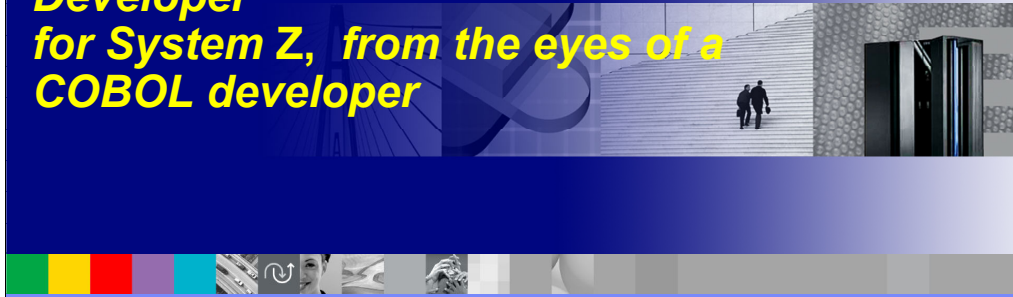




***ISPF productivity to WebSphere
Developer
for System Z, from the eyes of a
COBOL developer***



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Traditional code running fortune 500 IT shops

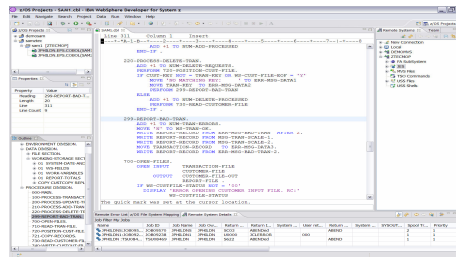
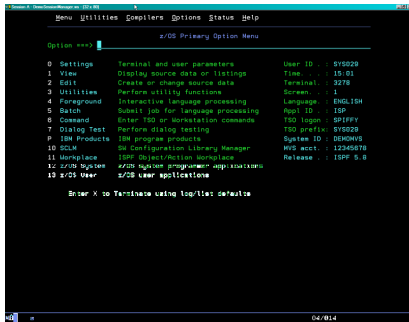
- COBOL is still very Active:
 - ▶ An Estimated 5 billion new lines added per year. (TSG Inc.)
 - ▶ 75% of business data is processed in COBOL (Gartner).
 - ▶ There are 180 billion to 200 billion lines of COBOL in use worldwide (Gartner).
 - ▶ 15% of new applications are written in COBOL (Gartner).
 - ▶ "Replacement costs for COBOL systems, estimated at \$25 per line, are in the hundreds of billions of dollars" (Tactical Strategy Group).
 - ▶ COBOL applications process over 80% of all daily business transactions and mainframe platforms store 70% of the all the data

- PL/I is similar but around 25% of the COBOL values above

In this day and age some folks are shocked by the amount of COBOL that is not only out there in production running our core application, but is still being developed. What's even more shocking is the cost per line to replace COBOL. PL1 has similar statistics but approx a quarter of the numbers for COBOL.

IBM will walk you through how to utilize your valuable COBOL and PL1 assets and continue to be able to manage and develop in these languages with tools to ease the burden

GREEN TO GUI



ISPF TO ECLIPSE

- ISPF
 - ▶ 20 – 30 Years experience
 - Less staff more workload – how to get faster
 - New staff – how to get 20 yrs experience in 2 months
 - [Solution ISPF Productivity Tool](#)
- Eclipse
 - ▶ Cross platform developers
 - New COBOL staff quickly productive
 - Java staff can program COBOL
 - Cross develop Java, COBOL, PL1 with continuous format
 - [Solution WDz](#)



From Green to GUI.. Many of us in this room have been working with ISPF for 20 - 30 years and are experts with the technique mastered. So when we have folks retire and reduced staff how do we pick up the pace to cover not only the existing but new workload? We could use a productivity tool that could take our 20 keystrokes down to 2 or 3. What if we added a new staff member right out of collage? How would he/she get up to speed quickly with our 20-30 years of experience... they can't, so with a productivity tool we can teach them 2-3 keystrokes and have them productive in ISPF in no time. The tool I'm speaking of is ISPF Productivity Tool (IPT) this is a tool IBM acquired from ISOGON a few years ago. It compliments ISPF and will be IBM's go forward strategy to add all productivity functions to this tool, IPT. Lets flip the coin over... with our System z environment becoming SOA enabled and needing to extend our COBOL and PL1 applications to have touch points or front ends with JAVA how can we work with these other programmers? We could use a tool. If we reflect back on those new COBOL programmers we added to ISPF, perhaps his we could give them the option to go to a GUI screen, something our newer "fresh out of college" programmers are used to. We need to look at each System z shop and you... you the lead sr application/system programmers and managers need to decide on the right mix of Green Screen to GUI. Over time we will see GUI become the mainstay, but for now, a "right" mix of both ISPF Productivity Tool and WDz would be a direction to consider. We will now discuss both of these products and their core functionality.

In case you are asked IPT is value uit based on system z unlimited users, WDZ is seat based per user.



IBM ISPF Productivity Tool



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IBM ISPF Productivity Tool Functional Overview

- Enhances ISPF Productivity
 - ▶ Consolidates commands within a single panel
 - ▶ Presents a comprehensive, object-oriented project-related list of data sets
 - ▶ Reduces Keystrokes and EXCP counts
 - ▶ Provides Extensive Point & Shoot capabilities
 - ▶ Extended TSO command execution
 - ▶ Automatic PDS compression and Directory Expansion
 - ▶ Enhanced Print and Clipboard Capabilities
 - ▶ Improves ISPF navigation
 - ▶ SCLM, Librarian, Panvalet Library support
 - ▶ Enhanced patterns for finding data
 - ▶ Powerful Command Shortcuts **NEW V5.9 !!**



DSLISIT ISPF 3.4

Menu Utilities Compilers Options Status Help

z/OS Primary Option Menu

Option ==> 3.4

0	Settings	Terminal and user parameters	User ID . . : DNET187
1	View	Display source data or listings	Time . . . : 13:53
2	Edit	Create or change source data	Terminal. : 3278
3	Utilities	Perform utility functions	Screen. . : 1
4	Foreground	Interactive language processing	Language. : ENGLISH
5	Batch	Submit job for language processing	Appl ID . : ISP
6	Command	Enter TSO or Workstation commands	TSO logon : SPIFFY
7	Dialog Test	Perform dialog testing	TSO prefix: DNET187
P	IBM Products	IBM program products	System ID : DEMOMVS
10	SCLM	SW Configuration Library Manager	MVS acct. : 12345678
11	Workplace	ISPF Object/Action Workplace	Release . : ISPF 5.8
12	z/OS System	z/OS system programmer applications	
13	z/OS User	z/OS user applications	

Enter X to Terminate using log/exit if faults

IPT fits seamlessly into ISPF
Customization of functions can be controlled
at the Global or User level.



