Jörg Lenhard's Blog

Build windows service from java application with procrun

Posted on May 29, 2012April 9, 2014 by Jörg Lenhard

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25 Votes

Recently, I needed to adjust a Java application to be able to run as a Windows service which is the Windows equivalent to a Unix daemon. There are several libraries available for this kind of task and after some reading, I chose Apache procrun (http://commons.apache.org/daemon/procrun.html) which turned out to be a good choice. The configuration was less painful than expected and the tool seems quite powerful, due to a large set of configuration options. Also, building a Windows service or a Unix daemon should not make much of a difference. I used a 64bit Windows 7 and 32bit Java 7 JVM for this tutorial.

Everything you need to know about procrun really is on the page that is linked above. There even is a basic tutorial. However, the documentation is not overly verbose and it took me some time to get everything up and running, so I think a more verbose basic tutorial will not hurt.

To begin with, you need a Java application. You can built a service from more or less any application and here is a simple class, `SomeService` with some artifical behaviour:

```java
package com.wordpress.joerglenhard.procrun.demo;

public class SomeService {

    private static boolean stop = false;

    public static void start(String[] args) {
        System.out.println("start");
        while (!stop) {
            try {
                Thread.sleep(1000);
            } catch (InterruptedException e) {
            }
            System.out.println("running");
        }
    }

    public static void stop(String[] args) {
        System.out.println("stop");
        stop = true;
    }

    public static void main(String[] args) {
        if ("start".equals(args[0])) {
            start(args);
        } else if ("stop".equals(args[0])) {
            stop(args);
        }
    }

}
```

The application acknowledges the call of the start method and then keeps on printing the String "running" every second until it is stopped through the stop method.
Actually, the normal main method and the other two static methods are alternatives for starting and stopping the service. I found both ways useful and will get to that later.

Next, you need to build an executable from this class. For Windows that would be the usual .exe, but an executable jar file is just as fine. I used a jar file and though the contents are very basic, for completeness, here is the MANIFEST.MF:

```
1   Manifest-Version: 1.0
2   Class-Path: .
3   Main-Class: com.wordpress.joerglenhard.procrun.demo.SomeService
```

Now, you need procrun to turn that into a Windows service. Download it from the underlined procrun download page (http://commons.apache.org/daemon/download_daemon.cgi) and unpack whatever you chose to download. In my case, this was version 1.0.10 of the Windows binaries and the essential part in the archive is `prunsrv.exe`, the procrun service application which is responsible for installing and removing the service. `prunmgr.exe` is also an extremly useful application that provides a GUI to set everything you can configure via batch scripts.

The difficult part now is to install the service. This can be done by a call of `prunsrv.exe` with appropriate options. There are quite some options you can / have to use, so this is best packaged as a batch script which I called `installService.bat`:

```
1    set SERVICE_NAME=TestService
2    set PR_INSTALL=C:\workspaces\blog\procrun-demo\prunsrv.exe
3
4    REM Service log configuration
5    set PR_LOGPREFIX=%SERVICE_NAME%
6    set PR_LOGPATH=c:\logs
7    set PR_STDOUTPUT=c:\logs\stdout.txt
8    set PR_STDERROR=c:\logs\stderr.txt
9    set PR_LOGLEVEL=Error
10
11   REM Path to java installation
12   set PR_JVM=C:\Program Files (x86)\Java\jre7\bin\client\jvm.dll
13   set PR_CLASSPATH=someservice.jar
14
15   REM Startup configuration
16   set PR_STARTUP=auto
17   set PR_STARTMODE=jvm
18   set PR_STARTCLASS=com.wordpress.joerglenhard.procrun.demo.SomeService
19   set PR_STARTMETHOD=start
20
21   REM Shutdown configuration
22   set PR_STOPMODE=jvm
23   set PR_STOPCLASS=com.wordpress.joerglenhard.procrun.demo.SomeService
24   set PR_STOPMETHOD=stop
25
26   REM JVM configuration
27   set PR_JVMMS=256
28   set PR_JVMMX=1024
29   set PR_JVMSS=4000
30   set PR_JVMOPTIONS=-Duser.language=DE;-Duser.region=de
31   REM Install servic prunsrv.exe //IS//%SERVICE_NAME%
```

Open the command prompt and move to the directory where the script is located. The script modifies the registry, so it needs to have administrator privileges to execute successfully. The first line sets the service name which determines its registry key. Next, you need to set the path to `prunsrv.exe`. On that note, here is a lesson that took me some time to learn: If you use (correct) relative paths to files in the installation script, the service will install correctly and it will run fine in debugging mode. It will however fail when run normally with any administrative tooling you have. Be it the usual Windows management console (Computer -> Manage -> Services and Applications -> TestService) or `prunmgr.exe`. Generally, you should use absolute paths with procrun. Interestingly, there is one exception to this rule: the jar file you use as classpath. Here, the relative path worked out fine for me. Another lesson (http://stackoverflow.com/a/10755986/1127892), I found on stackoverflow, is that you must not use white spaces in the service name.
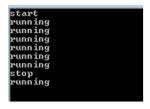
But back to the script: Lines 5 – 9 set the logging behaviour This needs to be adjusted to proper paths of the system. The same applies to line 12 which needs to point to a jvm, on my system this is a client jvm. This is required, because the service here is set to run in jvm mode (line 17). In java mode, the JAVA_HOME environment variable is used to resolve the jvm location. The difference between the modes essentially is that the jvm mode starts the service in-process while the other modes (java or exe) use a separate one.

Lines 16 – 19 and 22 – 24 reference the class that allows to start and stop the service which is of course the only class we have here. Furthermore, the methods to be invoked on startup and shutdown are set. You can set the method arguments as well using `PR_STARTPARAM` or `PR_STOPPARAM`, but this is required for the methods used here. Had I used the normal main method, the setting of the program arguments would have been required. Lines 27 – 30 set the memory settings of the jvm and last but not least, Line 33 installs the service.

Now, you can use `prunsrv.exe` to run the service in debugging mode (you can do that without administrator privileges) which uses the current command prompt as output:

```
1   > start prunsrv.exe //TS//TestService
```

This fires up a new window and if you hit `CTRL+C` to stop the service, you should see something like the following before the window closes:

(https://joerglenhard.wordpress.com/2012/05/29/build-windows-service-from-java-application-with-procrun/testservice-output/)

You might wonder why the service outputs one more "running" after the stop method was invoked. Start and stop are called from different threads, so there can be race conditions. I wanted to keep the service code simple and did not use any synchronization. That's fine for a trivial example, but not for production code, of course.

Finally, in case you don't want to keep that service on your system, uninstallation is pretty easy. Simply call (with administrator privileges):

```
1 | > prunsrv.exe //DS//TestService
```

So actually procrun is a fine tool that is not difficult to use. You just have to invest some time to dig into it. I hope some people will have that easier with this tutorial.

Update 2013-09-02

Due to continuing interest in the tutorial, I decided to provide a sample version on github, available here (https://github.com/lenhard/procrun-sample). The settings in the repository differ a little from the settings below in the paths, as my installation is a little bit different now from when I wrote this post. To use the code simply run:

```
1 | git clone git@github.com:lenhard/procrun-sample.git
```

☐   Tagged Java, procrun, Windows service

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145 thoughts on "Build windows service from java application with procrun"

1. *Darren Lee*   says: June 8, 2012 at 4:33 pm
   Hi Jorg, would you be interested to help write a simple program with regards to microsoft services? You can reply to my email. Thanks.

   Reply
   Jörg Lenhard   says: June 12, 2012 at 2:16 pm
   Hi Darren,

   I will answer here as well: I am sorry, but I have to decline. If you are looking for help with a complex procrun configuration for your software, I think the procrun mailing lists at http://commons.apache.org/daemon/mail-lists.html are the place to go.

   Kind regards, Jörg

   Reply
2. *tarun*   says: July 11, 2012 at 4:15 pm
   Hi ,
   The code is working fine
   I had installed the service and is showing in Services manager as "XYZService" in automatic state

   but when i am starting it from service manager, it says access denied
   when running through command line , its working fine , how to put its control into serviceManager ?

   Reply
   Jörg Lenhard   says: July 11, 2012 at 5:16 pm
   Hi,
   an error message like "access denied" smells like problems with file permissions. Perhaps you are pointing the service to files (log files, etc.) that the user executing the service has no permissions to write. See: http://stackoverflow.com/q/4267051/1127892 or http://support.microsoft.com/kb/256299 that deal with this problem. A possible solution would be to fix the file permissions, or to point the service to different files. Given the service writes to the log files, what are the error messages in there?

   Reply
3. *Anonymous*   says: September 27, 2012 at 8:16 am
   Can you setup to run Jar file or a bat file as service using procrun?

my bat files calls the jar file.
call C:\WebSphere\AppServerV70\java\bin\java -jar %XXX_DIR_ROOT%\myProg.jar ^
-conf %XXX_DIR_ROOT%\config\myconfig.xml ^
-schema %XXX_DIR_ROOT%\Schema\myconfig.xsd ^

Do we have to steup start and stop methods in the java code?

Reply

> **Jörg Lenhard** says: September 27, 2012 at 1:23 pm
> Well, procrun is a service wrapper for Java applications, so you can run jar files as demonstrated in the blog post. I am not aware of a way to run batch files from procrun, but that might be possible.
>
> You can modify your call to work with procrun if you set everything after the .jar as PR_STARTPARAMS in the installation script.
>
> As for the Java methods: you have to at least provide a start method (which does not have to be called this way), otherwise procrun cannot start up the service. If you don't provide a stop method, procrun is not able to shut down the program in an ordered fashion. Instead, it will simply be killed when the system shuts down. If you have nothing to clean up or complete at any time and your program is designed to run forever, you don't need a shutdown mechanism.
>
> Reply

4. *Anonymous* says: September 28, 2012 at 3:14 am
Thanks a lot for the reply. I will use the Jar as you have mentioned above.
Can I use main in my java code as the start method?.
eg:
set PR_STARTMETHOD=main

Reply

> **Jörg Lenhard** says: October 1, 2012 at 8:52 am
> Yes, any static method should be suitable.
>
> Reply

5. *Anonymous* says: October 1, 2012 at 8:09 am
Thank you for the information. it's quite helpful.

Reply

6. *Anonymous* says: October 2, 2012 at 8:42 am
Hi
I try to run the bat file I have created as per below code.
I get error:

The system cannot find the path specified.
Unable to create logger at "

Any ideas how to resolve it?
Thanks heaps for any help
Regards,

Sara

Code I'm using for .bat:
—————

set SERVICE_NAME=testService

set PR_INSTALL=C:\myApp\ABCJava\service\prunsrv.exe

set PR_DESCRIPTION=My Test job for Service.

