

Pan.bat hangs after completing the...



saket Maheshwary 12 posts since Aug 6, 2018

Pan.bat hangs after completing the transformation Sep 25, 2018 7:12 PM

Hello,

I am working on a project to upgrade PDI to version 8.1.0.0. We have some add-hoc PDI jobs/transformations which users can execute at will. We have stood up some simple JSP pages running on Tomcat server.

In JSP pages we take input arguments and call a batch file (and pass the arguments). In the batch file we call PAN.bat. Most of these transformations generate a file. Once PAN.bat is done we display a link on JSP to download the batch file.

In JSP we call the batch file using command:

```
Process proc = Runtime.getRuntime().exec(etlCommand);  
and wait for it to complete using command  
returncode = proc.waitFor();
```

Problem that we are facing is that `returncode = proc.waitFor();` keeps on waiting because batch file never returns.

Our custom batch file calls pan.bat. Pan.bat internally calls spoon.bat. Within spoon.bat we execute launcher \launcher.jar and control never returns from here.

Basically in spoon when we execute code:

```
%SPOON_START_OPTION% "%_PENTAHO_JAVA%" %OPT% -jar launcher\launcher.jar -lib ..\%LIBSPATH  
% %_cmdline%
```

which internally executes command:

```
"java.exe" "-Xms1024m" "-Xmx2048m" "-XX:MaxPermSize=256m" "-  
Dhttps.protocols=TLSv1,TLSv1.1,TLSv1.2" "-Djava.library.path=libswt\win64" "-DKETTLE_HOME="  
"-DKETTLE_REPOSITORY=" "-DKETTLE_USER=" "-DKETTLE_PASSWORD=" "-  
DKETTLE_PLUGIN_PACKAGES=" "-DKETTLE_LOG_SIZE_LIMIT=" "-DKETTLE_JNDI_ROOT=" -jar  
launcher\launcher.jar -lib ..\libswt\win64 -main org.pentaho.di.pan.Pan -initialDir "D:\Program Files\Pentaho  
\data-integration-8.1.0.0" /rep:"BIREPO8DEV" /trans:"transformation_name" /dir:/Transformations /user:pqrs /  
pass:abcd /level:Detailed "-param:v_month=JAN" "-param:v_year=2018"
```

control is never returned back. Even after the transformation is done and output file is generated.

Pan.bat hangs after completing the...

Another observation that I have is that, as soon as I stop tomcat server (tomcat use to server up JSP pages) control comes back from the above command and I get my subsequent debug messages.

I am using following:

Server: Windows Server 2016 Datacenter on a VM

Tomcat: 8.5

Java: 1.8.0_172

PDI: 8.1.0.0

I'll really appreciate help on this.

Thanks,

Tags: pan.bat launcher pdi8



[Joao Figueiredo](#) 70 posts since Sep 8, 2017

Re: Pan.bat hangs after completing the transformation Sep 28, 2018 10:14 AM

Hi,

what is the pan command that you are using?

Can you provide the pan log (send private message if sensitive data, or mask it)?

Thanks

Best regards



[saket Maheshwary](#) 12 posts since Aug 6, 2018

Re: Pan.bat hangs after completing the transformation Sep 28, 2018 1:20 PM

Thanks for the reply Joao Figueiredo. I really appreciate it.

From my JSP I call following command:

```
<<AbsolutePath on Windows Server>>\ExecuteETLtransformation.bat "<<AbsolutePath on Windows Server>>\data-integration-8.1.0.0" PDI_RepoName PDI_TransformationName PDI_username PDI_Pwd <<AbsolutePath on Windows Server>>\LogFileaName.log "-param:v_month=JAN" "-param:v_year=2018"
```

Contents of Execute ETLtransformation.bat

```
d:
```

```
cd %1
```

```
pan.bat /rep:"%2" /trans:"%3" /dir:/Transformations /user:%4 /pass:%5 /level:Detailed >> %6 %7 %8 %9
```

I added some debug messages in Pan.bat and Spoon.bat and found that it gets stuck in spoon.bat at command:

Pan.bat hangs after completing the...

```
%SPOON_START_OPTION% "%_PENTAHO_JAVA%" %OPT% -jar launcher\launcher.jar -lib ..\%LIBSPATH% %_cmdline%
```

