



CT08

Using Notepad++ to super-charge your coding

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What is Notepad++?

- Designed as an 'upgrade' to Microsoft Notepad
- Free to download and use (GNU General Public License)
- Extensive feature list
- Plugins available

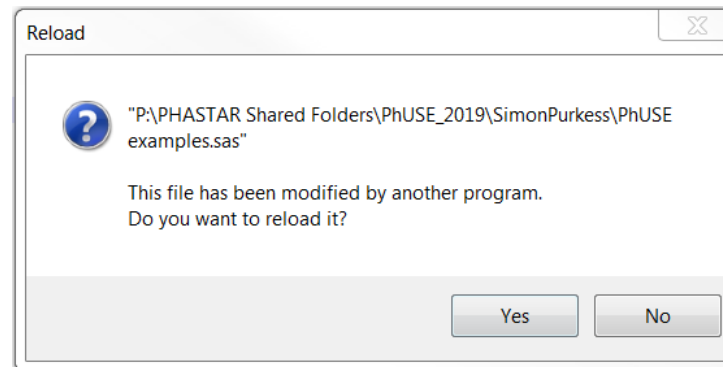


Features

- Parenthesis matching
- Keyword highlighting
- 'Smart' tabs

```
data ds2;  
  set ds1 (where=(not missing(var1)));  
run;
```

```
data ds4;  
  set ds3;  
  bmi=weight/height^2;  
  if .<height<=170 then hgroup=1;  
  else if height>170 then hgroup=2;  
run;
```



Column Editor

```
if qstestcd='QSTN01' | 'Q-Mobility';  
if qstestcd='QSTN02' | 'Q-Self-Care';  
if qstestcd='QSTN03' | 'Q-Usual Activities';  
if qstestcd='QSTN04' | 'Q-Pain/Discomfort';  
if qstestcd='QSTN05' | 'Q-Anxiety/Depression';  
if qstestcd='QSTN06' | 'Q-EQ VAS Score';
```

```
if qstestcd='QSTN01' then qstes | 'Q-Mobility';  
if qstestcd='QSTN02' then qstes | 'Q-Self-Care';  
if qstestcd='QSTN03' then qstes | 'Q-Usual Activities';  
if qstestcd='QSTN04' then qstes | 'Q-Pain/Discomfort';  
if qstestcd='QSTN05' then qstes | 'Q-Anxiety/Depression';  
if qstestcd='QSTN06' then qstes | 'Q-EQ VAS Score';
```

```
if qstestcd='QSTN01' then qstest = 'Q-Mobility';  
if qstestcd='QSTN02' then qstest = 'Q-Self-Care';  
if qstestcd='QSTN03' then qstest = 'Q-Usual Activities';  
if qstestcd='QSTN04' then qstest = 'Q-Pain/Discomfort';  
if qstestcd='QSTN05' then qstest = 'Q-Anxiety/Depression';  
if qstestcd='QSTN06' then qstest = 'Q-EQ VAS Score';
```

Column Editor – number series

```
if qstestcd='QSTN01' then qstest = 'Q-Mobility';  
if qstestcd='QSTN02' then qstest = 'Q-Self-Care';  
if qstestcd='QSTN03' then qstest = 'Q-Usual Activities';  
if qstestcd='QSTN04' then qstest = 'Q-Pain/Discomfort';  
if qstestcd='QSTN05' then qstest = 'Q-Anxiety/Depression';  
if qstestcd='QSTN06' then qstest = 'Q-EQ VAS Score';
```

