



Modernizing Legacy ISPF applications without breaking the back-end

Eoin O'Cleirigh CA Technologies

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abstract

There are increasing business needs requiring legacy ISPF applications to be enhanced, re-purposed and generally modernized to support new standards, facilities or just to add on new features, but they often struggle with the cost of updating the back-end applications. These "business logic layers" are often big/complex, and/or written in Assembler, PL/1 or other languages that are more difficult to amend/test. This session will look at some methods to break the dead-lock, updating the ISPF panels only to add the new functionality in a way that does NOT require the back end applications to change. The business logic layer remains intact, allowing you to exploit new technologies like Action Bars, Dynamic Screen Sizes, point-n-shoot etc.





1 CASE STUDY: HISTORY OF LONGNAMES IN ENDEVOR
2 CHANGE NEEDED BASED ON CUSTOMER FEEDBACK
3 ISPF CUSTOMISATION TOOLS – REVIEW/SELECTION
 4 DESIGN GOALS - Short – Like Endevor V17 - Long – Support long names, mixed case, case sensitivity
Long Supportiong names, mixed case, case sensitivity
5 DEMO
6 QUESTIONS & ANSWERS

Case Study: History



Evolution of Long Name Support

Endevor

Has a long history as a mainframe SCM tool of choice, but it's been quietly evolving to support off-host and non-traditional names . Everything from spreadsheets and Word documents to Java and web content.



What we heard...

- Pop-ups don't work
- Too many fields: USS, Uppercase, Case-Sensitive. Options users didn't need...
- "New panels too confusing"
- Huge cost of re-training
- D.I.Y retrofit!(just want the old way!)

```
----- ADD/UPDATE ELEMENTS
                                                  _____
OPTION ===>
                                                               SCROLL ===> CSR
                                                                    More:
                                                                              +
DIALOG OPTIONS:
 blank - Element list
                           A - Add an element
                                                   U - Update an element
CCID ===> SIQ07567
                         COMMENT ===> Update tutorial for D/S type
TO LOCATION:
                                       ACTION OPTIONS:
  ENVIRONMENT ===> DEV
                                         GENERATE ELEMENT
                                                                   Y (Y/N)
                                                               ===>
  SYSTEM
                   FSCM180
                                         DELETE INPUT SOURCE
                                                                     (Y/N)
  SUBSYSTEM
                                         NEW VERSION
  TYPE
                                         OVERRIDE SIGNOUT
                                                                    Y (Y/N)
                                         PROCESSOR GROUP
                                                               ===>
                                         UPDATE IF PRESENT
                                                                   Y (Y/N)
                                                               ===>
                                         AUTOGEN (BATCH ONLY) ===> N (Y/N)
                                           SPAN ===> NONE (NONE/ALL/SYS/SUB)
  ELEMENT
   UPPERCASE
                ==> Y (Y/N)
                                       LIST OPTIONS:
                                         DISPLAY LIST
                                                               ==> Y (Y/N)
FROM LOCATION:
 U - USS D - ISPF LIBRARY, OTHER PARTITIONED OR SEQUENTIAL DATA SET
 DATA SET TYPE ===> D (U/D)
  ISPF LIBRARY:
    PROJECT
              ===>
                  BST
   LIBRARY
              ===>
                  TECHSUPP
   TYPE
              ===> BUGS180
   MEMBER
              ===>
  *C1SF100
```



Software Developer's Challenge

- Want to deliver new features and functions
- Need to provide an easier migration path
- Overhaul panel design to be
 - More consistent (alignment, scroll-ability, help text)
 - Focused on productivity
 - Reduce key-strokes for most important fields
 - Allow user choice







Typical ISPF "customizations"

- Command Table Shortcuts, mods
 - Scrollable instead of "pageable"
- Point-n-Shoot Enable the mouse, encourage exploration
- Action Bar Discoverability, Deep-links, Muscle memory
- CUA Colour Choice to the user, reverse video links
- Automatic navigation Press END or ENTER...
- Table views Re-arrange, re-size, columns



