How to run Oracle Stored Procedures using PL/SQL

This article describes how to launch an Oracle™ RDBMS stored procedure using the JobSchedulerPLSQLJob JITL Job. This job is used standalone or triggered by orders to execute pl/sql statements in a database. These can be stored procedures or SQL statements as well.

The example also shows, how to send the result (output) of an pl/sql job as an email.

The documentation of the job *JobSchedulerPLSQLJob* can be found in the *./jobs* directory of the JobScheduler installation.

The SQL commands are defined using the *command* parameter.
It is possible to define more than one command as value of the *command* parameter.
Such commands are then carried out in the order in which they are written and must be separated by a semicolon and a subsequent new line.

You have to use the character sequence `&#10;` for a newline.

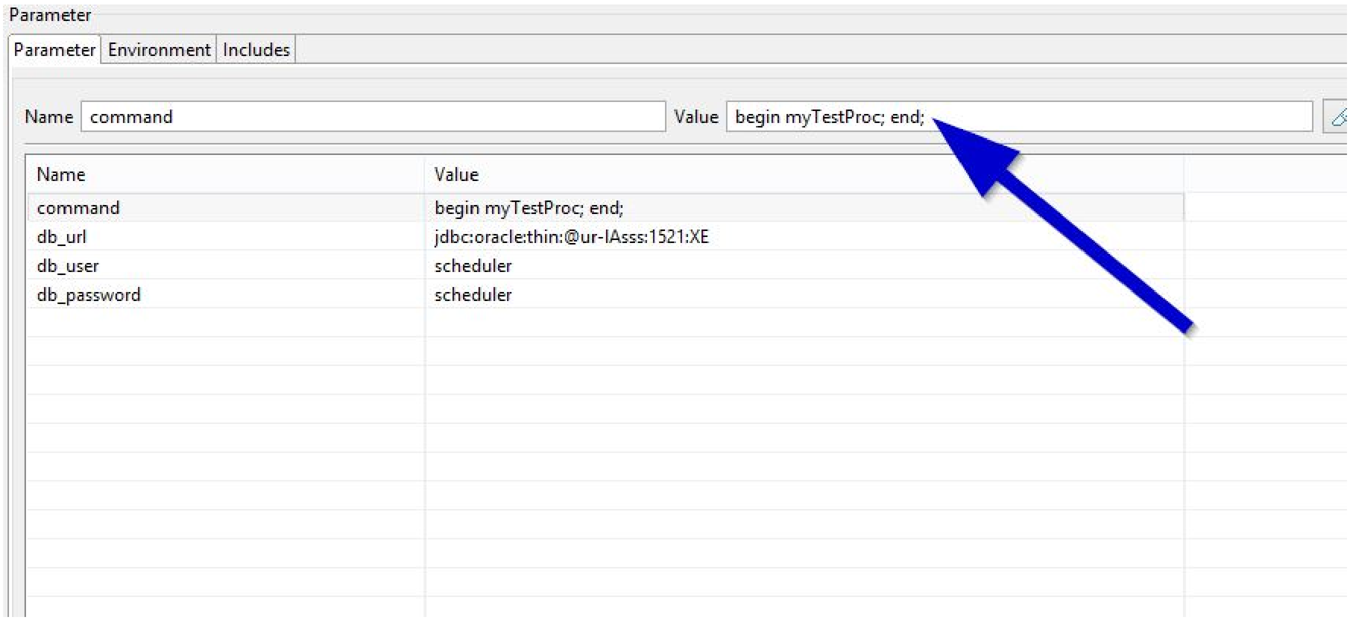
Example of a stored procedure:

```
CREATE OR REPLACE PROCEDURE myTestProc IS
vCounter    NUMBER := 0;
BEGIN
   select count(*) into vCounter from SCHEDULER_HISTORY;
   if vCounter>0 then
        dbms_output.put_line ('Set plsql_result IS The value of variable "vCounter" is: ['||vCounter||']');
   end if;
END;
```

Please note that the output begins with "Set plsql_result". This will create an order parameter which can be used for example in the body of an email.

The example defines a job chain with two steps. First step is executing the pl/sql job and the second step is sending an email.

The following is an example of a job in which the command contains one statement.