Text to Insert

OK

Cancel

Number to Insert

Initial number : 1

Increase by : 1

Repeat : ☐ Leading zeros

Format

☒ Dec ☐ Hex

☐ Oct ☐ Bin

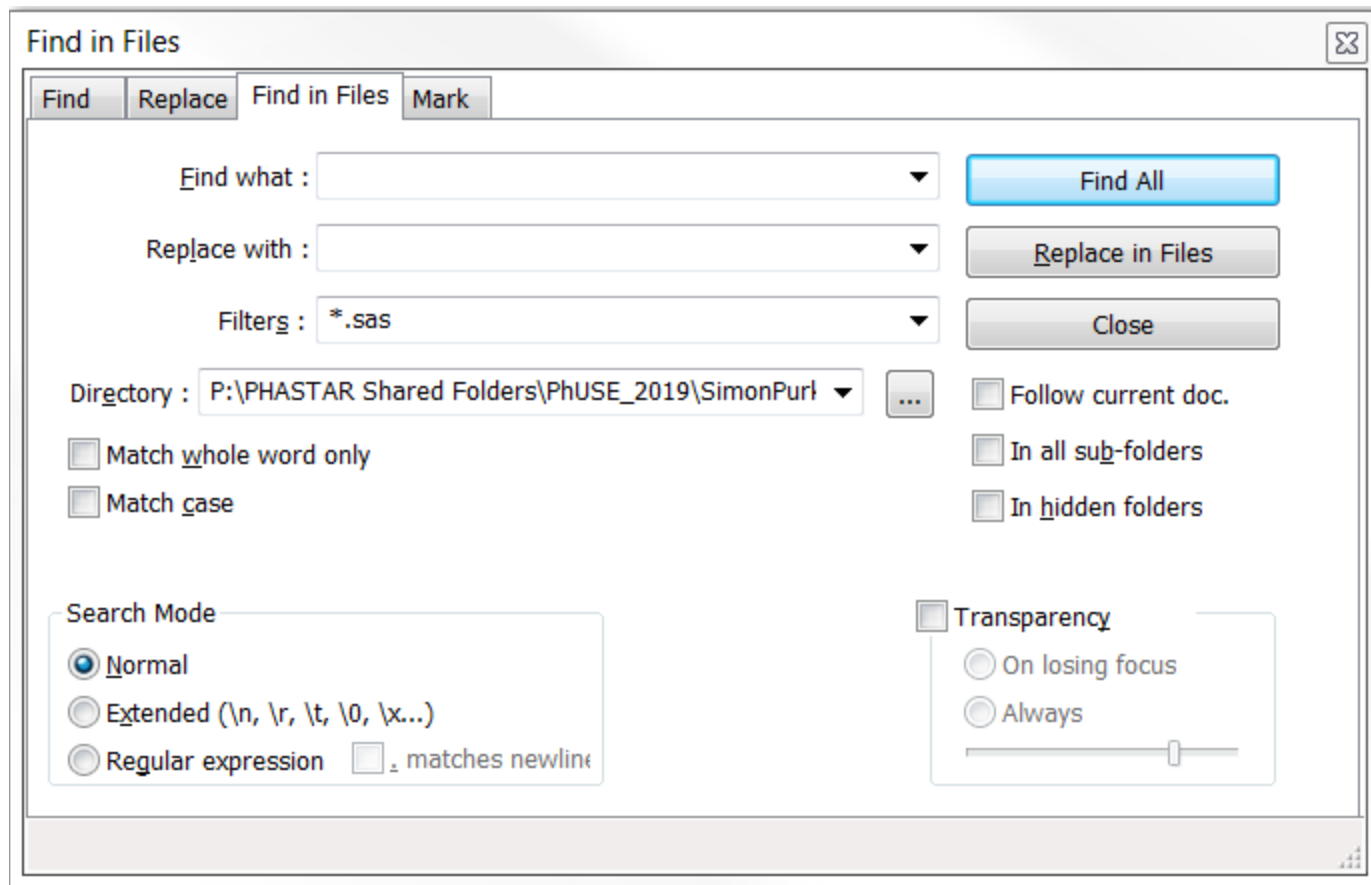
```
if qstestcd='QSTN01' then qstest = 'Q1-Mobility';  
if qstestcd='QSTN02' then qstest = 'Q2-Self-Care';  
if qstestcd='QSTN03' then qstest = 'Q3-Usual Activities';  
if qstestcd='QSTN04' then qstest = 'Q4-Pain/Discomfort';  
if qstestcd='QSTN05' then qstest = 'Q5-Anxiety/Depression';  
if qstestcd='QSTN06' then qstest = 'Q6-EQ VAS Score';
```

Find & Replace

The image shows a 'Find' dialog box with the following components:

- Find** (selected tab), **Replace**, **Find in Files**, **Mark**
- Find what :** [text input field]
- Find Next** (button)
- ☐ **In selection**
- Count** (button)
- Find All in All Opened Documents** (button)
- Find All in Current Document** (button)
- Close** (button)
- ☐ **Backward direction**
- ☐ **Match whole word only**
- ☐ **Match case**
- ☒ **Wrap around**
- Search Mode**
 - ☒ **Normal**
 - ☐ **Extended (\n, \r, \t, \0, \x...)**
 - ☐ **Regular expression** ☐ **. matches newline**
- ☐ **Transparency**
 - ☐ **On losing focus**
 - ☐ **Always**
 - [slider bar]

