And you want to interact with it using a spreadsheet? Simple connections between R and Microsoft Excel

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Although we are moving to more web applications as deliverables for clients, we still have occasion where the desired method of delivery is a Microsoft Excel spreadsheet. Our clients are used to simulators and scenario tools built in Excel, and they generally take simulation results and further format or analyze them in Excel.

There are methods of deeply integrating *R* and Excel, such as the RExcel [1] add in for Excel. However, when building an application for a client that will need to be installed on multiple computers in a computing and network environment that you do not control, this type of deep integration is not necessarily desired.

The criteria that have emerged as the most important in our past engagements have been reduced likelihood of failure (and doing so visibly when it occurs), ease of adjusting for differences that may occur in different computing environments, requiring the least amount of software to be installed, and causing minimum interference with existing software setups.

This paper describes simple ways to make clean handoffs between Excel and *R* where Excel will provide most of the user interface and *R* will provide the heavy lifting in terms of simulation or other calculations. By keeping the handoff between the two pieces of software limited, it is also easy to replace the Excel component in the future, so this approach can also be a way to easily prototype analysis applications whose interface will eventually be replaced (for example, with a web-based interface).

References

[1] Thomas Baier and Erich Neuwirth (2007). Excel :: Com :: *R. Computational Statistics*, 22, 91–108.