

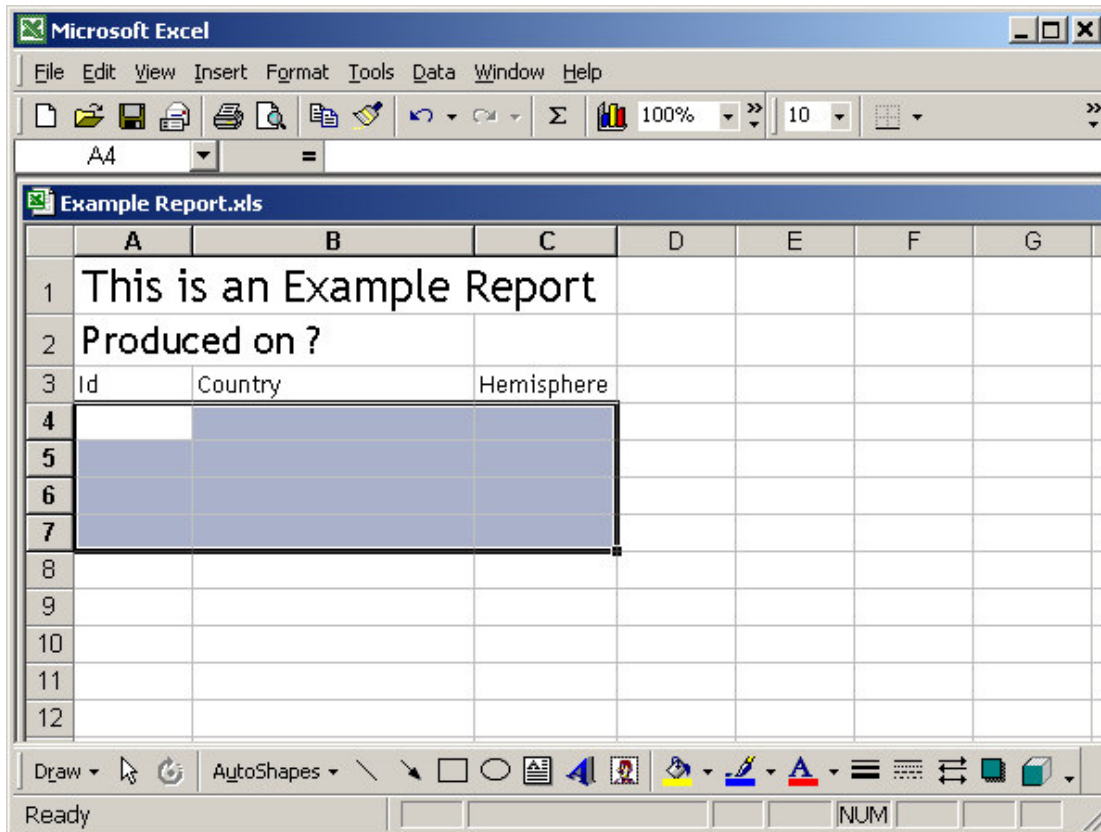
Appendix to

Automated Reporting using MS Excel via DDE

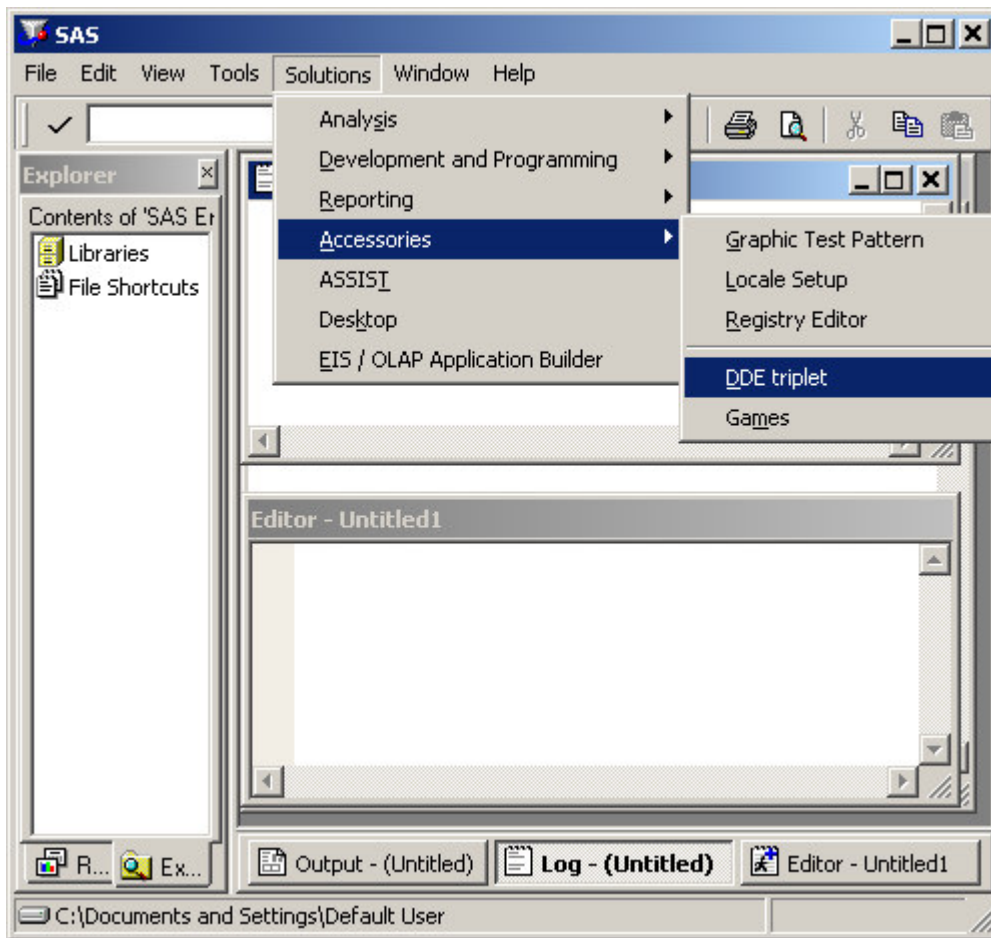
- [Steps to Create DDE Triplet](#)
- [CheckXI Routine](#)
- [CheckXI2 Routine](#)
- [Macro XLReport](#)
- [Example using XLReport Macro](#)

