



Welcome!

# A Report Writer's Bag of Tricks

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# Top Tricks

F4 (Magic) F5 (C/S) get MT source code

Auto headers in picture

Download from Macro

Pasting from Spec

Unbreakable MVs

Nursing Tricks

Syntax Checker Report

Find what you forgot

Find field, show activity

# Easier Downloads

## Use Picture / Fields vs Macro

- Use picture when...

  - Fewer fields, delimited

- Use macro when...

  - More fields or fixed length  
or multiple “front ends”

# Using Picture

- Usual method

HR xx.header.field1

xx.header.field2

D name\_\_\_\_\_

acct.number\_\_\_\_\_

SFF NO

EFF NO

FD 9

PFF NO (C/S)

# Bag of Tricks Method

HR

LC=%Z.zcus.is.rw.download.M.header(0),  
1

D name\_\_\_\_\_ acct.number\_\_\_\_\_

name

HEADER=Patient Name

# Utility Report #1

%Z.zcus.is.rw.download.M.header(0)

Uses new page program to find report

Checks footnote for delimiter

Prints delimited header record using field  
name or HEADER= attribute if present

## Method #2

All output from macro

Call macro as program from footnote

```
AL D %BAR.PAT.zcus.is.download.M.d(account)
```

# Why Macro

- Far easier to do a fixed length record
- Easier to manage multiple record types
- Easier to change format of dates, phone numbers, delimiter, text qualifier
- Biggest advantage: paste in the specification



# Program call vs Macro

AL D detail

Vs

AL D %BAR.PAT.zcus.is.report.M.detail(account)

Remove 2 step translation

Have 1 format called from multiple reports,  
example

- one for date range
- one for list of accounts

# Fixed length record

```
A^account,  
IF{c.xx.tab="Y" D(9)^TAB},  
@acct.number:15TL_TAB^!,  
@name:40TL_TAB^!,  
%Z.zero.fill(@balance,10,2)_TAB^!,  
..etc..  
@last.field.in.record_D(13,10)^!,  
@.line,  
EXIT;
```

# IMPORTANT!

```
A^account,  
IF{c.xx.tab="Y" D(9)^TAB},  
@acct.number:15TL_TAB^!,  
@name:40TL_TAB^!,  
%Z.zero.fill(@balance,10,2)_TAB^!,  
..etc..  
@last.field.in.record_D(13,10)^!,  
@.line,  
EXIT;
```

@.line

Flushes buffer to disk

Gives spool file a Number of Pages

Sets /R.FOUND and /R.PAGE.NUM

Use in both C/S and Magic reports where  
output is from macro vs picture

# Why \_TAB ?

@field:10TL\_TAB^!

Tab nil in production, but contains delimiter for testing.

Proofing in Excel much easier

# Variable length

A^account,

D(9)^TAB,

@acct.number\_TAB^!,

@name\_TAB^!,

@reason.for.visit:30T\_TAB^!

..etc..

# Working with Specifications

PDF →

Excel Spreadsheet →

Word Table →

Table to Text in Word →

Search and Replace on CF/LF (paragraph mark) – make in to comments →

Paste into Macro

# Auto Build Header

IVAR·Client·Number¶  
Account·Number¶  
Medical·Record·Number¶  
VIP·Identification·Code¶  
Guarantor·First·Name·¶  
Guarantor·Middle·Name·¶  
Guarantor·Last·Name·¶  
Guarantor·Address·1¶  
Guarantor·Address·2¶  
Guarantor·City¶  
Guarantor·State¶  
Guarantor·Zip¶  
Guarantor·Social·Security·Number¶  
Guarantor·Date·of·birth¶  
Guarantor·Sex¶

Search on CR/LF

## Find and Replace

Find

Replace

Go To

Find what:

^p

Replace with:

"\_TAB^^!,^p"



# Column Headers

```
"IVAR·Client·Number"_TAB^!,¶  
"Account·Number"_TAB^!,¶  
"Medical·Record·Number"_TAB^!,¶  
"VIP·Identification·Code"_TAB^!,¶  
"Guarantor·First·Name"_TAB^!,¶  
"Guarantor·Middle·Name"_TAB^!,¶  
"Guarantor·Last·Name"_TAB^!,¶  
"Guarantor·Address·1"_TAB^!,¶  
"Guarantor·Address·2"_TAB^!,¶  
"Guarantor·City"_TAB^!,¶  
"Guarantor·State"_TAB^!,¶  
"Guarantor·Zip"_TAB^!,¶  
"Guarantor·Social·Security·Number"_TAB^!,¶
```

# PDF conversion

## PROFESSIONAL PDF Converter 6

- Scan directly to PDF and turn paper into MS Office® formats
- Collect various file types in to a PDF Portfolio
- Assemble PDF documents just like reordering pages on your desk
- And much, much more

