PUTTY *DRIVER*

INTRODUCTION

PuttyDriver version 0.1 has been built as a 'proof of concept' using Excel and Visual Basic, to evaluate a Microsoft Windows application interface with the popular open source PuTTY SSH and Telnet client developed by Simon Tatham and others.

The project files with source code can be found at https://github.com/christyler80/PuttyDriver and these include a brief 5 minute video, providing an overview of the current PuttyDriver functionality.

PuttyDriver includes both record and replay functionality and uses the Microsoft Windows Message Queue and the Windows Clipboard, to communicate interactively with one or more PuTTY sessions.

PuttyDriver currently consists of two application files - ***PuttyDriver.xlsb*** (Excel 32 bit) and ***PuttyDriver.exe***.

PuttyDriver.exe Is a slightly modified 0.75 version of PuTTY with a small amount of additional C code, to provide the message queue Interface.

So far, the project scope has been 'proof of concept' for building and testing a robust communication interface with PuTTY.

Basic testing has successfully been undertaken with servers running a variety of Unix/Linux platforms.

Important: At this time:

- PuttyDriver will only work with 32-bit versions of Microsoft Excel 2016 or later.
- Microsoft Excel 64-bit versions are not currently supported.
- 32-bit or 64-bit versions of Microsoft Windows 10 operating system are supported.
- PuttyDriver should work on Windows 7, but this has not been tested.
- Other operating systems (e.g., Apple, Linux) are not supported.

NEXT STEPS

Planned future versions of PuttyDriver, include Database integration and Docker compatible .NET controller programs, aimed at assisting systems administration and legacy application automation (e.g., for regression testing).

As already stated in this document, PuttyDriver is distributed in the hope that it will be useful.

Please provide feedback via GitHub and/or by contacting me using the details below.

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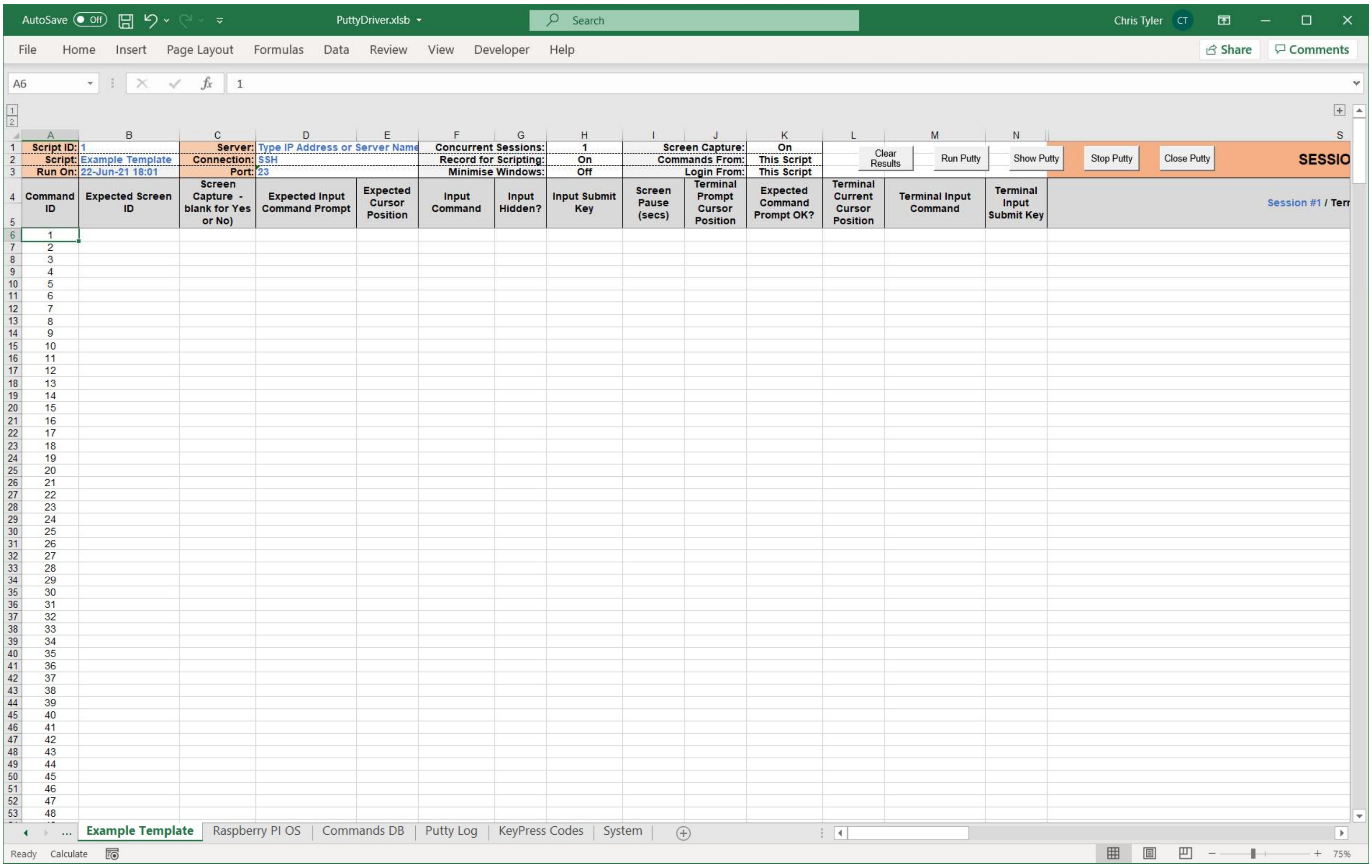
GETTING STARTED