REM Service log configuration

set PR_LOGPREFIX=%SERVICE_NAME%

set PR_LOGPATH=c:\logs

set PR_STDOUTPUT=c:\logs\stdout.txt

set PR_STDERROR=c:\logs\stderr.txt

set PR_LOGLEVEL=Debug

REM Path to java installation

set PR_JVM=C:\WebSphere\AppServerV70\java\jre\bin\j9vm\jvm.dll

set PR_CLASSPATH=%XXXX_DIR_ROOT%\%XXXX_SHARED_DIR%\ABCJava\testjob.jar

REM Startup configuration

set PR_STARTUP=auto

set PR_STARTMODE=jvm

set PR_STARTCLASS=com.ABC.Printing.testjob.testjob

set PR_STARTPARAMS=" -conf %XXXX_DIR_ROOT%\%XXXX_SHARED_DIR%\ABCJava\config\testjob.xml ^
-schema %XXXX_DIR_ROOT%\%XXXX_SHARED_DIR%\ABCJava\Schema\testjob.xsd ^ start ^"

REM Shutdown configuration

set PR_STOPMODE=jvm

set PR_STOPCLASS=com.ABC.Printing.testjob.testjob

set PR_STOPPARAMS=" -conf %XXXX_DIR_ROOT%\%XXXX_SHARED_DIR%\ABCJava\config\testjob.xml ^
-schema %XXXX_DIR_ROOT%\%XXXX_SHARED_DIR%\ABCJava\Schema\testjob.xsd ^ stop ^"

REM JVM configuration

set PR_JVMMS=256

set PR_JVMMX=1024

set PR_JVMSS=4000

REM Install service

prunsrv.exe //IS//%SERVICE_NAME%

Reply

Jörg Lenhard   says: October 2, 2012 at 11:00 am
Hi Sara,

well, the error message suggests it's a file path issue. That is really the most common issue and unfortunately it is quite hard to debug. The general guideline here is: always use absolute paths (I am not so sure about %XXX_SHARED_DIR% in your config).

Interestingly, the error seems to relate to standard output. Does the install script have the proper admin rights to write to these log files? How about replacing the lowercase c: with an uppercase C: (not that it should matter, but who know's). Apart from that I cannot see the error in your logging configuration. I have the same and it is working fine. Maybe it does originate from one of the other path configurations? Double check each path and try swapping it with something different. Does changing these paths have an impact? It shouldn't if the error is really the log, because procrun creates the log before the actual service starts.

Regards, Jörg

Reply

7. **_Anonymous_**   says: October 12, 2012 at 12:56 am
Hi Jorg,
Thanks for your help.I changed it to use the Java mode and it worked.
I forgot to add some libraries i was using in the setup as well.
After that it worked.
Trying to do this in JVM mode now.
Thanks !!

Sara

Reply

8. Pingback: i want run app as windows service.
9. Pingback: Create Windows Service Application with JAVA (procrun) « marifnst's Blog
10. **_Crenshinibon_**   says: January 8, 2013 at 7:14 pm
Hi Jörg,

Works fantastic. Took me not more then 10 minutes to get everything up and running. In my case I had to modify a few aspects, though. Maybe it's helpful for others:

My jar file is an executable jar exported from eclipse with external jars buried within. In this case I had to define the PR_STARTCLASS as "org.eclipse.jdt.internal.jarinjarloader.JarRsrcLoader". This one obviously picks the jars inside the executable jar up and forwards any command line arguments to the real start class defined in the manifest, eclipse has generated.

If your startup method is "main" you can omit setting the variable since this is the default.

And in case you do it wrong the first time the correct command to remove the service is:
prunsrv.exe //DS//%SERVICE_NAME%

Regards
Dirk

Reply

> *Jörg Lenhard*   says: January 8, 2013 at 7:36 pm
> Hi Dirk,
>
> I'm glad to hear the setup was fast despite the more complex setting. Also thanks for describing how to achieve it, this might actually help others! As for the command to remove the service, this is identical to the one in the post. The ">" is there to simulate a command prompt ;-) Probably, I should remove it.
>
> Regards
> Jörg
>
> Reply
>
> > 1. *Crenshinibon*   says: January 8, 2013 at 7:41 pm
> >   You are right. Sorry I overlooked that.
> >
> >   Keep it in, since almost everybody needs a second shot I guess.
> >
> >   Regards,
> >   Dirk
> >
> >   Reply

11. *Anonymous*   says: January 9, 2013 at 11:40 pm
    Very helpful. Thank you! – I got it working in few minutes

    Reply

12. *Bar*   says: March 16, 2013 at 12:16 pm
    Jörg, this looks like just what I'm searching for, thanks!
    I'm having a problem though… the service is installed but isn't starting correctly. The log has the following:

    [2013-03-16 12:35:09] [info] [1928] Starting service…
    [2013-03-16 12:35:09] [error] [1928] Failed creating java "C:\Program Files\Java\jre7\bin\client\jvm.dll"
    [2013-03-16 12:35:09] [error] [1928] The filename, directory name, or volume label syntax is incorrect.
    [2013-03-16 12:35:09] [error] [1928] ServiceStart returned 1
    [2013-03-16 12:35:09] [error] [1928] The filename, directory name, or volume label syntax is incorrect.
    [2013-03-16 12:35:09] [info] [3284] Run service finished.
    [2013-03-16 12:35:09] [info] [3284] Commons Daemon procrun finished

    I'm not sure if there's a problem with the jvm (it really does exist at the path specified) or if somehow it's not finding the application jar. What's missing?
    Wondering how PR_INSTALL (an absolute path in your example) differs from the last line of your script (just the .exe filename).
    Notice that I'm running the cd command in my script (line1) to the directory that contains both prunsrv.exe and my application jar.

    Thanks,
    Bar

    My createService.bat is as follows (and I'm running it with the admin account):

    cd "C:\Program Files\myapp\service"
    set SERVICE_NAME=myapp
    set SERVICE_PATH=C:\Program Files\myapp\service
    set PR_INSTALL=%SERVICE_PATH%\prunsrv.exe

    REM Service log configuration
    set PR_LOGPREFIX=%SERVICE_NAME%
    set PR_LOGPATH=%SERVICE_PATH%
    set PR_STDOUTPUT="%PR_LOGPATH%\stdout.txt"
    set PR_STDERROR="%PR_LOGPATH%\stderr.txt"
    set PR_LOGLEVEL=Debug

    REM Path to java installation
    set PR_JVM="%JAVA_HOME%\bin\client\jvm.dll"
    set PR_CLASSPATH=myapp-service.jar

    REM Startup configuration
    set PR_STARTUP=auto
    set PR_STARTMODE=jvm
    set PR_STARTCLASS=myapp.service.Launch
    set PR_STARTMETHOD=start

```
REM Shutdown configuration
set PR_STOPMODE=jvm
set PR_STOPCLASS=myapp.service.Launch
set PR_STOPMETHOD=stop

REM Install service
prunsrv.exe //IS//%SERVICE_NAME%
```

Reply

Jörg Lenhard   says: March 17, 2013 at 6:26 pm

Hi,

I don't see a bug in your script, but the problem you have seems to be more common (at least for installations of tomcat). Have a look at: http://www.mkyong.com/tomcat/tomcat-error-prunsrvc-failed-creating-java-jvmdll/

The problem with msvcr71.dll is also mentioned in the procrun faq, maybe this is your issue?

PR_INSTALL identifies the location where prunsrv is installed. That runnable is called repeatedly by the OS (at startup), from a location we don't know, for starting the service. This is why an absolute path makes sense there. The last line executes prunsrv a single time for installing the service (creating registry entries) from the context of the script. To sum up: the difference between the two lines is starting and installing the service.

Hope this helps

Reply

1. **_Bar_**   says: March 18, 2013 at 6:26 am

   Thanks Jörg! Actually, the problem was the quotation marks! There shouldn't be any quotations at all.
   I wasted a lot of time exploring the other issue you mentioned until I figured out the problem was much simpler…

   Reply

   Jörg Lenhard   says: March 18, 2013 at 8:07 am

   Good to hear you got it solved and sorry for pointing you in the wrong direction. It's always some fiddling with these scripts…

   Reply

   1. **_Bar_**   says: March 18, 2013 at 8:30 am

      I meant I wasted time on the msvcr dll issue even before you brought it up, so don't feel bad :) Moral of the story: watch out for quotation marks in the script. Thanks again for this post.

      Reply

13. **_Elgs_**   says: April 29, 2013 at 11:49 am

    Very helpful article. Thank you so much!

    Reply

14. **_Enda_**   says: June 21, 2013 at 2:30 pm

    Great Article – simple to follow. Thanks

    Reply

15. **_juan lara_**   says: June 24, 2013 at 7:12 pm

    Good Job excelente tutorial. easy to learn how to get a service from a jar.

    Reply

16. **_Anonymous_**   says: July 15, 2013 at 6:56 pm

    Hi Jorg, I was having a bit trouble to get the service to work. As for the application, I am using an executable jar. Following is the slightly modified script I am using:

    ```
    set SERVICE_NAME=TestService
    set PR_INSTALL=C:\Users\Saad\Desktop\Procrun\prunsrv.exe

    REM Service log configuration
    set PR_LOGPREFIX=%SERVICE_NAME%
    set PR_LOGPATH=C:\logs
    set PR_STDOUTPUT=C:\logs\stdout.txt
    set PR_STDERROR=C:\logs\stderr.txt
    set PR_LOGLEVEL=Error

    REM Path to java installation
    set PR_JVM=C:\Program Files (x86)\Java\jre6\bin\client\jvm.dll
    set PR_CLASSPATH=C:\Users\Saad\Desktop\Java Projects\SomeService.jar

    REM Startup configuration
    set PR_STARTUP=auto
    set PR_STARTMODE=jvm
    ```

```
set PR_STARTCLASS=com.wordpress.joerglenhard.procrun.demo.SomeService
set PR_STARTMETHOD=start

REM Shutdown configuration
set PR_STOPMODE=jvm
set PR_STOPCLASS=com.wordpress.joerglenhard.procrun.demo.SomeService
set PR_STOPMETHOD=stop

REM JVM configuration
set PR_JVMMS=256
set PR_JVMMX=1024
set PR_JVMSS=4000
set PR_JVMOPTIONS=-Duser.language=DE;-Duser.region=de

REM Install service
prunsrv.exe //IS//%SERVICE_NAME%
```

Any help would be greatly appreciated.

Reply

> **_Jörg Lenhard_**   says: July 15, 2013 at 7:46 pm
> Hi,
>
> so what is not working, or what is the error message?
>
> Reply
>
>> 1. **_Saad_**   says: July 16, 2013 at 3:01 am
>> Hi Jorg! Thanks for the quick response. When I run the script on the command prompt in windows 7, a second command window pops up momentarily and then disappears. So, I went to control panel-> administrative tools-> Services, and found the service listed there, but when I tried to start the service, I got an error message that read along the lines "Windows could not start the TestService on local computer".
>>
>> Reply
>> **_Jörg Lenhard_**   says: July 16, 2013 at 7:48 am
>> Hi Saad,
>> ok that's the typical meaningless unhelpful message you get on most occasions ;) I would bet that it is a issue with paths. In the blog post I have the installation script in the same directory as the jar and use a relative path for the classpath, whereas you use an absolute path. So your issue might be related to that. Try using a relative path and executing the script from the same directory as the jar. Also, try running the service via prunsrv in debugging mode (prunsrv.exe //DS//TestService). Maybe that gives more information on what is wrong.
>>
>> Reply

17. **_Jagadish_**   says: July 20, 2013 at 1:13 am
Hi Jorg!