IPT - DS List Panel

IPT Adds New Options
And Functions in V5.9

```
-IPT-                               Data Set List Utility
Command ==> █

DS - Display dataset list             P - Print data set list
blank - Temporary Object List         PV - Print VTOC information
PL - Permanent Object List           V - Display VTOC information
GDG - Display Generation Datasets     XV - Extended VTOC & space summary
SET - Set DSLIST defaults             SP - Special data set lists

Enter an option or select it by placing cursor on the option code
Specify parameters below:
Object List ==> _____ (* for selection list, = for PROJECT1)
Dsname Level ==> DNET187.* More? ==> N
Volume serial ==> _____ (Leave BLANK for catalog scan,
                               volser or pattern for VTOC scan)

Data set list options:
Initial View ==> 3 : 1. Volume 2. Space 3. Attrib 4. Total

Enter "/" to select option: / Confirm Data Set Delete
                          / Additional Dataset Qualifiers
                          / Display Catalog Name
```

List Multiple Qualifiers
List all saved Object List
List Linklist and TSO Allocations



DSLISL in OLISL (Object List) Format

```
-IPT- OLISL (E) ----- LEVEL DNET187.* ----- "A" will display assist
Command  ==>                                     SCROLL ==> PAGE
                                                *TEMPORARY LIST*
```

Command	Member	Numbr	Data Set Names / Objects	Volume
		1	'DNET187.ABX.DB2UTDST'	DMPU24
		2	'DNET187.ABX.DB2UTSRC'	DMPU29
		3	'DNET187.ABX.ISPFILE'	DMPU11
		4	'DNET187.ABX.JCL'	DMPU26
		5	'DNET187.ABX.REQLIB'	DMPU26
		6	'DNET187.ABX.TEMP.D070504.T152738.CMD'	DMPU26
		7	'DNET187.ABX.TEMP.D070504.T152738.CORR'	DMPU24
		8	'DNET187.ABX.TEMP.D070504.T152738.LOG'	DMPU18
		9	'DNET187.ABX.TEMP.D070504.T152738.LOG2'	DMPU19
		10	'DNET187.ABX.TEMP.D070504.T152738.ORG'	DMPU18
		11	'DNET187.ABX.TEMP.D070504.T152738.XML'	DMPU26
		12	'DNET187.ABX.TEMP.D070524.T123650.CMD'	DMPU04
		13	'DNET187.ABX.TEMP.D070524.T123650.CORR'	DMPU18
		14	'DNET187.ABX.TEMP.D070524.T123650.LOG'	DMPU01
		15	'DNET187.ABX.TEMP.D070524.T123650.LOG2'	DMPU24
		16	'DNET187.ABX.TEMP.D070524.T123650.ORG'	DMPU29
		17	'DNET187.ABX.TEMP.D070524.T123650.XML'	DMPU08
		18	'DNET187.ABX.TMPFB'	DMPU26

Perform Utility Functions
Compress Datasets
Add Directory Blocks
Find Text
Find Members

Numbered List
For quick access

Select Dataset using Reference Number

```
-IPT- OLIST (E) ----- LEVEL DNET187.* ----- Row 37 to 54 of 593
Command ==> 43
Open list ==> DNET187 (or BLANK for reference list) SCROLL ==> PAGE
```

Command	Member	Numbr	Data Set Names / Objects	Volume
		37	'DNET187.ADLAB.DTLOG'	
		38	'DNET187.ADLAB.DTPREF'	
		39	'DNET187.ADLAB.DTSF'	
		40	'DNET187.ADLAB.EQALANGX'	
		41	'DNET187.ADLAB.FILES'	
		42	'DNET187.ADLAB.INSTALL'	
		43	'DNET187.ADLAB.JCL'	
		44	'DNET187.ADLAB.LISTING'	
		45	'DNET187.ADLAB.LOAD'	
		46	'DNET187.ADLAB.LOAD2'	
		47	'DNET187.ADLAB.SOURCE'	
		48	'DNET187.ADLAB.SYSDEBUG'	
		49	'DNET187.ADLAB.TEMPLATE'	
		50	'DNET187.ADLAB.VIEW'	
		51	'DNET187.AHARE.PDS'	
		52	'DNET187.AM.DEMOMVS.DNET187X.D2005061.T092855'	
		53	'DNET187.AM.DEMOMVS.DNET187X.JF96BMVE'	
		54	'DNET187.APA.COBOLST'	

Save Keystrokes
No need to Tab

Edit of PDS selected

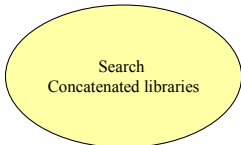
--IPT--EDIT L1----- DNET187.ADLAB.JCL ----- "A" will display assist
 COMMAND ==> SCROLL ==> PAGE

NAME	RENAME	LIB	VV.MM	CREATED	CHANGED	ON VOLUME	DMPU07	SIZE	INIT	MOD	USERID
\$JOB CARD		1									
APAXX		1	01.01	07/06/27	07/06/27 13:08			67	67	0	DNET187
BADSTAT		1	01.00	07/05/24	07/05/24 08:52			36	36	0	DNET187
BAPAPI		1									
BASAM1		1									
BASAM1DR		1	01.00	07/05/31	07/05/31 13:34			37	37	0	DNET187
BATCDEMO		1									
BATH01		1									
BCOBTIMS		1									
BCOBVSAM		1									
BCPROG		1									
BC01		1									
BDTDEMO		1									
BLABONE		1									
BLABTWO		1									
BPLILAN		1									
BPLIMVS		1									
BPTM01		1									
BSAM1		1									
BSAM2		1									

FindText Command (FT)

```
-IPT- OLIST (E) ----- LEVEL DNET187.* ----- "A" will display assist
Command  ==> ft adlab.load █ SCROLL ==> PAGE
Open list ==> DNET187 (or BLANK for reference list)
```

Command	Member	Numbr	Data Set Names / Objects	Volume
---------	--------	-------	--------------------------	--------



- | | |
|----|---|
| 1 | 'DNET187.ABX.DB2UTDST' |
| 2 | 'DNET187.ABX.DB2UTSRC' |
| 3 | 'DNET187.ABX.ISPFILE' |
| 4 | 'DNET187.ABX.JCL' |
| 5 | 'DNET187.ABX.REQLIB' |
| 6 | 'DNET187.ABX.TEMP.D070504.T152738.CMD' |
| 7 | 'DNET187.ABX.TEMP.D070504.T152738.CORR' |
| 8 | 'DNET187.ABX.TEMP.D070504.T152738.LOG' |
| 9 | 'DNET187.ABX.TEMP.D070504.T152738.LOG2' |
| 10 | 'DNET187.ABX.TEMP.D070504.T152738.ORG' |
| 11 | 'DNET187.ABX.TEMP.D070504.T152738.XML' |
| 12 | 'DNET187.ABX.TEMP.D070524.T123650.CMD' |
| 13 | 'DNET187.ABX.TEMP.D070524.T123650.CORR' |
| 14 | 'DNET187.ABX.TEMP.D070524.T123650.LOG' |
| 15 | 'DNET187.ABX.TEMP.D070524.T123650.LOG2' |
| 16 | 'DNET187.ABX.TEMP.D070524.T123650.ORG' |
| 17 | 'DNET187.ABX.TEMP.D070524.T123650.XML' |
| 18 | 'DNET187.ABX.TMPFB' |

Searched 41 datasets to Find Selected Text

-IPT- OLIST (E) ----- LEVEL DNET187.* ----- Row 41 to 58 of 593
Command ==> █ SCROLL ==> PAGE
Open list ==> DNET187 (or BLANK for reference list)

Command	Member	Numbr	Data Set Names / Objects	Volume
-TXT FND-	SYSTSIN	41	'DNET187.ADLAB.FILES'	DMPU12
		42	'DNET187.ADLAB.INSTALL'	
		43	'DNET187.ADLAB.JCL'	
		44	'DNET187.ADLAB.LISTING'	
		45	'DNET187.ADLAB.LOAD'	
		46	'DNET187.ADLAB.LOAD2'	
		47	'DNET187.ADLAB.SOURCE'	
		48	'DNET187.ADLAB.SYSDEBUG'	
		49	'DNET187.ADLAB.TEMPLATE'	
		50	'DNET187.ADLAB.VIEW'	
		51	'DNET187.AHARE.PDS'	
		52	'DNET187.AM.DEMOMVS.DNET187X.D2005061.T092855'	
		53	'DNET187.AM.DEMOMVS.DNET187X.JF96BMVE'	
		54	'DNET187.APA.COBOLST'	