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PDF Software Solutions

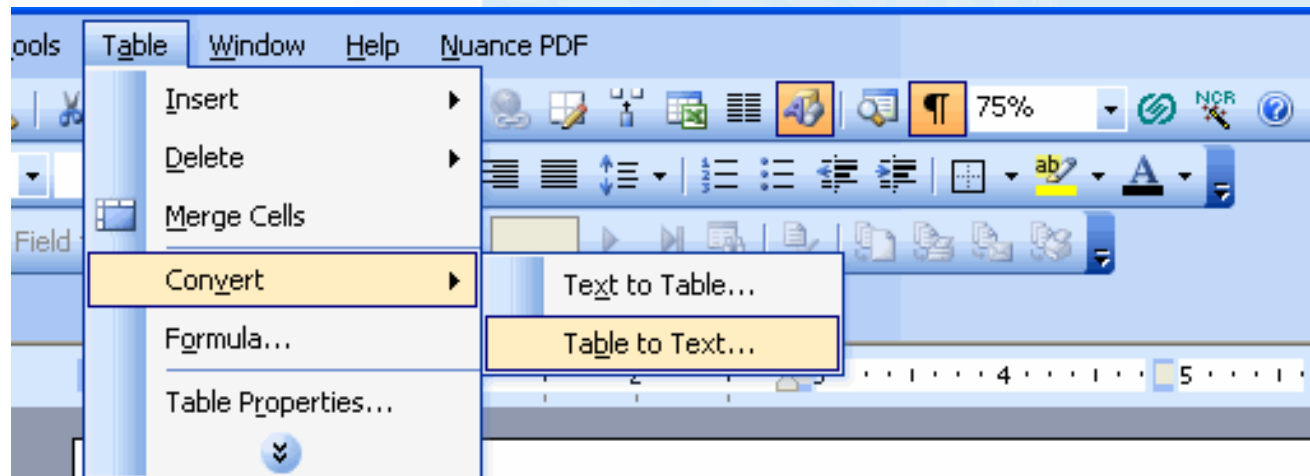
# Pasting Spec

A3 Record Type- GUARANTOR					
	A	B	C	D	E
105	Primary Insurance Date Coverage Began	Date - YYYYMMDD	8	Y	No Dashes
106	Primary Insurance Date Coverage Cease	Date - YYYYMMDD	8	Y	No Dashes
107	Primary Insurance Treatment Authorization	Char - left-blank filled	20		
108					
109	Record Type - SECONDARY INSURANCE	Numeric	2	Y	Field Value = 07
110	IVAR Client Number	Numeric	6	Y	Field Value = 10000X
111	Account number	Char - left-blank filled	20		
112	Secondary Insurance Type/FC	Char - left-blank filled	10	Y	
113	Secondary Insurance Company Name	Char - left-blank filled	40	Y	
114	Secondary Insurance Policy Number	Char - left-blank filled	80	Y	
115	Secondary Insurance Address	Char - left-blank filled	40	Y	
116	Secondary Insurance Address 2	Char - left-blank filled	40	Y	
117	Secondary Insurance City	Char - left-blank filled	20	Y	
118	Secondary Insurance State	Char - left-blank filled	2	Y	
119	Secondary Insurance Zip	Char - left-blank filled	10	Y	If there is a plus 4 it will be included in this field
120	Secondary Insurance Telephone	Char - left-blank filled			
121	Secondary Insurance Person Insured	Char - left-blank filled			
122	Secondary Insurance Relation	Char - left-blank filled			
123	Secondary Insurance Plan Code	Char - left-blank filled			
124	Secondary Insurance Group Name	Char - left-blank filled			
125	Secondary Insurance Group Number	Char - left-blank filled			
126	Secondary Insurance Date Coverage Began	Date - YYYYMMDD			
127	Secondary Insurance Date Coverage Cease	Date - YYYYMMDD			
128	Secondary Insurance Treatment Authorization	Char - left-blank filled			
129					
130	Record Type - TERTIARY INSURANCE	Numeric	2	Y	Field Value = 00
131	IVAR Client Number	Numeric	6	Y	Field Value = 10000X
132	Account number	Char - left-blank filled	20		
133	Tertiary Insurance Type/FC	Char - left-blank filled	10	Y	
134	Tertiary Insurance Company Name	Char - left-blank filled	40	Y	
135	Tertiary Insurance Policy Number	Char - left-blank filled	80	Y	
136	Tertiary Insurance Address	Char - left-blank filled	40	Y	
137	Tertiary Insurance Address 2	Char - left-blank filled	40	Y	
138	Tertiary Insurance City	Char - left-blank filled	20	Y	
139	Tertiary Insurance State	Char - left-blank filled	2	Y	
140	Tertiary Insurance Zip	Char - left-blank filled	10	Y	
141	Tertiary Insurance Telephone	Char - left-blank filled	15	Y	
142	Tertiary Insurance Person Insured	Char - left-blank filled	40	Y	
143	Tertiary Insurance Relation	Char - left-blank filled	20		
144	Tertiary Insurance Plan Code	Char - left-blank filled	20	Y	
145	Tertiary Insurance Group Name	Char - left-blank filled	60	Y	
146	Tertiary Insurance Group Number	Char - left-blank filled	20	Y	
147	Tertiary Insurance Date Coverage Began	Date - YYYYMMDD	8	Y	
148	Tertiary Insurance Date Coverage Cease	Date - YYYYMMDD	8	Y	
149	Tertiary Insurance Treatment Authorization	Char - left-blank filled	20		
150					
151					
152					