How to pass one more argument other than "Start/Stop"? Please provide info
set PR_STARTCLASS=com.demo.SomeService

Thanks,
Jagadish

Reply

> **_Jörg Lenhard_**   says: July 20, 2013 at 11:58 am
> Hi Jagadish,
> simply set the PR_STARTPARAMS to whatever you like in your installation script.
>
> Reply
>
>> 1. **_Jagadish_**   says: July 24, 2013 at 12:03 am
>> Thanks a lot,
>> In my services i am executing perl scripts, work flow it will connect network map drive and copy some file into local drive. This work_flow work's fine when I start the services from command line using command "start prunsrv.exe //TS//TestService", The same work_flow not working if I start services from Server Manager->configuration -> Services. Error message is not able connect network drive. Can you please help us solve this issue.
>>
>> Thanks,
>> Jagadish
>>
>> Reply
>> **_Jörg Lenhard_**   says: July 24, 2013 at 9:30 am
>> Hi,
>> well if the service behaves differently when you start it from a relative path, then most likely there is a problem with the paths you set. It might not be elegant, but try to use absolute paths everywhere.
>> Regards, Jörg

Reply

18. *Satheeshkumar*   says: August 29, 2013 at 6:26 am
Hi,
My code is
set SERVICE_NAME=LastService
set PR_INSTALL=G:\JAVA\com\procrun\prunsrv.exe

REM Service log configuration
set PR_LOGPREFIX=%SERVICE_NAME%
set PR_LOGPATH=G:\logs
set PR_STDOUTPUT=G:\logs\stdout.txt
set PR_STDERROR=G:\logs\stderr.txt
set PR_LOGLEVEL=Error

REM Path to java installation
set PR_JVM=C:\Program Files (x86)\Java\jdk1.6.0_05\jre\bin\client\jvm.dll
set PR_CLASSPATH=sampleprogram.jar

REM Startup configuration
set PR_STARTUP=auto
set PR_STARTMODE=jvm
set PR_STARTCLASS=SampleProgram
set PR_STARTMETHOD=start

REM Shutdown configuration
set PR_STOPMODE=jvm
set PR_STOPCLASS=SampleProgram
set PR_STOPMETHOD=stop

REM JVM configuration
set PR_JVMMS=256
set PR_JVMMX=1024
set PR_JVMSS=4000
set PR_JVMOPTIONS=-Duser.language=DE;-Duser.region=de

REM Install service
prunsrv.exe //IS//%SERVICE_NAME%

I used commons-daemon-1.0.15-bin-windows it contains prunmgr.exe,prunsrv.exe,LICENSE,NOTICE,RELEASE-NOTES,amd64(folder), ia64(folder) , java version 1.6 , windows 8. G:\JAVA\com\procrun it contain's createService.bat, SampleProgram.java, SampleProgram.class, sampleprogram.jar, prunmgr.exe and prunsrv.exe. When i create Service name is ZService it created no problem but When i start the service it show error message when i saw in system log it said incorrect function. My SampleProgram.java

class SampleProgram
{
public static void main(String g[]){
System.out.println("Creating system service");
}
}

Service created,it show in the registry but i not working. It's not show any console when i run the command it show a exe window but few of second's it disappear. What i do guide thanks.

Reply

Jörg Lenhard   says: August 29, 2013 at 7:56 am
Hi,
firstly, your Java program does not work, because you are trying to invoke the main method in a non-public class which afaik is not possible. Secondly, even if it worked, it would terminate immediately, because there is no real functionality in the main method, but just a write to the console which is done pretty quick. Just to get that clear: If your main method terminates, so does your service.
Regards, Jörg

Reply

1. *Satheeshkumar*   says: August 29, 2013 at 8:05 am
HI,
Thanks for your quick respone. Suppose i create like this my program it wil work
public class SampleProgram
{
public static void main(String g[]){

```
while(true){
System.out.println("Creating system service");
}

}
}
```

Reply
Jörg Lenhard   says: August 29, 2013 at 8:50 am
Hi,
yes, this should print the string to the console indefinitely. It will likely also drive CPU usage to its maximum and to terminate it you will have to kill the process, but that's another story ;-)

Reply

2. *Satheeshkumar*   says: August 29, 2013 at 9:19 am
Hi,
I have problem for when using like this
public class SampleProgram
{
public static void main(String g[]){
while(true){
System.out.println("Creating system service");
}

}
}
Service created,it show in the registry but i not working. It's not show any console when i run the command it show a cmd window. after few of second's it disappear. My aim is to write the time every 3 second for particular number of days. so i create the program as service, but i did not create any service please guide me.

Reply

1. *Satheeshkumar*   says: August 29, 2013 at 9:46 am
Hi,
Again me when i use SomeService.java it shows the same problem the service is created, and registry has entry, but not started. Same problem the console window disappear with in seconds. I am not understand what is problem can u help and guide me.

Reply
Jörg Lenhard   says: August 29, 2013 at 11:08 am
Well, you specify log files for a reason. What do the log files say?

Reply

19. *Satheeshkumar*   says: August 29, 2013 at 1:21 pm
Hi,
My error in System Error in Windows 8 :
The ZTimeService service terminated with the following service-specific error:
Incorrect function.
I did not get any error from G:\JAVA\logsstderr.txt

Mybatch file:
timeService.bat
set SERVICE_NAME=ZTimeService
set PR_INSTALL=G:\JAVA\com\procrun\prunsrv.exe

REM Service log configuration
set PR_LOGPREFIX=%SERVICE_NAME%
set PR_LOGPATH=G:\JAVA\logs
set PR_STDOUTPUT=G:\JAVA\logsstdout.txt
set PR_STDERROR=G:\JAVA\logsstderr.txt
set PR_LOGLEVEL=Error

REM Path to java installation
set PR_JVM=C:\Program Files (x86)\Java\jdk1.6.0_05\jre\bin\client\jvm.dll
set PR_CLASSPATH=timeschedule.jar

REM Startup configuration
set PR_STARTUP=auto
set PR_STARTMODE=jvm
set PR_STARTCLASS=TimeSchedule
set PR_STARTMETHOD=start

REM Shutdown configuration
set PR_STOPMODE=jvm
set PR_STOPCLASS=TimeSchedule
set PR_STOPMETHOD=stop

REM JVM configuration
set PR_JVMMS=64m
set PR_JVMMX=128m
set PR_JVMSS=128m
set PR_JVMOPTIONS=-Duser.language=DE;-Duser.region=de

REM Install service
prunsrv.exe //IS//%SERVICE_NAME%

My java program

import java.io.File;
import java.io.FileOutputStream;
import java.io.IOException;
import java.text.SimpleDateFormat;
import java.util.Calendar;

public class TimeSchedule
{

public static void main(String g[]) throws IOException{

FileOutputStream fos = null;
try{

SimpleDateFormat df = new SimpleDateFormat("yyyy-MM-dd hh:mm:ss");

File f1 = new File("C:\\Logs\\Event\\System\\Security");
if(!f1.exists()){
if(f1.mkdirs()){
System.out.println("Multiple directories are created!");
} else {
System.out.println("Failed to create multiple directories!");
}
}
File f = new File("C:\\Logs\\Event\\System\\Security\\time.txt");
if(f.exists()){
System.out.println("f.exists() is exist "+f.exists());
fos = new FileOutputStream(new File("C:\\Logs\\Event\\System\\Security\\time.txt"),true);
}else{
System.out.println("file is not exist");
fos = new FileOutputStream(new File("C:\\Logs\\Event\\System\\Security\\time.txt"));
}

while(true){

Thread.sleep(3000);
Calendar cal = Calendar.getInstance();
String Dtimr = df.format(cal.getTime());
fos.write((Dtimr+";").getBytes());
Thread.sleep(2000);
//System.out.println("Current Date Time : " + df.format(cal.getTime()));

}

}
catch(Exception e){
e.printStackTrace();
}finally{
fos.close();
}
}
}

please guide me to create service.

Reply
   Jörg Lenhard   says: August 29, 2013 at 2:48 pm

Hm, I haven't encountered this error, so I can only google for it.

The error might for instance happen, because your JVM setting is incorrect: http://www.oxygenxml.com/doc/ug-editorEclipse/topics/windows_service_reports_incorrect_function.html

Or maybe it is related to Windows 8: http://www.coretechnologies.com/WindowsServices/FAQ.html#UI0DetectFailsToStart

The sample above was performed with Windows 7, I'll edit the post to include this information.

Reply

1. *Satheeshkumar*   says: August 29, 2013 at 4:21 pm
   Hi,

   Again me When i create service on Window 7 same error is show for me The ZTimeService
   service terminated with service-specific error Incorrect function. When i choose prunsrv.exe is in the wrong package ? or
   something else ? How can i create a ZTimeService Help and Guide me thnaks

   Reply

20. *Satheeshkumar*   says: August 30, 2013 at 2:34 pm
   Hi Jorg,

   It's work fine on my Window's Xp and Windows server 2003. I didn't know, why it is not working on 7 and 8. If you know about the
   reason mean's guide me till Thank you very much for your help for my previous post and future post. Once again thank u and good
   post.

   Reply

21. *chan*   says: September 2, 2013 at 8:58 am
   Hi Jörg,

   I tried to create a Hello World JFrame (run minimize at backend) using Apache Daemon. I followed your steps exactly but it could
   not start up.

   Appreciate you could assist me on the matter. Thanks in advance.