Positioned at Member

Found in SYSTSIN --> LIB('YOUR-TSO-ID.ADLAB.LOAD') -

Preview

58 'DNET187.APA.REPORT'



Member Find Command (MEMF)

```
-IPT- OLIST (E) ----- LEVEL DNET187.* ----- "A" will display assist
Command  ==> memf atcdem5 █ SCROLL ==> PAGE
Open list ==> DNET187 (or BLANK for reference list)
```

Command	Member	Numbr	Data Set Names / Objects	Volume
		1	'DNET187.ABX.DB2UTDST'	
		2	'DNET187.ABX.DB2UTSRC'	
		3	'DNET187.ABX.ISPFILE'	
		4	'DNET187.ABX.JCL'	
		5	'DNET187.ABX.REQLIB'	
		6	'DNET187.ABX.TEMP.D070504.T152738.CMD'	
		7	'DNET187.ABX.TEMP.D070504.T152738.CORR'	
		8	'DNET187.ABX.TEMP.D070504.T152738.LOG'	
		9	'DNET187.ABX.TEMP.D070504.T152738.LOG2'	
		10	'DNET187.ABX.TEMP.D070504.T152738.ORG'	
		11	'DNET187.ABX.TEMP.D070504.T152738.XML'	
		12	'DNET187.ABX.TEMP.D070524.T123650.CMD'	
		13	'DNET187.ABX.TEMP.D070524.T123650.CORR'	
		14	'DNET187.ABX.TEMP.D070524.T123650.LOG'	
		15	'DNET187.ABX.TEMP.D070524.T123650.LOG2'	
		16	'DNET187.ABX.TEMP.D070524.T123650.ORG'	
		17	'DNET187.ABX.TEMP.D070524.T123650.XML'	
		18	'DNET187.ABX.TMPFB'	

Results of MEMF Command

-IPT- OLIST (E) ----- LEVEL DNET187.* -----
Command ==> 44
Open list ==> DNET187 (or BLANK for reference list)

44 Datasets searched !!!
Use # to reference
Member
SCROLL ==> PAGE

Command	Member	Numbr	Data Set Names / Objects	Volume
--FOUND--	ATCDEM5	44	'DNET187.ADLAB.LISTING'	DMPU08
		45	'DNET187.ADLAB.LOAD'	
		46	'DNET187.ADLAB.LOAD2'	
		47	'DNET187.ADLAB.SOURCE'	
		48	'DNET187.ADLAB.SYSDEBUG'	
		49	'DNET187.ADLAB.TEMPLATE'	
		50	'DNET187.ADLAB.VIEW'	
		51	'DNET187.AHARE.PDS'	
		52	'DNET187.AM.DEMOMVS.DNET187X.D2005061.T092855'	
		53	'DNET187.AM.DEMOMVS.DNET187X.JF96BMVE'	
		54	'DNET187.APA.COBOLST'	
		55	'DNET187.APA.COPY'	
		56	'DNET187.APA.DATA'	
		57	'DNET187.APA.JCL'	

IQIP1030 Member ATCDEM5 found in 'DNET187.ADLAB.LISTING'

61 'DNET187.BOM.CHANGED.OLD'

Browse Result of Member Find

```
-IPT- EDIT DNET187.ADLAB.LISTING(ATCDEM5) - 01.00          Columns 00001 00072
Command ==> |                                           Scroll ==> PAGE
***** ***** Top of Data *****
==MSG> -Warning- The UNDO command is not available until you change
==MSG>          your edit profile using the command RECOVERY ON.
000001 1PP 5655-G53 IBM Enterprise COBOL for z/OS 3.4.1
000002 0Invocation parameters:
000003 TEST (ALL, SYM, SEPARATE), LIST, MAP, SOURCE, XREF, LIB, DYNAM, NORENT, NOOPT, NOSS
000004 0Options in effect:
000005     NOADATA
000006     ADV
000007     QUOTE
000008     ARITH (COMPAT)
000009     NOAWO
000010     BUFSIZE (4096)
000011     NOCICS
000012     CODEPAGE (1140)
000013     NOCOMPILE (S)
000014     NOCURRENCY
000015     DATA (31)
000016     NODATEPROC
000017     DBCS
000018     NODECK
000019     NODIAGTRUNC
```

Member Selection List (MSL)

- Additional commands available reducing panel navigation
- Powerful Global Find/Change and Find Text Commands
 - ▶ **Supports Concatenations**
- Dynamic PDS Compression and PDS Directory Expansion
- Supports SCLM, Librarian, Panvalet

The MSL or member selection list is available when processing a PDS. Additional commands are available.

MSL Member Select List with (A) Assist on Available in PDS or PDSE

-IPT--EDIT L1----- DNET187.ADLAB.JCL -----ROW 00001 OF 00078
 COMMAND ==> █ SCROLL ==> PAGE

NAME	RENAME	LIB	VV.MM	CREATED	CHANGED	SIZE	INIT	MOD	USERID
\$JOB	BCARD								
APAXX									
BADSTAT									
BAPAAPI									
BASAM1									
BASAM1DR									
BATCDEMO									
BATM01									
BCOBTIMS									
BCOBVSAM									
BCPROG									
BC01									
BDTDEMO									
BLABONE									
BLABTWO									
BPLILAN									
BPLIMVS									
BPTM01									
BSAM1									
BSAM2									

----- -IPT- MSL MAIN COMMANDS -----

Assist	COMPRESS	CONFIRM	DEFAULT	DSNAME	EXCLUDE
EXIT	EXPIRE	FILTER	FIND	FINDTEXT	FLIP
GLOBAL	INFO	LIB	LMAP	LOCATE	PROJECT
QUIT	REFRESH	RELEASE	RESET	RFIN	SAVE
SCLM	SCLMPARM	SET	SORT	SSI	STATS
SUBMIT	TAG	TAILOR	TOTALS	TYPE	UNFILTER
USAGE	VLF	WHERE	XFER		

----- -IPT- MSL LINE COMMANDS -----

B (browse)	C (copy)	D (Delete)	E (edit)	H (where)
I (ISPEXEC)	J (submit)	K (SCLM)	L (lmap)	M (move)
P (print)	R (rename)	S (select)	T (TSO)	V (view)
W (preview)	X (exclude)	Z (stats)		
= (repeat)	% (CLIST/REXX call)			

control the assist window.

Main and Line Commands Available
Reduces Navigation

Results of MSI LMAP Command

NAME	RENAME	LIB	SIZE
1 ADSTAT		+-----	
ASAMDRV			

Obtain Module information
With a command from Member list.

```
-IPT--Module analysis:DNET187.ADLAB.LOAD ----- LINE 00000020 COL 001 080
COMMAND ==>
SCROLL ==> PAGE
Commands:Down, End, Find, Up
Member ==> ADSTAT_ Display mode ==> H (M=Map, H=History)
----- Press END to exit -----
*****LOAD MODULE PROCESSED EITHER BY VS LINKAGE EDITOR OR BIN
LISTIDR FOR LOAD MODULE ADSTAT
```

```
ADSTAT MODULE ANALYSIS
THIS LOAD MODULE CONTAINS NO INFORMATION SUPPLIED BY SP
-----
THIS LOAD MODULE WAS PRODUCED BY LINKAGE EDITOR 5695PMB01 AT LEVEL 01.
-----
```

CSECT	TRANSLATOR	VR.MD	
ADSTAT	5655G5300	34.01	2
ADSORT	5655G5300	34.01	2
IGZCBSO	569623400	01.05	2
	PL/X-390	02.03	2
CEEESTART	569623400	01.05	2
CEEBETBL	569623400	01.05	2
CEEBLLST	569623400	01.05	2
CEEBTRM	569623400	01.05	2
CEEBPUBT	569623400	01.05	2
CEESG005	569623400	01.05	2
	PL/X-390	02.03	2