Steps to Create DDE Triplet

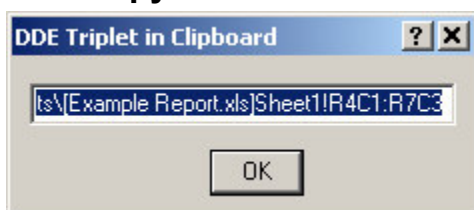
Open Prototype Spreadsheet and copy range



In SAS, Select DDE Triplet option



Now copy contents of window



Fully referenced DDE Triplet:

(Copied from window)

Excel C:\User\Reports\[Example Report.xls]Sheet1!R4C1:R7C3
--

Simplified DDE Triplet:

(Remove folder path to avoid incompatible NT addressing)

Excel [Example Report.xls]Sheet1!R4C1:R7C3
--

DDE Filename in SAS

(Range can be enlarged at this time)

```
FILENAME XLdata DDE 'Excel|[Example Report.xls]Sheet1!R4C1:R7C3'  
NOTAB ;
```

[Top of Page](#)

CheckXL.sas

```
*****  
*****  
CheckXl.sas  
C:\Documents and Settings\User\My Documents\my sas files\v8\Views  
  
Richard Carson  
Revised 30/04/2004  
Source locations changed  
Sleep function used for delay  
  
Routines CheckXl and CheckXl2 were developed  
at the Department of Work and Income, New Zealand,  
in 1999, and are used by permission  
These routines may be freely used adapted  
PROVIDED THAT  
- the original source is acknowledged  
- all modifications are documented  
  
*****  
*****  
;  
%let optsrx2 = %sysfunc (getoption (source2)) ;  
options nosource2 ;  
  
%Let Utilities =  
C:\Documents and Settings\User\My Documents\my sas files\v8\Views  
;  
%Let OfficeDir = C:\Program Files\Microsoft Office\Office ;  
%Let XlAppl = EXCEL.EXE ;  
  
%let optsrx = %sysfunc (getoption (source)) ;  
%let optnotex = %sysfunc (getoption (notes)) ;  
options notes ;  
%put NOTE: Checking that Microsoft Excel is loaded. ;  
options nonotes nosource ;  
  
%let optxsx = %sysfunc (getoption (xsync)) ;
```

```

%let optxwx = %sysfunc (getoption (xwait)) ;

proc printto log = 'NUL' ;
run ;

%let xlerr = 1 ;

%window warning irow=4 rows=22 icolumn=10 columns=50
      #5      @4      "Make sure you have Excel running."
      #8      @4      "If necessary, start Excel from"
      #9      @4      "      Windows Explorer"
      #15     @4      "Press ENTER to continue" ;

%macro checkerr ;
  %if &syserr = 1012 %then
    %do ;
      %if &xlerr = 1 %then
        %do ;
          options noxwait noxsync ;
          X """&OfficeDir\&XlAppl"""" ;
          %let xlerr = -1 ;
          data _null_ ;
          *   do _i_ = 1 to 99999999 ;
              /* procrastinate */
          *   end ;
              Put      "Please Wait" ;
              pause    =      Sleep (3) ;
          run ;
        %end ;
      %else %display warning ;
    %end ;

  %else %let xlerr = 0 ;

  %if &xlerr NE 0 %then %include
    "&Utilities\CheckXl2.sas" ;

%mend checkerr ;

%include      "&Utilities\CheckXl2.sas" ;

proc printto log = log ;
run ;

options &optsrx &optsrx2 &optnotex &optxsx &optxwx ;

```

[Top of Page](#)

CheckXL2.sas

```

*****
*****
CheckXl2.sas
C:\Documents and Settings\User\My Documents\my sas files\v8\Views