   The error in C:\apache\demo\logs\HelloWorld.2013-09-02 showed:-
   [2013-09-02 16:45:43] [error] [1392] FindClass com/demo/HelloWorld failed
   [2013-09-02 16:45:43] [error] [9452] Failed to start Java
   [2013-09-02 16:45:43] [error] [9452] ServiceStart returned 4

   MANIFEST.MF:-
   Manifest-Version: 1.0
   Created-By: 1.6.0_45 (Sun Microsystems Inc.)
   Main-Class: com.demo.HelloWorld
   Class-Path: commons-daemon-1.0.15.jar

   installService.bat:-
   set SERVICE_NAME=HelloWorld
   set PR_INSTALL=C:\apache\demo\commons-daemon-1.0.15-bin-windows\prunsrv.exe

   REM Service log configuration
   set PR_LOGPREFIX=%SERVICE_NAME%
   set PR_LOGPATH=C:\apache\demo\logs
   set PR_STDOUTPUT=C:\apache\demo\logs\stdout.txt
   set PR_STDERROR=C:\apache\demo\logs\stderr.txt
   set PR_LOGLEVEL=Error

   REM Path to java installation
   set PR_JVM=C:\Program Files (x86)\Java\jre6\bin\client\jvm.dll
   set PR_CLASSPATH=HelloWorld.jar

   REM Startup configuration
   set PR_STARTUP=auto
   set PR_STARTMODE=jvm
   set PR_STARTCLASS=com.demo.HelloWorld
   set PR_STARTMETHOD=start

   REM Shutdown configuration
   set PR_STOPMODE=jvm
   set PR_STOPCLASS=com.demo.HelloWorld
   set PR_STOPMETHOD=stop

   REM JVM configuration
   set PR_JVMMS=256
   set PR_JVMMX=1024

```
set PR_JVMSS=4000
set PR_JVMOPTIONS=-Duser.language=US;-Duser.region=en

REM Install service
C:\apache\demo\commons-daemon-1.0.15-bin-windows\prunsrv.exe //IS//%SERVICE_NAME%

HelloWorld.java:
public class HelloWorld implements Daemon {
private static HelloWorld helloWorldInstance = new HelloWorld();
private JFrame jFrame;

public HelloWorld() {
initComponents();
}

private void initComponents() {
jFrame = new JFrame("Hello World App");
jFrame.setSize(200,300);
jFrame.setResizable(false);
…..
}

public static void main(String[] args) {
String cmd = "start";
try {
if (args.length > 0) {
cmd = args[0];
}
if ("start".equals(cmd)) {
helloWorldInstance.start();
}
else {
helloWorldInstance.stop();
}
}
catch(Exception e) {
e.printStackTrace();
}
}

@Override
public void destroy() {
if(helloWorldInstance != null) {
helloWorldInstance = null;
}
}

@Override
public void init(DaemonContext daemonContext) throws DaemonInitException, Exception {
}

@Override
public void start() throws Exception {
initialize();
}

@Override
public void stop() throws Exception {
terminate();
}

private void initialize() {
if(helloWorldInstance == null) {
helloWorldInstance = new HelloWorld();
}
}

private void terminate() {
// TODO Auto-generated method stub
System.exit(0);
}
}
```

Reply

Jörg Lenhard   says: September 2, 2013 at 12:07 pm
Hi Chan,

from the error message, it seems that procrun is able to locate the jar file, but not the class inside it. Are you sure, that the jar file is properly constructed? Looking at your MANIFEST.mf, why is the classpath "commons-daemon-1.0.15.jar"? In the sample I just had the local dir, aka ".". You could try changing this.

As a side note: I just open source a working sample of the setup in the post on github: https://github.com/lenhard/procrun-sample

Reply

1. *chan*   says: September 2, 2013 at 2:58 pm
   Hi Jörg,

   Ok, I removed the HelloWorld class that implements the Daemon interface.
   Then no need to put the apache-daemon-1.0.15.jar in the MANIFEST.MF.
   I changed the HelloWorld.java as follow:

   package com.demo;

   import java.awt.Image;
   import java.awt.MenuItem;
   import java.awt.PopupMenu;
   import java.awt.SystemTray;
   import java.awt.Toolkit;
   import java.awt.TrayIcon;
   import java.awt.event.ActionEvent;
   import java.awt.event.ActionListener;
   import java.awt.event.WindowEvent;
   import java.awt.event.WindowListener;
   import java.net.URL;

   import javax.swing.JFrame;

   public class HelloWorld {
   private static HelloWorld helloWorldInstance = new HelloWorld();

   private JFrame jFrame;
   private SystemTray systemTray;
   private Image bulbImage;
   private PopupMenu popupMenu;
   private MenuItem menuItemShow;
   private MenuItem menuItemHide;
   private TrayIcon trayIcon;

   public HelloWorld() {
   initComponents();
   }

   private void initComponents() {
   jFrame = new JFrame("Hello World App");
   jFrame.setDefaultCloseOperation(JFrame.DO_NOTHING_ON_CLOSE);
   jFrame.addWindowListener(new WindowListener() {
   @Override
   public void windowClosing(WindowEvent e) {
   jFrame.setVisible(false);
   menuItemShow.setEnabled(true);
   menuItemHide.setEnabled(false);
   }

   @Override
   public void windowActivated(WindowEvent arg0) {}

   @Override
   public void windowDeactivated(WindowEvent arg0) {}

   @Override
   public void windowDeiconified(WindowEvent arg0) {}

   @Override
   public void windowIconified(WindowEvent arg0) {}

```java
@Override
public void windowOpened(WindowEvent arg0) {}

@Override
public void windowClosed(WindowEvent e) {}
});
jFrame.setSize(200,300);
jFrame.setResizable(false);
if (SystemTray.isSupported()) {
systemTray = SystemTray.getSystemTray();
try {
bulbImage = Toolkit.getDefaultToolkit().getImage(new
URL("http://docs.oracle.com/javase/tutorial/uiswing/examples/misc/TrayIconDemoProject/src/misc/images/bulb.gif"));
}
catch(Exception e) {
e.printStackTrace();
}
popupMenu = new PopupMenu();
menuItemShow = new MenuItem("Show Me!");
menuItemHide = new MenuItem("Hide Me!");
popupMenu.add(menuItemShow);
popupMenu.add(menuItemHide);
menuItemShow.setEnabled(true);
menuItemHide.setEnabled(false);
menuItemShow.addActionListener(new ActionListener() {
@Override
public void actionPerformed(ActionEvent e) {
// TODO Auto-generated method stub
jFrame.setVisible(true);
menuItemShow.setEnabled(false);
menuItemHide.setEnabled(true);
}
});
menuItemHide.addActionListener(new ActionListener()
{
@Override
public void actionPerformed(ActionEvent e) {
// TODO Auto-generated method stub
jFrame.setVisible(false);
menuItemShow.setEnabled(true);
menuItemHide.setEnabled(false);
}
});
trayIcon = new TrayIcon(bulbImage, "Hello World App", popupMenu);
try {
systemTray.add(trayIcon);
}
catch(Exception e)
{
e.printStackTrace();
}
}
}

public static void main(String[] args) {
String cmd = "start";
try {
if (args.length > 0) {
cmd = args[0];
}
if ("start".equals(cmd)) {
start();
} else {
stop();
}
}
catch(Exception e) {
e.printStackTrace();
}
}
```

```
public static void start() {
// TODO Auto-generated method stub
if(helloWorldInstance == null) {
helloWorldInstance = new HelloWorld();
}
}

public static void stop() {
// TODO Auto-generated method stub
System.exit(0);
}
}
```

The changed MANIFEST.MF:-
Manifest-Version: 1.0
Created-By: 1.6.0_45 (Sun Microsystems Inc.)
Main-Class: com.demo.HelloWorld
Class-Path: .

The stderr.txt:-
2013-09-02 22:45:36 Commons Daemon procrun stderr initialized
java.lang.NoClassDefFoundError: com/demo/HelloWorld
Caused by: java.lang.ClassNotFoundException: com.demo.HelloWorld
at java.net.URLClassLoader$1.run(Unknown Source)
at java.security.AccessController.doPrivileged(Native Method)
at java.net.URLClassLoader.findClass(Unknown Source)
at java.lang.ClassLoader.loadClass(Unknown Source)
at sun.misc.Launcher$AppClassLoader.loadClass(Unknown Source)
at java.lang.ClassLoader.loadClass(Unknown Source)
Exception in thread "main"

The HelloWorld.2013-09-02.log:-
[2013-09-02 22:43:18] [error] [9452] FindClass com/wct/demo/HelloWorld failed
[2013-09-02 22:43:19] [error] [1380] Failed to start Java
[2013-09-02 22:43:19] [error] [1380] ServiceStart returned 4

I also tried your code from https://github.com/lenhard/procrun-sample yet the error.

I am using Windows 7 64-bit. Does this matter?

Do you have any clue?

Thanks.

Reply
Jörg Lenhard   says: September 2, 2013 at 3:27 pm
I replicated your code in the sample and now procrun doesn't find the start method. The problem seems to be that your start
method has no arguments. You need to put a String array as arguments:
```
public static void start(String[] args){....}
```
The same applies to the stop method. If I do this, the service starts without complaining. It doesn't start up a frame, but that's
another story I guess ;-)

Reply
1. *chan*   says: September 2, 2013 at 3:34 pm
Yes, you are right.
I just got it done. Thanks alot.

Reply
22. *chan*   says: September 2, 2013 at 4:56 pm
Hi Jorg,

May I know is it possible to run a Java Swing App as Windows Service or Daemon Linux?

I modified your code by creating a visible JFrame in your SomeService.java. Then I ran "prunsrv.exe //RS/TestService", the service
is started but no visible JFrame.
Running it using main method in eclipse or command prompt, it is working good.

Did I miss out anything here? Thanks.

package com.wordpress.joerglenhard.procrun.demo;

import javax.swing.JFrame;

```
public class SomeService {

private static boolean stop = false;

public static void start(String[] args) {
System.out.println("start");
createGUI(); // Add JFrame here
while (!stop) {
try {
Thread.sleep(1000);
} catch (InterruptedException e) {
e.printStackTrace();
}
System.out.println("running");
}
}

public static void stop(String[] args) {
System.out.println("stop");
stop = true;
}

public static void main(String[] args) {
if ("start".equals(args[0])) {
start(args);
}
else if ("stop".equals(args[0])) {
stop(args);
}
}
// creating the JFrame
private static void createGUI()
{
JFrame frame = new JFrame("Hello World");
frame.setTitle("Hello World");
frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
frame.setSize(200,300);
frame.setResizable(false);
frame.setVisible(true);
}
}
```

Reply

Jörg Lenhard   says: September 3, 2013 at 7:53 am
Hi Chan,

yes, you can run a Swing App as a Windows Service. Your code actually works. If you execute `prunsrv.exe`
`//TS//TestService`, the frame shows up. I am not so sure about `//RS`, but the procrun docu says its "only called from service manager". So maybe you shouldn't call that directly? If I was in your position, I would just install the service and start rebooting and hopefully the frame is there.

Reply

1. *chan*   says: September 3, 2013 at 4:57 pm
   Hi Jörg,
   The JFrame does not show up after restart the Windows (7 64bit and XP SP3) machine.
   It only can show up when using the command prunsrv.exe //TS/SomeService
   I am using jdk1.6.0_45.

   I found this link describing about Java running as Windows Service issue:-
   http://stackoverflow.com/questions/11553598/java-as-windows-service-with-interactive-desktop-support-and-read-curren-logged

   Does this matter?

   Thanks.

   Reply

   Jörg Lenhard   says: September 4, 2013 at 9:07 am
   Hi Chan,
   well it is possible to use a Swing app as a Windows Service. The application I wrapped as a service and which made me write this blog post used Swing and I never had issues with the GUI. I don't have access to the code anymore, so I can't give you the

exact details of the setting. It was a small multithreaded app with a server core and a management interface built in Swing TrayIcon.

Reply

1. *chan*   says: September 4, 2013 at 11:54 am
   Hi Jörg,
   So, basically it is a server client application – server is running as thread silently under Windows service.
   And the Swing client communicates with the server for some reasons.
   There are 2 java processes run.