Clipboard Enhancements

- **Cut And Paste**
 - ▶ Supports up to 200 clipboards
 - ▶ Named and Numbered clipboards for easy access
 - ▶ Clipboards can be saved between sessions

Cut to named clipboard

```

-IPT- EDIT DNET187.APA.JCL(BATCDEMO) - 01.28          Columns 00001 00072
Command ==> CUT_TO_JOB CARD          Scroll ==> PAGE
***** Top of Data *****
CC //DNET187C JOB (ACCTG), 'DNET187', CLASS=A, MSGCLASS=H, MSGLEVEL=(1,1),
CC //          REGION=5000K, NOTIFY=DNET187
000003 //*****
000004 //*
000005 //* BUILD JCL FOR TEST CASE ATCDEMO
000006 //*
000007 //*****
000008 //COMP1 EXEC PGM=IGYCRCTL,
000009 // PARM=( ' OFFSET, LIB, APOST, XREF, MAP, DYNAM, TEST (ALL, SYM, SEP) ' )
000010 //STEPLIB DD DSN=COBOL.V3R3.SIGYCOMP, DISP=SHR
000011 //SYSLIB DD DSN=DNET187.APA.SOURCE, DISP=SHR
000012 //SYSPRINT DD DISP=SHR, DSN=DNET187.CODE.COBOLST(ATCDEMO)
000013 //SYSDEBUG DD DISP=SHR, DSN=DNET187.CODE.SYSDEBUG(ATCDEMO)
000014 //SYSLIN DD DSN=&TEMOBJ1(ATCDEMO), DISP=(,PASS), UNIT=SYSDA,
000015 // SPACE=(TRK,(20,20,20)), DCB=(BLKSIZE=3120, LRECL=80, DSORG=PO)
000016 //SYSTEM DD DUMMY
000017 //SYSUT1 DD UNIT=SYSDA, SPACE=(CYL,(1,1))
000018 //SYSUT2 DD UNIT=SYSDA, SPACE=(CYL,(1,1))
000019 //SYSUT3 DD UNIT=SYSDA, SPACE=(CYL,(1,1))
000020 //SYSUT4 DD UNIT=SYSDA, SPACE=(CYL,(1,1))
000021 //SYSUT5 DD UNIT=SYSDA, SPACE=(CYL,(1,1))

```

Cut to named or numbered Permanent Clipboards

Clipboard Status Command

```

-IPT- EDIT DNET187.APA.JCL(BATCDEMO) - 01.28                2 to JOBCARD
Command ==> cut sta                                     Scroll ==> PAGE
***** ***** Top of Data *****
000001 //DNET187C JOB (ACCTG), 'DNET187', CLASS=A, MSGCLASS=H, MSGLEVEL= (1, 1),
000002 //          REGION=5000K, NOTIFY=DNET187
000003 //*****
000004 //*
000005 //* BUILD JCL FOR TEST CASE ATCDEMO
000006 //*
000007 //*****
000008 //COMP1 EXEC PGM=IGYCRCTL,
000009 // PARM= (' OFFSET, LIB, APOST, XREF, MAP, DYNAM, TEST (ALL, SYM, SEP) ')
000010 //STEPLIB DD DSN=COBOL.V3R3.SIGYCOMP, DISP=SHR
000011 //SYSLIB DD DSN=DNET187.APA.SOURCE, DISP=SHR
000012 //SYSPRINT DD DISP=SHR, DSN=DNET187.CODE.COBOLST(ATCDEMO)
000013 //SYSDEBUG DD DISP=SHR, DSN=DNET187.CODE.SYSDEBUG(ATCDEMO)
000014 //SYSLIN DD DSN=&TEMOBJ1(ATCDEMO), DISP=(, PASS), UNIT=SYSDA,
000015 // SPACE=(TRK, (20, 20, 20)), DCB=(BLKSIZE=3120, LRECL=80, DSORG=PO)
000016 //SYSTEM DD DUMMY
000017 //SYSUT1 DD UNIT=SYSDA, SPACE=(CYL, (1, 1))
000018 //SYSUT2 DD UNIT=SYSDA, SPACE=(CYL, (1, 1))
000019 //SYSUT3 DD UNIT=SYSDA, SPACE=(CYL, (1, 1))
000020 //SYSUT4 DD UNIT=SYSDA, SPACE=(CYL, (1, 1))
000021 //SYSUT5 DD UNIT=SYSDA, SPACE=(CYL, (1, 1))

```

View all available saved Clipboards

Clipboard Status Results

```

-IPT----- ACTIVE CLIPBOARDS -----
Command ==> █ Scroll ==> CSR

Command line clipboard selection: 0 to 99 or name
Line commands: B browse C copy E edit P print S select V view
                DEL delete REN rename RES restore SAV save
Press ENTER to process or F3 to cancel.

  5 active clipboards out of 200
Persistent clipboard repository DNET187.ISPF.IPITBLIB
Persistent clipboards marked by *
Clip-
Cmd  board Records Size  First line of text in clipboard
-----
*..  DEBUG          1   80 //          PARM='/TEST(,,TCPIP&192.168.1.1%8001:)',
*..  FM             7   80 //FILEMGR EXEC PGM=FMNMAIN
*..  IEBCOPY        13   80 //IEBCOPY EXEC PGM=IEBCOPY,REGION=8M,PARM='CMWA=50
...  JOBCARD         2  133 //DNET187C JOB (ACCTG),'DNET187',CLASS=A,MSGCLASS=H
*..  SET            2   80 // SET COBOLLIB='COBOL.V3R4.SIGYCOMP' COBOL
-----

```

Save Frequently used JCL and DD statements and Source code

Paste From Named Clipboard

```

-IPT- EDIT DNET187.APA.JCL(NEWJOB) - 01.01          Columns 00001 00072
Command ==> paste from jobcard          Scroll ==> PAGE
*****
b          //*****
000002 //*
000003 //* BUILD JCL FOR TEST CASE ATCDEMO
000004 //*
000005 //*****
000006 //COMP1 EXEC PGM=IGYCRCTL,
000007 // PARM= (' OFFSET, LIB, APOST, XREF, MAP, DYNAM, TEST (ALL, SYM, SEP) ')
000008 //STEPLIB DD DSN=COBOL.V3R3.SIGYCOMP, DISP=SHR
000009 //SYSLIB DD DSN=DNET187.APA.SOURCE, DISP=SHR
000010 //SYSPRINT DD DISP=SHR, DSN=DNET187.CODE.COBOLST(ATCDEMO)
000011 //SYSDEBUG DD DISP=SHR, DSN=DNET187.CODE.SYSDEBUG(ATCDEMO)
000012 //SYSLIN DD DSN=&&TEMOBJ1(ATCDEMO), DISP= (, PASS), UNIT=SYSDA,
000013 // SPACE= (TRK, (20, 20, 20)), DCB= (BLKSIZE=3120, LRECL=80, DSORG=PO)
000014 //SYSTEM DD DUMMY
000015 //SYSUT1 DD UNIT=SYSDA, SPACE= (CYL, (1, 1))
000016 //SYSUT2 DD UNIT=SYSDA, SPACE= (CYL, (1, 1))
000017 //SYSUT3 DD UNIT=SYSDA, SPACE= (CYL, (1, 1))
000018 //SYSUT4 DD UNIT=SYSDA, SPACE= (CYL, (1, 1))
000019 //SYSUT5 DD UNIT=SYSDA, SPACE= (CYL, (1, 1))
000020 //SYSUT6 DD UNIT=SYSDA, SPACE= (CYL, (1, 1))
000021 //SYSUT7 DD UNIT=SYSDA, SPACE= (CYL, (1, 1))