Command Table – Shortcuts, mods

- Application code specific
- Invoke your own commands, Aliases, & shortcuts

Command ===>		Display CTLICMDS Row 1 to 28 of 2 Scroll ===> PAG
The command ta	ble	is currently open, it cannot be modified. Use the view(V)
row command to	se	e an entire entry.
Verb	т	Action
ECOLS	2	SELECT CMD(%ECOLS &ZPARM)
ESRCHFOR	3	SELECT CMD(%ESRCHFOR TOP(&ZTDTOP) &ZPARM)
EFIND	2	SELECT CMD(%EFIND &ZPARM)
EDUPS	3	SELECT CMD(%EDUPS &ZPARM)
PKGELES	3	SELECT CMD(%PKGELES &ZPARM)
XFERELES	2	SELECT CMD(%ENXDT &ZPARM)
XFEREXLS	Θ	SELECT CMD(%XFERELES &ZPARM)
DT	Θ	SELECT CMD(%ENXDT &ZPARM)
EDIMOPT	4	SELECT CMD(%EDIFOPT &ZPARM)
EHILITE	3	SELECT CMD(%EHILITE &ZPARM)
EDYNAM	3	SELECT CMD(%EDYNAM &ZPARM)
EMODE	3	SELÈCT CMD(%EMODE &ZPARM)
EVEDIT	3	SELECT CMD(%EVEDIT &ZPARM)
ESYSVIEW	3	SELECT CMD (%ESYSVIEW &ZPARM)
ESDSF	3	SELECT CMD (%ESDSF &ZPARM)
ESORT	2	SELLCT CMD(ESORT &ZPARM)
EONLY	2	SELECT CMD (EONLY & ZPARM)
EPRINT	2	SELECT CMD(EPRINT)
ACMQ	2	SELECT CM
AMSGS	2	SELECT CMI Add commonder Aliences Charteute
EMSGS	2	SELECT CMI Add Commands, Allases, Shortcuts
PMSGS	3	SELECT CMI
QMSGS	2	SELECT CML consumption
SNAPMON	4	SELECT CMD(SNAPMON)
LEFT	4	&VARC1LR
RIGHT	5	&VARC1LR
CTLI	2	SELECT PGM(ISPYXDR) PARM(CTLI) SCRNAME(ETEST) NOCHECK



Scrollable

Instead of forcing users to press ENTER or PF7/PF8 – make the content scrollable

<u>E</u> ndevor Se	e <u>t</u> tings <u>S</u> ort <u>M</u> enu <u>U</u> tilities <u>H</u> elp	
Command ===>	Master Display for Element ENDI\$EWA	Scroll ===> <u>CSR</u> More: +
Element Environment. System Subsystem Type Stage ID Description.	ENDI\$EWA DEV Processor Group *NOPROC* Locked Pkg. ESCM180 Last Action GENERATE Source Pkg. SIQ07659 VVLL0142 Output Pkg. ASMMAC Signout ID OCLE001 1 NoSource SOURCED MISCELLANEOUS CHANGES	ESCM180SIQ07659G ESCM180SIQ07659G
UserID Action RC Processor RC Comment	OCLE001Date/Time 310CT18 07:38CCID0000Processor *NOPROC* (GEN)ENDIE250QUICK EDIT PANEL L/R SCROLL ISU	SIQ07659
UserID Comment From Loc	OCLEO01 Date/Time 3100 ENDIE250 QUICK EDIT PANEL L OCLEO01.QERCVY14.RECOVERY	een real-estate. there is more
UserID Comment Component Lis	OCLE001 Date/Time 310CT18 07:38 CCID ENDIE250 QUICK EDIT PANEL L/R SCROLL ISU st VVLL N/A Component List Delta Format	SIQ07659
UserID Comment To Loc	Date/Time CCID	•••
UserID	OCLE001 Date/Time 300CT18 11:06 Internal	Name ENDI\$EWA
Element	From Location	
Environment. System	Date/Time Action	



Scrollable

File Edit Edit Settings Menu Utilities Compilers Test Help VTEW CAIPRODD.NDVR.V180S0A.CSIOPENU(ENDIEEMX) - 01.00 Columns 00001 00080 Command ===> Scroll ===> CSR 000001)ATTR 000002 /*--000003 /* Copyright (C) 1986-2014 CA. All Rights Reserved. */ 000004 /*--000005 % TYPE(TEXT) INTENS(HIGH) 000006 ¢ TYPE(OUTPUT) INTENS(HIGH) 000007 ! TYPE(OUTPUT) INTENS(LOW) @ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF) JUST(ASIS) 800000 000009 \$ AREA(SCRL) EXTEND(ON) **000010**)BODY EXPAND(\\) 000011 %\-\ Master Display for Element \ 000012 %Command ===>_ZCMD <u>Scroll --=</u>> AMT 000013 \$SCRAREA 🔨 000014)AREA SCRAREA Define Attribute 000015 +000016 +Element....@ENTEN255 + Processor Group¢EPRGRP + Locked Pkg..¢ECPKGID 000017 +Environment.ctMENV LCTACT . Comment 000018 +System....¢EMSXS + Last Action. 2 000019 +Subsystem...¢EMSBS + VVLL... Mark the bounds and name it 000020 +Type....¢EMTYPE Signout ID. 000021 +Stage ID....¢Z+ NoSource 000022 +Description.@EMBCOM 000023 + 000024 +-Last Ele Insert the)AREA header Date/Tim 000025 +UserID.....0ELAUID@ELACCID + and continue as normal... 000026 +Action RC...¢EMRC+ Processo 000027 +Processor RC¢EPRC ¢EMPFLAG 000028 +Comment....@ELACOMM 000029 + 000030 +\-\ Current Source \-\ 000031 +UserID.....@EMLUID + Date/Time...¢EMLDTE ¢EMLT + Delta Fmt.¢Z+ +CCID....@ECTL# 000032 +Comment....0EMCCOM 000033 +From Loc....@VNT2L0C1 ¢Z + 000034 +000035 +\-\ Generate \-\ 000036 +UserID.....0EMPUID + Date/Time...¢EMPD ¢EMPT + CCID....@EGCCID 000037 +Comment....@EMPCOM