   Reply

23. *SMSatheeshkumar*   says: September 5, 2013 at 4:36 pm
    Hi Jorg,
    May i know, it is possible to detect the process is running in windows service suppose some one stop the services mean's how can i identified can you guide me. Thank you

    Reply

24. Pingback: Trouble Shooting Apache Procrun Unable to Start Service Problem- From http://lifelongprogrammer.blogspot.com/ | lifelongprogrammer

25. *Malu Ajay*   says: December 31, 2013 at 9:22 am
    Hi,
    Myself was struggling to create a Windows service from Java application., until I found your article. Read it and tried to run the sample code. But it throws the following exception in Error Log, Any idea why?

    [2013-12-31 14:50:18] [error] [6044] FindClass com/nest/sample/procrun/SomeService failed
    [2013-12-31 14:50:18] [error] [5984] Failed to start Java
    [2013-12-31 14:50:18] [error] [5984] ServiceStart returned 4
    [2013-12-31 14:50:18] [error] [5984] Commons Daemon procrun failed with exit value: 3 (Failed to run service as console application)

    Reply

    Jörg Lenhard   says: December 31, 2013 at 1:37 pm
    Hi,
    since Java cannot find the specified class, this seems to be an issue with paths. You adjusted the package names from the sample (com/nest/sample/procrun), so make sure your configuration and actual path are really identical.
    Hope this helps,
    Jörg

    Reply

26. *abhijeet*   says: December 31, 2013 at 12:13 pm
    hi Jorg

    Windows is not allowing me to STOP the service.. I tried putting 'set PR_STOPPARAM=abc' but it didnt help either.
    Below is my stop method in java.. could you please suggest what am I missing here ?

    public static void stop(String[] args) {
    try {
    System.out.println("Stopping Poller Service…");
    } catch (Exception ex) {
    PrintLog.writeFileLog("In Directory watcher Exception is " + ex.getMessage());
    }
    }

    Reply

27. *abhijeet*   says: December 31, 2013 at 12:19 pm
    Log says :
    Method 'static void stop(String[])' not found in Class com/orion/DirectoryWatcherExample

    Whereas the STOP method is in the same class..

    Reply

    Jörg Lenhard   says: December 31, 2013 at 1:40 pm
    Hi,
    the method signature seems correct. Are you really sure you try to execute the jar with the most recent version of the class? Could it be that you accidently installed a previous version that did not have the stop method? I would try to uninstall the service, rebuild the jar, install the rebuilt jar, and try to run again.
    Hope this helps,
    Jörg

    Reply

28. *Anonymous*   says: January 14, 2014 at 11:25 pm

Hi,
I am trying to install the service using a java process builder instead of using a bat file. I have not been successful though.
Do you have an example for it?

Thanks in Advance.

Reply

> *Jörg Lenhard*   says: January 15, 2014 at 8:37 am
> Hi,
> sorry, but I have to disappoInt you. I don't have an example for a process builder.
> Regards, Jörg
>
> Reply

29. *K.P.Thottam*   says: February 5, 2014 at 5:18 pm
"service terminated with service-specific error Incorrect function" – "yet another potential solution"

Folks, I had the above error and wasn't able to solve it with the ways that were suggested in all the earlier posts. However I did solve it by another way and I thought I should share this 'yet another potential solution' (YAPS) ;) with the community.

I built my batch file as per all the instructions indicated in both the blog and comments. My java file was also done as per the sample, but I was still getting the incorrect function error.

my YAPS:

at command prompt fire prunmgr//ES//kptservice i.e. prunmgr//ES//yourservicename_as_in_windows

this should bring up the GUI to edit the properties of the service. In my case I found all the values that I set via the batch script missing. So I entered them via the GUI. Next I applied the values , then restarted the service once via the GUI, everything worked as advertized and now I am a happy camper.

Not sure why the values in the batch file did not get registered with the service, but this work around is a quick fix. I have replaced the 'long filepath' with 'blah', and I suspect the long filepath might be the cause, but for the sake of security I am not sharing the complete path.
_____

```
set SERVICE_NAME=kptservice
set PR_INSTALL=C:\blah\bin\prunsrv.exe

echo is this correct?
echo %PR_INSTALL%
pause

set PR_LOGPREFIX=%SERVICE_NAME%
set PR_LOGPATH=C:\blah\logs
set PR_STDOUTPUT=C:\blah\logs\stdout.txt
set PR_STDERROR=C:\blah\logs\stderr.txt
set PR_LOGLEVEL=Error

set PR_JVM=C:\apps\java\jdk1.6.0_27\jre\bin\client\jvm.dll
set PR_CLASSPATH=C:\blah\cpinescan.jar

echo are these correct?
echo JVM location %PR_JVM%
echo Classpath %PR_CLASSPATH%

pause
set PR_STARTUP=auto
set PR_STARTMODE=jvm
set PR_STARTCLASS=ca.on.gov.erdms.escan.Test
set PR_STARTMETHOD=start

set PR_STOPMODE=jvm
set PR_STOPCLASS=ca.on.gov.erdms.escan.Test
set PR_STOPMETHOD=stop

set PR_JVMMS=256
set PR_JVMMX=1024
set PR_JVMSS=4000
set PR_JVMOPTIONS=-Dca.on.gov.erdms.jobconf=C:\blah\etc\escanjoblauncher.xml;-
Djava.util.logging.config.file=C:\blah\etc\escanjoblauncher.xml

echo is this correct?
echo %PR_JVMOPTIONS%
pause
```

C:\blah\bin\prunsrv.exe //IS//%SERVICE_NAME%

Reply

> Jörg Lenhard   says: February 5, 2014 at 6:08 pm
> Thanks for sharing :)

Reply

30. *San*   says: February 19, 2014 at 9:51 am
Hi Jorg,
I am trying to run my application as windows service. I got your blog. I have installed 64 bit java 7, but the folder C:\Program Files\Java\jre7\bin does not have client folder. It has server folder and it has jvm.dll. When I put this path, I am getting this error. "Failed creating java C:\Program Files\Java\jre7\bin\server\jvm.dll". I have gone through some posts that java 6 jre has client colder under bin. The problem is my application is using java 7 features so I cant back port to java 6. How to fix this issue.

Reply

> Jörg Lenhard   says: February 25, 2014 at 1:43 pm
> Hi San,
> sorry for the delay in reply. If you install a 32 bit java 7, the client folder is there and you can use Java 7 features as usual. I don't know why they don't package the client folder with 64 bit Java, but it should work fine with 32 bit.
>
> Reply

31. *Anonymous*   says: February 24, 2014 at 11:05 pm
Hi Jorg,
Is it possible to send arguments directly to the java program that you made the windows service from? I have tried a bunch of things mainly working with PR_StartParams.

Thanks!

Reply

> Jörg Lenhard   says: February 25, 2014 at 1:48 pm
> Hi,
> yes, this works with PR_StartParams. There is probably a convention on what you can send, but this is not clear from the procrun documentation. I bet they are passed as a String array, so something of the following form should work:
> set PR_STARTPARAMS=first;second;third
>
> Reply

>> 1. *Anonymous*   says: February 25, 2014 at 5:23 pm
>> Hi Jorg,
>> Thanks for the quick reply. Managed to get my service started with the correct arguments. Do you know if it's possible to send more args to the service? Can't seem to find anything on it.
>>
>> Reply

>> Jörg Lenhard   says: March 3, 2014 at 10:15 am
>> Hi,
>> sorry for the delay in the follow-up. You mean if its possible to send more data to the service between start and stop? I don't think that is possible with procrun. You will have to use another mechanism for inter-process communication, such as via socket or perhaps the file system.
>>
>> Reply

32. *Jim Maud*   says: March 12, 2014 at 10:35 pm
Hi Jorg,
A great post! I am trying to use this method to run a JBoss Fuse Karaf container application as a windows service.
I have some problems:
1. The service does not appear in the windows services GUI, however it can be manipulated using SC commands e.g. "sc delete JBossFuse"
2. The service wont start
3. I get different errors from starting the service by prunmgr and sprunsrv //RS

Here is the bat file I created:
rem Setup Karaf
set KARAF_HOME=%FUSE_HOME%
set KARAF_BASE=%KARAF_HOME%
set KARAF_DATA=%KARAF_BASE%\data

rem Setup the classpath
set CLASSPATH=%CLASSPATH%;%KARAF_BASE%\conf
pushd "%KARAF_HOME%\lib"
for %%G in (karaf*.jar) do call:APPEND_TO_CLASSPATH %%G
popd
goto CLASSPATH_END
: APPEND_TO_CLASSPATH
set filename=%~1

```
set suffix=%filename:~-4%
if %suffix% equ .jar set CLASSPATH=%CLASSPATH%;%KARAF_HOME%\lib\%filename%
goto :EOF
:CLASSPATH_END

rem Setup Java Options
set JAVA_MIN_MEM=128M
set JAVA_MAX_MEM=512M
set JAVA_PERM_MEM=16M
set JAVA_MAX_PERM_MEM=128M
set JAVA_OPTS=-Xms%JAVA_MIN_MEM%;^
-Xmx%JAVA_MAX_MEM%;^
-XX:PermSize=%JAVA_PERM_MEM%;^
-XX:MaxPermSize=%JAVA_MAX_PERM_MEM%;^
-Dcom.sun.management.jmxremote;^
-XX:+UnlockDiagnosticVMOptions;^
-XX:+UnsyncloadClass;^
-Dkaraf.startLocalConsole=false;^
-Dkaraf.startRemoteShell=true;^
-Djava.endorsed.dirs="%JAVA_HOME%\jre\lib\endorsed';'%JAVA_HOME%\lib\endorsed';'%KARAF_HOME%\lib\endorsed";^
-Djava.ext.dirs="%JAVA_HOME%\jre\lib\ext';'%JAVA_HOME%\lib\ext';'%KARAF_HOME%\lib\ext";^
-Dkaraf.instances="%KARAF_HOME%\instances";^
-Dkaraf.home="%KARAF_HOME%";^
-Dkaraf.base="%KARAF_BASE%";^
-Dkaraf.data="%KARAF_DATA%";^
-Djava.io.tmpdir="%KARAF_DATA%\tmp";^
-Djava.util.logging.config.file="%KARAF_BASE%\etc\java.util.logging.properties"

rem service properties
set PR_DisplayName="JBoss Fuse Service"
set PR_Description="JBoss Fuse Service"
set PR_ServiceUser=XXX\yyyyyy
set PR_ServicePassword=xxxxxx
set PR_Install=C:\apps\commons-daemon-1.0.15-bin-windows\prunsrv.exe

set PR_StartMode=Java
set PR_StartClass=org.apache.karaf.main.Main
set PR_StopMode=Java
set PR_StopClass=org.apache.karaf.main.Stop

set PR_Jvm=auto
set PR_JvmOptions=%JAVA_OPTS%
set PR_Classpath=%CLASSPATH%

rem install the service
prunsrv //IS//JBossFuse
```