Find in Files

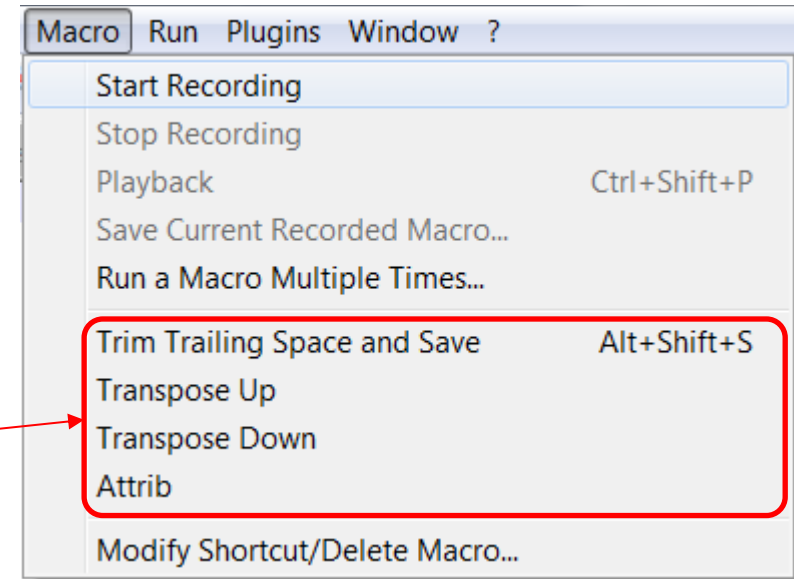


The screenshot shows a 'Find in Files' dialog box with the following elements:

- Find in Files** (Title bar)
- Find** | **Replace** | **Find in Files** | **Mark** (Tabs)
- Find what :** (Text input field)
- Find All** (Button)
- Replace with :** (Text input field)
- Replace in Files** (Button)
- Filters :** *.sas (Text input field)
- Close** (Button)
- Directory :** P:\PHASTAR Shared Folders\PhUSE_2019\SimonPurl (Text input field with a dropdown arrow and a browse button)
- ☐ **Follow current doc.**
- ☐ **Match whole word only**
- ☐ **In all sub-folders**
- ☐ **Match case**
- ☐ **In hidden folders**
- Search Mode** (Section header)
- ☒ **Normal**
- ☐ **Extended (\n, \r, \t, \0, \x...)**
- ☐ **Regular expression** ☐ **. matches newline**
- ☐ **Transparency** (Section header)
- ☐ **On losing focus**
- ☐ **Always**
- Transparency slider** (Visual representation of the transparency level)

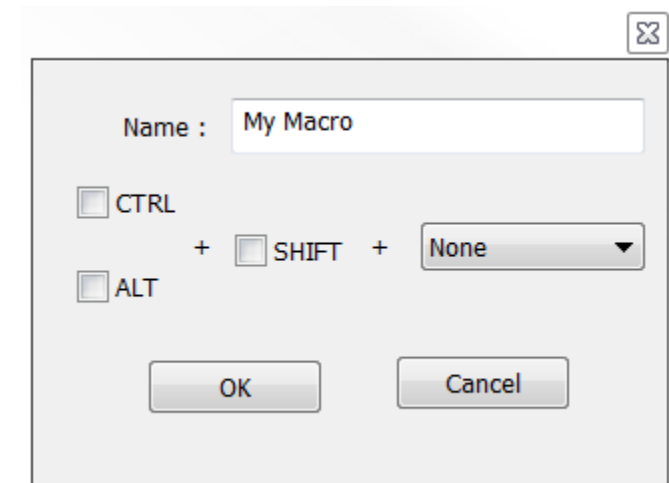
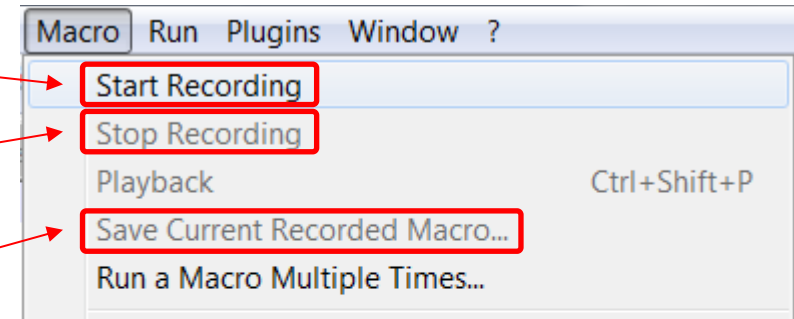
Notepad++ Macros

- Record a series of steps that can be repeated with a menu button, and optionally a keyboard shortcut
- Recorded macros are stored in the 'Macro' menu

