**PDI R Step Configuration and Setup Instructions**

This is a detailed walkthrough for configuring PDI to interpret R in the R step. These instructions are adapted from <https://wiki.pentaho.com/display/EAI/R+script+executor>

1. Download and install R for your system (if not already installed)
   1. PDI documentation says to use version 3.1.0 (version 3.6 does appear to work locally)
   2. Windows (<http://cran.r-project.org/bin/windows/base/old/>)
   3. Linux (<http://cran.r-project.org/bin/linux/>)
   4. Mac (<http://cran.r-project.org/bin/macosx/old/>)
   5. Download the 64-bit version to match the Java installation for PDI
2. For Linux/Mac only, enter the following command in a terminal shell
   1. sudo R CMD javareconf JAVA\_HOME=<path to your java installation>
3. Start the R console and install rJava
   1. install.packages(‘rJava’)
   2. NOTE:  Watch for messages that indicate rJava is installing. If you do not see these messages, add the jvm.dll to your Path environment variable, then try to install rJava again.  By default, jvm.dll is in <your java installation directory>\jre\bin\server OR <your java installation directory>\jre\bin\client.
   3. If prompted “Would you like to sue a personal library instead?” click Yes
   4. If prompted with the path of the library, click Yes
   5. When prompted for the CRAN mirror, choose the closest one by location and click OK
   6. In the R console, get the output of the following commands to create new environment variables:
      1. Sys.getenv(‘R\_HOME’)
      2. Sys.getenv(‘R\_LIBS\_USER’)
   7. Close the R console
4. Set R Environment Variables for your machine
   1. R\_HOME
      1. The value from Sys.getenv(‘R\_HOME’)
         1. The value below works for me
            1. C:\Program Files\R\R-3.6.2
   2. R\_LIBS\_USER
      1. The value from Sys.getenv(‘R\_LIBS\_USER’)
   3. PATH
      1. Append the PATH variable with the directory that contains the R executable
      2. POTENTIAL BUG NOTE:
         1. I tried both C:\Program Files\R\R-3.6.2 and C:\Program Files\R\R-3.6.2\bin, and neither worked
         2. I had to add C:\Program Files\R\R-3.6.2\bin\x64 to PATH to get it working
   4. Restart Spoon and potentially your machine to ensure the environment variables take effect
5. Configure Spoon with rJava
   1. Exit Spoon if it’s running
   2. Copy the %R\_LIBS\_USER%/rJava/jri/x64/jri.dll file to
      1. <pentaho install directory>/design-tools/data-integration/libswt/<system folder>
      2. Windows example:
         1. C:\pentaho\design-tools\data-integration\libswt\win64
6. Verify the Installation and Configuration Works
   1. Create a new transformation in Spoon
   2. Add an R script executor step to the canvas and double click to configure it
   3. Configure Tab
      1. Check the box that says ‘Output from Script is Text’
   4. R Script Tab
      1. print('Hello World!')
   5. Output Fields Tab
      1. Click ‘Get Fields’ -> Yes (if this works, then you’re good)
      2. Click OK
      3. To view the output to double check it’s working
         1. Right-click the R script executor step -> Preview… -> Quick Launch -> admire your Hello World! R script in PDI