

How to add TortoiseSVN- Functionality to SAS® Enhanced Editor

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Tom, living with Crohn's disease



Inspired by **patients.**
Driven by **science.**

Overview

Introduction

Embedding TortoiseSVN functionality to SAS®

- Adding toolbar nutton
- Macro code

Enhancements for daily use

Introduction

TortoiseSVN – GUI to manage different versions of code in Apache™ Subversion®

Programmers should SVN-commit their code at least once daily

SAS enhanced editor misses SVN-functionality

- Need to switch to Windows Explorer
- SVN-commit code
- Go back to SAS

SVN provides an interface to control SVN actions:

```
TortoiseProc.exe  
/command:commit  
/path:"PathToMyFile.sas"  
/closeonend:0
```

SVN Commit Button

Main problem:

- there is no system variable in SAS keeping the path of the file in the active window.

Workaround:

- Every time a file is opened or saved a record is added to dictionary.extfiles.

We want to build an SVN-toolbar button which

- saves the program we want to SVN-Commit
- retrieves the path of the program from dictionary.extfiles
- submits the SVN call using a system command (X, %sysexec)

Dictionary.Extfiles

VIEWTABLE: Sashelp.Vextfl		
	fileref	xpath
32	#LN00171	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfils\data
33	#LN00173	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfils\log
34	#LN00175	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfils\pdf
35	#LN00405	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_ex01.sas
36	#LN00407	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_dv01.sas
37	#LN00409	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_ds02.sas
38	#LN00411	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_ds01.sas
39	#LN00413	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_dm01.sas
40	#LN00415	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_das01.sas
41	#LN00417	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_co01.sas
42	#LN00419	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_cmp01.sas
43	#LN00421	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_cm02.sas
44	#LN00423	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_cm01.sas
45	#LN00425	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_ae02.sas
46	#LN00427	M:\100\Branche\Brogan\Research\01p078\PIA00000_gcp\N\... \dev\tfilsV_ae01.sas
47	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\core\sasmsg
48	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\acclmva\sasmsg
49	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\access\sasmsg
50	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\dmscore\sasmsg
51	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\graph\sasmsg
52	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\iml\sasmsg
53	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\insight\sasmsg
54	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\or\sasmsg
55	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\spdsclient\sasmsg
56	#LN00001	D:\Applications\SASHome\SASFoundation\9.3\stat\sasmsg
57	#LN00002	D:\Applications\SASHome\SASFoundation\9.3\connect\saslink

Macro code

```
%macro _svn_commit;

    %global _mypath _path;

    ** retrieve latest added xpath from dictionary.extfiles ;

    proc sql noprint;
        select xpath into: _mypath from dictionary.extfiles where
            substr(fileref,1,1)='#'  having fileref=max(fileref);
    quit;

    %let _path=TortoiseProc.exe /command:commit /path:"%trim(&_mypath.)"
/closeonend:0;

    %sysexec &_path.;

    ** housekeeping;

    %symdel _mypath _path;

%mend _svn_commit;
```

Problem

SAS seems to wait updating dictionary.extfiles until all toolbar button related activities are done

_mypath is resolved before dictionary.extfiles is updated

Command bar commands could be documented better

Macro code (revised)