1. Copy PuttyDriver.xlsb and PuttyDriver.exe files into a folder.
2. Run PuttyDriver.exe and connect to a server using SSH (or Telnet), using its IP address or Server Name.
3. Check that login and password are both OK and close PuttyDriver.exe.
4. Open the PuttyDriver.xlsb workbook and using the 'Example Template' worksheet, type the IP address or Server Name into cell D1.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	S
1	Script ID:	1	Server:	Type IP Address or Server Name		Concurrent Sessions:		1		Screen Capture:	On				SESSIO
2	Script:	Example Template	Connection:	SSH		Record for Scripting:		On		Commands From:	This Script				
3	Run On:	22-Jun-21 18:01	Port:	23		Minimise Windows:		Off		Login From:	This Script				
4	Command ID	Expected Screen ID	Screen Capture - blank for Yes or No)	Expected Input Command Prompt	Expected Cursor Position	Input Command	Input Hidden?	Input Submit Key	Screen Pause (secs)	Terminal Prompt Cursor Position	Expected Command Prompt OK?	Terminal Current Cursor Position	Terminal Input Command	Terminal Input Submit Key	Session #1 / Terr
5															
6	1														
7	2														
8	3														
9	4														
10	5														
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5. Press the 'Run Putty' button. PuTTY (PuttyDriver.exe) should open.
6. Login into PuTTY as usual, I.e., using a valid user ID and password.
7. These commands and the PuTTY screen should be captured automatically, in rows 6 and 7 of the spreadsheet.
8. Type 2 or 3 additional commands Into PuTTY - e.g., '*pwd*' or '*ls*'. These should also be captured in the spreadsheet.
9. When finished, close PuTTY as normal.
10. Passwords are usually often 'hidden'. If so, type '*Yes*' Into the '*Input Hidden?*' column 'G' on row 7.
11. To replay these commands, press the 'Clear Results' button, followed by the 'Run Putty' button.
12. As before, PuTTY (PuttyDriver.exe) should open but this time, PuttyDriver should log in automatically using the credentials used in step 6 and automatically run the commands typed in step 8.
13. The PuTTY screen should be captured automatically, both in Excel and as text files, in a new 'Capture' folder.
14. Script execution can be controlled using the optional '*Expected Screen ID*', '*Expected Input Command Prompt*' and '*Expected Cursor Position*' columns.
15. See the 'Raspberry PI OS' worksheet for examples of how the '*Expected*' fields can be set and use of '*' wildcard for Cursor position where X or Y are known, but not both (e.g., after running list files command).
16. PuttyDriver scripts can be run for multiple concurrent sessions on the same server. Different user inputs for each session - e.g., for data entry screens - can be specified using the 'Command DB' worksheet.