Point-n-Shoot



Hint: Use Settings, CUA Colours to enable Reverse Video on Point-n-Shoot



Point-n-Shoot



13



Action Bar

						1								WS	5—
QuickEdit DEV/ESCM180/SIQ07 1. Element Command ===> 2. Message(-) 3. System				-)								Row 1 Scrol	to 30 of 1 ===> CS	57 SR	
Dialog Commands: - E Edit # Del	Lete	3. 4. 5.	Syste SubSy Type	ste	m	DT Deplo M Mast	oy to er	Test							
G Generate O Mov	/e	6.	Envir	on		SI Sign	in								
LL Listing	Compo	7.	Stage			LO LI LO	0								
		8.	VVLL(-)										More=	==>
Element + Message	Ту	9.	CCID			ubsys	VVLL	CurDate	ProcGrp	GenDate	PRRC	NDRC	UserID	CCID	Si
		10.	Useri	d											
@PNTFLDS	AS	11.	Signo	ut		IQ07659	0108		*NOPROC*			0000	OCLE001	SIQ07659)
BC1PFLOW	AS	12.	Endev	or	RC(-)	IQ07659	0143		LEMBX		0000	0000	0CLE001	SIQ07659	OC
BC1PFLOW	LN	13.	Proce	sso	r RC(-)	IQ07659	0100		L		0000	0000	MORMI08	NDVMF20	00
BSTPEILC	LN	14.	Proce	sso	r Group	IQ07659	0102		L		0000	0000	RICAR01	SIQ07001	L OC
BSTPESET	LN	15.	NoSou	rce	(-)	IQ07659	0104		LELNOXP		0000	0000	BUCFR02	SIQ07278	s oc
C1SN1000	AS 🖵					J IQ07659	0116		LEMBX		0000	0000	BUCFR02	SIQ07471	L OC
C1SN1000	LNK	Y	DEV	1	ESCM180	SIQ07659	0100		L		0000	0000	MORMI08	NDVMF20	00
C1SN5000	ASMPGM	Y	DEV	1	ESCM180	SIQ07659	0127		LEMBX		0000	0000	BUCFR02	SIQ07471	L OC
C1SN5000	LNK	Y	DEV	1	ESCM180	SIQ07659	0100		L		0000	0000	MORMI08	NDVMF20	oc
C1SSELSL	ASMPGM	Y	DEV	1	ESCM180	SIQ07659	0185		LEMBX		0000	0000	PABJU03	SIQ07653	s oc
C1SSELSL	LNK	Y	DEV	1	ESCM180	SIQ07659	0100		L		0000	0000	MORMI08	NDVMF20	OC
C1SSEL00	ASMPGM	Y	DEV	1	ESCM180	SIQ07659	0142		LEMBX		0000	0000	OCLE001	SIQ07659	o c
C1SS0S00	ASMPGM	Y	DEV	1	ESCM180	SIQ07659	0125		LEMBX		0000	0000	BUCFR02	SIQ07478	s oc
C1SS0S00	LNK	Y	DEV	1	ESCM180	SIQ07659	0100		L		0000	0000	MORMI08	NDVMF20	oc
C1SSULSL	ASMPGM	Y	DEV	1	ESCM180	SIQ07659	0127		LEMBX		0000	0000	OLEJU01	SIQ07303	s oc
C1SSULSL	LNK	Y	DEV	1	ESCM180	SIQ07659	0100		L		0000	0000	MORMI08	NDVMF20	oc
C1SSV106	ASMPGM	Y	DEV	1	ESCM180	SIQ07659	0108		LEMBX		0000	0000	OCLEO01	SIQ07659	o c
C1SSV106	LNK	Y	DEV	1	ESCM180	SIQ07659	0100		L		0000	0000	OLEJU01	SIQ07303	O C
ENDI\$EWA *Master	ASMMAC		DEV	1	ESCM180	SIQ07659	0142		*NOPROC*			0000	0CLE001	SIQ07659	o
ENDIEFLW	ASMPGM	Y	DEV	1	ESCM180	SIQ07659	0123		LEMBX		0000	0000	OCLEO01	SIQ07659	o c
ENDIEFLW	LNK	Y	DEV	1	ESCM180	SIQ07659	0100		L		0000	0000	MORMI08	NDVMF20	oc
ENDIEFL2	ASMPGM	Y	DEV	1	ESCM180	SIQ07659	0105		LEMBX		0000	0000	OCLE001	SIQ07659	o o c
ENDIEFL2	LNK	Y	DEV	1	ESCM180	SIQ07659	0100		L		0000	0000	MORMI08	NDVMF20	oc
ENDIE102	ASMPGM		DEV	1	ESCM180	SIQ07659	0135		LEMBX		0000	0000	OCLE001	SIQ07659	o c
ENDIE102	LNK	Y	DEV	1	ESCM180	SIQ07659	0100		L		0000	0000	MORMI08	NDVMF20	oc
ENDIE250	ISPP		DEV	2	ESCM180	SIQ07659	0135		*NOPROC*			0000	0CLE001	SIQ07659)
ENDIE250	ISPPJPN	J	DEV	2	ESCM180	SIQ07659	0110		*NOPROC*			0000	0CLE001	SIQ07659)
ENDIE251	ISPP		DEV	2	ESCM180	SIQ07659	0108		*NOPROC*			0000	OCLEO01	SIQ07659)
ENDIE251	ISPPJPN	J	DEV	2	ESCM180	SIQ07659	0106		*NOPROC*			0000	OCLEO01	SIQ07659)
ENDIE252	ISPP		DEV	2	ESCM180	SIQ07659	0104		*NOPROC*			0000	0CLE001	SIQ07659)