Copy Spreadsheet

- Cut
- Copy
- Paste
- Paste Special...
- Insert Copied Cells...
- Delete...
- Clear Contents
- Insert Comment

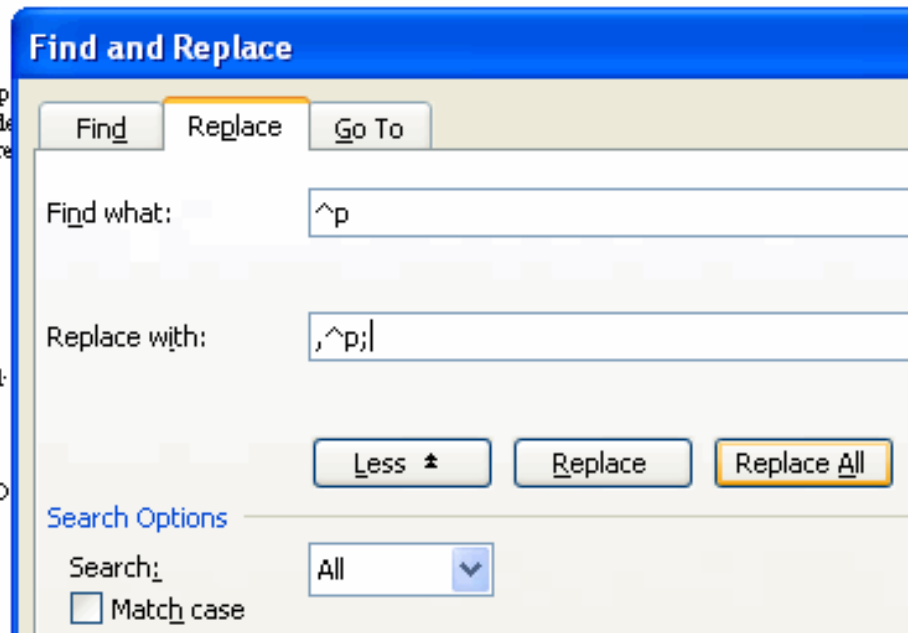
# Pasting Spec continued



Record Type- GUARANTORs	Numerics	2s
IVAR Client Numbers	Numerics	6s
Account Numbers	Alpha Numeric Characters	20s
Medical Record Numbers	Alpha Numeric Characters	20s
VIP Identification Codes	Alpha Numeric Characters	20s
Guarantor First Name s	Alpha Numeric Characters	40s
Guarantor Middle Name s	Alpha Numeric Characters	40s

# Pasting Spec

Record Type: GUARANTOR; Numeric; 2; Y; Field Value = 01||  
IVAR: Client Number; Numeric; 6; Y; Field Value = 10000X||  
Account Number; Alpha Numeric Character; 20; Y; Unique Account Number for Hosp  
Medical Record Number; Alpha Numeric Character; 20; Y; Unique Patient Number Ide  
VIP Identification Code; Alpha Numeric Character; 20; \*; Identifies that the financial re  
Guarantor First Name; Alpha Numeric Character; 40; Y; \*||  
Guarantor Middle Name; Alpha Numeric Character; 40; Y; \*||  
Guarantor Last Name; Alpha Numeric Character; 40; Y; \*||  
Guarantor Address 1; Alpha Numeric Character; 40; Y; \*||  
Guarantor Address 2; Alpha Numeric Character; 40; Y; \*||  
Guarantor City; Alpha Numeric Character; 20; Y; \*||  
Guarantor State; Alpha Numeric Character; 2; Y; 2 Letter Abbreviation||  
Guarantor Zip; Alpha Numeric Character; 10; Y; If there is a plus 4 it will be included  
Guarantor Social Security Number; Alpha Numeric Character; 11; Y; No Dashes||  
Guarantor Date of birth; Date - YYYYMMDD; 8; Y; No Dashes||  
Guarantor Sex; Alpha Numeric Character; 1; Y; M or F||  
Guarantor Marital status; Alpha Numeric Character; 1; \*; S= Single; M=Married; D=D  
Guarantor Relationship to Patient; Alpha Numeric Character; 20; \*; \*||  
Guarantor Telephone number; Numeric; 20; Y; No Dashes||  
Guarantor Email Address; Alpha Numeric Character; 80; Y; \*||  
Guarantor Cell Phone Number; Numeric; 20; Y; No Dashes||  
Guarantor Evenlower; Alpha Numeric Character; 20; \*; \*||



The image shows a 'Find and Replace' dialog box with a blue title bar. It has three tabs: 'Find', 'Replace', and 'Go To'. The 'Replace' tab is selected. The 'Find what:' field contains '^p'. The 'Replace with:' field contains ',^p;|'. Below these fields are three buttons: 'Less ▲', 'Replace', and 'Replace All'. The 'Replace All' button is highlighted with a yellow border. Under the 'Search Options' section, there is a 'Search:' dropdown menu set to 'All' and an unchecked checkbox for 'Match case'.