This command basically translates into

```
"java.exe" "-Xms1024m" "-Xmx2048m" "-XX:MaxPermSize=256m" "-Dhttps.protocols=TLSv1,TLSv1.1,TLSv1.2" "-Djava.library.path=libswt\win64" "-DKETTLE_HOME=" "-DKETTLE_REPOSITORY=" "-DKETTLE_USER=" "-DKETTLE_PASSWORD=" "-DKETTLE_PLUGIN_PACKAGES=" "-DKETTLE_LOG_SIZE_LIMIT=" "-DKETTLE_JNDI_ROOT=" -jar launcher\launcher.jar -lib ..\libswt\win64 -main org.pentaho.di.pan.Pan -initialDir "<<Absolute path on Windows server>>\data-integration-8.1.0.0\ /rep:"PDI_RepoName" /trans:"PDI_TransformationName" /dir:/Transformations /user:PDI_UserName /pass:PDI_Password /level:Detailed "-param:v_month=JAN" "-param:v_year=2018"
```

Above command executes and creates an output file as expected, PDI log file also indicates that process is successfully completed, but control does not return back. Subsequent debug messages in spoon.bat are not printed. But once I shutdown tomcat server, it prints the subsequent messages from spoon.bat

I also tried to use an older version of jar file pentaho-application-launcher-6.1.0.1-196 to investigate, but it seems that is also behaving the same way. So basically I just copied pentaho-application-launcher-6.1.0.1-196.jar file into launcher directory and modified spoon to use pentaho-application-launcher-6.1.0.1-196 instead of launcher.jar

Thanks for all your help.



[Joao Figueiredo](#) 70 posts since Sep 8, 2017

Re: Pan.bat hangs after completing the transformation Sep 28, 2018 2:02 PM

Glad to help...

You should invoke the pan.bat inside your ExecuteETLTransformation.bat using the command "call pan.bat".

The call of other batch files inside Windows batch files should be done using the call otherwise the control won't be passed back into the calling batch file, because the calling batch file is aborted. See below: [call | Microsoft Docs](#)

"Calls one batch program from another without stopping the parent batch program. The **call** command accepts labels as the target of the call."

Let me know if it worked...

Pan.bat hangs after completing the...

Best regards

João Figueiredo



[saket Maheshwary](#) 12 posts since Aug 6, 2018

Re: Pan.bat hangs after completing the transformation Sep 28, 2018 3:23 PM

I tried with call but same behavior. I have been using these same batch files on older servers without any issue for quite sometime.

I believe problem is that launcher command does not return the control back after successful execution. Not sure why though.



[Joao Figueiredo](#) 70 posts since Sep 8, 2017

Re: Pan.bat hangs after completing the transformation Sep 28, 2018 4:57 PM

Let's do then a back trace approach to try to pinpoint where the problem is, let me know on which one the test failed or made things work, and the results (did it end, did things worked as expected, etc.):

- 1) Try to execute one of those transformations directly by calling the pan.bat from the command line. Check if it ends correctly.
- 2) Call the pan.bat in your bat file without redirecting the output into a file.
- 3) Call your bat file from command line directly.



[saket Maheshwary](#) 12 posts since Aug 6, 2018

Re: Pan.bat hangs after completing the transformation Sep 28, 2018 6:42 PM

Didn't realize I can not attach files on this forum.

I believe first and third worked fine one worked.

Not sure in second point what to you mean by "without redirecting the output into a file."? Please elaborate.

Again appreciate you taking time out of your busy schedule.



[Joao Figueiredo](#) 70 posts since Sep 8, 2017

Re: Pan.bat hangs after completing the transformation Sep 28, 2018 7:20 PM

You are redirecting the out and err using the >> command in front of the pan.bat call...

Try to remove the output redirect...

And I think you should be calling pan.bat using the call command IMO.



[saket Maheshwary](#) 12 posts since Aug 6, 2018

Pan.bat hangs after completing the...

Re: Pan.bat hangs after completing the transformation Oct 1, 2018 2:12 PM

even after commenting the call to redirect output and invoking pan using call results are still the same. I commented all the echo statements.

During all three tests behavior remains the same.



[Joao Figueiredo](#) 70 posts since Sep 8, 2017

Re: Pan.bat hangs after completing the transformation Oct 1, 2018 2:41 PM

If running "pan.bat" or "ExecuteETLTransformation.bat" manually in the command line works ok... I would say that you may have some issue with the code that is running on the jsp to execute the batch command.

Can you place the code you are using here?



