



Apache OpenOffice Build System Improved Windows Development

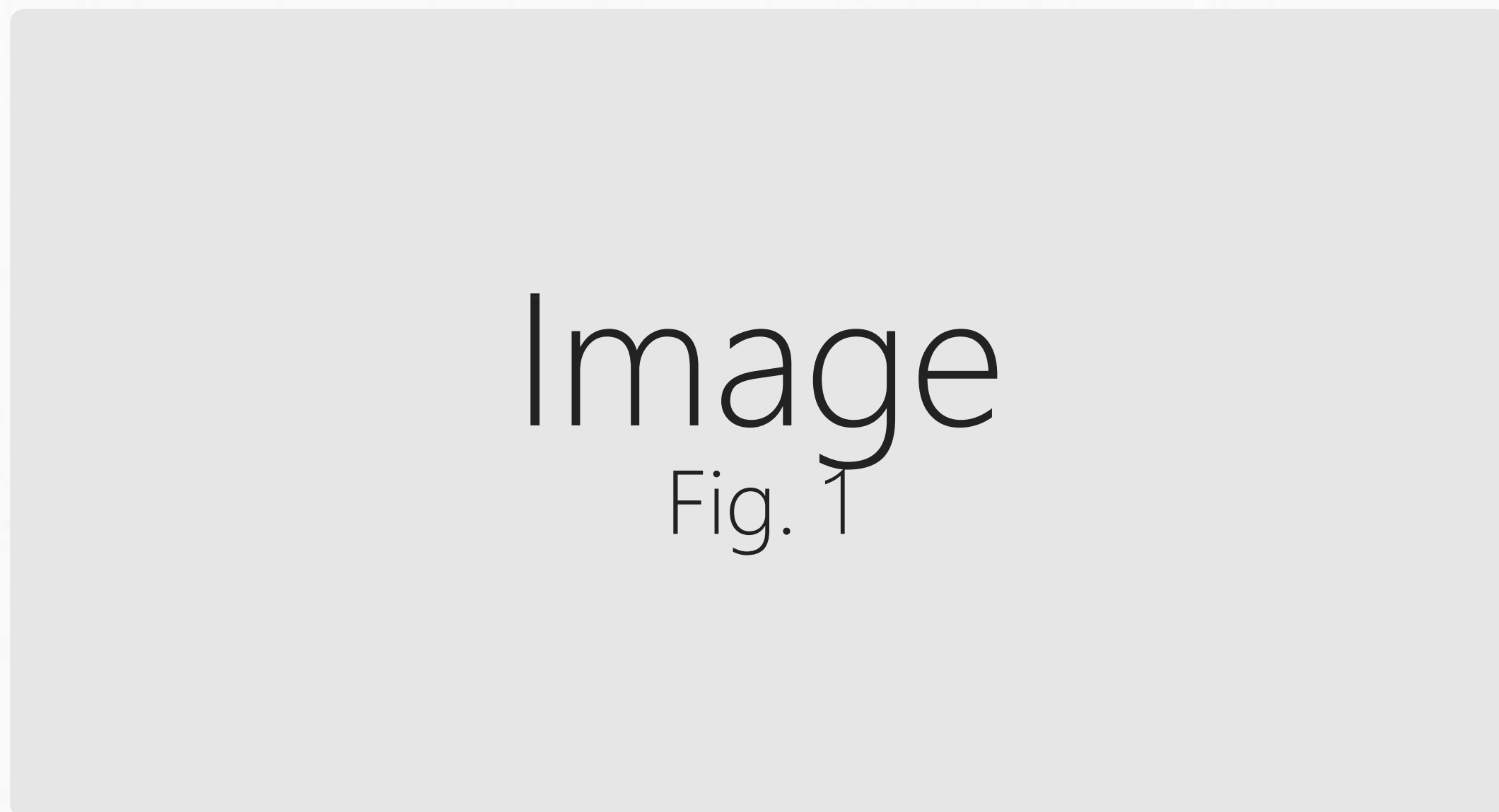


The Team

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The Project

Our goal with this project was to simplify the Windows development process for the Apache Open Office software suite. The largest complication was found to be the set up required to start developing in a Windows environment. The cause was determined to be the incompatibility between the build system and the Windows environment. As a result, the focus of this project was given to developing a native build system for the Windows environment.



Importance

There are two main benefits of this project: increased productivity of existing Windows developers, and the potential to attract new Windows developers. In addition, this project is a step towards creating a more maintainable build system.