Find and Replace		
Find	Replace	Go To
Find what:	^p	
Replace with:	,^p;	
<div>Less ▲   Replace   Replace All</div>		
Search Options		
Search:	All ▼	
<input type="checkbox"/> Match case		

# Pasting Spec

```
[Record Type- GUARANTOR, Numeric, 2, Y, Field Value = 01,¶  
;IVAR Client Number, Numeric, 6, Y, Field Value = 10000X,¶  
;Account Number, Alpha Numeric Character, 20, Y, Unique Account Number for Hospital Visit,¶  
;Medical Record Number, Alpha Numeric Character, 20, Y, Unique Patient Number Identifier,¶  
;VIP Identification Code, Alpha Numeric Character, 20, °, Identifies that the financial responsibility should not be billed,  
;Guarantor First Name, Alpha Numeric Character, 40, Y, °,¶  
;Guarantor Middle Name, Alpha Numeric Character, 40, Y, °,¶  
;Guarantor Last Name, Alpha Numeric Character, 40, Y, °,¶  
;Guarantor Address 1, Alpha Numeric Character, 40, Y, °,¶  
;Guarantor Address 2, Alpha Numeric Character, 40, Y, °,¶  
;Guarantor City, Alpha Numeric Character, 20, Y, °,¶
```

## GUARANTOR

```
;Record Type- GUARANTOR, Numeric, 2, Y, Field Value = 01,  
"01"_TAB>!,  
;IVAR Client Number, Numeric, 6, Y, Field Value = 10000X,  
"10000X"_TAB>!,  
;Account Number, Alpha Numeric Character, 20, Y, Unique Account  
@number_TAB>!,  
;Medical Record Number, Alpha Numeric Character, 20, Y, Unique F  
@unit.number_TAB>!,  
;VIP Identification Code, Alpha Numeric Character, 20, ,  
;Identifies that the financial res
```

# Sub-Macros

Enter/Edit Macro Logic: BAR.PAT.zcus.is.ivar.demographics.M.d (A: )

```
A>account,  
"! "→TAB,  
"  "→BLANK,0→BLANKN,  
@GUARANTOR,  
@PATIENT,  
@FINANCIAL,  
@CHARGES,  
@TRANSACTIONS,  
DO{@Next(insurance.order)<4 1,  
    IF{insurance.order=1 "06";  
        insurance.order=2 "07";  
        insurance.order=3 "08"}→REC,  
    @INSURANCE},  
EXIT;
```

# Centralize Conversion Code

```
@home.phone>TEL,@CONVERT.TEL
TEL_TAB>!,
@bus.phone>TEL,@CONVERT.TEL,
TEL_TAB>!,
@emp.phone>TEL,@CONVERT.TEL,
TEL_TAB>!,
..etc..
```

```
CONVERT.TEL
%MIS.zcus.is.util.M.numeric(TEL)>TEL,
IF{TEL<? TEL;
L(TEL)=? "("_(000)_"")_" "(TEL$3)_"-_"_(TEL%2);
"("_(TEL$3)_"")_" "(TEL%2$3)_"-_"_(TEL%6%10)_" "_TEL%9}>TEL
```

Format (NNN) NNN-NNNN NNNN



# Why centralize conversion

5		
6		
7		
8	<b>File Format</b>	
9		(Pipe) Delimited File Format - Trim Spaces
10		If Data Request is unavailable fill with a blank for character and 0 for numeric
11		Transactions and Charges to be ordered by date
12		New Account File Include Record Types 1 -8
13		Update File Include Only Record Type 4 and 5
14		

87					
88	Record Type - PRIMARY INSURANCE	Numeric	2	Y	Field Val
89	IVAR Client Number	Numeric	6	Y	Field Val
90	Account number	Char - left- blank filled	20	Y	
91	Primary Insurance Type/FC	Char - left- blank filled	10	Y	
92	Primary Insurance Company Name	Char - left- blank filled	40	Y	
93	Primary Insurance Policy Number	Char - left- blank filled	80	Y	
94	Primary Insurance Address	Char - left- blank filled	40	Y	
95	Primary Insurance Address 2	Char - left- blank filled	40	Y	
96	Primary Insurance City	Char - left- blank filled	20	Y	
97	Primary Insurance State	Char - left- blank filled	2	Y	
98	Primary Insurance Zip	Char - left- blank filled	10	Y	If there is
99					