```

Richard Carson
Revised 30/04/2004
Source locations changed

Routines CheckXl and CheckXl2 were developed
at the Department of Work and Income, New Zealand,
in 1999, and are used by permission
These routines may be freely used adapted
PROVIDED THAT
- the original source is acknowledged
- all modifications are documented

```
*****  
*****  
;  
filename cmds DDE "Excel|system" ;  
data _null_ ;  
file cmds ;  
run ;  
  
%checkerr ;
```

[Top of Page](#)

Macro XLReport

```
%macro xlreport (indata, inxl, outxl, sheet, datrange,  
firstcol, othrcols, hdrange, headers,  
byvals, firstby, lastby  
)  
;  
  
%* Macro XLREPORT was developed at the Department of Work and  
Income, New Zealand, in 1999, and is used by permission  
This macro may be freely used adapted  
PROVIDED THAT  
- the original source is acknowledged  
- all modifications are documented  
;  
  
%local xlname missing rowdata fileerr optsrcx optnotex  
;  
%let optnotex = %sysfunc (getoption (notes)) ;  
%let optsrcx = %sysfunc (getoption (source)) ;  
  
options nosource nonotes ;  
  
%if &inxl =  
OR &outxl =  
OR &firstcol =  
%then %goto toosprse ;  
  
%if %length (&indata) = 0 %then %let indata = _LAST_ ;
```

```

%let xlname = %sysfunc (reverse
                    (%sysfunc (scan
                                (%sysfunc (reverse (&inxl)),
                                              1, \)))) ;

%if %sysfunc (fileexist (&inxl)) %then
%do ;

    filename cmds DDE "Excel|system" ;

    data _null_ ;
        file cmds ;
        put "[OPEN("&inxl")] " ;
    run ;

%end ;

%else
%do ;
    %let fileerr = %sysfunc (sysmsg()) ;
    %goto noxlfile ;
%end ;

%if &sheet =          %then %let sheet = Sheet1 ;
%if &datrange =       %then %let datrange = R6C1:R1600C16 ;
%if &hdrrange =       %then %let hdrrange = R2C1:R2C1 ;

filename xlrept DDE
    "Excel| [&xlname]&sheet!&datrange" ;
;
%if %length (&headers) > 0 %then
filename xlhdrs DDE
    "Excel| [&xlname]&sheet!&hdrrange" ;
;

%if %length (&othrcols) > 0 %then
    %let rowdata = &fstcol %str((&othrcols)) %str
                        ((+bs '09'x)) ;
%else %let rowdata = &fstcol ;

%if %length (&byvals) > 0 %then
    %let breakval = %sysfunc (reverse
                            (%sysfunc (scan
                                        (%sysfunc (reverse (&byvals)), 1)
                                        ))) ;
%else
%do ;
    %let firstby = ;
    %let lastby = ;
%end ;

%let missing = %sysfunc (getoption (missing)) ;
options missing = " " ;

data _null_ ;
    set &indata ;

```

```

    %if %length (&byvals) > 0 %then
        by &byvals ;
        ;

        retain bs -1 ;

    %if %length (&headers) > 0 %then
        %do ;
            if _N_ = 1 then
                do ;
                    file xlhdrs notab ;
                    put &headers ;
                end ;
            %end ;

            file xlrept notab ;

    %if %length (&firstby) > 0
        %then
        %do ;
            if first.&breakval then
                do ;
                    put &firstby ;
                end ;
            %end ;

            put &rowdata ;

    %if %length (&lastby) > 0
        %then
        %do ;
            if last.&breakval then
                do ;
                    put &lastby ;
                end ;
            %end ;
run ;

options missing = "&missing" ;

data _null_ ;
    length fname $ 8 ;
    fname = ' ' ;
    rc = filename (fname, "&outxl") ;
    if (rc = 0) and (fexist (fname)) then
        rc = fdelete (fname) ;
    rc = filename (fname, '') ;
    file cmds ;
        put "[SAVE.AS("&outxl")]" ;
        put "[FILE.CLOSE]" ;
run ;

%goto done ;

%toosprse:
    %put Not enough data for macro ;

```

```

%put Must specify, at minimum, ;
%put %str(    ) input Excel file (2nd parameter) ;
%put %str(    ) output Excel file (3rd parameter) ;
%put %str(    )
    list of variables to report (6th parameter) ;
%put %str(    ) (in order required). ;
%goto done ;

%noxlfile:
%put &fileerr ;
%put WARNING: Report has not been produced ;
%goto done ;

%done:

    options &optnotex &optsrcx ;

%mend xlreport ;

%put Macro XLREPORT loaded ;

```

[Top of Page](#)

Example using XLReport Macro

```

%let pattern = &debt\report\kpi\blanks\rc39a@@2.xls ;
%let target  = &debt\report\kpi\rc39atop.xls ;
%let source  = topten ;
%let idcol   = ranking ;
%let othrdata = %str (dist contact opndbtrs opnprfm) ;
%let range   = R5C1:R20C5 ;
%let headers = "Rate %trim (%left (&toprate)).% Or Better" / "As at
&tdate" ;
%xlreport (&source, &pattern, &target, Sheet1, &range, &idcol,
&othrdata, R2C1:R3C1, &headers) ;

```

[Top of Page](#)