DEPARTMENT OF TRANSPORTATION

R Installation and Setup

MnModel Phase 4 User Guide: Appendix A

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Install R

First, download and install R from this location (<u>https://cran.cnr.berkeley.edu/)</u>. In this example, we're installing 64bit R for Windows, version 3.5.3 from the Berkeley CRAN mirror and installing to the default location: **C:\Program Files\R\R-3.5.3**.



Only the 64bit version of R is needed, so please make sure the 32bit Files are unchecked as shown below:

Select the components you war install. Click Next when you are	nt to install; clear the components you do not want to ready to continue.
Custom installation	
Core Files	83.8 MB
32-bit Files	48.7 MB
64-bit Files	50.2 MB
Message translations	7.3 MB
Connect and a stress of a stress of the	ast 142.2 MR of dick space

Install RStudio

Note that the instructions below are for a standard installation of R Studio. To use R Markdown and the Reticulate package, which enables the Python-R communication, you must install the 'preview' version of RStudio. The link to this version is currently <u>https://www.rstudio.com/products/rstudio/download/preview/</u>.

- 1. Download and Install RStudio
 - <u>https://www.rstudio.com/products/rstudio/download/preview/</u>
 - Select RStudio Desktop RStudio 1.2.1322 Windows 7+
 - This downloads **RStudio-1.2.1322.exe** (or a similar version number). A copy of the file has been saved to MNMODEL4\TOOLS\R\RStudio1_2_1322.

- Create a folder (C:\Program Files\RStudio) and copy RStudio-1.2.1322.exe into that folder.
- Right click on **RStudio-1.2.1322.exe** and select Run as Administrator.
- If necessary, changed the destination folder to C:\Program Files\RStudio\
- 2. Open RStudio. You should see an interface similar to the screenshots below.



Configure ArcGIS for 64 bit Background Processing

To efficiently run the ArcGIS modeling tools, it is advisable to install 64bit background processing. Make sure the following items are set:

1. Install "ArcGIS_Desktop_BackgroundGP_xxxx_xxxx.exe" for your corresponding version of ArcGIS Desktop. This enables 64bit background geoprocessing.

http://desktop.arcgis.com/en/arcmap/10.3/analyze/executing-tools/64bit-background.htm

https://community.esri.com/thread/198607-where-can-i-download-arcgis-105-desktop-backgroundgeoprocessing-64-bit

You must have an organization login on the ESRI web site to download this executable. Once downloaded at an organization, the executable can be saved to a server and installed on multiple computers.

2. In ArcMap, on the main menu, go to Geoprocessing, then Geoprocessing Options and verify that background processing is Enabled:

Geoprocessing Options
General Overwrite the outputs of geoprocessing operations Image: Comparison operations to a log file
Background Processing Enable Notification Appear for how long (seconds) Stay up if Error occurs
Script Tool Editor/Debugger Editor:
ModelBuilder When connecting elements, display valid parameters when more than one is available.
Results Management Keep results younger than: 2 Weeks
Display / Temporary Data Add results of geoprocessing operations to the display Results are temporary by default
About geoprocessing options OK Cancel