# Parsing/Formatting

 NPR (A/LIVE.MIS/308) - BERMAN,JOEL

Enter/Edit Macro Logic: MIS.zcus.is.util.M.test (A: )

```
;strip particular character from string,  
@reason.for.visit⇒x,  
DO{L(x,"!")⇒p<L(x) x'#p⇒x}
```

```
;strip a set of characters from string,  
@home.phone⇒x,  
DO{L(x,"(",")","-","x")⇒p<L(x) x'#p⇒x}
```

# Not Tilde

Numbers only:

Enter/Edit Macro Logic: MIS.zcus.is.util.M.numeric (A: )

```
A'~(D(255):48_("0123456789")_(D(255):70));
```

 NPR (A/LIVE.MIS/308) - BERMAN,JOEL

Enter/Edit Macro Logic: MIS.zcus.is.util.M.alpha (A: )

```
A'~(D(255):65_"ABCDEFGHIJKLMNOPQRSTUVWXYZ"_  
(D(255):6)"abcdefghijklmnopqrstuvwxyz"_(D(255):5));
```

# Report Utility #2

Magic: %MIS.zcus.is.util.M.numeric(@tel)

C/S: %Z.zcus.is.util.M.numeric(@tel)

## Macro

- 1) alpha
- 2) first.name
- 3) last.name
- 4) mi
- 5) name.fix
- 6) numeric

## Unbreakable MV Arrays

Magic /MV["D",SORT,FIELD #]

C/S /R.MV["D",SORT,FIELD #]

-- If you add or remove fields, the MV array  
"breaks"

-- Solution %Z.zcus.is.rw.util("")

## Unbreakable MV Arrays

```
/MV["D",SORT,/FLD["xx.field.name"]]
```

```
/R.MV["D",SORT,/FLD["xx.field.name"]]
```

Call %Z.zcus.is.rw.util.M.field("") at start of report.

# Report #3

`%Z.zcus.is.rw.util.M.field(A)`

Pass in alternate report to use for field # if  
new page program not appropriate for field  
#.

Program checks to see if A is report.

# Nursing Reports

Challenges:

Documentation multiple  
times/edits/undos/repeats (C/S)

Everything is query – few standard fields

How to present data w/o 1000's of xx fields?



# Tricks

Skip Undo:

```
IF{@activity[,,,,,td.act.ctr#"0."_".00"] "";1}
```

Post Edit:

```
IF{@activity[,,,,,td.act.ctr+"0.01" "";1}
```

# More tricks

Magic:

MIS.CLIN.PARAM (Magic) has I&O queries and VS queries.

Print documentation with MIS.SCREEN.print

C/S:

Use MIS Assessment dictionary to print documentation, add Y/N text, deal with repeats and multiple repeats.

# Report #4

C/S and Magic

NUR.PC.WORK.zcus.is.most.recent.current.  
patients

Gets most recent, post edit, skip undo

Prints documentation in generic fashion

# Report Pictures

NPR (A/LIVE.MIS/241) - BERMAN,JOEL

Enter/Edit Report: Most Recent Page 3

Editing Picture - <ESC> for Fields or Regions <Insert Mode> [0->81]

REG	A	0	1	2	3	4	5	6	7	8	
HK1	.	patient's.name_____									
D	.	int.bas	_int.urn	td.act.d	td.a	td.ac		xx.site	_____		
	.										

Editing PICTURE - <OK> for CHOICES <Insert Mode> [0->81]

REG	A	0	1	2	3	4	5	6	7	8	
HP1	.										
HP1	.	patient's.ac	patient's.name	_____				admit.da			
HP1	.										
D	.	Intervention: intervention's.fixe_____									
D	+										
D	.	Documented: td.act.d td.a on act.date at act. act.user's.name_____									
D	.										
D	*	xx.section	_____								
D	*	xx.heading	_____								
D	*	xx.prompt	_____						xx.response	_____	
D	*								xx.response2	_____	

ECB-ECE loop  
/NUR[c,p,h,l]

## Enter/Edit Field Attributes: xx.section

DAT=FREE  
JFY=L  
LEN=50  
VAL=/NUR[c]

## View Line Attributes

```
8 ECB="">c.DO(+NUR[c]>c .,
9 ECB=DO(+NUR[c,h]>h .,
10 ECB=DO(+NUR[c,h,p]>p 1,
11 ECB=1+1.DO(+NUR[c,p,h,l]>l .,
   ECE=.)}}},
```

# Magic NUR Example

NPR (A/LIVE.MIS/440) - BERMAN,JOEL

Enter/Edit Page 1

Report DPM	NUR.PC.WORK	Report Name	zcus.is.most.recent.current.patients		
Report Title	Most Recent				
Active	Y	Last Edit By	IATRIC	Date	05/25/10 Time 0523
Detail DPM	NUR.PC.WORK	Detail Segment	nur.pc.work.file		
Index DPM		Index File			
Chars/Line	92	Lines/Page	Main Segment - No Index		
Chars/Inch	12	Lines/Inch	6	Left Margin	0
Page Banner	REG	Report Header	N	Detail	Y
Page Header	N	Report Trailer	N	Compiled File	
Page Trailer	N				

Enter/Edit Report Documentation?