```

Jobcard added

```

-IPT- EDIT DNET187.APA.JCL(NEWJOB) - 01.02                2 from JOBCARD
Command ==> |                                           Scroll ==> PAGE
***** ***** Top of Data *****
000001 //DNET187C JOB (ACCTG), 'DNET187', CLASS=A, MSGCLASS=H, MSGLEVEL=(1,1),
000002 //          REGION=5000K, NOTIFY=DNET187
000003 //*****
000004 //*
000005 //* BUILD JCL FOR TEST CASE ATCDEMO
000006 //*
000007 //*****
000008 //COMP1 EXEC PGM=IGYCRCTL,
000009 // PARM=( 'OFFSET, LIB, APOST, XREF, MAP, DYNAM, TEST (ALL, SYM, SEP) ' )
000010 //STEPLIB DD DSN=COBOL.V3R3.SIGYCOMP, DISP=SHR
000011 //SYSLIB DD DSN=DNET187.APA.SOURCE, DISP=SHR
000012 //SYSPRINT DD DISP=SHR, DSN=DNET187.CODE.COBOLST(ATCDEMO)
000013 //SYSDEBUG DD DISP=SHR, DSN=DNET187.CODE.SYSDEBUG(ATCDEMO)
000014 //SYSLIN DD DSN=&TEMOBJ1(ATCDEMO), DISP=(, PASS), UNIT=SYSDA,
000015 // SPACE=(TRK, (20, 20, 20)), DCB=(BLKSIZE=3120, LRECL=80, DSORG=PO)
000016 //SYSTEM DD DUMMY
000017 //SYSUT1 DD UNIT=SYSDA, SPACE=(CYL, (1,1))
000018 //SYSUT2 DD UNIT=SYSDA, SPACE=(CYL, (1,1))
000019 //SYSUT3 DD UNIT=SYSDA, SPACE=(CYL, (1,1))
000020 //SYSUT4 DD UNIT=SYSDA, SPACE=(CYL, (1,1))
000021 //SYSUT5 DD UNIT=SYSDA, SPACE=(CYL, (1,1))

```


Point and Shoot

- **Active from Member Selection List, Object List**
 - ▶ Sort on column headings (MSL)
 - ▶ Sort Titles in Object List

- **Edit, Browse or View Datasets from SDSF, File Manager, Fault Analyzer (Any ISPF application)**
 - ▶ Point and Shoot Dataset in JCL or Output Listings
 - ▶ Point and Shoot Member names in source or JCL

Point and shoot allows you to access datasets from any ISPF application. Place your cursor on the dataset and type in browse or edit. This is a powerful time saving function of IPT. Member names can also be accessed by the point and shoot function in source.

Column headings are point and shoot fields for sorting.

Point and Shoot Dataset Name

Enter Browse ,Edit or View or Set a PF Key

```
Display Filter View Print Options Help
-----
SDSF OUTPUT DISPLAY FM0095B JOB01703 DSID      3 LINE 39      COLUMNS 02- 81
COMMAND INPUT ==> br                                     SCROLL ==> PAGE
  XX* For more information refer to the File Manager Customization *
  XX* Guide.                                                    *
  XX*                                                            *
  XX******
3 XXFMN3CICB PROC PROF=
4 XXFMN100 EYES PGM=IKJEFT01,DYNAMNBR=100
  DSP=SHR, DSN=FILEMGR.V7R1.SFMNEXE
  YSOUT=*
  YSOUT=*
  IN DD *
  JMMY
  M=IKJEFT01,DYNAMNBR=100
  DISP=SHR, DSN=FILEMGR.V7R1.SFMNMOD1
  DISP=SHR, DSN=FILEMGR.V7R1.SIPVMOD1
  DISP=SHR, DSN=FILEMGR.V7R1.SFMNPENU
  DISP=SHR, DSN=FILEMGR.V7R1.SIPVPENU
  DISP=SHR, DSN=FILEMGR.V7R1.SFMNMENU
  DISP=SHR, DSN=FILEMGR.V7R1.SIPVMENU
  DISP=SHR, DSN=FILEMGR.V7R1.SFMNSLIB
  DISP=SHR, DSN=&PROF
```

- Keystrokes to perform this function in ISPF without IPT.**
- 1) Highlight the Dataset
 - 2) Edit
 - 3) Copy
 - 4) =1
 - 5) Position Cursor
 - 6) Edit
 - 7) Paste
 - 8) * Add quotes if required
 - 9) Enter

Browse Of Dataset Selected

-IPT--BROWSE L1---- FILEMGR.V7R1.SFMNEXEC ----- "A" will display assist
COMMAND ==> █ SCROLL ==> PAGE

NAME	RENAME	LIB	VV.MM	CREATED	CHANGED	SIZE	INIT	MOD	USERID
FMNDSI		1							
FMNINV		1							
FMN2BRWS		1							
FMN2CDI		1							
FMN2CPYB		1							
FMN2CUST		1							
FMN2DB2I		1							
FMN2DDLD		1							
FMN2DDLS		1							
FMN2DDL T		1							
FMN2DDLX		1							
FMN2DDL Y		1							
FMN2DSN		1							
FMN2EDF		1							
FMN2ESQL		1							
FMN2GEN		1							
FMN2JSQ		1							
FMN2KSQ		1							
FMN2LCAT		1							
FMN2MED1		1							

Enhanced TSO Commands

- Supports 999 entries
- Maintains a History and Permanent Command List
- Save permanent list of most frequently used commands for repeat operations
 - ▶ Execute TSO commands from any panel by a reference number

Add Directory Blocks to PDS

-IPT--EDIT L1----- DNET187.ADLAB.JCL -----

COMMAND ==> expdir █

SCROLL ==> PAGE

NAME	RENAME	LIB	VV.MM	CREATED	CHANGED	SIZE	INIT	MOD	USERID
\$JOB CARD		1							
APAXX		1	01.01	07/06/27	07/06/27 13:08	67	67	0	DNET187
BADSTAT		1	01.00	07/05/24	07/05/24 08:52	36	36	0	DNET187
BAPAPI		1							
BASAM1		1							
BASAM1DR		1	01.00	07/05/31	07/05/31 13:34	37	37	0	DNET187
BATCDEMO		1							
BATM01		1							
BCOBTIMS		1							
BCOBVSAM		1							
BCPROG		1							
BC01		1							
BDTDEMO		1							
BLABONE		1							
BLABTWO		1							
BPLILAN		1							
BPLIMVS		1							
BPTM01		1							
BSAM1		1							
BSAM2		1							

EXPDIR Command will add
Directory Blocks when PDS
Directory is full

Library Expanded



-IPT--EDIT L1----- DNET187.ADLAB.JCL ----- Library expanded
COMMAND ==> █ SCROLL ==> PAGE

NAME	RENAME	LIB	VV.MM	CREATED	CHANGED	ON VOLUME	DMPU07	SIZE	INIT	MOD	USERID
\$JOB CARD		1									
APAXX		1	01.01	07/06/27	07/06/27	13:08		67	67	0	DNET187
BADSTAT		1	01.00	07/05/24	07/05/24	08:52		36	36	0	DNET187
BAPAPI		1									
BASAM1		1									
BASAM1DR		1	01.00	07/05/31	07/05/31	13:34		37	37	0	DNET187
BATCDEMO		1									
BATM01		1									
BCOBTIMS		1									
BCOBVSAM		1									
BCPROG		1									
BCO1		1									
BDTDEMO		1									
BLABONE		1									
BLABTWO		1									
BPLILAN		1									
BPLIMVS		1									
BPTM01		1									
BSAM1		1									
BSAM2		1									

Added 1 block as default
Additional parms available

Library Compression

```
IEC031I D37-04, IFG0554P, DNET187, SPIFFY, ISP04284, 072D, DMPU13, DNET187. JCL. CNTL1  
*** █
```

We have all seen this message when editing a PDS. You would have to cancel your Edit session and go to a utility panel to compress your PDS !!