Name: command Value: begin myTestProc; end;

Name	Value
command	begin myTestProc; end;
db_url	jdbc:oracle:thin:@ur-lAsss:1521:XE
db_user	scheduler
db_password	scheduler

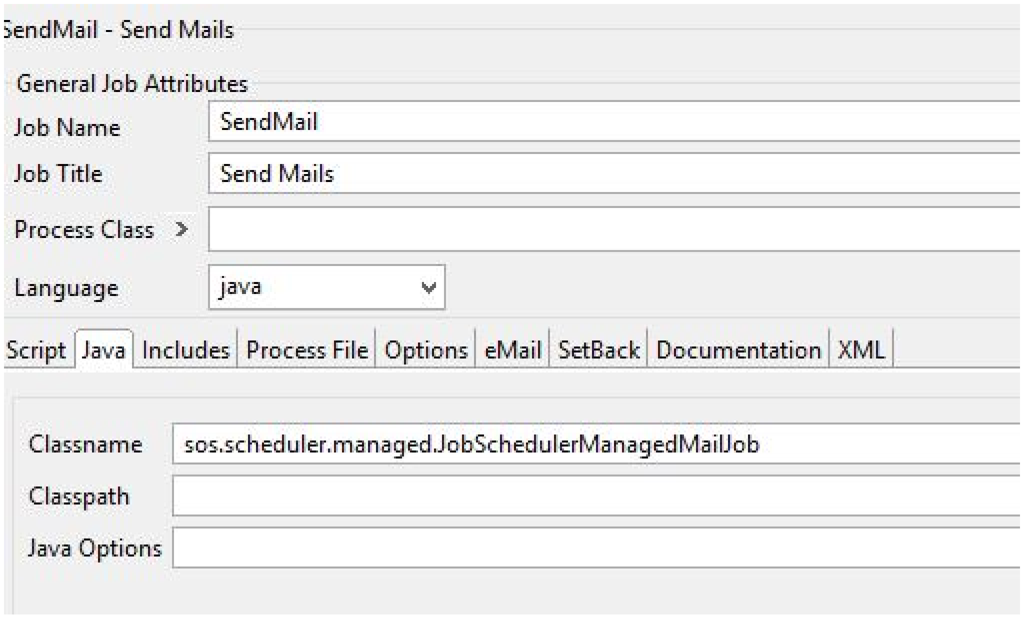
The xml configuration of the pl/sql job

```
<job  title="Execute PL/SQL procedure" order="yes" name="TestSQL">
   <params >
       <param  name="command" value="begin myTestProc; end;"/>
       <param  name="db_url" value="jdbc:oracle:thin:@ur-lAsss:1521:XE"/>
       <param  name="db_user" value="scheduler"/>
       <param  name="db_password" value="`getDBPassword`"/>
   </params>
   <script  language="java" java_class="sos.scheduler.db.JobSchedulerPLSQLJobJSAdapterClass"/>
</job>
```

Running this job will produce output in the log

```
2013-04-03 10:29:21.477 [info]   Set plsql_result IS The value of variable "vCounter" is: [5495]
```

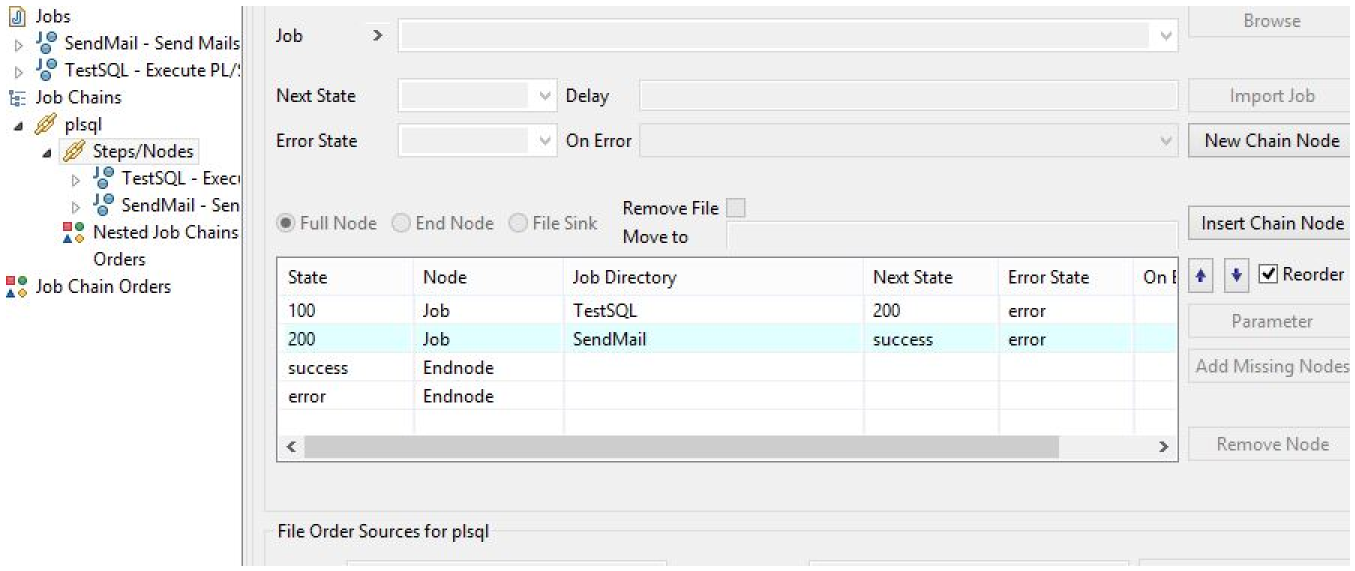
The SendEmail job comes from the JITL library.



