



**SARAH CANNON**

Development Innovations

# **Push a Button in Excel to run all Your SAS Programs**

PhUSE US Connect, Raleigh NC, 2018

Taylor Markway

# Overview

---

- ❖ Paper covers
  - ❖ Building a basic version
  - ❖ Has VBA code available for “copy & paste”
- ❖ Presentation will cover
  - ❖ What the button is
  - ❖ Using the button to run programs
  - ❖ Additional features

# Button Specifics

---

- The button is a form control button in Excel that launches an Excel Macro
- The Excel macro is VBA that...
  - Collects all values (program names) below it
  - Writes a .bat file to run each program in SAS

## What happens?

|   | A            | B              | C           | D           | E             |
|---|--------------|----------------|-------------|-------------|---------------|
|   |              | Create Batch   |             |             |               |
| 1 | Output       | Program Name   | Programmer  | Validator   | Review Status |
| 2 | T01_DM       | table_dm.sas   | Alan Turing | David Bowie |               |
| 3 | T02_DISP_PP  | table_disp.sas | Alan Turing | David Bowie |               |
| 4 | T02_DISP_SAF | table_disp.sas | Alan Turing | David Bowie |               |
| 5 | T03_AE       | table_ae.sas   | Alan Turing | David Bowie |               |
| 6 | T03_AEGR3    | table_ae.sas   | Alan Turing | David Bowie |               |
| 7 |              |                |             |             |               |

1



DSUR\_Tables.bat

2

```
DSUR_Tables.bat - Notepad
File Edit Format View Help
@Echo off
echo -----
echo Batch Generated From File: PaperVersion.xlsm
echo Batch Generated From Sheet: SDTM
echo Batch Created By: Markway Taylor
echo Batch Create Date and Time: 5/25/2018 7:51:47 PM
echo -----

set ProgPath=c:\programs

echo Running table_dm.sas
C:\sas.exe - sysin %ProgPath%\table_dm.sas.sas
echo Running table_disp.sas
C:\sas.exe - sysin %ProgPath%\table_disp.sas.sas
echo Running table_ae.sas
C:\sas.exe - sysin %ProgPath%\table_ae.sas.sas
Rem
Rem
echo The batch has finished running, press any key to exit
pause > nul
cls
exit
```

### 1. Run the created .bat file after it is created

- .bat is saved for reproducibility
- Requires an additional click
- This is what the code in the paper requires

### 2. Run .bat from Excel

- Still saves .bat for reproducibility.
- Map Excel reports of logs checks/PROC COMPARE summaries back in original document
- Depending on method can tie up some functionality of Excel.
  - modShellAndWait, by Chip Pearson,  
[www.cpearson.com/Excel/ShellAndWait.aspx](http://www.cpearson.com/Excel/ShellAndWait.aspx)

## Adding Features

- Leverage Standard Folder Structures
  - E.g. Set only the study path and delivery name
- Incorporate standard validation checks
  - Log check macros
  - PROC COMPARE check macros
  - Pinnacle 21
- Add audit trails
  - Force all .bat file to save who ran what, when and with what options

The screenshot shows the 'SAS Batch Application' dialog box. It has a title bar with a close button. The main area contains several sections: 'Root Path' (C:\Users\Deliverable\dsur), 'Delivery Name' (DSUR2018), two unchecked checkboxes for 'Archive Request Form' and 'Check to Run Immediately in Excel', 'Production Details' (Programs, Logs, Lst, Comp Data paths), 'Validation Details' (Programs, Logs, Lst, Comp Data paths), and 'Summary Details' (four checked items for Run Production, Run Validation, Proc Compare Report, and Pinnacle21 Report, each with a file path). At the bottom are four buttons: 'Create Batch', 'See Program List', 'Help', and 'Cancel'.

SAS Batch Application

Root Path: C:\Users\Deliverable\dsur

Delivery Name: DSUR2018

☐ Archive Request Form: C:\Users\Deliverable\dsur\ArchRequest\_ProgramIndex.doc

☐ Check to Run Immediately in Excel (not recommended)

Production Details

Programs: C:\Users\Deliverable\dsur\Production\Programs

Logs: C:\Users\Deliverable\dsur\Production\Programs\Log

Lst: C:\Users\Deliverable\dsur\Production\Programs\Lst

Comp Data: C:\Users\Deliverable\dsur\Production\Data

Validation Details

Programs: C:\Users\Deliverable\dsur\Validation\Programs

Logs: C:\Users\Deliverable\dsur\Validation\Programs\Log

Lst: C:\Users\Deliverable\dsur\Validation\Programs\Lst

Comp Data: C:\Users\Deliverable\dsur\Validation\Data

Summary Details

☒ Run Production, log report: C:\Users\Deliverable\dsur\DSUR\_ProductionLogReport.rtf

☒ Run Validation, log report: C:\Users\Deliverable\dsur\DSUR\_ValidationLogReport.rtf

☒ Proc Compare Report: C:\Users\Deliverable\dsur\DSUR\_PCOMP.rtf

☒ Pinnacle21 Report: C:\Users\Deliverable\dsur\DSUR\_P21.xls

Create Batch See Program List Help Cancel



**SARAH CANNON**

Development Innovations

# Thank You!

**Questions/Comments ?  
What features would you add?**