If I start the service from the button in prunmgr //ES/JBossFuse I get these errors and indeed if I do this three times the domain account as specified in PR_ServiceUser gets locked out, though I am 100% sure the specified name and password are correct. The user is the logged in user when I create the service and it is the account we use for server administration. The same account can create and run services for other non Java programs with no issues.

```
[2014-03-12 22:14:14] [info] [ 3044] Commons Daemon procrun (1.0.15.0 32-bit) started
[2014-03-12 22:14:14] [info] [ 3044] Running 'JBossFuse' Service…
[2014-03-12 22:14:14] [info] [ 3732] Starting service…
[2014-03-12 22:14:14] [error] [ 3732] Logon failure: unknown user name or bad password.
[2014-03-12 22:14:14] [error] [ 3732] Failed to create process
[2014-03-12 22:14:14] [error] [ 3732] Logon failure: unknown user name or bad password.
[2014-03-12 22:14:14] [error] [ 3732] ServiceStart returned 1
[2014-03-12 22:14:14] [error] [ 3732] Logon failure: unknown user name or bad password.
[2014-03-12 22:14:14] [info] [ 3044] Run service finished.
[2014-03-12 22:14:14] [info] [ 3044] Commons Daemon procrun finished
```

But when I start it from prunsrv //RS//JBossFuse I get these errors:
```
[2014-03-12 22:16:05] [info] [ 9684] Commons Daemon procrun (1.0.15.0 32-bit) started
[2014-03-12 22:16:05] [info] [ 9684] Running 'JBossFuse' Service…
[2014-03-12 22:16:05] [error] [ 9684] StartServiceCtrlDispatcher for 'JBossFuse' failed
[2014-03-12 22:16:05] [error] [ 9684] The service process could not connect to the service controller.
[2014-03-12 22:16:05] [error] [ 9684] Commons Daemon procrun failed with exit value: 4 (Failed to run service)
[2014-03-12 22:16:05] [error] [ 9684] The service process could not connect to the service controller.
```

I hope you could help me.
Thank you

Jim

Reply

> *Jörg Lenhard*   says: March 13, 2014 at 9:08 am
> Hi Jim,
> that's a somewhat more advanced setup you have there. I have never used ServiceUser properties, etc., so I'm afraid that I can't really help you. However, both of the error messages "smell" like authentication problems. To help with debugging: Does the service install correclty when you skip user and password and just install it with administrator privileges?
> Regards, Jörg
>
> Reply
>
> 1. *Anonymous*   says: September 16, 2014 at 2:14 pm
>   Maybe this will help: I had the same problem even with the correct credentials.
>   The problem was that I was using the 32 bit version of the executable. The error message was confusing…
>
>   Reply

33. *Fred*   says: March 18, 2014 at 4:21 pm
    Hi Jorg,

    I have a program that I started as a network service. It starts and stops fine. I can send it a command from cmd to check the status and that returns fine, but when I send it a command to spawn a new thread it starts the process, then it sits there hung up until i terminate the process.

    What I'm wondering is if this is a limitation of procrun or something else?

    Anything would be helpful on this. Thanks

    Reply

    > *Jörg Lenhard*   says: March 18, 2014 at 8:39 pm
    > Hi Fred,
    >
    > as far as I understand, procrun only hooks the java program into the service api of the operating system. It does not interfere into the programs regular execution or influence threading. Threading is determined by the JVM which you declare in the procrun configuration.
    >
    > So all in all, I think you should look for the deadlock in your application. Does it work fine when you leave out procrun? I once wrote a network service with several threads using procrun and didn't experience threading problems.
    >
    > Hope this helps, Jörg
    >
    > Reply
    >
    > 1. *Fred*   says: March 19, 2014 at 3:41 pm
    >   Yes it works fine without procrun. What is the best method for finding a deadlock?
    >
    >   Reply
    >   *Jörg Lenhard*   says: March 19, 2014 at 11:55 pm
    >   If it works fine without procrun, then there is no deadlock. "Deadlock" means that your application reached a state where it can no longer make progress, aka it is "hung up".
    >
    >   If your service works without procrun but not with it, then yes, the error might very well be related to procrun. Unfortunately, I can't really help you there, as I haven't experienced such problems myself. You should probably ask at the procrun mailing list.
    >
    >   Reply

34. *Zain*   says: March 27, 2014 at 9:42 am
    Hi I am getting error Service TestService is missing ImageFile… Can you help ?

    Reply

    > *Jörg Lenhard*   says: March 27, 2014 at 10:32 am
    > Well, I can only google your error and look at what I find. Maybe this helps: http://serverfault.com/a/350491/106796
    >
    > Reply
    >
    > 1. *Anonymous*   says: June 3, 2015 at 7:45 am
    >   Do you find any solution? I have this same problem.
    >
    >   Reply

35. *winning*   says: April 8, 2014 at 9:07 pm
    Hi,

    I downloaded your procrun-sample from git. I ran the installService.bat after edited the PR_INSTALL and PR_JVM paths. Although the cmd (created by installService.bat) fired up a new window, the new window closed very very soon. It should be showing "start running running…." in normal, right?
    After that, i went to the task mgr and found that the testService was existing but stopped.

Could you tell me what should I do to create a normal testService? T^T

Reply

Jörg Lenhard   says: April 9, 2014 at 1:39 pm
Hi,

that is the normal behavior of installService.bat. It installs the service into the system, which is why you see that the service exists, but it does not start the service, and hence you see it as stopped.

After executing installService.bat, the service can be treated as any other service, so you can just use the normal Windows tooling to start it. Alternatively, you can execute "prunsrv.exe //TS//TestService" to use the diagnosis tooling available with procrun. This fires up the service in the console and you see the "start running running, etc.".

Hope this helps!
Jörg

Reply

36. *Ramzi*   says: May 19, 2014 at 3:57 pm
Hi Jorg,
Thanks for this article. I have some issue though trying to run the executable jar file as a windows service. When I run my "service.bat" script, the service (TestService) appears on the service manager, but when i try to run it , i have a pop up message that says : "Windows cannot run TestServuce on the local Computer. Error 2: cannot find the file specified"

I have no idea where it come from. The jar alone works fine when i run it with a command line.

here's my service.bat content:

set SERVICE_NAME=TestService
set PR_INSTALL=prunsrv.exe

REM Service log configuration
set PR_LOGPREFIX=TestService
set PR_LOGPATH=C:\Users\CU_APP_DREAM_D\Desktop\DataCapture\logs
set PR_STDOUTPUT=C:\Users\CU_APP_DREAM_D\Desktop\DataCapture\logs\stdout.txt
set PR_STDERROR=C:\Users\CU_APP_DREAM_D\Desktop\DataCapture\logs\stderr.txt
set PR_LOGLEVEL=Error

REM Path to java installation
set PR_JVM=C:\Program Files\Java\jre7\bin\server\jvm.dll
set PR_CLASSPATH=C:\Users\CU_APP_DREAM_D\Desktop\DataCapture\someservice.jar

REM Startup configuration
set PR_STARTUP=auto
set PR_STARTMODE=jvm
set PR_STARTCLASS=fr.real.flow.manager.SomeService
set PR_STARTMETHOD=start

REM Shutdown configuration
set PR_STOPMODE=jvm
set PR_STOPCLASS=fr.real.flow.manager.SomeService
set PR_STOPMETHOD=stop

REM JVM configuration
set PR_JVMMS=256
set PR_JVMMX=1024
set PR_JVMSS=4000
set PR_JVMOPTIONS=-Duser.language=DE;-Duser.region=de

REM Install service
prunsrv.exe //IS//TestService

Do you have any idea ?
Thak you for your help.

Ramzi

Reply

Jörg Lenhard   says: May 20, 2014 at 7:59 am
Hi Ramzi,

with that error, I'm almost certain that it is an issue with file paths. Have a look at the second line of your script:

set PR_INSTALL=prunsrv.exe

This is a relative file path and for some reason procrun won't handle this well when used with administrative tooling. Citing from the blog post: "Next, you need to set the path to prunsrv.exe. On that note, here is a lesson that took me some time to learn: If you use (correct) relative paths to files in the installation script, the service will install correctly and it will run fine in debugging mode. It will however fail when run normally with any administrative tooling you have. …. Generally, you should use absolute paths with procrun."

In summary: Use an absolute path here, similar to my script in the post, then it should work.

Regards
Jörg

Reply

1. **Ramzi**   says: May 20, 2014 at 8:36 am
   Thanks Jörg,

   You were right and the issue was in the PATH. Now I have some other issue, the service get installed , but when i go to the service manager and try to start it I get this error:

   "Windows could not start the TestService on Local Compute. For more information, review the System Event Log if this is a non Microsoft Service contact the service vendor, and refer to service-specific error code 1."

   I'm trying to find some solutions online (google, etc…) but nothing really useful for now. So If you have experienced this kind of errors , or if you have any idea when it can come from i'll be glad to know :)

   I packaged my java code with maven using the "maven-shade-plugin". The executable jar that was created works fine when i execute it with a command line. But is impossible to run as a service (getting the error i gave previously).

   This could be maybe a problem with the java version ? I doubt it but i've read some posts online that had the similar error but in other contexts and it was due to java

   I'm using :

   java version "1.7.0_17"
   Java(TM) SE Runtime Environment (build 1.7.0_17-b02)
   Java HotSpot(TM) 64-Bit Server VM (build 23.7-b01, mixed mode)

   On a : Windows Server 2008 R2 Entreprise OS

   Thanks for your help and your time

   Regards,
   Ramzi

   Reply
   Jörg Lenhard   says: May 20, 2014 at 10:32 am
   Hi Ramzi,

   hm, that is a really meaningless error. I also don't think it's a problem with the Java version, 1.7.X should be fine (1.8 might not). Is there any more concrete information in the log files of the service?

   The only thing I can think of at the moment: A classic problem is if you execute the installation without administrator priviliges. This might work, but fail with a meaningless error later on. Did you execute the script in a command prompt that was started with administrator privileges?

   Regards
   Jörg

   Reply

37. **Ramzi**   says: May 20, 2014 at 11:31 am
    Ok, it turned out to be a problem with The java: I uninstalled the 64bits version that I had on my local computer and installed the 32bits , and it works fine now. I have no Idea why, my OS is 64bits, but it works!

    Thanks for your help!

    Regards,
    Ramzi

    Reply
    Jörg Lenhard   says: May 20, 2014 at 2:43 pm
    Glad to hear you got it working! I've heard of similar problems before from other people. In some cases, the jvm.dll referenced in "set PR_JVM=…" seems to not to be present in the 64bit JRE. I have no idea why and when this is the case and it is present in all the 64 bit JREs I have available on my system (Java 6,7, and 8).

    Anyways, good you got it fixed!

Reply

38. *csh*   says: June 23, 2014 at 1:21 pm
    Thanks for this tutorial, it helped me a lot!

    But do you know what the org.apache.commons.daemon.Daemon interface is used for?

    It seems the service runs without it. You just need to implement a static start(String[] args) method, right?

    I wonder why there's this interface then.