# Steps

Check list of interventions, pick the most recently documented (but skip undo's and subsequently edited entries)

Save subscripts per patient

Put subscripts back in detail macro

Print documentation via MIS.SCREEN.print

# NUR Reports - Medic

NPR (A/LIVE.MIS/682) - BERMAN,JOEL

Enter/Edit Macro Logic: NUR.PC.WORK.zcus.is.most.recent.current.patients.M.start (A: )

```
@.facility>NUR.PAT.facility,  
DO{@Next(NUR.PAT.room,@NUR.PAT.adm.room.bed.index) 1,  
DO{@Next(NUR.PAT.bed,@NUR.PAT.adm.room.bed.index) 1,  
@NUR.PAT.adm.room.bed.index>patient,  
1>/INT[170000]>/INT[170005]>/INT[175001], ← List of Interventions  
"">int.base,  
DO{+/INT[int.base]>int.base "">int.urn,  
DO{@Next(int.urn) "">td.act.date,  
DO{@Next(td.act.date) "">td.act.time,  
DO{@Next(td.act.time) "">td.act.ctr,  
DO{@Next(td.act.ctr) 1,  
IF{@activity[,,,,td.act.ctr#"0."_".99"]; ← Skip Undo  
@activity[,,,,td.act.ctr+"0.01"]; ← Post Edit  
td.act.date_..td.act.time<STAMP;  
td.act.date_..td.act.time>STAMP, ← Most Recent  
@SAVE.STUFF}}}}}}}  
  
SAVE.STUFF  
{int.base,int.urn,td.act.date,td.act.time,td.act.ctr}>/LIST[patient]
```

# NUR Magic Continued

NPR (A/LIVE.MIS/440) - BERMAN,JOEL

Enter/Edit Macro Logic: NUR.PC.WORK.zcus.is.most.recent.current.patients.M.detail (A: )

```
;put subscripts back into local variables,  
/LIST[patient]>{int.base,int.urn,td.act.date,td.act.time,td.act.ctr}
```

NPR (A/LIVE.MIS/440) - BERMAN,JOEL

Enter/Edit Macro Logic: NUR.PC.WORK.zcus.is.most.recent.current.patients.M.after.d (A: )

```
;print intervention using MIS.SCREEN.print,  
;screen only stored 1x per instance of documentation,  
;empty for edits - so get screen  
@td.screen[@td.act.ctr#"0."]>SCREEN,  
%MIS.SCREEN.print(SCREEN,>@Root(@td.results),1,0)
```



# NUR – Client Server

## Steps

Write report in "times.done"

(Reason, in main C/S RW moves huge amts of data into temp)

Start macro similar to magic- select most recent/post edit/skip undo

Use MIS.ASSMNT

# C/S NUR

NPR (EPM/EPM.TEST5.64/EPM.TEST5.64) - PHIL SHERRY

## Enter/Edit Reports - Most Recent Doc, Current Patients, Across Ints

General

Sorts/Selects

Picture

Footnotes

Report DPM  Report Name

Report Title

Active ☒ Last Edit By  Date  Time

Detail DPM

Detail Segment

Index DPM

Index File

Chars/Line

Lines/Page

Page Size

Left Margin

Chars/Inch

Lines/Inch

Page Banner

Report Header

Page Header

Report Trailer

Page Trailer

No Index  
Write in "times done"  
segment

# C/S NUR

## Sort Field

3	int.urn
4	td.act.date
5	td.act.time
6	td.act.ctr
7	

## Order

ASC
ASC
ASC
ASC

## Header

NONE
NONE
NONE
NONE

## Trailer

N
N
N
N

Buffer Sort Temp

## Select Field/Prom

1	patient
	<input type="text" value="/PAT"/>
2	int.base
	<input type="text" value="/INT"/>
3	xx.ck
	<input type="text" value="1"/>
4	

List of patient's  
adm.urn's

List of int.base(s)

Check each entry

## Oper/Default or Keys

LI
LI
EQ

**Editing:** NUR.PC.WORK.zcus.is.most.recent.current.patients.M.start **Mode:** NPR CUS

1→/INT[0250910]→/INT[0250911]→/INT[0250912],

**List of ints**

@.facility→ADM.PAT.facility,

DO{@Next(ADM.PAT.room,@ADM.PAT.room.bed.index) 1,

DO{@Next(ADM.PAT.bed,@ADM.PAT.room.bed.index) 1,

@ADM.PAT.room.bed.index→patient,

""→int.base,

DO{+/INT[int.base]→int.base ""→int.urn,

DO{@Next(int.urn) ""→td.act.date,

DO{@Next(td.act.date) ""→td.act.time,

DO{@Next(td.act.time) 1,

""→td.act.ctr,

DO{@Next(td.act.ctr) 1,

IF{@activity[,,,,,td.act.ctr#"0."\_".99"];

