

15 WESSL Tutorial

Background: WES Scripting Language (WESSL) provides the ability to time-release non-AWIPS data within a simulation using a scripting language. The simulation developer can create a new script either from scratch or by modifying an existing wessl file. WESSL 8.1 was installed in `/awips/fxa/DRT/wessl`, and instructions/reference materials can be found through browsing the `/awips/fxa/DRT/wessl/docs/index.htm` file or online at:

<http://www.wdtb.noaa.gov/tools/wes/wessl.htm>

There are two parts of this tutorial. Section 15.1 illustrates some of the functionality of WESSL through using the 2006Aug24test test case. Section 15.2 illustrates how to create a WESSL file for a new case from an existing wessl file.

15.1 Create a New WESSL Script for the 2006Aug24 Test Case from Existing Script

1. Run `/awips/fxa/DRT/wessl/wessl/builder.tcl`
2. Under the "File" menu select "Open".
3. Use the directory navigator to navigate to the `/data/awips/2006Aug24test/wessl` directory, and click on "**abr_8-24-06.wessl**". Then click the "Open" button.
4. Under the "File" menu select "**Save As**". Then type in a new filename for the new WESSL script (e.g. `newtest.wessl`), and click on "**Save**".

Note: Files must be saved with the `.wessl` extension for them to be used in WES.

5. In the new WESSL script, try modifying the 22:05:10 line "**Simulation Has Started...**" text. With the blinking cursor on the modified line, click on the "Run" button in the upper right part of the interface to preview the command.
6. In the 22:12 line change the video file from the `vid2.mpg` to `9jun05.mpg` (with the same full path), and click on the "Run" button. Some tornado footage should appear..

7. Now try modifying the 22:06 line by changing the map latitude from "44.80" to "34.80", and delete "ABR". With the blinking cursor on the modified line, click on the "Run" button in the upper right part of the builder to preview the command. If you made both modifications, a new map will appear over the OUN CWA.
8. Remove the two lines for the 22:07 entry (including line with `–map` line and the line with `–sound`). Put a new pause in the wessl file here by entering "**22:07 –pause –text {simulation paused.}**". Click "Run", and the text should popup (the pause only works during a simulation).
9. In `builder.tcl` move the blinking cursor over the command line containing "22:05". Click on the "Run" button in the upper right to step through each WESSL command until you reach the last command entry with the stop time of the simulation.
10. Once you have stepped through the wessl commands, select "Save" under the "File" menu. Notice that saving the script also builds the script by generating and saving all necessary files in the `<data_case>/wessl` directory.
11. When the builder is done building and saving the script, list the new files created in your "wessl" directory (e.g. `ls /data/awips/2006Aug24test/wessl`).
12. Start a simulation in WES using the 2006Aug24test case, and select the new WESSL file to run (e.g. `newtest.wessl`) next to the "WESSL Script (Optional)" label in the entry box.

Note: You do not need to select any WESSL Case Flags in the WES GUI unless you want to run only parts of the WESSL script.

13. WESSL will launch the commands at the specified times during the simulation. The WESSL Station Log will allow the user to page through the WESSL pop ups. Building a new wessl script in a new case will be covered in the next section.

15.2 Create a WESSL Script for a New Case

1. This section focuses on using the test case WESSL file as a template to build a new WESSL file for a new case. This section assumes a new localization has already been built in Section 7 or Section 9 to be able to run a simulation with WESSL.
2. Make a "wessl" directory for your new WESSL source files in your data case if it doesn't exist (e.g. `mkdir /data/awips/1998Apr08/wessl`). The "wessl" directory must be all lowercase letters.

3. Run `/awips/fixa/DRT/wessl/wessl/builder.tcl`.
4. Under the "File" menu select "Open".
5. Use the directory navigator to navigate to the `/data/awips/2006Aug24test/wessl` directory, and click on "**abr_8-24-06.wessl**". Then click the "Open" button.
6. Under the "File" menu select "**Save As**". Then navigate to the new "wessl" source file directory created in step 2 above (i.e. `/data/awips/1998Apr08/wessl`). Now type in a new filename for the new WESSL script (e.g. `bmx_4-8-98.wessl`), and click on "Save".

Note: Files must be saved with the `.wessl` extension for them to eventually be selected in WES.

7. Modify the lines with your new times and commands.
8. Once you have stepped through the wessl commands, select "**Save**" under the "File" menu.
9. Look at the new files created in your "wessl" directory (e.g. `ls /data/awips/1998Apr08/wessl`). Start a simulation in WES, and select the new WESSL file to run (e.g. `bmx_4-8-98.wessl`) next to the "WESSL Script (Optional)" label in the entry box.

Note: that you do not need to select any WESSL Case Flags unless you want to run only parts of the WESSL script.