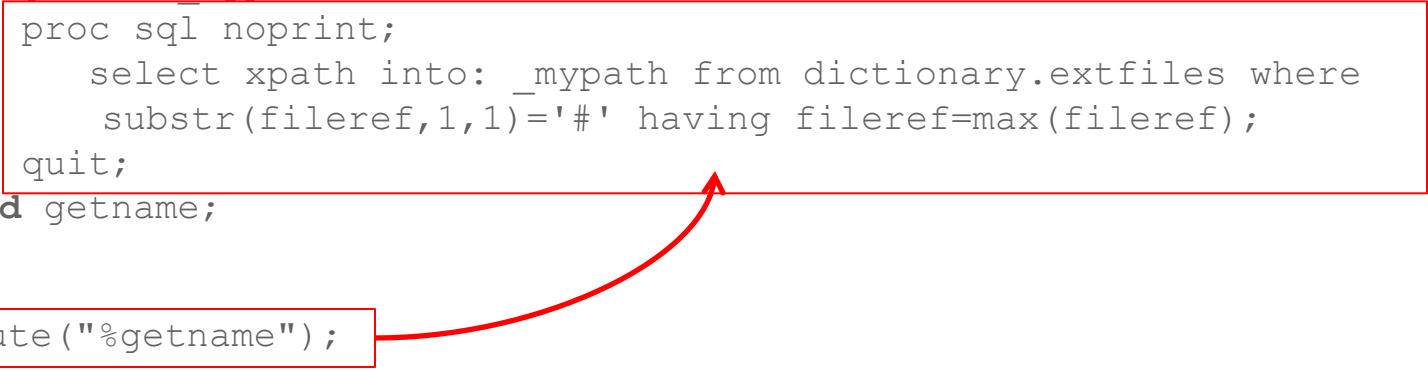
```
%macro _svn_commit;
    %macro getname;
        %global _mypath;
        proc sql noprint;
            select xpath into: _mypath from dictionary.extfiles where
                substr(fileref,1,1)='#' having fileref=max(fileref);
        quit;
    %mend getname;

