

- **include** <file> Reads the named file and treats each line as a SimLab directive, and then continues processing the next directive in the source file. This is similar to the C include directive.
- **type_function** <command> – Will execute the given command, read stdout from the command and then type that.

A.4 SimLab application notes

Most GUI's have shortcut keys that can be used to automate their inclusion in a lab.

Firefox is brittle when it restarts. See the `fixfirefox.txt` SimLab script for the snort lab for an example of avoiding errors when Firefox restarts.

A.5 Regression testing with `smoketest.py`

The `smoketest.py` utility automates regression testing of labs. It will automatically:

- Start a lab
- Use SimLab to perform the lab
- Stop the lab
- Use `gradelab` to assess the lab
- Compare the results of `gradelab` to those stored in the directory at:

```
labtainer/simlab/<labname>/expected/
```

Populate the expected results with the results from the `labtainer_xfer` directory after you've manually determine the results you desire. If `smoketest.py` is started with no parameters, it will iterate through each lab in the labs directory. The that lab lacks `simthis.txt` file, then the lab is simply started and stopped (hence the tool's name). The tool will stop upon encountering the first error. If a lab's `simlab` includes an `expected` directory it will compare the results and report on whether they match. If no expected results are found, no status is displayed (unless an error is encountered.)