Action Bar





CUA Colour

 If you use Hex codes, then be consistent

• Users may still rebel

VIEW Command	BST.QA.BERNIE.CSIQPENU(E ===> f x'0c'	ENDIE110) - 01.00 Columns 00001 00080 Scroll ===> CSR
000016	<pre>/* Following lines inserted</pre>	for Endevor Action Bar/CUA support */
000017	OC TYPE(PT)	/* Panel Title */
000018	0A TYPE(NT)	/* normal text */
900019	ΘΒ ΤΥΡΕ(ΑΒ) 🔨	/* Action bar Item */
900020	2D TYPE(ABSL) GE(ON)	/* action bar separator */
900021	16 TYPE(VOI)	/* Var output info - Panel Title/navigation */
900022	27 AREA(SCRL) EXTEND(ON)	/* Scrollable area - support small screens */
900023	28 TYPE(FP)	<pre>/* Field Prompt - Use for command/scroll text*/</pre>
900024	14 TYPE(NEF) CAPS(ON) PAD	C(USER) /* Normal Entry Field - cmd, scroll etc*/
900025	0D TYPE(PS)	/* Point and shoot */
900026	1E TYPE(SC)	/* Scroll Information */
000027	08 TYPE(CH)	/* Column heading */
900028	10 TYPE(ET)	/* Emphasised text */
000029	11 TYPE(SAC)	/* Select Action Choice */
000030	12 TYPE(SUC)	/* Select Action unavailable */
900031	13 TYPE(PIN)	/* Panel Instruction (e.g. act opt text) */
000267	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E59A096</pre>	Use a tandard set of CUA
000267	\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E59A394 00000C3_05545569023405048953	Use a tandard set of CUA attributes V's default "+%_" 000000000000000000000000000000000000
000267	\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E59A896 00000C3_05545569023405048953 Command ===> VARWKCMD	Use a tandard set of CUA attributes V's default "+%_" Scroll ===> AMT
000267 000268 000269	\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E59A396 00000C3505545569023405048953 Command ===> VARWKCMD <otherwise></otherwise>	Use a tandard set of CUA attributes V's default "+%_" Scroll ===> AMT
000267 000268 000269	\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E59A396 00000C3505545569023405048953 Command ===> VARWKCMD <otherwise></otherwise>	Use a tandard set of CUA attributes V's default "+%_" Scroll ===> AMT
000268 000269 000269	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E59A394 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"
000268 000269 000269 000303 000304	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E59A394 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + 000000 + 0000</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"
000268 000269 000269 000303 000304 000305	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E59A394 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Command + Command</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"
000268 000269 000269 000303 000304 000305 000306	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E50A096 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Cc +</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"
000268 000269 000269 000303 000304 000305 000306 000307	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E59A394 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Co + +Location:</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"
000268 000269 000269 000303 000304 000305 000306 000307 000308	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E50A09 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Co + +Location: + Environment.!QEPEVNME+ </otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"
000268 000269 000269 000303 000304 000305 000306 000307 000308 000309	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E50A39 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Co + +Location: + Environment.!QEPEVNME+ + System!QEPSYS +</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"
000267 000268 000269 000303 000304 000305 000306 000307 000308 000309 000310	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E50A39 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Co + +Location: + Environment.!QEPEVNME+ + System!QEPSYS + + Subsystem!QEPSBS +</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"
000267 000268 000269 000303 000304 000305 000304 000305 000307 000308 000307 000308 000309 000310	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E50A39 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Co + +Location: + Environment.!QEPEVNME+ + System!QEPSYS + + Subsystem!QEPSBS + +</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"
000268 000268 000269 000303 000304 000305 000306 000306 000307 000308 000309 000310 000311 000311	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E50A39 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Co + +Location: + Environment.!QEPEVNME+ + System!QEPSYS + + Subsystem!QEPSBS + + +</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_" Scroll ===> AMT
000268 000268 000269 000303 000304 000305 000306 000307 000308 000309 000310 000311 000312 000313	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E50A39 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Co + +Location: + Environment.!QEPEVNME+ + System!QEPSYS + + Subsystem!QEPSYS + + + + + +Action Options:</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_" Scroll ===> AMT
000268 000268 000269 000303 000304 000305 000306 000307 000308 000309 000310 000311 000312 000313 000314	<pre>\ CA Endevor SCM V&myind 4E4E40CC4C988A994ECD4E50A39 00000C3_05545569023405048953 Command ===> VARWKCMD <otherwise> +Element@QEPELM + Type!QEPTYP + + CCID¬EEVCCID + Co + +Location: + Environment.!QEPEVNME+ + System!QEPSYS + + Subsystem!QEPSYS + + + Action Options: + Override SignoutZ+(Y/M)</otherwise></pre>	Use a tandard set of CUA attributes V's default "+%_"



