

Report Automation via SAS



**EDWARD CHANG
MINISTRY OF HEALTH
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Why need automation?



- Required to use Excel as the report format
- Typical report: multiple tabs with multiple tables, cut-paste is error-prone
- Many reports needs to be updated in the same time
- Only data in the table to be updated
- Monthly, quarterly, annual reports which having the same structure

What tools available in SAS



- Using different tagsets which use SAS ODS.
- Using DDE
- Using Enterprise Guider to do that.

Output Delivery System(ODS) Basics

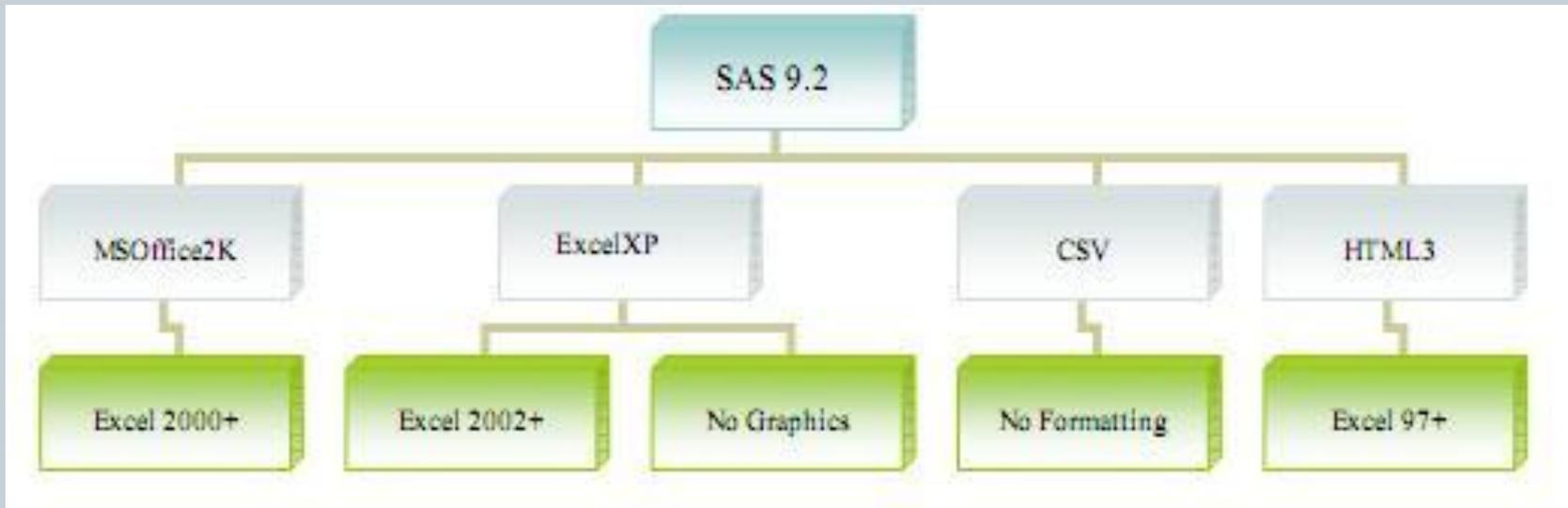


- To start output being delivered to ODS the general syntax is:
- `ods output-format<options>;`
- To end output being delivered to ODS:
- `ods output-format close;`
- Between the above two statements are **SAS codes**
- Normally we use the following statements before and after the above statements
- Before “ods output-format<options>”:
- `Ods listing close;`
- `Ods noresults;`
- After “ods output-format close”:
- `Ods listing;`
- `Ods results;`

What object will be used?



- Discussion of eligible list (tagsets: excelXP, msoffice2k, html)



Available or unavailable?



- Benefits of each tagsets

Benefit	ExcelXP	MSOFFICE2K / HTML3	CSV	MSOFFICE2K_X	TableEditor
Creates Multiple Worksheets	✓			✓	✓
Creates Graphics		✓		✓	✓
Adds or Modifies Styles	✓	✓		✓	✓
Uses Options	✓		✓	✓	✓
Updates Worksheets					✓
Creates Output on all Operating Systems	✓	✓	✓	✓	✓

- Tableeditor is not a default tagsets in our environment
- Download from support.sas.com and run it to add it to the template)

Problems using tagsets



- Basically each tagsets has advantages and disadvantages
- Header and footer only accept text file for excelXP and msoffice2k_x, no icon allowed
- excelXP has problem to format the data in #,### though other formats are ok
- Msoffice2k_x can not generate multiple tabs though can join them in one excel file later, naming issue
- Can not retain the current Excel template features.

Alternatives



- Possible to use dde to call excel macro to insert the logo to the existing file?
- DDE might be able to realize my task but and I did not try that.
- Using excel as a dataset?

Major Steps Using EG (or SAS)



- Cook the data to generate same structure as the target table in excel tabs
- Name the range for each target tables in the excel tabs
- Open the excel file as a library and you will see the ranges and excel sheet as the table in the library folder
- Export the table to the target table by deleting and replacing
- Close the excel file

Things to Pay Attention



- Name convention when defining the range: no space in the name
- The name should be exactly the same when doing the exporting (case sensitive)
- Can use prompt to change other stuff, like folder name, titles and notes in the report

Questions?