[saket Maheshwary](#) 12 posts since Aug 6, 2018

Re: Pan.bat hangs after completing the transformation Oct 1, 2018 8:13 PM

```
//*****I am setting up the variables for logfile and output file and job specific *****/
else if (job.equalsIgnoreCase("UPFIT_ETA_LIST")) {
    outFile = outputDirectory + job.toLowerCase() + ".xls";
    jobLogFileName = job.toLowerCase()+".log";
}
// HD-113 new job
else if (job.equalsIgnoreCase("TAL_METRICS_REPORT")) {
    outFile = outputDirectory + job.toLowerCase() + ".xls";
    jobLogFileName = job.toLowerCase()+".log";
}
// HD-226 new job
else if (job.equalsIgnoreCase("EXPIRING_TEMP_TAGS")) {
    outFile = outputDirectory + job.toLowerCase() + ".xls";
    jobLogFileName = job.toLowerCase()+".log";
}
//hd-376 added new job MAINTENANCE_ACCRUAL_REPORT
else if (job.equalsIgnoreCase("MAINTENANCE_ACCRUAL_REPORT")) {
    System.out.println(job);
    outFile = outputDirectory + job.toLowerCase() + ".xls";
    System.out.println(outFile);
    v1_rn_clientAC = request.getParameter("clientaccount");
    v1_rn_actionDate = request.getParameter("accountEndDate");
    v1_recipient_address = request.getParameter("emailadd");
    System.out.println("v1_rn_clientAC "+v1_rn_clientAC+" v1_rn_actionDate "+v1_rn_actionDate);
```

Pan.bat hangs after completing the...

```
    param7 = "\"-param:v_rn_clientAC="+v1_rn_clientAC+"\"";
    param8 = "\"-param:v_actionDate="+v1_rn_actionDate+"\"";
    param9 = "\"-param:v_email="+v1_recipient_address+"\"";
    System.out.println("param7 "+param7+" param8 "+param8+" param9 "+param9);
    jobLogFileName = job.toLowerCase()+".log";
}
System.out.println("outFile:"+ outFile);

if(outFile != null) {
    finalFile = new File(outFile);
    if(finalFile.exists())
        if (!finalFile.delete()){
            error = "Y";
            out.print("Problem with processing. Could not delete file. Contact ITS");
        }
}

if (!error.equals("Y")) {
    if (job.equalsIgnoreCase("REFRESH_REPORT_STATS_DATA_MONTHLY_NOW")) ||
job.equalsIgnoreCase("IRS_EXTRACT_REPORT") ||
    job.equalsIgnoreCase("PRODUCT_INFORMATION_EXTRACT")||
    job.equalsIgnoreCase("MAINT_COMPLIANCE_REPORT") || // added for Bug 16620
    job.equalsIgnoreCase("MAINT_COMPLIANCE_REPORT_LANDCARE") || // added for HPS 2379
    job.equalsIgnoreCase("TRANSFER_CLEARANCE_FILE_TO_BANK")|| //added for HPS 3231
    job.equalsIgnoreCase("DEALER_RECEIVED_LIST")||// added for Bug 16862
    job.equalsIgnoreCase("IN_SERVICE_LIST")|| // added for Bug 16862
    job.equalsIgnoreCase("UPFIT_ETA_LIST")|| //added for Bug 16862
    job.equalsIgnoreCase("TAL_METRICS_REPORT")||//HD-113
    job.equalsIgnoreCase("EXPIRING_TEMP_TAGS")||//HD-226
    job.equalsIgnoreCase("MAINTENANCE_ACCRUAL_REPORT")//HD-376

//*****Here I am calling a Job specific bat file *****/
//Calling Job Batch file
    etlCommand = batchFileDir + "ExecuteETLJob.bat " + "\" " +
        pentahoLocation + "\" " + etlRepositoryName + " " +
        job + " " + etlRepoUserName + " " +
        etlRepoPassword + " " + logDirectory+jobLogFileName + " " +
        param7 + " " + param8 + " " + param9;
    else
//*****Here I am calling transformatoin specific file *****/
//Calling Transformation Batch file
    etlCommand = batchFileDir + "ExecuteETLTransformation.bat " + "\" " +
        pentahoLocation + "\" " + etlRepositoryName + " " +
```