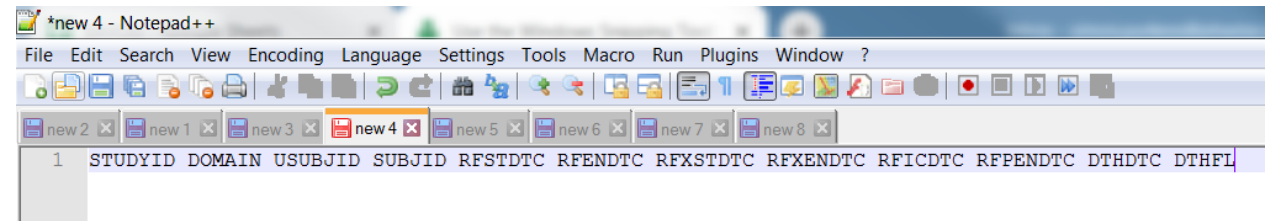
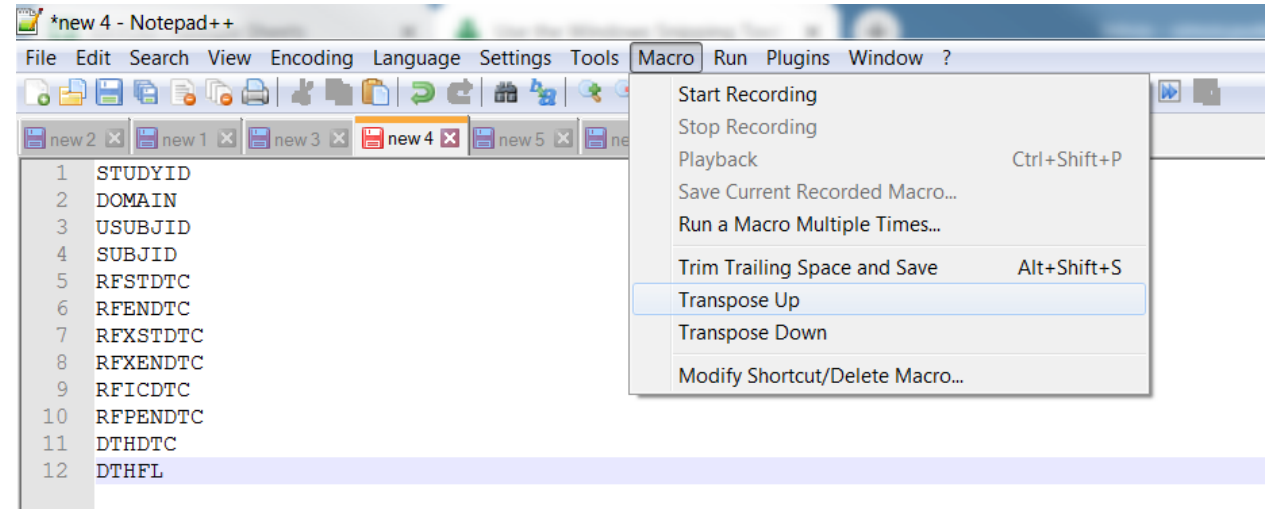
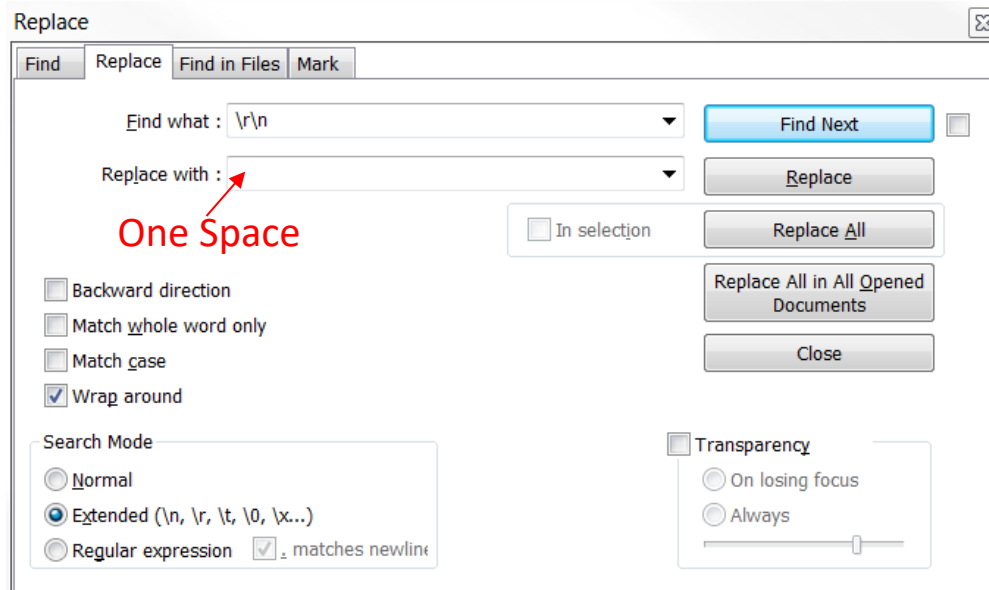


Recording Macros

1. 'Start Recording'
2. Perform steps
3. 'Stop Recording'
4. 'Save Current Recorded Macro...'