Automatic Navigation

Use "signal" variables to drive the application setting values and "pressing" **ENTER or END**





Table views

	<u>E</u> ndevor <u>P</u> roject Se <u>t</u> tings <u>S</u> ort <u>M</u> enu <u>U</u> tilities <u>H</u> elp	
-	WS5 QuickEdit DEV/ESCM180/SIQ07659/*/* Row 1 to 30 of 57 Command ===> ESort -GEN Scroll ===> CSR	
lables	Dialog Commands: - AO Action Options DT Deploy to Test E Edit # Delete B Browse H History M Master G Generate O Move C Changes S Summary SI Signin	
are just	LL Listing Component Options: BX CX HX SX LO LI LC More==>	
are just	Element + Message Type NS Env S System Subsys VVLL CurDate ProcGrp GenDate/Time PRRC NDRC UserID CCID	-
data laid	BSTPESET LNK Y DEV 1 ESCM180 SIQ07659 0104 03SEP15 LELNOXP 310CT18 18:45 0000 0000 BUCFR02 SIQ0727 BSTPEILC LNK Y DEV 1 ESCM180 SIQ07659 0102 11MAR14 L 310CT18 18:43 0000 0000 RICAR01 SIQ0700	7 Э
data lald	BC1PFLOW LNK Y DEV 1 ESCM180 SIQ07659 0100 28JAN09 L 310CT18 07:40 0000 0000 MORMI08 NDVMF20	9 9
		5
out	C1SSELSL LNK Y DEV 1 ESCM180 S1007659 0100 28JAN09 L 310C118 07:39 0000 0000 MORM108 NDVMF20 C1SS0S00 LNK Y DEV 1 ESCM180 S1007659 0100 28JAN09 L 310C118 07:39 0000 0000 MORM108 NDVMF20	9 9
out	C1SSULSL LNK Y DEV 1 ESCM180 SIQ07659 0100 28JAN09 L 310CT18 07:39 0000 0000 MORMI08 NDVMF20 C1SSV106 LNK Y DEV 1 ESCM180 SIQ07659 0100 03FEB16 L 310CT18 07:39 0000 00EJU01 SIQ0730))
	ENDIEFLW LNK Y DEV 1 ESCM180 SIQ07659 0100 28JAN09 L 310CT18 07:39 0000 0000 MORMI08 NDVMF20	9
according	ENDIE[02 LNK Y DEV I ESCHIBO SIQ07659 Oldo 285AN09 L SIQ0718 Office Oldo Oldo MORMIOS NDVMP20 ENDIE102 LNK Y DEV 1 ESCM180 SIQ07659 0100 28JAN09 L 310CT18 07:39 0000 MORMIOS NDVMF20	5
according	ENDIE300 LNK Y DEV 1 ESCM180 SIQ07659 0100 28JAN09 L 310CT18 07:39 0000 0000 MORMI08 NDVMF20 EONLY LNK YDEV 1 ESCM180 SIQ07659 0100 28JAN09 L 310CT18 07:39 0000 0000 MORMI08 NDVMF20	9 9
	EONLYTBLLNK Y 1 ESCM180 SIQ07659 0100 15JUL14 L 310CT18 07:39 0000 0000 MORMI08 SIQ0711	L a
to the	ESORTY DEVSIGO SIGO 2034MOV ESIGO 0000 0000 MORMIOS NDVMF20	9
	ESORTIBL LNK . DEV	5
	C1SN1000 ASMPGM Y DEV Let user choose column X 2106118 07:39 0000 0000 BUCFR02 SIQ0747	7
model	CISSELSL ASMPGM Y DEV order, width, colour etc. X 310CT18 07:39 0000 0000 PABJU03 SIQ0765	5
meder	C1SSEL00 ASMPGM Y DEV X 310C118 07:39 0000 0000 0CLE001 S100765 C1SS0S00 ASMPGM Y DEV X 310C118 07:39 0000 0000 BUCFR02 S100747	7