Job Name: SendMail
Job Title: Send Mails
Process Class:
Language: java
Classname: sos.scheduler.managed.JobSchedulerManagedMailJob
Classpath:
Java Options:

```
<job  title="Send Mails" order="yes" stop_on_error="no" name="SendMail">
   <description >
       <include  file="jobs/JobSchedulerManagedMailJob.xml"/>
   </description>
   <params >
       <param  name="to" value="info@sos-berlin.com"/>
       <param  name="subject" value="Result from oracle"/>
       <param  name="host" value="smtp_host"/>
   </params>
   <script  language="java" java_class="sos.scheduler.managed.JobSchedulerManagedMailJob"/>
   <monitor  name="configuration_monitor" ordering="0">
       <script  java_class="sos.scheduler.managed.configuration.ConfigurationOrderMonitor" language="java"/>
   </monitor>
   <run_time />
</job>
```

These jobs will be chained in a job chain:



Job

Next State | Delay

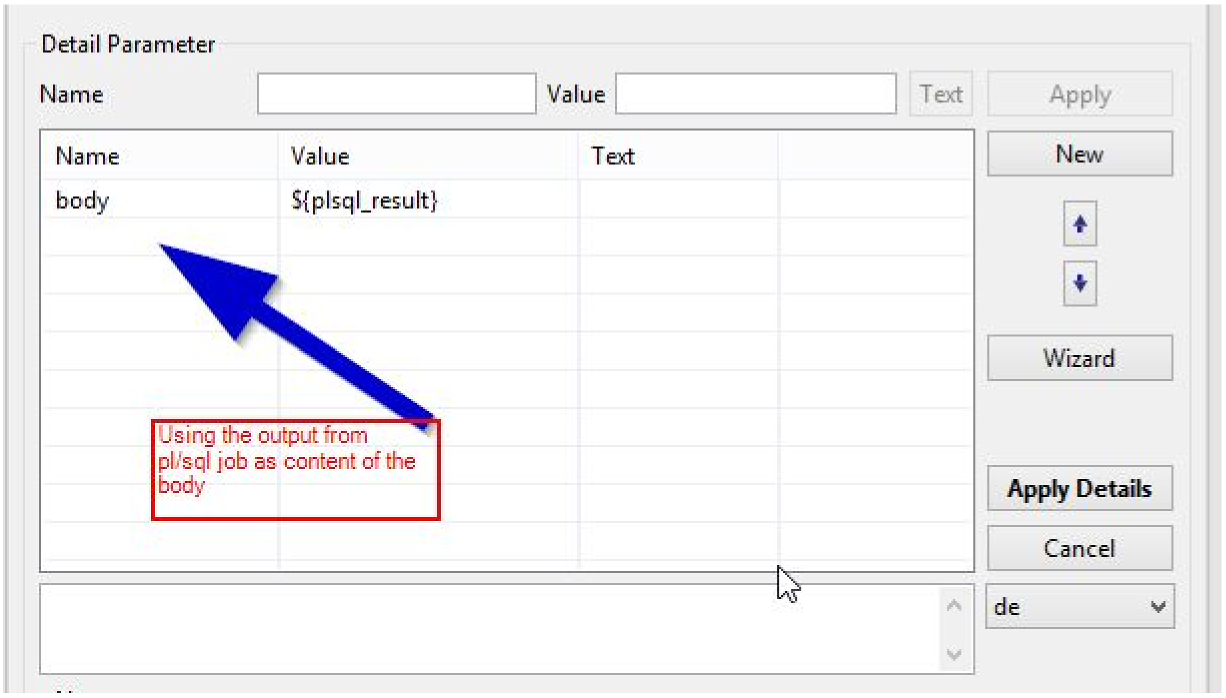
Error State | On Error

Full Node | End Node | File Sink | Remove File | Move to

State	Node	Job Directory	Next State	Error State	On E
100	Job	TestSQL	200	error	
200	Job	SendMail	success	error	
success	Endnode				
error	Endnode				