Pan.bat hangs after completing the...

```
    job + " " + etlRepoUserName + " " +
    etlRepoPassword + " " + logDirectory+jobLogFileName + " " +
    param7 + " " + param8 + " " + param9;

    System.out.println(etlCommand);
//*****Executing the command just created *****//
    Process proc = Runtime.getRuntime().exec(etlCommand);

    if(job.equalsIgnoreCase("REFRESH_REPORT_STATS_DATA_MONTHLY_NOW") ||
    job.equalsIgnoreCase("REFRESH_GL_FA_SEQ_DTL") ||
    job.equalsIgnoreCase("REFRESH_LOAD_VEH_SALES_STATS") ||
    job.equalsIgnoreCase("REFRESH_AR_WILLOW_CLOSE") ||
    job.equalsIgnoreCase("REFRESH_GL_AFTER_CLOSE") ||
    job.equalsIgnoreCase("REFRESH_AR_ADP_CLOSE") ||
    job.equalsIgnoreCase("MAINT_COMPLIANCE_REPORT_LANDCARE") || //Added for HPS 2379
    job.equalsIgnoreCase("MAINT_COMPLIANCE_REPORT") ||
    job.equalsIgnoreCase("TRANSFER_CLEARANCE_FILE_TO_BANK")|| // added for Bug 16620
    job.equalsIgnoreCase("DEALER_RECEIVED_LIST")||// added for Bug 16862
    job.equalsIgnoreCase("IN_SERVICE_LIST")|| // added for Bug 16862
    job.equalsIgnoreCase("UPFIT_ETA_LIST")|| // added for Bug 16862
    job.equalsIgnoreCase("TAL_METRICS_REPORT")|| //HD-113
    job.equalsIgnoreCase("EXPIRING_TEMP_TAGS")|| //HD-226
    job.equalsIgnoreCase("MAINTENANCE_ACCRUAL_REPORT")) //HD-376
        returncode = -12345; //This is done because we don't want JSP to wait in case of REFRESHES. They
take a long time to complete. User is sent an email from the Oracle Procedure about the completion status of
the Refresh.
    else
//*****Waiting for ETL to finish up and generate the output file. This is where we get stuck because bat file
never returns. *****//
        returncode = proc.waitFor(); //In other cases we want JSP to wait for the process to complete.
    System.out.println("returncode:" + returncode);

//This means batch file returned successfully
    if(returncode == 0) {
        out.print("The process has completed successfully.<br><br>");
        if(outFile != null){
            //Display Link to save output file
            //Though faremeDirectory and outputDirectory point to same location. but for some reason if we use
outputDirectory it does not works and we have to set faremeDirectory in such a way as we we are picking file
from a server folder.
            finalFile = new File(faremeDirectory + job.toLowerCase() + ".csv");
            if (job.equalsIgnoreCase("IRS_EXTRACT_REPORT") ||
job.equalsIgnoreCase("TRANSFER_CLEARANCE_FILE_TO_BANK")) { // added for HPS-3231
```

Pan.bat hangs after completing the...

```
        finalFile = new File(faremeDirectory + job.toLowerCase() + ".txt");
    }
    //Added for Bug 16469/Bug 16658/Bug 16788/Bug 16862
    if (job.equalsIgnoreCase("AUTOTAG_TRANSACTION_REPORT")
|| job.equalsIgnoreCase("MAINTENANCE_TRANSACTION_REPORT") ||
job.equalsIgnoreCase("MINIMUM_IRR_AUDIT_REPORT"))||
        job.equalsIgnoreCase("TAL_TRANSACTION_REPORT"))||
job.equalsIgnoreCase("LESSEE_ODOMETER_QUERY")){
        System.out.println("final file creation");
        finalFile = new File(faremeDirectory + job.toLowerCase() + ".xls");
        System.out.println("finalFile "+finalFile);
    }
    if(finalFile.exists()){
        out.print("Right click on the file below and choose '<b>Save Target As..</b><br>');
        out.print("<a href=file:" + finalFile + ">" + job.toLowerCase() + " </a><br><br>");
    }
    else {
        out.print("Though ETL process has reported success but we are not able to find the generated file.
Please contact ITS.<br><br>");
    }
}
}
```



[Joao Figueiredo](#) 70 posts since Sep 8, 2017

Re: Pan.bat hangs after completing the transformation Oct 2, 2018 6:49 PM

Hi,

The problem is that the batch file that you are executing is waiting for you to read from the input/error streams. I've replicated your issue, but once I read from those buffers the process ended normally.

Notice that I've also call the pan.bat from my test batch file using the command "call pan.bat %DEMO_PAN_PARAMS%"

The code I've used is below... notice that you must read the streams from a separate thread (not good approach to span new threads from inside a JSP container... so please adapt to better suite and adhere to best practices).

Also consider, that having a JSP thread that is executing the browser request hanged waiting for an external process to run (in this case, run the pan.bat), may lead to a thread starvation if the service has high loads and/ or the transformations being executed take some time to finish. This should be an asynchronous process IMO.

Pan.bat hangs after completing the...

```
final java.lang.Process proc = java.lang.Runtime.getRuntime().exec("testPan.bat");
```

```
new Thread() -> {  
    try{  
        java.io.BufferedReader reader = new java.io.BufferedReader(new  
java.io.InputStreamReader(proc.getInputStream()));  
        String line;  
        while ((line = reader.readLine()) != null){  
            System.out.println("Output: " + line);  
        }  
    } catch (Exception e) {  
        System.err.println(e.getMessage());  
    }  
}).start();
```

```
new Thread() -> {  
    try{  
        java.io.BufferedReader reader = new java.io.BufferedReader(new  
java.io.InputStreamReader(proc.getErrorStream()));  
        String line;  
        while ((line = reader.readLine()) != null){  
            System.out.println("Error: " + line);  
        }  
    } catch (Exception e) {  
        System.err.println(e.getMessage());  
    }  
}).start();
```

```
System.out.println("returncode:" + proc.waitFor());
```