**Skip Undo**

@activity[,,,,,td.act.ctr+"0.01"];

**Post edit**

td.act.date.\_td.act.time<STAMP;

td.act.date.\_td.act.time→STAMP,

@SAVE.STUFF}}}}}}}

**Most recent**

SAVE.STUFF

1→/INDEX[patient,int.base,int.urn,td.act.date,td.act.time,td.act.ctr],

1→/PAT[patient]

**Save list of patients in /PAT**  
**Save index of int doc's in /INDEX**

# Pick Each xx.ck

```
SAVE,STUFF////////
```

```
SAVE,STUFF
```

```
1→/INDEX[patient,int.base,int.urn,td.act.date,td.act.time,td.act.ctr],
```

```
1→/PAT[patient]
```

**Start Macro builds /INDEX**

## Enter/Edit Field Attributes: xx.ck

```
DAT=FREE
```

```
JFY=L
```

```
LEN=1
```

```
VAL=/INDEX[patient,int.base,int.urn,td.act.date,td.act.time,td.act.ctr]
```

	<input type="text" value="/INT"/>	
3	<input type="text" value="xx.ck"/>	<input type="text" value="EQ"/>
	<input type="text" value="1"/>	
4	<input type="text"/>	<input type="text"/>

## Generic NUR Int Printing Macro

Worth price of admission

Save hours of tedious "xx." typing and years of maintenance of reports...

Uses MIS.ASSMNT to get and organize data.

Builds

/NUR[section,heading,prompt,response]

ECB-ECE loops to print out data

## C/S "nur" macro cont'd

Written with full DPM names, so can be used in any report if you open NUR with either

```
%Z.rw.fragment("", "NUR.XYZ")
```

or

```
%Z.link.db({"NUR.XYZ"}, {"O", "B"})
```

To close

```
%Z.link.db({"NUR.XYZ"}, {"C"})
```

# **Psst: Fragments Evil**

**Fragments are sloooooow!**

**Fragments mean 2 (or more) reports to maintain**

**C/S has unlimited unique prefixes per application database – opens programs & data**

**Easy to open everything you need at start of report**



# C/S Assessment Macro

**Editing:** NUR.PC.WORK.zcus.is.most.recent.current.patients.M.nur **Mode:** NPR CUSTRW SRC

```
A→SUB,
B→NUR.PC.WORK.patient,
K[""](/NUR,/CODE),
SUB10→NUR.PC.WORK.int.base→NUR.INT.intervention,
SUB11→NUR.PC.WORK.int.urn,
SUB12→NUR.PC.WORK.td.act.date,
SUB13→NUR.PC.WORK.td.act.time,
SUB14→NUR.PC.WORK.td.act.ctr,
@NUR.PC.WORK.act.user→/DOC.USER,
@NUR.PC.WORK.act.date.entered→/ACT.DATE,
@NUR.PC.WORK.act.time.entered→/ACT.TIME,
1→/CODE10,@NUR.INT.std.screen→MIS.ASSMNT.code→/CODE],
NUR.PC.WORK.int.base_" "_@NUR.INT.fixed.desc→/INT.NAME,
IF(@MIS.ASSMNT.group="Y" DO(@Next(MIS.ASSMNT.group.assessment,q) 1,
1→/CODE[MIS.ASSMNT.group.assessment,q,@MIS.ASSMNT.group.assessment]}),
DO(+/CODE[q]→q 1,
""→MIS.ASSMNT.code,
DO(+/CODE[q,MIS.ASSMNT.code]→MIS.ASSMNT.code 1,
DO(@Next(MIS.ASSMNT.label,q) 1,
@MIS.ASSMNT.label.name→/NUR[q,MIS.ASSMNT.label,q],
DO(@Next(MIS.ASSMNT.query,q) 1,
@MIS.ASSMNT.query.code→NUR.PC.WORK.td.query→NUR.PC.WORK.td.rep.query,
@MIS.QUERY.group.resp→MIS.GROUP.RESP.mnemonic,
@MIS.QUERY.text→/NUR[q,MIS.ASSMNT.label,q,MIS.ASSMNT.query,q],
K[""](/LIST),
```