Process

We started this project by repeating the process that we were going to simplify: setting up the build system in a Windows environment. This part proved to be difficult even with help and guidance from our mentor.

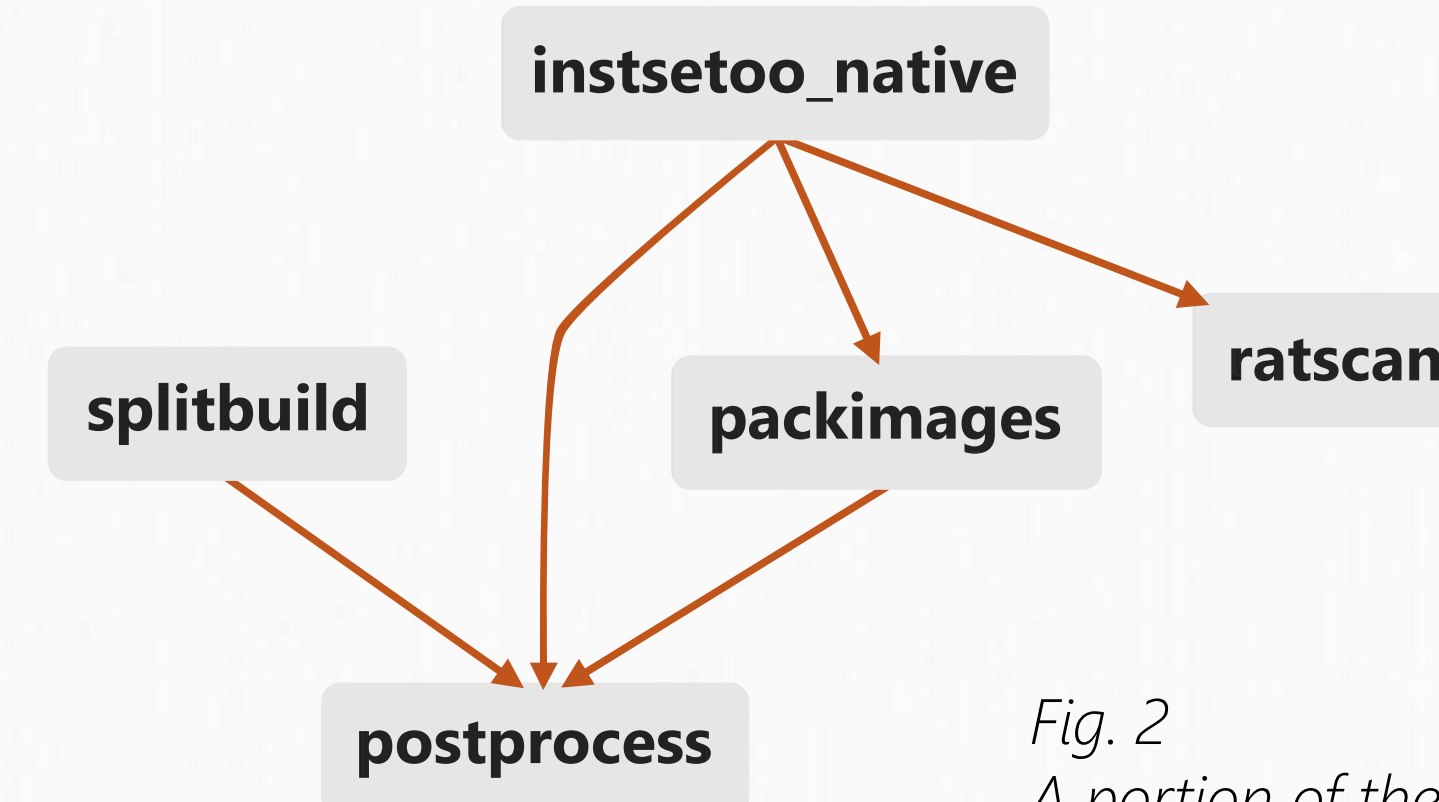
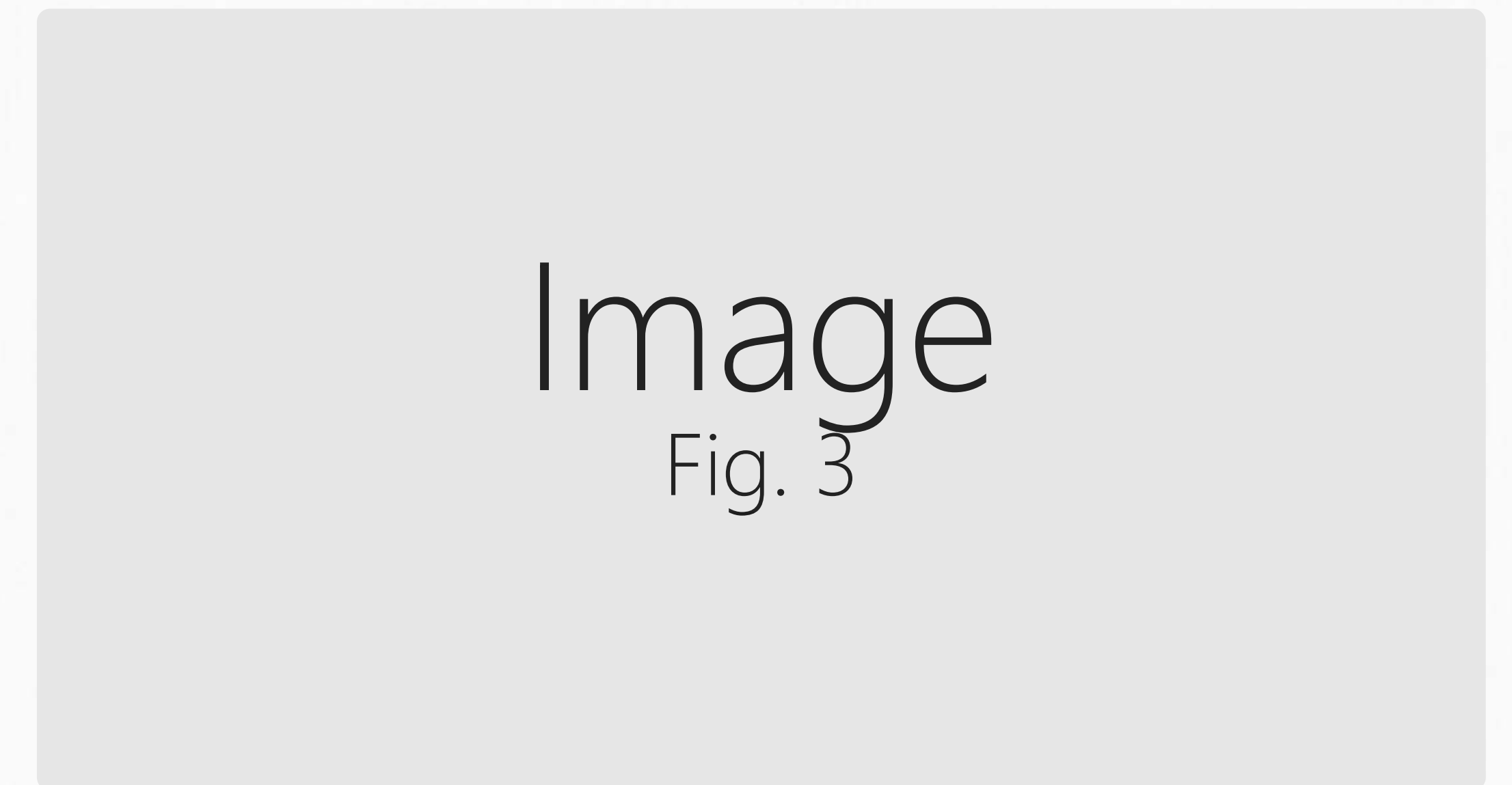


Fig. 2
A portion of the Apache OpenOffice module dependency chart.

After successfully completing this task, we developed a script that would list all the required files and dependencies for each module that compromised the OpenOffice project. This script provided a pivotal starting point for a few of our next steps. At this point we split work between manually converting modules to Visual Studio projects, and modifying our script to automatically convert modules to Visual Studio projects.

Results

We have so far converted 10% of the modules. However, with this comes the script that helps automatically convert a module. The script is only used as a tool to help with the process of converting modules. It cannot fully or properly convert all modules. Instead, it will convert a module to a point where only minor changes are required.



Conclusion

The final outcome of this project is a Visual Studio project for OpenOffice. This will provide the Apache OpenOffice team with a starting point when they begin migrating their current build system. Converting modules proved to be more troublesome than expected - especially when it came to larger and aberrant modules. The complexity was multiplied by the use of Linux specific functionality used in the current build system.