IPT will position the Compress command on Command and Compress the dataset from your EDIT session

Compress Command added by IPT

```

-IPT- EDIT DNET187.JCL.CNTL1(TEST) - 01.01          Columns 00001 00072
Command ==> COMPRESS                               Scroll ==> PAGE
***** Top of Data *****
==MSG> -Warning- The UNDO command is not available until you change
==MSG>         your edit profile using the command RECOVERY ON.
C99999 //DNET187X JOB (ZACK,81038), 'JOB INFORMATION',
000002 //      CLASS=A,MSGCLASS=H,MSGLEVEL=(1,1),
000003 //      NOTIFY=&SYSUID
000004 //*****
000005 //STEP1 EXEC PGM=TRADERB,PARM='/TEST(, INSPIN,,)'
000006 //SYSPRINT DD DISP=OLD,
000007 //STEPLIB DD DISP=SHR,
000008 //      DSN=DNET047.DEMOS.PDPAK.LOAD
000009 //SYSPRINT DD SYSOUT=*
000010 //SYSPRINT DD SYSOUT=*
000011 //COMPFILE DD DISP=SHR,DSN=DNET047.DEMOS.PDPAK.COMPFILE
000012 //CUSTFILE DD DISP=SHR,DSN=DNET047.DEMOS.PDPAK.COMPFILE
000013 //TRANSACT DD DISP=SHR,DSN=DNET047.DEMOS.PDPAK.COMPFILE
000014 //*****
000015 //REPOUT DD SYSOUT=*
00001
00001  ABEND 0D37: Press ENTER to compress (Jump function disabled).
00001
000019 //TRANREP DD SYSOUT=*

```


Library Compress

```

-IPT- EDIT DNET187.JCL.CNTL1(TEST) - 01.01
Command ==> |
Library compressed
Scroll <=> PAGE
***** Top of Data *****
==MSG> -Warning- The UNDO command is not available until you change
==MSG> your edit profile using the command RECOVERY ON.
000001 //DNET187X JOB (ZACK,81038),'JOB INFORMATION',
000002 // CLASS=A,MSGCLASS=H,MSGLEVEL=(1,1),
000003 // NOTIFY=&SYSUID
000004 //*****
000005 //STEP1 EXEC PGM=TRADERB,PARM='/TEST(,INSPIN
000006 //SYSPRINT DD DISP=OLD,
000007 //STEPLIB DD DISP=SHR,
000008 // DSN=DNET047.DEMOS.PDPAK.L
000009 //SYSPRINT DD SYSOUT=*
000010 //SYSPRINT DD SYSOUT=*
000011 //COMPFILE DD DISP=SHR,DSN=DNET047.DEMOS.PDPAK.COMPFILE
000012 //CUSTFILE DD DISP=SHR,DSN=DNET047.DEMOS.PDPAK.COMPFILE
000013 //TRANSACT DD DISP=SHR,DSN=DNET047.DEMOS.PDPAK.COMPFILE
000014 //*****
000015 //REPOUT DD SYSOUT=*
000016 //TRANREP DD SYSOUT=*
000017 //TRANREP DD SYSOUT=*
000018 //TRANREP DD SYSOUT=*
000019 //TRANREP DD SYSOUT=*

```

**Library Compressed
Continue your Edit Session !!!**

Shortcuts for IPT Commands

Menu Utilities Compilers Options Status Help

z/OS Primary Option Menu

Option ==> ipt?

0	Settings	Terminal and user parameters	User ID . . : DNET187
1	View	Display source data or listings	Time . . . : 15:09
2	Edit	Create or change source data	Terminal. : 3278
3	Utilities	Perform utility functions	Screen. . : 1
4	Foreground	Interactive language processing	Language. : ENGLISH
5	Batch	Submit job for language processing	Appl ID . : ISP
6	Command	Enter TSO or Workstation commands	TSO logon : SPIFFY
7	Dialog Test	Perform dialog testing	TSO prefix: DNET187
P	IBM Products	IBM program products	System ID : DEMOMVS
10	SCLM	SW Configuration Library Manager	MVS acct. : 12345678
11	Workplace	ISPF Object/Action Workplace	Release . : ISPF 5.8
12	z/OS System	z/OS system programmer applications	
13	z/OS User	z/OS user applications	

Enter X to Terminate using log/list defaults

Shortcut Commands New in V5.9

-IPT- COMMAND SHORTCUTS Row 1 to 17 of 47 -IPT- COMMAND SHORTCUTS Row 18 to 34 of 47

COMMAND ==> █
Commands: SORT

SCROLL ==> PAGE

COMMAND ==>
Commands: SORT

SCROLL ==> PAGE

SHORTCUT COMMAND	DESCRIPTION
IPT	IPHELP IPT HELP
ISET	IPT SET OPTIONS
IMAIN	IPT MAINTENANCE REPORT
IVER	IPT VERSION REPORT
BR	BROWSE '<DSNpat>(<MEMpat>)' - BROWSE
ED	EDIT '<DSNpat>(<MEMpat>)' - EDIT
VI	VIEW '<DSNpat>(<MEMpat>)' - VIEW
BF	BF FILE '<DSNpat>(<MEMpat>)' - BROWSE VSAM
EF	EF FILE '<DSNpat>(<MEMpat>)' - EDIT VSAM
VF	VF FILE '<DSNpat>(<MEMpat>)' - VIEW VSAM
D*	SHOW ALL OBJECT-LISTS
D/	POPULATE NEW OBJECT-LIST
DH	DHIST HISTORY LIST OF ACCESSED DATASETS
DLIS	DLIST <parm1>,<parm2> - OBJECT-LIST
DL	<parm1>,<parm2> - OBJECT-LIST
DL*	SHOW ALL OBJECT-LISTS
DL/	POPULATE NEW OBJECT-LIST

SHORTCUT COMMAND	DESCRIPTION
OLDD	OLDNAME <DName> - LIST ALLOCATED
OLB	OLBASE <DSNpat> - LISTCAT BASE OF GENERATION
OLC	OLCAT <DSNpat> - LISTCAT MULTIPLE PATTERNS
OLE	<DSNpat> - LISTCAT POSE LIBRARIES
OLPOSE	<DSNpat> - LISTCAT POSE LIBRARIES
OLG	OLGOG <DSNpat> - LISTCAT GOG DATASETS
OLH	OLHIST HISTORY LIST OF ACCESSED DATASETS
OLI	OLINFO <DSNpat>,<VOLpat> - LISTCAT + INFO
OLM	OLMIG <DSNpat> - LISTCAT MIGRATED
OLP	OLPAGE <DSNpat> - LISTCAT PAGE-SPACE DATASETS
OLS	OLSYS <Systype> - LIST SYSTEM DATASETS
OLT	OLTAPE <DSNpat> - LISTCAT TAPE DATASETS
OLV	OLVTOC <VOLpat>,<DSNpat> - LISTVTOC DATASETS
OLVS	OLVSRM <DSNpat> - LISTCAT VSAM CLUSTERS
EX?	EX???????? DISPLAY TSO PERMANENT COMMANDS
EX*	DISPLAY TSO MOST RECENT COMMAND
EX1	EXECUTE TSO PERMANENT COMMAND #1

Shortcut Example (OLH) History List

```
  _Display  _Filter  _View  _Print  _Options  _Help
-----
HGX7730 ----- SDSF PRIMARY OPTION MENU -----
COMMAND INPUT ==> olh                               SCROLL ==> PAGE

DA  Active users          INIT  Initiators
I   Input queue          PR   Printers
O   Output queue         PUN  Punches
H   Held output queue   RDR  Readers
ST  Status of jobs      LINE Lines
                               NODE Nodes
                               SO   Spool offload
LOG  System log         SR   Spool volumes
SR   System requests
MAS  Members in the MAS
JC   Job classes       RM   Resource monitor
SE   Scheduling environments
RES  WLM resources     CK   Health checker
```

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disclosure restricted by GSA AD

From any ISPF Panel obtain a list of
Last 100 datasets accessed.
Save Keystrokes and Time on repeat functions !!!!!