    Reply
    > *Jörg Lenhard*   says: June 23, 2014 at 1:49 pm
    > I'm glad to hear it helped :) I remember looking at the Daemon interface, but I have never actually used it. You can implement your service without the interface and just with the help of static startup and shutdown methods.
    >
    > I can't find much information about the Daemon interface, but a source code comment in http://wiki.apache.org/commons/Daemon says the following: "Implementing the Daemon interface is not required for Windows but is for Linux". So as long as you just aim at Windows, you should be fine.
    >
    > Reply
    > > 1. *csh*   says: June 23, 2014 at 3:34 pm
    > >   Thank you for your quick answer!
    > >
    > >   Another problem I have: I have installed the service appearently successfully and if I start it on the console with start prunsrv.exe //TS/Servicename it works perfectly, but if I start it from Windows' Services View or with prnmanager.exe (which I renamed), it doesn't fully start.
    > >
    > >   I mean, I can even see my application logs in the logs folder, the service is marked as "started" and everything seems fine, but it doesn't show any UI in that case. I am using a JavaFX application as service. The JavaFX window just doesn't want to popup. Probably some JavaFX quirks…
    > >   Ever seen this?
    > >
    > >   Reply
    > >   *Jörg Lenhard*   says: June 23, 2014 at 4:29 pm
    > >   Hm, I have implemented Swing-Apps as service, but not JavaFX so far. The Swing-Apps were working fine without any issues.
    > >
    > >   In my experience, when procrun runs fine in debugging mode but not with the Windows tooling, it comes down to pathing issues. Is there a relative path anywhere in your installation script? If yes, try replacing that with an absolute path.However, your problem sounds different, since the application is running (as indicated by the logs), but no UI shows up. This really might be something with JavaFX… What Java version are you using? Maybe procrun misses jars related to JavaFX?
    > >
    > >   Reply
    > > 2. *csh*   says: June 24, 2014 at 9:35 am
    > >   Yes, I've had this pathing issue, too. But in this case the service won't even start at all. My paths are absolute.
    > >
    > >   If I use
    > >   prunsrv.exe //TS//MyService it works!
    > >
    > >   If I use
    > >   prunsrv.exe //ES//MyService it won't work (seems to be the same, when starting from the Windows Services View). The service is started, application logs are fine, but no UI. I've even logged "Showing window" before calling the show() method on the JavaFX window. It is logged in the logs, but no windows shows up…
    > >
    > >   Using Java 8.05. JavaFX is embedded there.
    > >
    > >   Thanks for your help though, I will investigate further.
    > >
    > >   Reply

39. Pingback: Procrun, Prunsrv: Com generar un servei Windows d'una aplicació Java | A new IS hope

40. *Anonymous*   says: September 17, 2014 at 12:56 pm
    It worked very nicely.. Thanks for this noble help to community…..

    Reply

41. *Anonymous*   says: October 14, 2014 at 6:46 am
    HI
    Showing error while starting the service,i am stucked with this

    'Windows could not start the TestService on Local Compute. For more information, review the System Event Log if this is a non Microsoft Service contact the service vendor, and refer to service-specific error code 1'

    please give me any solution for this. (Other than change to 32bit version)

    Reply

12. *Shebin*   says: October 14, 2014 at 7:00 am
Showing error when starting the service.i m stucked with this.

'Windows could not start the Service on Local Computer. For more information, review the System Event Log if this is a non Microsoft Service contact the service vendor, and refer to service-specific error code 1'

please give me any solution for this.(Other than change to 32bit jre)

shebin

Reply

> *Jörg Lenhard*   says: October 14, 2014 at 7:34 am
> Well, what does your error log say?
>
> Reply

13. *Anonymous*   says: November 17, 2014 at 9:20 pm
Hi Jorg,

Your documentation was extremely helpful. I have a question, My java code depends on multiple .jar files during runtime. Is there a way we can specify a directory as class path which will have all the jar files ?

For example: i am using log4j that writes my statements to a file. For the jvm to locate the logger I am giving the full path to the .jar in the classpath. But I have more 20 jar files my project depends on, so is there a way I can give a directory as a classpath ??

Thankyou.

Reply

> *Jörg Lenhard*   says: November 18, 2014 at 10:12 am
> Hi,
>
> first of all: congratulations to the 100th comment to this post ;-)
>
> Regarding your question: This should be no problem at all. Procrun uses the normal Java classpath syntax in its classpath configuration, so you should be able to use the wildcard character, for instance:
> set PR_CLASSPATH=path-to-jars/*
>
> Regards,
> Jörg
>
> Reply

14. *Anonymous*   says: November 18, 2014 at 8:11 pm
Awesome, it worked. Thank you so much :)

Reply

15. *Dhandapani S*   says: November 28, 2014 at 5:56 pm
Hi Jorg,
Thank you for the tutorial. it was really helpful setting up my windows service.
My service is up and running good.
yet i faced one problem,I need to turn on "Allow service to interact with desktop" after the service installation under the service Log On properties.
Without this setup my java component is not interacting with the desktop.
I did not get any error.
I do have administrator privilege and setup the service with that.
Is there a way i can set this field when i do the service installation.
Please help and suggest a solution.

Thank you
Dhandapani S

Reply

> *Jörg Lenhard*   says: December 1, 2014 at 8:56 am
> Hi Dhandapani S,
>
> I have never tried this, but according to the procrun documentation, there is a parameter called Type which you can use. From the documentation: "Service type can be interactive to allow the service to interact with the desktop. Use this option only with Local system accounts." You should probably try this.
>
> Regards,
> Jörg
>
> Reply

16. *kiran*   says: December 11, 2014 at 2:00 pm
hi Jorg,

i am struggling with one problem i.e I can start / stop and restart windows service by setting –StartMode =jvm and loding jre\client\jvm.dll file (means for wind -32 bit).

But if i switch for –StartMode=Java it is creating problem while stopping service.
I need to wait for long time and then it will show some error.

Reply

Jörg Lenhard   says: December 11, 2014 at 4:04 pm
Hi kiran,

this is hard to tell without knowing the actual error message.

Reply

47. *Shakthi*   says: December 22, 2014 at 1:07 pm
Hi Jorg,
Will this work for 32-bit windows machine?

Reply

Jörg Lenhard   says: December 22, 2014 at 2:47 pm
Hi Shakthi,
so far I have never tried it on a 32-bit machine, but the procrun man page says it works.
Regards, Jörg

Reply

1. **Shakthi Elango**   says: December 29, 2014 at 8:58 am
I have tried using 32-bit windows machine with same procedure as mentioned above, but its failed to add service. Any help is appreciated please..

Reply

48. *Shakthi Elango*   says: December 23, 2014 at 6:28 am
Hi Jorg,
I have succeeded with 64-bit windows OS, but not with 32-bit windows OS, where I have followed the same procedure which I did for 64-bit windows OS.
Regards,
Shakthi

Reply

49. *Shakthi Elango*   says: December 29, 2014 at 8:56 am
Hi Jorg,
Any thoughts on My previous comment, I have also tried but no success :(, Plz help me on this..

Reply

Jörg Lenhard   says: December 29, 2014 at 10:13 am
Hi shakthi,
sorry, during Christmas and New year i take a little longer to respond ;) besides, there is hardly anything i can say except: what error message are you getting? What is written into your error log?
Regards, Jörg

Reply

1. **Shakthi Elango**   says: January 12, 2015 at 6:30 am
Hi Jorg,
Sorry for the delay, I have resolved my issues, I just need to put different procrun.exe for 32-bit windows machine.
After changing the 32-bit procrun.exe in 32-bit machine, its works like a charm.

Also I would like to thank you for the awesome tutorial. This tutorial really helped me a lot of how to create a windows service application.

Thanks again and keep up your good work. :)

Regards,
Shakthi Elango.

Reply

Jörg Lenhard   says: January 12, 2015 at 9:44 am
Good to hear you got everything to work and I am glad my tutorial helped!

Regards, Jörg

Reply

50. *Michael Pigg*   says: January 9, 2015 at 4:23 pm
Jorg,
I have followed your instruction step-by-step and it to working just fine.
However, nothing is written to the log files.

How can I write something to the log file from the java class? Can I have some example?

Reply

1. *Michael Pigg*   says: January 9, 2015 at 4:27 pm
   never mind. Jorg. I found the error in my code.
   My morning coffee hasn't kicked in yet.

   Reply

       Jörg Lenhard   says: January 9, 2015 at 6:10 pm
       I am always happy when I can help people without actually doing anything ;-)

       Reply

51. *Shakthi Elango*   says: January 20, 2015 at 12:23 pm
    Hi Jorg,
    Could we able to add 'recovery actions' scripts using procrun?

    Thanks & Regards
    Shakthi Elango.

    Reply

        Jörg Lenhard   says: January 20, 2015 at 3:41 pm
        Hi Shakthi,
        I haven't used recovery actions myself so far and I can't find information on that on the procrun homepage. So I would guess no,
        but this is really only a guess. Maybe you will get support on this on the mailing list.
        Regards, Jörg

        Reply

52. *Rama*   says: February 9, 2015 at 12:06 pm
    Hi,
    I am facing problem, when I am starting HornetQ , HornetQ has beeen started but status in services blank.. How Status will show
    stopped to Running

    Reply

53. *Anonymous*   says: March 3, 2015 at 4:23 pm
    Hello Lenhard,
    Thanks for your help.
    I tried your project,but when I try to run it,I got an error ",FindClass failed
    Also,I tried and build many others,but I got the same error about find class even I do have the jar.

    Reply

        Jörg Lenhard   says: March 3, 2015 at 5:58 pm
        Hi,
        the project doesn't work by itself. It depends on actual file system paths that have to be adjusted for your system. The error you
        get sounds as if your file paths do not fit to your system.

        Reply

54. *Anonymous*   says: March 3, 2015 at 6:09 pm
    I did changed the path.
    set SERVICE_NAME=TService
    set PR_INSTALL=F:\folder\OSGIWIN\procrun-sample-master\prunsrv.exe

    REM Service log configuration
    set PR_LOGPREFIX=%SERVICE_NAME%
    set PR_LOGPATH=F:\folder\OSGIWIN
    set PR_STDOUTPUT=F:\folder\OSGIWIN\stdout.txt
    set PR_STDERROR=F:\folder\OSGIWIN\stderr.txt
    set PR_LOGLEVEL=Error

    REM Path to java installation
    set PR_JVM=C:\Program Files\Java\jdk1.8.0_20\jre\bin\server\jvm.dll
    set PR_CLASSPATH=someservice.jar

    REM Startup configuration
    set PR_STARTUP=auto
    set PR_STARTMODE=jvm
    set PR_STARTCLASS=com.wordpress.joerglenhard.procrun.demo.SomeService
    set PR_STARTMETHOD=start

    REM Shutdown configuration
    set PR_STOPMODE=jvm
    set PR_STOPCLASS=com.wordpress.joerglenhard.procrun.demo.SomeService
    set PR_STOPMETHOD=stop

REM JVM configuration
set PR_JVMMS=256
set PR_JVMMX=1024
set PR_JVMSS=4000
set PR_JVMOPTIONS=-Duser.language=DE;-Duser.region=de

REM Install service
prunsrv.exe //IS//%SERVICE_NAME%

Reply

Jörg Lenhard   says: March 3, 2015 at 6:13 pm
So what messages are written to your logs? "FindClass failed" is really too unspecific for anything but guessing.