data _null_;
    call execute("%getname");

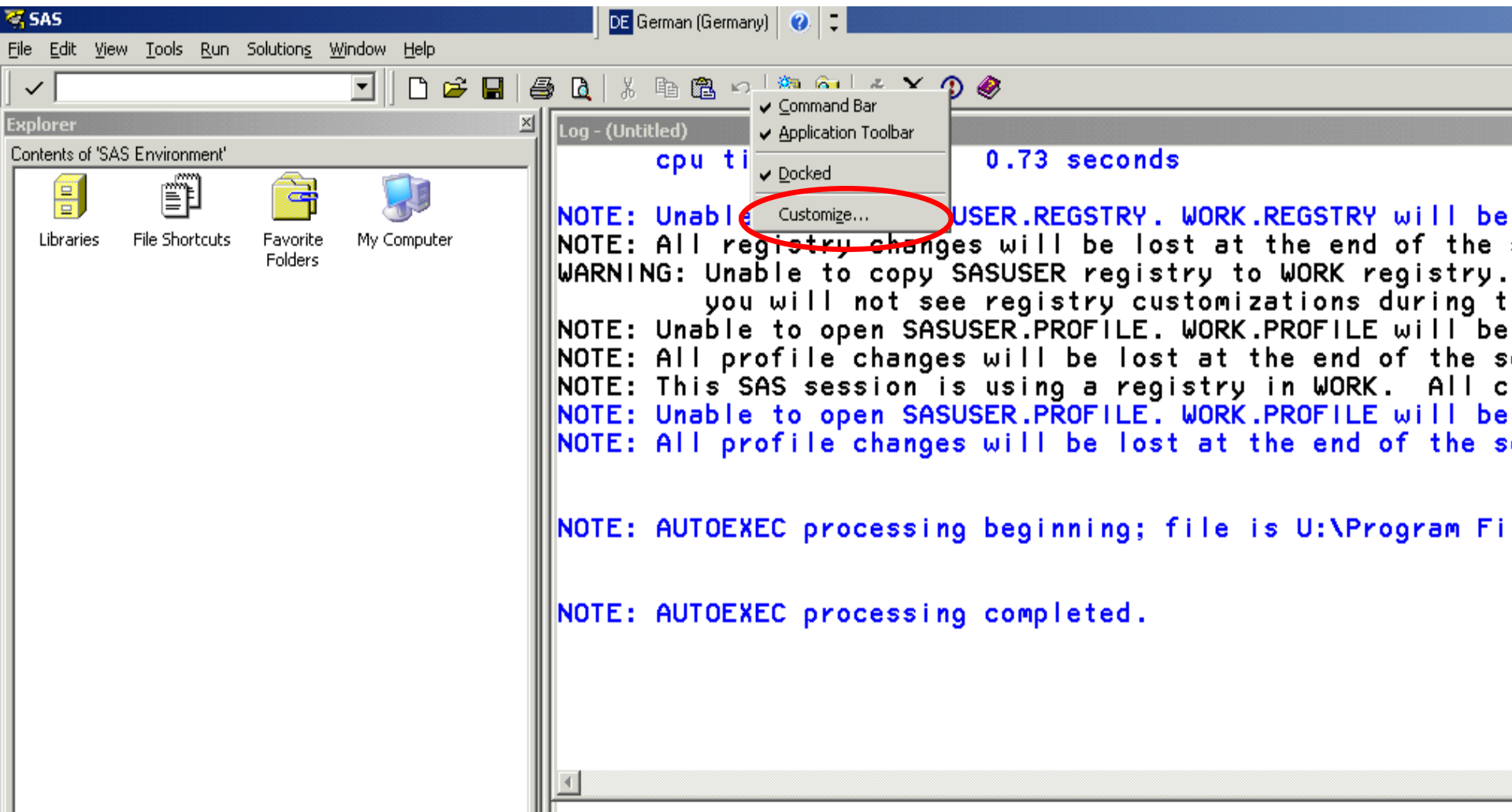
run;

%global _path;
%let _path=TortoiseProc.exe /command:commit/path:"%trim(&_mypath.)"/closeonend:0;

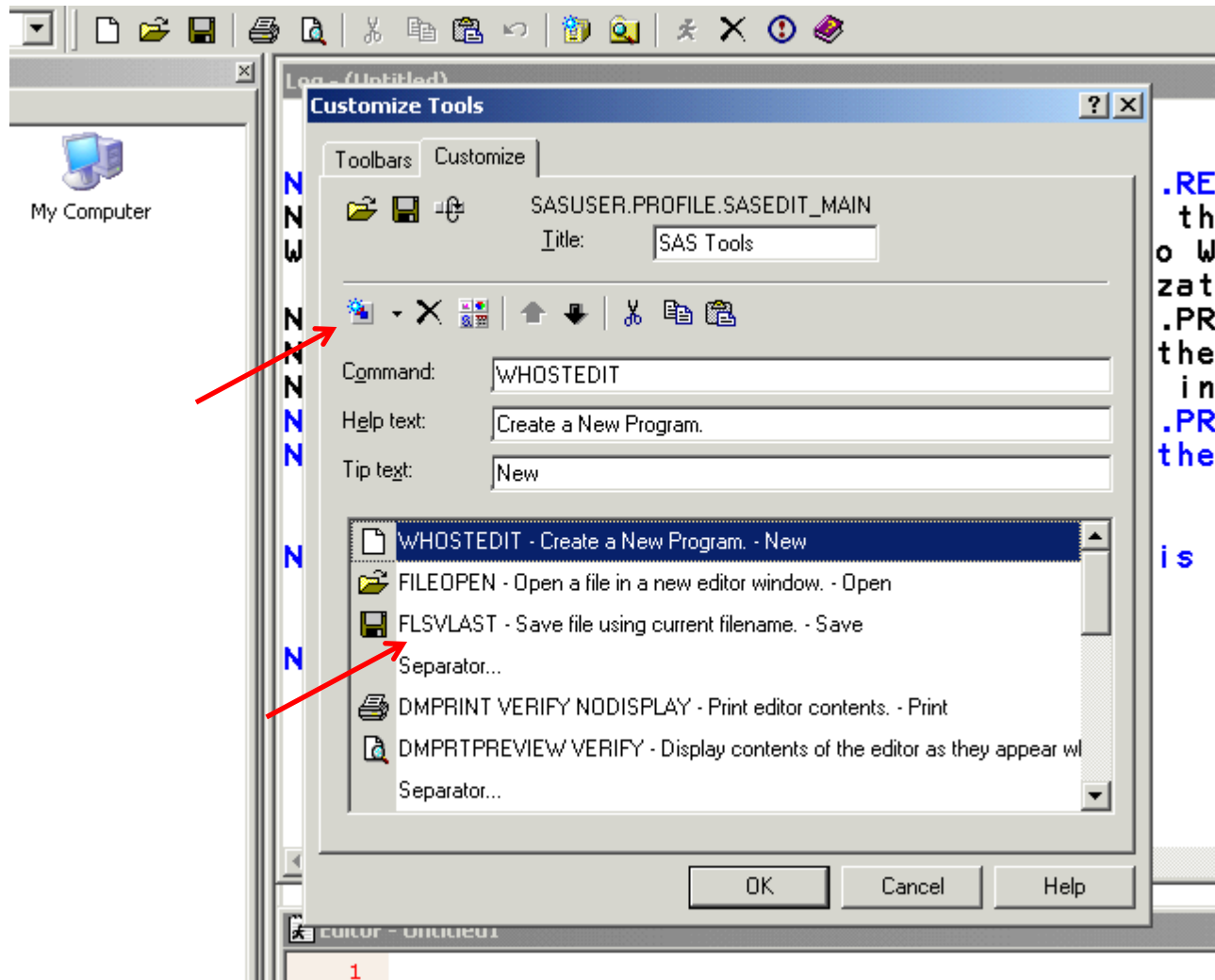
%sysexec &_path.;
%symdel _mypath _path;
%mend _svn_commit;
```