1.	C1SSULSL ASMPGM Y DEV X 310CT18 07:39 0000 0000 0LEJU01 SIQ0730 C1SSV106 ASMPGM Y DEV ESCM180 SIQ07659 VIU8 FUUCT18 LEMEX 310CT18 07:39 0000 0CLEQ01 SIQ0765	9 5
line	ENDIEFLW ASMPGM Y DEV 1 ESCM180 SIQ07659 0123 170CT18 LEMBX 310CT18 07:39 0000 0000 0CLE001 SIQ07659 ENDIEFLW ASMPGM Y DEV 1 ESCM180 SIQ07659 0123 170CT18 LEMBX 310CT18 07:39 0000 0CLE001 SIQ07659	5
	ENDIEFL2 ASMPGM Y DEV 1 ESCM180 SIQ07659 0105 170CT18 LEMBX 310CT18 07:39 0000 0000 0CLE001 SIQ0765 ENDIE102 ASMPGM DEV 1 ESCM180 SIQ07659 0135 310CT18 LEMBX 310CT18 07:39 0000 0000 0CLE001 SIQ0765	5
	ENDIE300 ASMPGM DEV 1 ESCM180 SIQ07659 0162 310CT18 LEMBX 310CT18 07:39 0000 0000 0CLE001 SIQ0765	5
	*QEDYN	-

Hint: You need a way to map the screen to the underlying table... trace TBCREATE in Dialog test...



Table views





Table views

<u>F</u> ile	<u>E</u> dit	E <u>d</u> it_S	Settings	<u>M</u> enu	<u>U</u> til	liti	es <u>(</u>	<u>Comp</u> :	ilers	s <u>T</u>	est <u>F</u>	lelp			
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Dealing with objections

Having your cake and eating it too...

Add/Update (original)





Add/Update (Release Candidate #1)





*C1SF100

Display Long Mode





Add/Update Long Mode





Retrieve Long Mode





Generate Long Mode





*C1SF300

User Defaults You Choose







Add/Update Short Mode



Quick Edit Long Mode



----- CA Endevor SCM Quick Edit 18.0.11 ------Scroll ===> CSR Command ===> Dialog Commands: - U User Menu AO Áction Options D Dialog Defaults PD Parallel Dev P Packages Element Options: blank Element list B Browse CR Create E Edit C Changes SI Signin G Generate # Delete M Master O Move S Summary H History LL List Listing LC List Components LO List Outputs LI List Inputs Element. . ENDIE*_____ Type . . ISP* CCID . . SIQ07567 Comment. . Enhance Quick Edit forever Location List Options: Envirohment. DEV Build Using Map. \dots N (Y/N) Return First Found Y (Y/N)System . . ESCM180 Subsystem. . SIQ07567 Apply List Filters N (Y/N) Display Env/Sys/Subsys List. N (Y/N)Case-sensitive Elm Name. . . Y (Y/N)Action Options: Override Signout . N (Y/N)Uppercase Elm Name Y (Y/N)Processor Group. . _____Preserve VB Record Length. . Y (Y/N) Copyright (C) 1986-2018 CA. All Rights Reserved. Element, Type, CCID and Comment move to top... Dialog commands are enabled for point-n-shoot *ENDIE11