History List

-IPT- OLIST (E) ----- DATA SET HISTORY ----- "A" will display assist
 Command ===> █ SCROLL ===> PAGE
 TEMPORARY LIST

Command	Member	Numbr	Data Set Names / Objects	Volume
		1	'DNET187.ADLAB.JCL'	
	\$INDEX	2	'DNET187.ADLAB.INSTALL'	
		3	'DNET603.ADLAB.SYSDEBUG'	
		4	'DNET187.ADLAB.SYSDEBUG'	
		5	'DNET187.ADLAB.LISTING'	
	FMCTLCD	6	'DNET187.ADLAB.FILES'	
		7	'DNET187.ADLAB.COPYLIB'	
	C*	8	'DNET187.ADLAB.COPYLIB'	
		9	'DNET187.ADLAB.COPYLIB1'	
		10	'DNET187.ADLAB.COPYLIB2'	
	EQ*	11	'DNET187.ISPF.ISPPROF'	
	DNET*	12	'DB2.V7R1M0.SDSNLOAD'	
		13	'DB2.V7R1M0.SDSNLOAD'	
	FMCOPY	14	'DNET187.ADLAB.FILES'	
		15	'DNET187.ADLAB.DTCMD'	
	CUST1	16	'DNET187.ADLAB.COPYLIB'	
		17	'DNET047.CODE.DTSF'	
		18	'DNET187.OSVS.LISTING'	

Last 100 Datasets in Olist Format
 positioned
 At the Referenced Member
 Select # to Edit

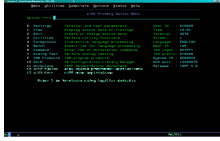
Summary ISPF Productivity !!!!!

- Enhanced action bar, pop-up windows, new functions, and point-and-shoot.
- Integrates seamlessly with ISPF
- Shortcuts and additional commands reduce the need to navigate to utility panels and invoke them separately
- Enhances TSO/ISPF Functions
- Access frequently used datasets using OLIST to reduce panel navigation and keystrokes
- Improves overall performance of ISPF: reduces CPU usage, EXCP counts, and improves response time. Browsing, editing, copying, displaying lists, and finding Data is significantly faster



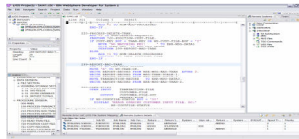
IPT saves time. Every TSO will benefit from using IPT.

Evolution of development environment



ISPF

- A flexible and customizable development environment can make your mainframe programmers more efficient
 - ▶ Language specific colorization with dynamic syntax checking
 - ▶ Language prompting
 - ▶ All needed tools available in one screen rather than SPLIT screen and screen STACKing
 - ▶ Drag and drop copies
 - ▶ Easy to move data from one LPAR to another
- Familiar GUI User interface for those not exposed to ISPF
- Automation of JCL creation
- Integration with Traditional “PD” Tools, ie. Debug Tool Utilities and Advanced Functions, IBM Fault Analyzer and IBM File Manager



WDz





WebSphere Developer for System Z



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- Productivity for current developers
- Attracting new people to the Z platform
- Continue to move the platform forward to make it the only tool needed for development
- Modernization & SOA



Developer Pains



- Productivity
 - ▶ Identify Create/Locate files needed for change
 - ▶ Making consistent changes
 - ▶ Creating deliverables under deadlines
 - ▶ Testing and verifying quality
 - ▶ Managing problems, failures and time
- Quality
 - ▶ Reliable deliverables
 - ▶ Easily verify error and informational message
 - ▶ Well structured skeletons
- Quickly adapting to change

Easily connecting and reconnecting to multiple systems
Finding files needed for their work
Quickly and accurately developing/modifying programs
Quickly identify and create test data
Testing new and changed code

Development Manager Pains

- Prompt and Quality deliverables (see Developers Needs)
- Reducing the need for training on multiple and/or different tools



- Ensuring groups doing different work communicate efficiently
- Ensure young recruits can be effective on the z/OS platform

International development – Icons fits language constraints

Skill Gap – With context menus and pull down selection bars save time

Save Money – Less Vendors, Less Training, Easier adapt for new people (Standardize)

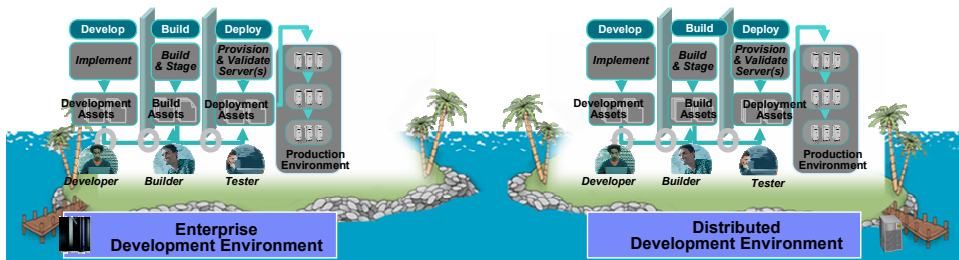
Summary – What have we seen?

- Advances in development environments from 20th century to 21st century
- People new to System Z expect a modern interface than what was available from the past
- By investment and adding PD Tools to the WDz platform, we show our commitment for making application development easier and more productive
- With other development perspectives included in the same tool, artificial walls for developers can be reduced and communication/cooperation can be improved

Helping customers optimize their investments in software delivery across organizationally diverse environments

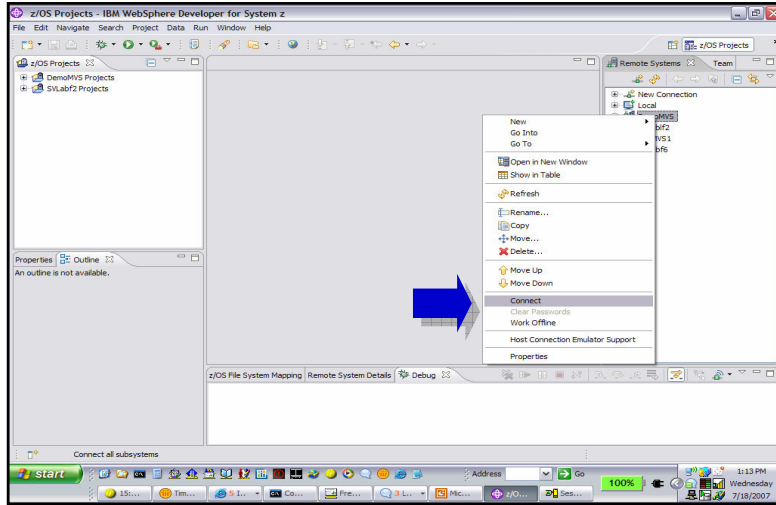
Challenges - Islands of development

- Duplicate infrastructures limit IT and skills flexibility, introduce errors, reduce productivity
- Constrained IT flexibility due to skills islands (JAVA vs. COBOL)
- Multiple infrastructures, vendors, tools, increased costs, less \$'s available for new projects
- Lack of traceability inhibits end-to-end governance