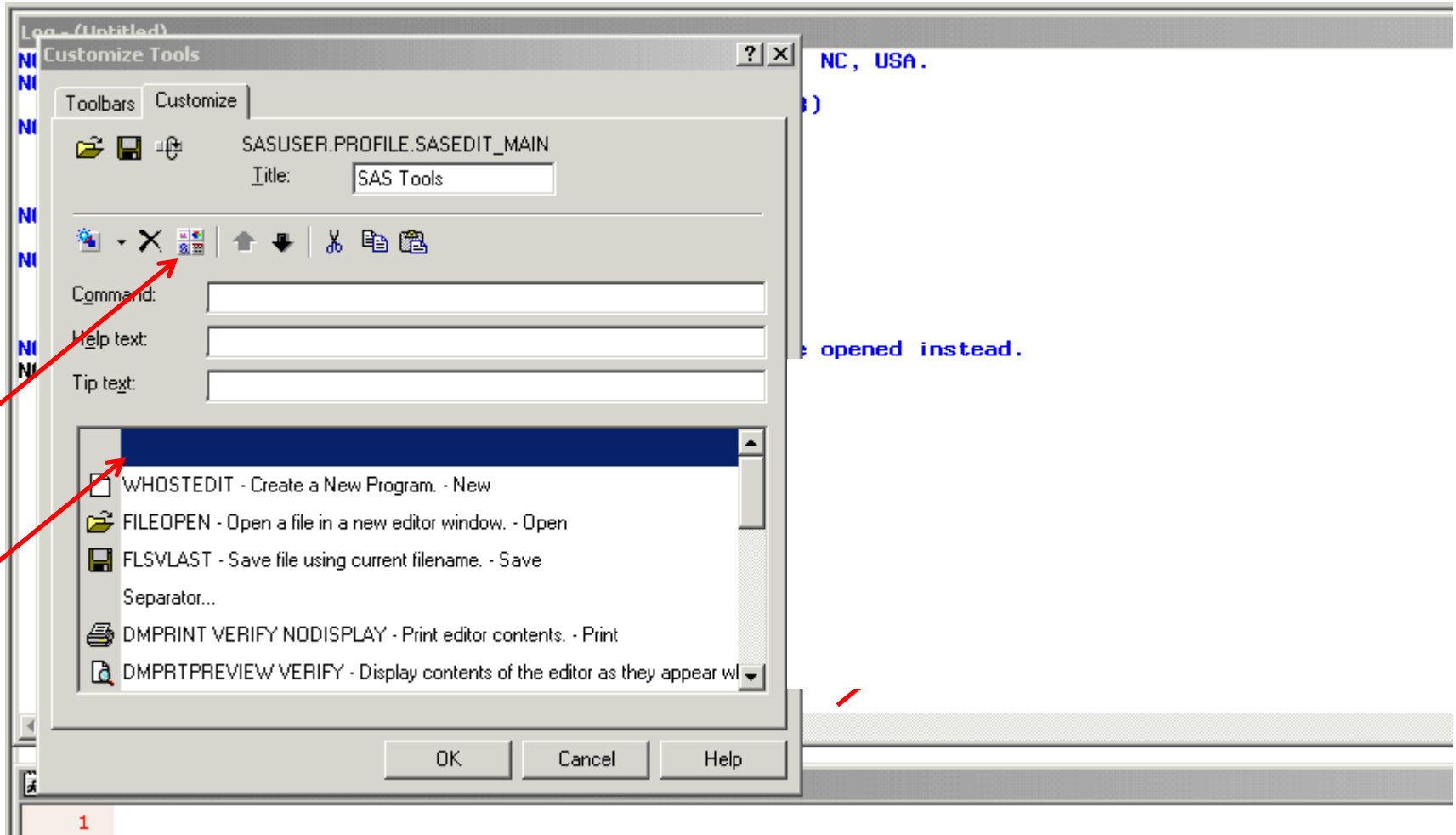
Build the toolbar button



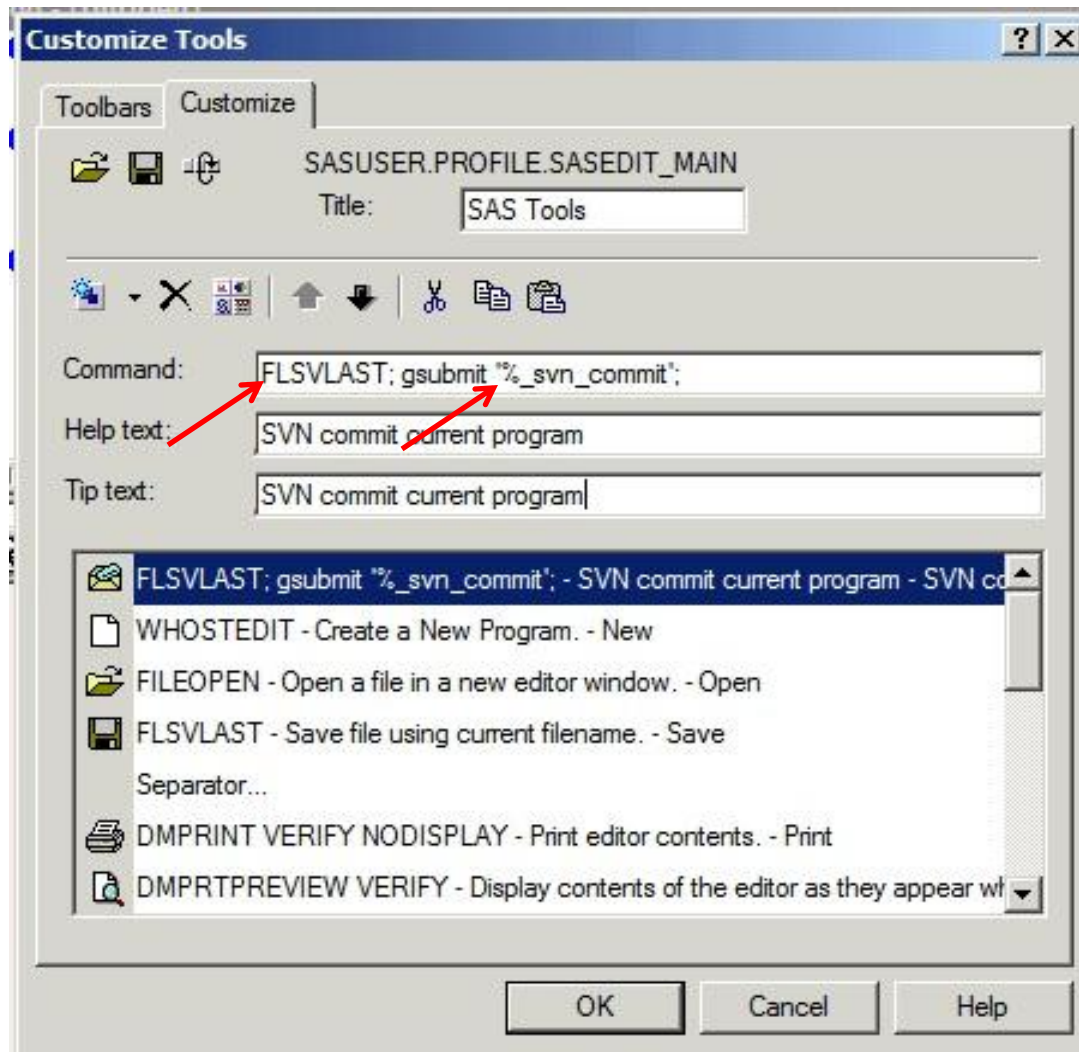
Build the toolbar button



Build the toolbar button



Build the toolbar button



Enhancements for Daily Use

Macro needs to be compiled to have functionality available

Changes in file done by SVN (e.g. date of commit in program header) are not updated in SAS-EE

->Batch file to start SAS with additional settings

```
start "" "PathToMy\sas.exe" -initstmt  
'dm editor "include ""PathToMyMacro\_svn_commit.sas"";submit;  
  zoom on" wedit continue;'  
-EEFILECHANGEUPDATES
```

Enhancements for Daily Use

```

/*****
- - - - - DO NOT EDIT THE NEXT 5 LINES - - -
$HeadURL$
$Rev$
$Date$
$Author$  Author of Last Commit
- - - - - DO NOT EDIT THE 5 LINES ABOVE - - -
Primary Author:
Purpose (optional):
*****/
```

Enhancements for Daily Use

```
/*****
- - - - - DO NOT EDIT THE NEXT 5 LINES - - - -
$HeadURL: http://[redacted]102/extra/[redacted]12.000/osp/daily:
$Rev: 1641 $
$Date: 2013-08-01 16:55:22 +0200 (Thu, 01 Aug 2013) $
$Author: UG [redacted] $ Author of Last Commit
- - - - - DO NOT EDIT THE 5 LINES ABOVE - - - -
Primary Author:
Purpose (optional):

*****/
```

Questions?

