Weekly Report 4

Activity Log:

12/09/2019:

- Presented first prototype to Amjed, Shawn and Aaron. Positive response.
- Giovanni expressed dissatisfaction with the choice of project.

13/09/2019:

- After all attempted development of Pascal modules, Jacob raised concerns about our workflow, especially the decision to attempt a direct port of the old Wise script directly into Pascal. Jamie concurred. A reorganisation to use as much of InnoSetup's native directives capability as possible may be necessary.
- Ricky did some bugfixing on his Set Variables module.

14/09/2019:

- Jacob constructed the frontend/user interface (about 450 lines) working off of Jamie's Install Types (Client/Server) page constructed for Sprint 1. This was an attempt to work outside of the 'porting directly' workflow we had set up, and worked very well. We will have to reconsider our workflow and find a different way to divide tasks - instead of directly porting, we need to look at the Wise modules and make the Inno installer *perform the same tasks* without *directly copying the structure*.
- Jamie integrated about 150 lines of Ricky's code into the current stable build of the script - this is the first integration of a seperate code document/module into the overall install script.

15/09/2019:

- Giovanni provided his weekly report.
- Jacob worked on installing client-side files; discovered some Inno functions like 'installonlyiffileexists' which will streamline more traditional if conditionals from Wise.

16/09/2019:

- Jacob got modules Install Third-Party DLLs, Install Security Components, and Install User Documentation done.

Individual Reports

Giovanni

Monday-Tuesday I spent a couple of hours on Inno for the sql setup portion of wise script found in lines 481-488. I created a branch sql-server-setup. What took extra time was learning how to push my changes to this git branch. It took me while to understand that I had first call git pull origin sql-server-setup then push git push origin sql-server-setup for the pushed changes to take effect. I then learned how to use the FileSearch function to check if an SQL server already exists in the system. I spent a couple of hours translating the lines 491-533. I had some problems compiling the procedure I wrote for checking for available sql server applications to install. It requires a lot of confusing else if statements. I then figured out that I had to include begin and end inside else if statement. And I had to make sure that I did not add a semi color to the end inside the else-if. I should only add the semicolor to the end inside the else statement.

Wednesday-Thursday I spend a couple of hours translating the lines 542-551. Even though these are only a few lines of code, but I spent a lot of time working on the trying to find the architecture of the computer. This portion makes additional checkes if SQL 2016 is available to install. So this means that I have to check if the Windows version is 8 and that it's architecture is 64. This means translating lines 60-89. After spending much time searching for answers I finally found the right function for determining the architecture. I had to use ProcessArchitecture function which returns x64, x86. I had to create some variables for OS, OPERATING_SYSTEM and OS_ARCHITECTURE and OS_ARCHITECTURE6432. I already created procedures for storing the value for these variables. I created procedures: SetArchictureVariables, CheckIfSQL2016CanBeInstalled, setOperatingSystemVariable. I also created functions IsWindows8OrLater and CheckWindowsVersion. I spent a couple of hours working on lines 562-576. I had to learn a number things to get this translated to Pascal scripting. I needed to know how to use Exec function. I also needed to know how to find the Windows version of the computer. I wrote two procedures: DoesSystemNeedUpdates and UpdateSystem. This is needed for sql 2016 installation in Windows 8.1 because updates are required for this environment.

Jamie

Progress was slow this week. Partly hampered by unfamiliarity with the new languages and a lack of documentation for them. Committed Siqi's work on declaring and initialising variables. Continued with a small section at the end of the same module that hasn't yet been implemented. We can't create unit tests so testing is manual and slow. For this reason, it's tempting to make a lot of changes between tests, test only for likely errors, or simply not retest the things that have already been implemented and hope they're not affected by the changes. And it's only going to get worse as more functionality is implemented.

Siqi

This week I'm completing our fifth and sixth modules: Startup processing#5 and Return from a restart. But I haven't finished it by Friday. It is expected that I will finish these two parts by Monday.

Jacob

Last weekend I began work on the individual modules derived from the Wise script. By Monday, I had realised that the 'direct port' approach we had documented and planned over previous weeks was not going to work - the time involved in learning the functionality of pure Pascal was going to overwhelm us and lead to missed deadlines and possibly an incomplete product. Therefore, I spent the next day 'resetting' my approach - I made a goal to implement the entire user interface using as much of Inno's native directives as possible. While the interface actually ended up still coded entirely in the Pascal [Code] section, large portions of it are constructed from native Inno classes (TMsgQueryPage, for example, gives a template to construct a page which displays a Read Me). I will continue working in this 'stream of consciousness' style, and see if I can refactor our workflow so that everyone can adapt to this. Doing things this way I was able to complete three of the smaller modules on our Kanban board on Friday.

Appendix

GitHub issue tracking and Kanban board (only Shawn and team members can view):
https://github.com/16430978/installer-capstone/projects/1

Project plan spreadsheets:

- Dependencies:
  https://docs.google.com/spreadsheets/d/1SdETWs8JnK-qYgpxqGSBiMN7VYvaaBcpQ_94nxT9jxw/edit?usp=sharing

- Tasks/issues:
  https://docs.google.com/spreadsheets/d/19XezZA3l-hzyD3eZUbFKjSlOmy8_6nIBnk8FFIgPWNo/edit?usp=sharing