Reply

55. *Anonymous*   says: March 3, 2015 at 6:20 pm
Thanks for your help.
Now , I used prunmgr.exe and renamed it to the service name.In the logging file,I get
[2015-03-03 20:19:46] [info] [17308] Commons Daemon procrun (1.0.15.0 64-bit) started
[2015-03-03 20:19:46] [info] [17308] Running 'TService' Service…
[2015-03-03 20:19:46] [info] [17080] Starting service…
[2015-03-03 20:19:46] [error] [17080] Missing service ImageFile
[2015-03-03 20:19:46] [error] [17080] ServiceStart returned 1
[2015-03-03 20:19:46] [info] [17308] Run service finished.
[2015-03-03 20:19:46] [info] [17308] Commons Daemon procrun finished

Reply

56. *Anonymous*   says: March 3, 2015 at 6:23 pm
Thanks for your help.
when I used prunmgr.exe and renamed it to the service name and used mode:"jvm".In the logging file,I get
[2015-03-03 20:21:45] [info] [5864] Commons Daemon procrun (1.0.15.0 64-bit) started
[2015-03-03 20:21:45] [info] [5864] Running 'TService' Service…
[2015-03-03 20:21:45] [info] [7180] Starting service…
[2015-03-03 20:21:46] [error] [7796] FindClass com/wordpress/joerglenhard/procrun/demo/SomeService failed
[2015-03-03 20:21:46] [error] [7180] Failed to start Java
[2015-03-03 20:21:46] [error] [7180] ServiceStart returned 4
[2015-03-03 20:21:46] [info] [5864] Run service finished.
[2015-03-03 20:21:46] [info] [5864] Commons Daemon procrun finished

Reply
Jörg Lenhard   says: March 3, 2015 at 6:35 pm
So procrun can't find the class in the jar file. Is the jar properly constructed? Is the class file in there?

Reply

57. *Anonymous*   says: March 3, 2015 at 6:42 pm
I didn't change the "someservice.jar".when i open its manifest. it contains:
Manifest-Version: 1.0
Class-Path: .
Main-Class: com.wordpress.joerglenhard.procrun.demo.SomeService

Reply
Jörg Lenhard   says: March 4, 2015 at 8:16 am
If the error is not in your paths and not in the jar (though it still sounds as if the jar is missing the class file), the only remaining
part is your java runtime or your operating system. But I can't really say more. Maybe you can get more help on stackoverflow?

Reply
58. *Anonymous*   says: March 3, 2015 at 6:45 pm
yes,the class file in there.

Reply
59. *Srimanta*   says: March 16, 2015 at 9:44 pm
I am getting below error and service not starting

[2015-03-16 21:32:03] [debug] (prunsrv.c:1679) [3300] Commons Daemon procrun log initialized
[2015-03-16 21:32:03] [info] (prunsrv.c:1683) [3300] Commons Daemon procrun (1.0.15.0 64-bit) started
[2015-03-16 21:32:03] [info] (prunsrv.c:1596) [3300] Running 'SlaveService' Service…
[2015-03-16 21:32:03] [debug] (prunsrv.c:1374) [3676] Inside ServiceMain…
[2015-03-16 21:32:03] [debug] (prunsrv.c:844) [3676] reportServiceStatusE: 2, 0, 3000, 0
[2015-03-16 21:32:03] [info] (prunsrv.c:1127) [3676] Starting service…
[2015-03-16 21:32:03] [debug] (javajni.c:222) [3676] Invalid RuntimeLib 'C:\Program Files\Java\jre7\bin\client\jvm.dll'
[2015-03-16 21:32:03] [debug] (javajni.c:224) [3676] Using Jre JavaHome 'C:\Program Files\Java\jre7'
[2015-03-16 21:32:03] [debug] (javajni.c:233) [3676] loading jvm 'C:\Program Files\Java\jre7\bin\server\jvm.dll'
[2015-03-16 21:32:03] [debug] (javajni.c:704) [3700] Jvm Option[0] -Djava.class.path=C:\automation\connectslave.jar

[2015-03-16 21:32:03] [debug] (javajni.c:704) [3700] Jvm Option[1] exit
[2015-03-16 21:32:03] [debug] (javajni.c:941) [3700] Java Worker thread started com/Test/ConnectTest:main
[2015-03-16 21:32:03] [debug] (javajni.c:952) [3700] Exception has been thrown
[2015-03-16 21:32:03] [debug] (javajni.c:964) [3700] Java Worker thread finished com/Test/ConnectTest:main with status=6
[2015-03-16 21:32:04] [debug] (prunsrv.c:1186) [3676] Java started com/Test/ConnectTest
[2015-03-16 21:32:04] [info] (prunsrv.c:1284) [3676] Service started in 1174 ms.
[2015-03-16 21:32:04] [debug] (prunsrv.c:844) [3676] reportServiceStatusE: 4, 0, 0, 0
[2015-03-16 21:32:04] [debug] (prunsrv.c:1528) [3676] Waiting for worker to finish…
[2015-03-16 21:32:04] [debug] (prunsrv.c:1533) [3676] Worker finished.
[2015-03-16 21:32:04] [debug] (prunsrv.c:1559) [3676] Waiting for all threads to exit
[2015-03-16 21:32:04] [debug] (prunsrv.c:844) [3676] reportServiceStatusE: 3, 0, 0, 0
[2015-03-16 21:32:04] [debug] (prunsrv.c:1563) [3676] JVM destroyed.
[2015-03-16 21:32:04] [debug] (prunsrv.c:844) [3676] reportServiceStatusE: 1, 1066, 0, 1
[2015-03-16 21:32:04] [info] (prunsrv.c:1598) [3300] Run service finished.
[2015-03-16 21:32:04] [info] (prunsrv.c:1764) [3300] Commons Daemon procrun finished

Reply

1. *Anonymous*   says: May 18, 2015 at 9:27 am
   I too get this exact error. Only difference is I try to start another piece of java code.

   Reply

50. *Alex*   says: June 25, 2015 at 9:27 am
    Thanks boss for this tuto. Very Helpful. Bye my friend

    Reply
    Jörg Lenhard   says: June 26, 2015 at 3:09 am
    You're welcome!

    Reply
    1. *Alex*   says: June 26, 2015 at 1:31 pm
       To add a description to this service? Now I see only the name without it…..which is the parameter? THANKS

       Reply
       Jörg Lenhard   says: July 1, 2015 at 3:18 pm
       Sorry for the long delay in answering. These conference always lead to overflows in my inbox…

       Anyways, the parameter to set the description should simply be "–Description".

       Reply
51. *Mike*   says: July 29, 2015 at 4:07 am
    Hey Jörg,

    I know this is an old post but thanks for sharing it.
    One thing to add that's been holding me up all day is that you should never wrap your PR_CLASSPATH in quotes, even if it contains
    spaces as this will lead to ClassDefNotFound exceptions every time!

    Cheers

    Reply
    Jörg Lenhard   says: July 29, 2015 at 8:22 am
    Hi Mike,

    an old post, but somehow still very popular. Anyways, thanks for sharing the info, I am sure it will help others!

    Regards, Jörg

    Reply
52. *Terry Luo*   says: July 30, 2015 at 9:33 am
    hi Jörg,

    your great article really helped me a lot. now I was able to install the service. also both start and stop are indeed good after checking
    prunsrv's log(no error). but one thing annoying still have one error entry in Event Viewer Application log.

    Faulting application name: prunsrv.exe, version: 1.0.15.0, time stamp: 0x51543b9d
    Faulting module name: jvm.dll, version: 25.5.0.2, time stamp: 0x5327ff3c
    Exception code: 0xc0000005
    Fault offset: 0x00000000001f5688
    Faulting process id: 0xdac
    Faulting application start time: 0x01d0ca9ed8aea35f
    Faulting application path: d:\abc\def\data\prunsrv.exe
    Faulting module path: C:\Program Files\jdk1.8.0_05\jre\bin\server\jvm.dll
    Report Id: 277978d1-3692-11e5-8e95-005056333ddb

env: prunsrv 1.0.15, AMD 64bit. Windows 2008R2 64-bit
attached bat here.

@echo off
set CLASSPATH=%CD%\lib\AAA.jar;%CD%\lib\BBB.jar;%CD%\lib\CCC.jar;
echo %JAVA_HOME%
set JVM_DLL=%JAVA_HOME%\jre\bin\server\jvm.dll

rem prunsrv log settings
set logPath=%CD%\log
set prefix=prunsrv
set stdError=%logPath%\%prefix%_error.log
set stdOutput=%logPath%\%prefix%_output.log

set serviceName="MyDataService"
set description="My Data Service"
set startClass=com.htf.guarantee.data.engine.Program
set stopClass=%startClass%
set JAVA_JMX_PORT=6060
set jvmOption=-Drs.env=dev#-Drs.dbenv=qa#-DlogFolder=%logPath%\dev

set prunsrv_exe=%CD%\prunsrv.exe

%prunsrv_exe% //IS//%serviceName% –Description=%description% –Startup=auto –Jvm="%JVM_DLL%" –JvmMx=640
–StartMode=jvm –StartClass=%startClass% –StartMethod=main –StopMode=jvm –StopClass=%stopClass% –StopMethod=stop
++JvmOptions=%jvmOption% –LogPath=%logPath% –StdError=%stdError% –StdOutput=%stdOutput% –
Classpath=%CLASSPATH%

I'm sure all absolute path here. would be great to have your help to fix that error.

Thanks…
Terry

Reply
Jörg Lenhard   says: July 30, 2015 at 10:55 am
Hi Terry,

Exception code: 0xc0000005 indicates an Access Violation Error. This could mean that your service tries to access something that it should have access to or it might result deeper issues in your system or maybe your Java runtime. I'm afraid I cannot give you a good hint on what to fix, but I think it is unrelated to your service configuration. Try searching for "Exception code: 0xc0000005" and see what applies to your code or system.

Regards, Jörg

Reply
53. _Janderson_   says: July 30, 2015 at 2:51 pm
Hi Jörg,

help:

[warn] The system cannot find the Registry key for service 'prunsrv'
[error] Load configuration failed
[error] Commons Daemon procrun failed with exit value: 2

Reply
Jörg Lenhard   says: August 3, 2015 at 8:13 am
Hi Janderson,

well, sounds like the installation process failed? Did you try to install with admin privileges?

Regards, Jörg

Reply
54. _Michael PiGG (chopstixninja)_   says: August 27, 2015 at 7:16 pm
Jorg,
With your Service Log Configuration, does the log file roll when it reaches the max size or daily?
I would like to know if there is something "RollingFileAppender" like configuration.

Reply
Jörg Lenhard   says: August 28, 2015 at 7:53 am
Hi Michael,
as far as I know, the log file will not roll and there is no configuration option to achieve this. See also:
https://issues.apache.org/jira/browse/DAEMON-213

I think it would be best to write as little as possible to stdout and stderr and use a custom logging mechanism with proper rotation instead.

Regards, Jörg

Reply

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