Quick Edit Short Mode







Live Demo





Recording

Implementation Considerations

- As an administrator
 - Choose the default mode; Long or Short
 - Update & Assemble ENDICNFG table

```
END$CNFG TYPE=CONFIG, X
ACKNOWLEDGE_ELEMENT_JUMP=N, X
- - - - - - - - - - - - - 60 Line(s) not Displayed
UI_OPT_ELEMENT=L, X
UI_OPT_HIDE_PROMPT=N, X
```





Feedback **Discussion**



- As an administrator, which would you prefer to rollout to your users
 Long or Short Mode?
- Are you happy with CCID and Comment on one line or would you prefer each on their own line?
- Should options be grouped by type, or by frequency of use? Which ones do you change most often?

How does it work?

- Implemented as an ISPF panel exit) INEXIT LOAD, ENDDYNPX
- Extra syntax to include, or drop lines...

<SELECT add_your_comment here> <WHEN &VAR=L> ...long mode content <WHEN &VAR=S> ...short mode content <OTHERWISE> ...default content </SELECT>







Examples Element Location

)INEXIT LOAD, ENDDYNPX)ATTR DEFAULT(%+) /* % TYPE(TEXT) INTENS(HIGH) DEFAULTS DISPLAYED FOR */ /* + TYPE(TEXT) INTENS(LOW) INFORMATION ONLY */ /* TYPE(INPUT) INTENS(HIGH) CAPS(ON) JUST(LEFT) */ @ TYPE(INPUT) INTENS(HIGH) CAPS(OFF) JUST(LEFT) \$ TYPE(INPUT) INTENS(LOW) PAD() /* UNIQUE ATTRIBUTES FOR */ ! TYPE(INPUT) INTENS(LOW) PAD(NULLS) /* DASHES AND NULL PADDING */ c TYPE(OUTPUT) INTENS(HIGH) JUST(RIGHT) | TYPE(OUTPUT) INTENS(LOW) ¬ TYPE(INPUT) CAPS(&VARCACCI) FORMAT(&VARFMCCI) ` TYPE(INPUT) CAPS(&VARCACOM) FORMAT(&VARFMCOM) ~ TYPE(INPUT) CAPS(&VARCADES) FORMAT(&VARFMDES)) BODY %------ Display Elements/Component Lists -----%OPTION ===> ZCMD %SCROLL ===> AMT + % blank+- Display selection list %B+- Browse element current level % S+- Display summary of levels %C+- Display changes current level % M+- Display element master info %H+- Display history current level + % LL+- List Listing + Enter%SX. BX. CX+or%HX+to display component list information + <SELECT Dynamic Element Location> <WHEN &ENDVPOSE=S> +FROM LOCATION: LIST OPTIONS: + ENVIRONMENT%===> VAREVNME+ DISPLAY LIST % = = > Z + (Y/N)% = = > Z + (Y/N)+ SYSTEM %===> SYS APPLY LIST FILTERS + SUBSYSTEM %===> SBS BUILD USING MAP % = = > Z + (Y/N)+ ELEMENT %===>@VNT1ENME |VNTIND +UPPERCASE ELE NAME % = = > Z + (Y/N)+ TYPE %===> TYPEN + DISPLAY SYS/SBS LIST %===> H+(Y/N) + STAGE %===>_D+ ¢Z+-|CLU1ID + CASE-SENSITIVE ELM NAME%===> Z+(Y/N) ¢Z+-|CLU2ID + + + <OTHERWISE> +ELEMENT %===>@VNT1ENME VNTIND +FROM LOCATION: **OPTIONS:** + ENVIRONMENT%===> VAREVNME+ DISPLAY LIST % == > Z + (Y/N)%===>_SYS APPLY LIST FILTERS %===>_Z+(Y/N) + SYSTEM + % = = > Z + (Y/N)+ SUBSYSTEM %===> SBS BUILD USING MAP + + TYPE % = = = > H + (Y/N)%===> TYPEN + DISPLAY SYS/SBS LIST