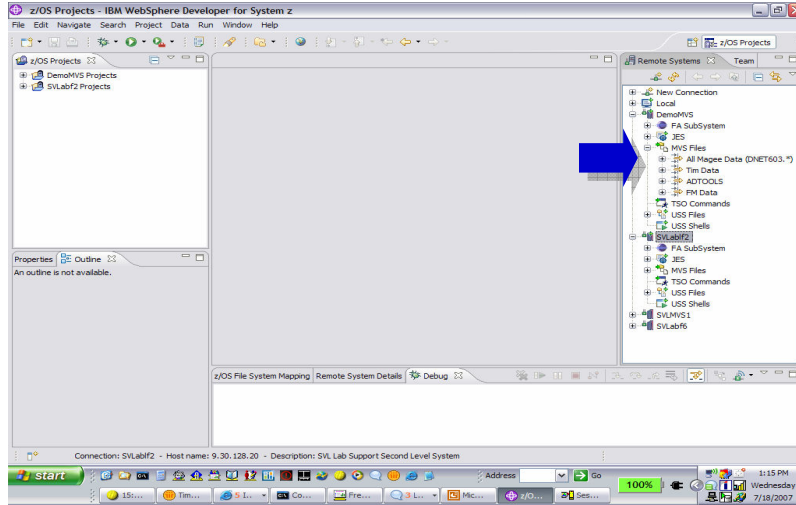


JAVA GUYS AND COBOL GUYS
 LOCAL AND REMOTE LAND DEVELOPMENT

WDz Host Connection:



WDz File Access/Edit:



WDz File Edit:

The screenshot shows the IBM WebSphere Developer for System z interface. The main editor window displays the following JCL code:

```

//GATCDEMO.jcl
//SYSIN DD DUMMY
//SYSOUT DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSDDUMP DD SYSOUT=*
//
//*****
// STEPS: THIS STEP EXECUTE THE DEMO PROGRAM
//*****
//STEP3 EXEC PGM=ATCDEMO,
// PARM='//TEST(,,MF1STRML002)*'
// PARM='//TEST(,,ZCP1949.76.153.116)!'
//STEP18 DD DSN=NET603.CODE.LOAD,DISP=SHR
// DD DSN=DEBUG.V7R1.SEQAMOD,DISP=SHR
//
//
//SYSOUT DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSDDUMP DD SYSOUT=*

```

The error message "Incorrect disposition status" is highlighted in red in the original image, pointing to the second DD statement in the STEP18 block. A blue arrow points from the Properties window to this error.

The Properties window shows the following outline:

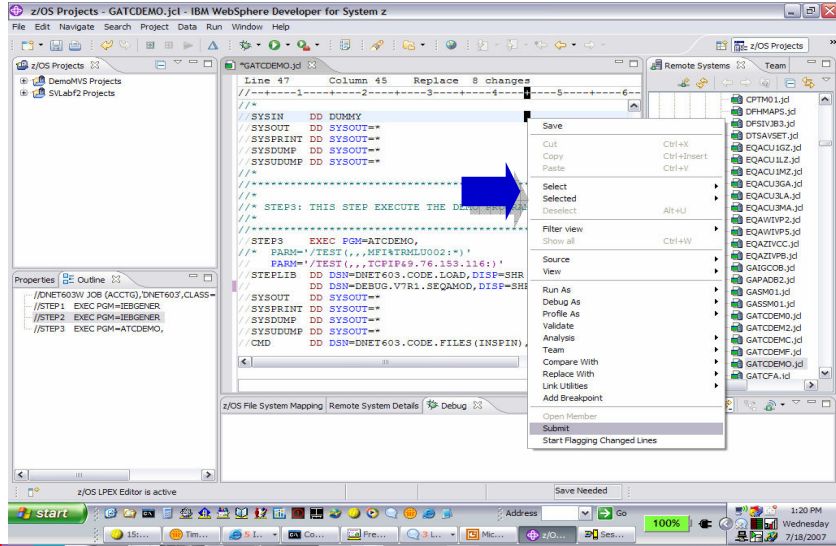
```

/NET603W JOB (ACCTG)
/STEP1 EXEC PGM=IEBGEN
/STEP2 EXEC PGM=ATCDEMO
/STEP3 EXEC PGM=ATCDEMO

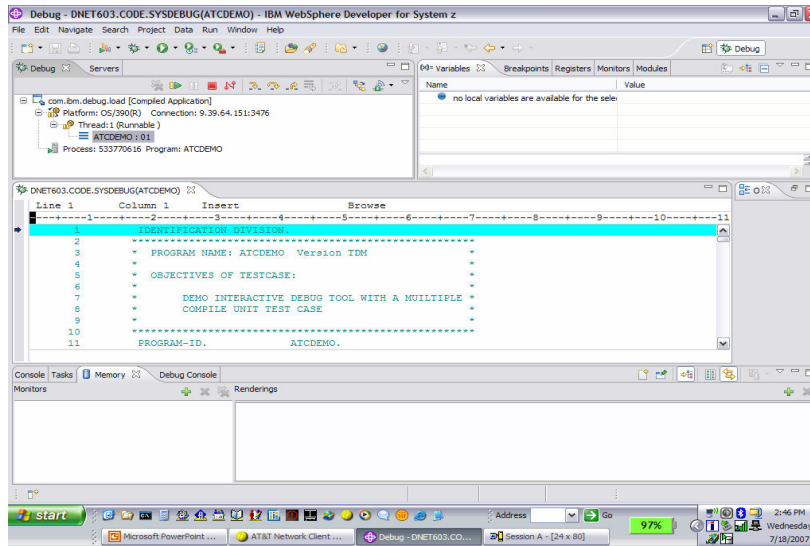
```

The status bar at the bottom indicates "z/OS LPEX Editor is active" and "Save Needed". The system tray shows the date as Wednesday, 7/18/2007, and the time as 1:18 PM.

WDz Remote Submit:



WDz Remote Z/OS Debug:



Sample of PD Tools in WdZ

The screenshot displays the IBM WebSphere Developer for System z interface. Key components include:

- Project Explorer:** Shows a project named 'JPHILDN.ADLAB.SAMFILE' with sub-projects like 'sam1 [ZTECMOP]' and 'sam2 [ZTECMOP]'.
- Source Explorer:** Displays source code for 'JPHILDN.ADLAB.SAMFILE'. It shows a table with columns 'C...', 'F', 'NAME', and 'ACCT-BA...'. Data rows include names like 'Graf, Polly', 'Boyd, Luke A.', 'Turner, Paige', 'Well, Alice', 'Sawyer, Dinah', and 'Auerbach, Hans'.
- Properties:** Shows details for the selected project, including 'Name: My Jobs', 'Number of 0', and 'Parent filter: Not applica...'. It also includes a 'Job Filter' section.
- Outline:** Shows the structure of the source file, including sections like 'Data field values at time ofabend:', 'Event Summary', and 'IBM FAULT ANALYZER EVI...'. It also displays a table with columns 'Line', 'Column', and 'Insert', showing code lines 196 through 202.
- Remote Error List:** Shows a table of system-wide information with columns: 'Fault_ID', 'Job/Tran', 'User_ID', 'Sys/Job', 'Abend', 'L_Abend', 'Job_ID', and 'Jobname'. Data rows include entries for 'JPHILDNS', 'TRAD', and 'CICSUSER'.

DEMO Traditional Developer

- WebSphere Development for System Z (WDz V7.1)
 - ▶ Creating a project and working with COBOL
 - ▶ Showing PD Tools integrated in WDz

Demonstrate IBM's continued effort to increase the power
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