Example: Transpose Up



Example: Spec to attrib

From

Variable	Label	Data Type	Length
STUDYID	Study Identifier	text	21
DOMAIN	Domain Abbreviation	text	8
USUBJID	Unique Subject Identifier	text	30
DSSEQ	Sequence Number	integer	8
DSSPID	Sponsor-Defined Identifier	text	40
DSTERM	Reported Term for the Disposition Event	text	200
DSDECOD	Standardized Disposition Term	text	200
DSCAT	Category for Disposition Event	text	40
DSSCAT	Subcategory for Disposition Event	text	40
VISITNUM	Visit Number	integer	8
VISIT	Visit Name	text	40
VISITDY	Planned Study Day of Visit	integer	8
EPOCH	Epoch	text	40
DSDY	Study Day of Collection	integer	8
DSSTDY	Study Day of Start of Disposition Event	integer	8

To

```
data sdtm.ds (keep=STUDYID DOMAIN USUBJID DSSEQ DSSPID DSTERM DSDECOD D
  set ds;
  attrib
    STUDYID label='Study Identifier' length=$21
    DOMAIN label='Domain Abbreviation' length=$8
    USUBJID label='Unique Subject Identifier' length=$30
    DSSEQ label='Sequence Number' length=8
    DSSPID label='Sponsor-Defined Identifier' length=$40
    DSTERM label='Reported Term for the Disposition Event' length=$200
    DSDECOD label='Standardized Disposition Term' length=$200
    DSCAT label='Category for Disposition Event' length=$40
    DSSCAT label='Subcategory for Disposition Event' length=$40
    VISITNUM label='Visit Number' length=8
    VISIT label='Visit Name' length=$40
    VISITDY label='Planned Study Day of Visit' length=8
    EPOCH label='Epoch' length=$40
    DSDY label='Study Day of Collection' length=8
    DSSTDY label='Study Day of Start of Disposition Event' length=8
  ;
run;
```

Example: Spec to attrib

Before

```
1 STUDYID Study Identifier    text    21
2 DOMAIN  Domain Abbreviation text    8
3 USUBJID Unique Subject Identifier text   30
4 DSSEQ   Sequence Number integer 8
5 DSSPID  Sponsor-Defined Identifier text  40
6 DSTERM  Reported Term for the Disposition Event text  200
7 DSDECOD Standardized Disposition Term text  200
8 DSCAT   Category for Disposition Event text  40
9 DSSCAT  Subcategory for Disposition Event text  40
10 VISITNUM Visit Number integer 8
11 VISIT   Visit Name text  40
12 VISITDY Planned Study Day of Visit integer 8
13 EPOCH   Epoch text  40
14 DSDY    Study Day of Collection integer 8
15 DSSTDY  Study Day of Start of Disposition Event integer 8
```

After

```
1 STUDYID label='Study Identifier' length=$21
2 DOMAIN label='Domain Abbreviation' length=$8
3 USUBJID label='Unique Subject Identifier' length=$30
4 DSSEQ label='Sequence Number' length=8
5 DSSPID label='Sponsor-Defined Identifier' length=$40
6 DSTERM label='Reported Term for the Disposition Event' length=$200
7 DSDECOD label='Standardized Disposition Term' length=$200
8 DSCAT label='Category for Disposition Event' length=$40
9 DSSCAT label='Subcategory for Disposition Event' length=$40
10 VISITNUM label='Visit Number' length=8
11 VISIT label='Visit Name' length=$40
12 VISITDY label='Planned Study Day of Visit' length=8
13 EPOCH label='Epoch' length=$40
14 DSDY label='Study Day of Collection' length=8
15 DSSTDY label='Study Day of Start of Disposition Event' length=8
```

Steps

Find what:	Replace with:	Comment
^(\\w*)\\s*	\\1 label='	Insert <code>label='</code> after variable name
\\s*text\\s*	' length=\$	Insert <code>' length=\$</code> for character variables
\\s*(integer float)\\s*	' length=	Insert <code>' length=</code> for numeric variables

Questions