%===>_D+ ¢Z+-|CLU1ID +

¢Z+-|CLU2ID +

+ STAGE

</SELECT>

+

+)INIT <SELECT Dynamic Element Location - Make ZVARs match the field positions> <WHEN &ENDVPOSE=S> .ZVARS = '(VARWKLST VARWHPNL VARSHMAP VNTUPPER CLU1I VNTSCASE CLU2I)' <OTHERWISE> .ZVARS = '(VARWKLST VARWHPNL VARSHMAP CLU1I VNTUPPER CLU2I VNTSCASE)' &tcursor = .cursor if (.CURSOR = ZCMD AND .MSG = &Z)/* if cursor is top and no msg*/ .CURSOR = 'VNT1ENME' /* If on top put cursor here */ </SELECT> .HELP = CITD1000&LIST2 = 'Y N'IF (&VARWHPNL = ' ') &VARWHPNL = 'N' IF (&AMT = ' ') &AMT = PAGEIF (&ETMPCASE = ' ') &VNTSCASE = 'Y'&ETMPCASE = 'Y') PROC VPUT (AMT) PROFILE VER (&VARWHPNL,NB,LISTV,&LIST2,MSG=CIFV005))FIELD FIELD(VNT1ENME) IND(VNTIND) SCROLL(ON))END

Another example in wild: <u>https://share.confex.com/share/125/webprogram/Session17578.html</u>

% = = > Z + (Y/N)

UPPERCASE ELE NAME

CASE-SENSITIVE ELM NAME%===> Z+(Y/N)



More advanced options

Extra Chili factor



<u>F</u> ile	<u>E</u> dit I	E <u>d</u> it_Settings	<u>M</u> enu <u>U</u> tilities <u>C</u> ompilers <u>T</u> est <u>H</u> elp	
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000044	00.17.	00 01100101		
000046	06:19:3	30 PKMR400T	BEGINNING ACTION VALIDATION AND SEARCH FOR APPLICABLE APPROVER GROUPS	
000047	06:19:3	30 C1G0063T		
000048	06:19:3	30 C1G0064I	PROCESSING STATEMENT #2	
000049	06:19:3	30 C1G0000I	ELEMENT EONLYTBL	
000050	06:19:3	30 C1G0506I	ENV: DEV SYS: ESCM SBS: QATEST STGID: 1 TYPE: LNK	
000051	06:19:3	30 C1G0501I	ELEMENT RESERVED FOR PACKAGE EOINTESTPKG	
000052	06:19:3	30 C1G0063I		
000053	06:19:3	30 PKMR401I	ACTION VALIDATION COMPLETED WITHOUT ERRORS	
000054	06:19:3	30 PKMR402I	NO APPROVER GROUP(S) FOUND APPLICABLE FOR PACKAGE	
000055	1CA Ende	evor SCM Vers	ion 18.0.12 Copyright (C) 1986-2018 CA. All Rights Reserved.	08AUG18 06:19: <mark>3</mark>
000056			ENDEVOR PACKAGE CAST REPORT	
000057				
000058				
000059				
000060	06:19:3	30 PKMR7911	COMPONENT VALIDATION STARTED	
000061	06:19:3	31 FPVL001E	INPUT COMPONENT VALIDATION ERROR HAS OCCURRED FOR	
000062	06:19:		ELEMENT FONLYTEL	_
000063	06:19:3	31 PKMR8011	OF ENV: DEV SYS: ESCM SUBSYS: QATEST TYPE: LNK STG: 1	
000064	06.10.1	24 EBVL002E	FOOTPRINT MISMATCH FOR	•
000005	06:19:3	21 C1G0000T		•
000000	06.19.3	21 C1600001	FROM DATA SET NEW MOTH ESCH GATEST D1 OP11 TP	
000068	06:19:	31 PKMR802T	EP ENV: DEV SYS: ESCM SUC	
000069	06:19:	31 PKMR805T	EP DATE/TIME IN COMPONENT Parse the messages and highligh	int 🚽
000070	06:19:	31 PKMR807T	GENERATE PROCESSOR DATE/TI	
000071	06:19:3	31 PKMR8081	LAST PROCESSOR DATE/TIME errors using Shadow variable	
000072				
000073	06:19:3	31 FPVL003E	FOOTPRINT MISMATCH FOR	
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Possible Future Considerations

- ActionBar support Use a copybook to enable standard treatment of drop-down menus and the ability for a site to add their own
- Scrollable/configurable, Wide-Screens
- Provide wide screen support everywhere
- Customized Panel injection
- Provide a standard way to have local or site customizations (e.g. Package Notes validation) inserted dynamically
- Auto-navigation for automated/batch scripting
- Convert (Y/N) options to [/] to select on the left (IBM style)
- CUA colour support



Thank You.







- Eoin O'Cleirigh
- Sr Principal Software Engineer
- <a>Eoin.OCleirigh@ca.com



We want your feedback!

- Please submit your feedback online at
 http://conferences.gse.org.uk/2018/feedback/
- Paper feedback forms are also available from the Chair person
- This session is am