**Handles Group  
Assessments**



**Header per  
section**



**Prompt**



# Assessment Macro Continued

```
DO{@Next(MIS.ASSMNT.query,q) 1,
@MIS.ASSMNT.query.code>NUR.PC.WORK.td.query>NUR.PC.WORK.td.rep.query,
@MIS.QUERY.group.resp>MIS.GROUP.RESP.mnemonic,
@MIS.QUERY.text>/NUR[q,MIS.ASSMNT.label.q,MIS.ASSMNT.query.q],
K[""](/LIST),
IF{@NUR.PC.WORK.td.value>RESP 1,
IF{@NUR.PC.WORK.td.yn.comment>c RESP_" "_c>RESP},
IF{@MIS.QUERY.hh.units>u RESP_" "_u>RESP},
@LOAD;
DO{@Next(NUR.PC.WORK.td.repeat,ctr) IF{@NUR.PC.WORK.td.rep.value>RESP 1,
IF{@NUR.PC.WORK.td.rep.yn.comment>c RESP_" "_c>RESP},
IF{@MIS.QUERY.hh.units>u RESP_" "_u>RESP},
@LOAD;
"">NUR.PC.WORK.td.rep.query.q,
DO{@Next(NUR.PC.WORK.td.rep.query,q) IF{@NUR.PC.WORK.td.rep.value.mult>RESP 1,
IF{@NUR.PC.WORK.td.rep.yn.comment>c RESP_" "_c>RESP},
IF{@MIS.QUERY.hh.units>u RESP_" "_u>RESP},
@LOAD}}}},
DO{@Next(NUR.PC.WORK.td.query,q) IF{@NUR.PC.WORK.td.value.mult>RESP @LOAD}}},
@REFORMAT}}}},
@CLEAN.EMPTYES,
EXIT;
```

**Handles repeats,  
units, y/n/comments  
rejustifies lines that**

# Assessment macro

```
LOAD
IF(@MIS.QUERY.type="D" %Z.date.out(RESP);
IF(MIS.GROUP.RESP.mnemonic RESP⇒MIS.GROUP.RESP.element.mnemonic},
IF(@MIS.GROUP.RESP.element.response;RESP)}⇒/LIST[CNT+1⇒CNT]

REFORMAT
IF(@MIS.QUERY.length>70 1,
%Z.text.format(⇒/LIST,70,""),
""⇒CNT,
DO{+(/LIST[CNT],DATA)⇒CNT DATA⇒/NUR[q,MIS.ASSMNT.label1.q,MIS.ASSMNT.query.q.CNT]}

CLEAN.EMPTYIES
;if query not answered, omit it,
;if no queries in section answered, delete section,
""⇒q,
DO{+/NUR[q]⇒q DO{+/NUR[q,h]⇒h 1,
DO{+/NUR[q,h,p]⇒p IF{/NUR[q,h,p,1];""⇒/NUR[q,h,p],K[""](/NUR[q,h,p]))}},
DO{+/NUR[q]⇒q DO{+/NUR[q,h]⇒h 1,
IF{+/NUR[q,h,""];""⇒/NUR[q,h]}}}
```

# Syntax Checker

- Problem

Copy MT standard macro – cannot file due to syntax violations, hard to find and fix.

- Solution

NPR utility report that shows you all the errors by line w/ code

# Standard--

Just One Message

Enter/Edit Macro Logic

Macro detail

Warning



Syntax - K[, F[, V[, O[, X[ - not allowed

OK

Enter/Edit Macro Logic

Macro detail

Warning



Syntax - ^@, ^%, ^\$, ^?, ^., ^\*, ^\ ^[, ^&, - not allowed

OK

# Via Custom Report

C/S – NPR.REP.zcus.is

Magic – NPR.REP.zcus.is.syntax.review

Macro: detail

Line Num Error/Code

2 Syntax - ^@, ^%, ^\$, ^?, ^:, ^\*, ^\, ^[, ^&, - not allowed  
"MOUSE,MIKEY" ^@name,

5 Syntax - K(, F(, V(, O(, X( - not allowed  
@Kill (/STUFF),

# What did I work on?

* From DPM:	BEGINNING
* Thru DPM:	END
Edit User	IATRICS
* Edit From Date	
* Edit Thru Date	
Run User	
Run From Date	
Run Thru Date	
Title Contains:	
Include Activity	
Include Audit Trail	

## Report Search Utility

From DPM	BEGINNING
Thru DPM	
Edit User	
Edit From Date	
Edit Thru Date	
Run User	
Run From Date	
Run Thru Date	
Title Contains	
Include Activity	<input type="checkbox"/>
Include Audit Trail	<input type="checkbox"/>

# Find Query in Report

Search Reports for Selected Queries

From Report   
Thru Report

Restrict to Reports w/Activity ☐

Search for Queries

Include Activity Listing ☐

Thru Report: END

Reports w/ Activity Only: Y

Report

[ADM.PAT.zcus.is.discharge.order](#)

On Scheduler:

On Menu(s):

Field # 25 Field xx.smoke.edu

IF{eccdqr.response["NUR.SMOKE"]="Y" "X"}

Report Activity

PRINM	03/04/09	1449
JAYNJ	05/18/09	1005
EMLED	06/05/09	1041

↓ →