notification By E-mail

The following is an example of offline e-mail notification:

```
To: System Administrator
Subject: Business Process offline Deadline Notification

OffLine DeadLine Notify Fri Oct 06 12:25:23 EDT 2006 DeadLine :FirstNotify DeadLine
Notify for wfs in state:ACTIVE
WF_ID:8012
```

Example of Offline Notification File

The following is an example of offline notification that is put in a file:

```
OffLine DeadLine Notify Fri Oct 06 12:25:23 EDT 2006

Deadline :FinalNotify
Deadline Notify for wfs in state:ACTIVE
WF_ID:1006
```

Setting up Batch Notifications for Business Process Deadlines

To set up batch notifications for your business processes:

1. Add the following data to the customer_overrides.properties file using a text editor (See *Override Property File Settings* for further information):

    ◆ noapp.dbDeadLineThread=true

    ◆ bpdeadline.deadlinePerBP=false

    ◆ bpdeadline.includeBPstate=true

        Note: The default for bpdeadline.includeBPstate = false. By setting this to true, when the notification is fired, the event contains the most current state of the business process.

    ◆ bpdeadline.EmailTo= (Use this parameter to define the e-mail addresses to be notified. You can enter multiple e-mail addresses by using a comma (,) to separate them.)

2. Save and close the customer_overrides.properties file.

3. Stop and restart Application in order for your customer property overrides to take effect.

4. Run the following command:

    ◆ For UNIX, **setupfile.sh**

    ◆ For Windows, **setupfiles.cmd**

Setting up for Single Notifications for Business Process Deadlines

To set up single notifications for your business processes:

1. Add the following data to the customer_overrides.properties file using a text editor:

    ◆ noapp.dbDeadLineThread=true

    ◆ bpdeadline.deadlinePerBP=true

    ◆ bpdeadline.includeBPstate=true

- ◆ bpdeadline.EmailTo= (Use this parameter to define the e-mail addresses to be notified. You can enter multiple e-mail addresses by using a comma (,) to separate them.)

2. Save and close the customer_overrides.properties file.

3. Stop and restart Application in order for your customer property overrides to take effect.

4. Run the following command:

- ◆ For UNIX, **setupfile.sh**
- ◆ For Windows, **setupfiles.cmd**

Setting Up Offline Notifications To Be Sent in E-mail

To set up offline notifications for e-mail delivery:

Note: Perform steps 1 to 4 prior to Application being taken offline.

1. Add the following data to the customer_overrides.properties file using a text editor:

- ◆ noapp.dbDeadLineThread=true
- ◆ bpdeadline.deadlinePerBP=false
- ◆ bpdeadline.includeBPstate=true
- ◆ bpdeadline.dbDeadlineThreadOffline=true
- ◆ bpdeadline.offlineEmail=true
- ◆ bpdeadline.updateStatus=true
- ◆ bpdeadline.EmailTo= (Use this parameter to define the e-mail addresses to be notified. You can enter multiple e-mail addresses by using a comma (,) to separate them.)

2. Save and close the customer_overrides.properties file.

3. Stop and restart Application in order for your customer property overrides to take effect.

4. Run the following command:

- ◆ For UNIX, **setupfile.sh**
- ◆ For Windows, **setupfiles.cmd**

5. After Application is offline, run the following command to start offline notifications:

- ◆ For UNIX, **install/bin/bpDeadlineOfflineNotification.sh**
- ◆ For Windows, **install/bin/bpDeadlineOfflineNotification.cmd**

Note: Depending on the amount of time between when Application goes offline and you run this offline notification command, you may miss a deadline notification.

6. Check your e-mail to verify that you have received any deadline notifications.

Note: You may want to execute the command in step 5 again to generate another notification e-mail.

Note: Since the bpdeadline.updateStatus=true in the customer_override.properties, you may not get the final notification when Application comes back online.

Setting Up Offline Notifications to be Saved in a File

To set up offline notifications to be saved in a file:

1. Add the following data to the customer_overrides.properties file using a text editor:
   - noapp.dbDeadLineThread=true
   - bpdeadline.deadlinePerBP=false
   - bpdeadline.includeBPstate=true
   - bpdeadline.dbDeadlineThreadOffline=true
   - bpdeadline.offlineFile=true
   - bpdeadline.updateStatus=true

Note: Since the bpdeadline.updateStatus=true, you may not receive the final notification when Application comes back online.

2. Save and close the customer_overrides.properties file.

3. Stop and restart Application in order for your customer property overrides to take effect.

4. Run the following command:
   - For UNIX, **setupfile.sh**
   - For Windows, **setupfiles.cmd**

5. After Application is offline, run the following command to start offline notifications:
   - For UNIX, **install/bin/bpDeadlineOfflineNotification.sh**
   - For Windows, **install/bin/bpDeadlineOfflineNotification.cmd**

Note: Depending on the amount of time between when Application goes offline and you run this offline notification command, you may miss a deadline notification.

6. Check the contents of the file located at:
   - For UNIX, *install_dir/*deadlines
   - For Windows, Drive:*install_dir*\SI\deadlines