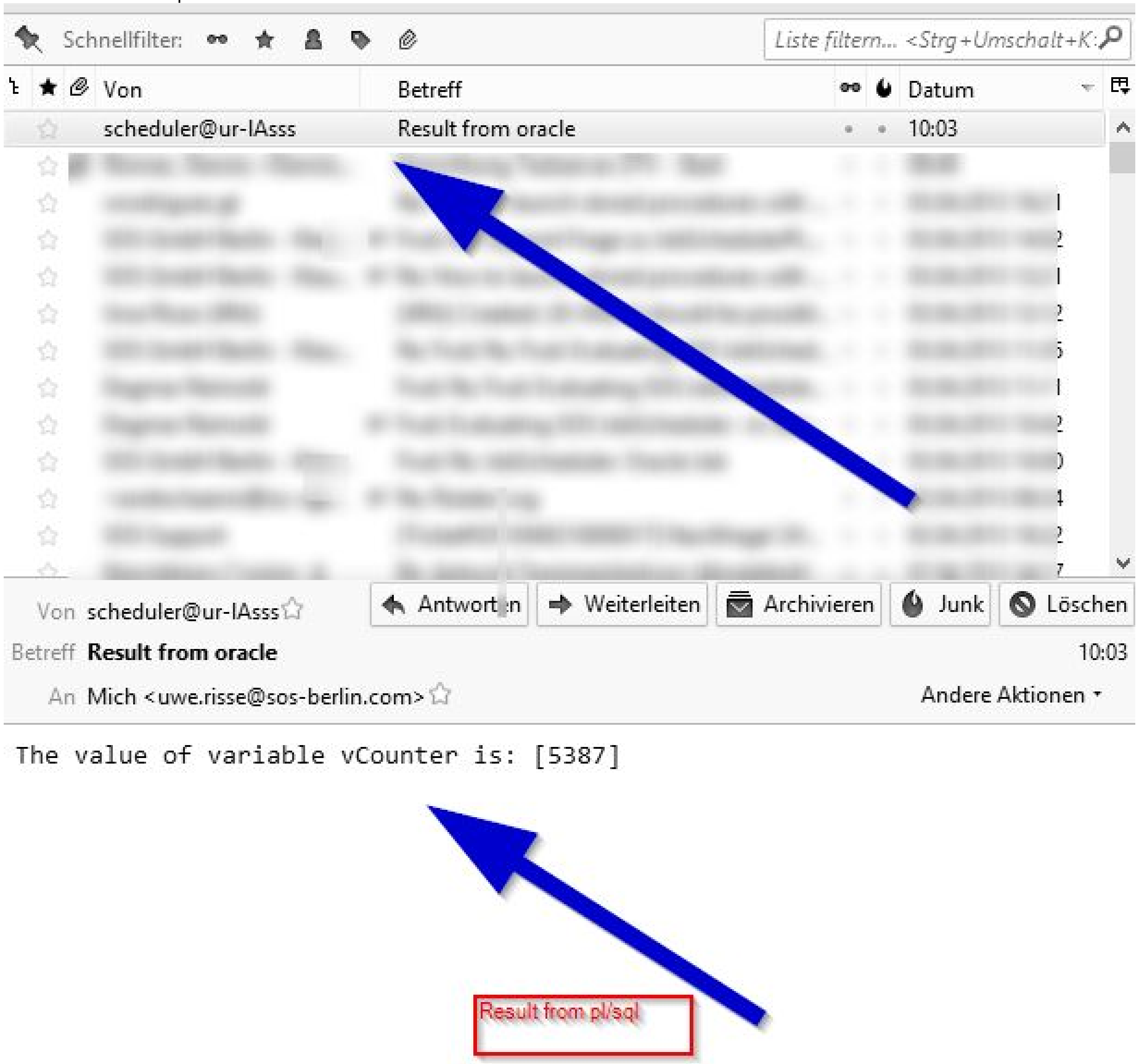
File Order Sources for plsql

The second step of the job chain defines a node parameter for the body (the other parameters like subject, smtp-server are defined as job parameters).



Name	Value	Text
body	${plsql_result}	

When the second step is executed an email will be sent.



Von	Betreff	Datum
scheduler@ur-lAsss	Result from oracle	10:03

Von scheduler@ur-lAsss
Betreff **Result from oracle** 10:03
An Mich <uwe.risse@sos-berlin.com>

```
The value of variable vCounter is: [5387]
```

See also:

If you want to run SQL*Plus™ scripts, you can use the SqlPlus-Job: *SOSSQLPlusJob*

If you are not using Oracle™ RDBMS and/or you want to execute just a (simple) {{sql== command, please see the JobSchedulerManagedDatabaseJobSOSHibernate job.