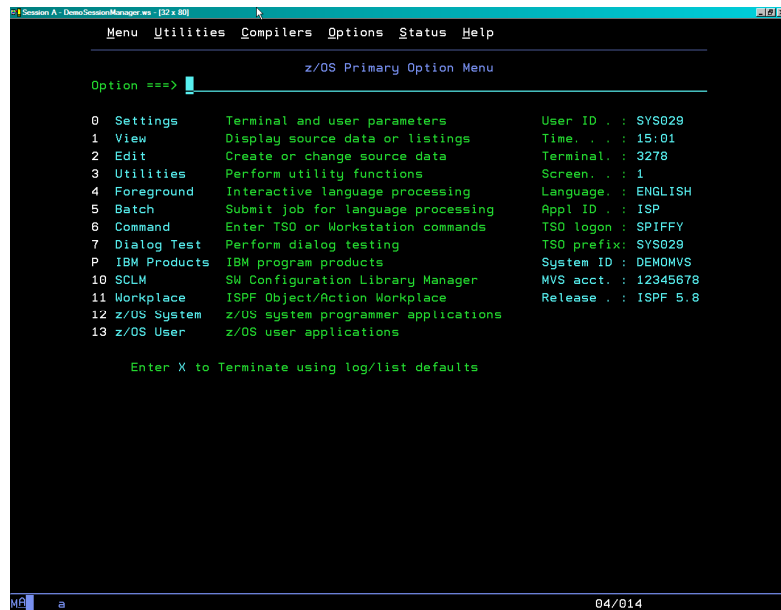




# *ISPF productivity to Rational Developer for System Z, from the eyes of a COBOL developer*



# GREEN TO GUI



Session A - DemoSessionManager ws - [32 x 80]

Menu Utilities Compilers Options Status Help

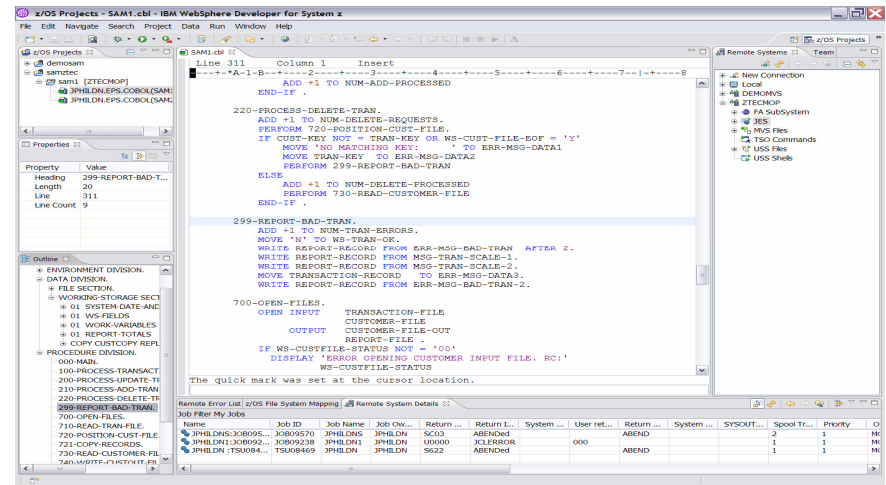
z/OS Primary Option Menu

Option ==>

0	Settings	Terminal and user parameters	User ID . . : SYS029
1	View	Display source data or listings	Time . . . : 15:01
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 : SYS029
P	IBM Products	IBM program products	System ID . : DEMOMVS
10	SCLM	SM Configuration Library Manager	MVS acct. . : 12345678
11	Workplace	ISPF Object/Action Workplace	Release . . : ISPF 5.8
12	z/US System	z/US system programmer applications	
13	z/OS User	z/OS user applications	

Enter X to Terminate using log/list defaults

04/014



z/OS Projects - SAM1.cbl - IBM WebSphere Developer for System z

```
Line 311 Column 1 Insert
-----A-1-B-----2-----3-----4-----5-----6-----7---|-----8
END-IF .
ADD +1 TO NUM-ADD-PROCESSED
END-IF .

220-PROCESS-DELETE-TRAN.
ADD +1 TO NUM-DELETE-REQUESTS.
PERFORM 720-POSITION-CUST-FILE.
IF CUST-KEY NOT = TRAN-KEY OR WS-CUST-FILE-EOF = 'Y'
MOVE 'NO MATCHING KEY1.' TO ERR-MSG-DATA2
MOVE TRAN-KEY TO ERR-MSG-DATA2
PERFORM 299-REPORT-BAD-TRAN
ELSE
ADD +1 TO NUM-DELETE-PROCESSED
PERFORM 730-READ-CUSTOMER-FILE
END-IF .

299-REPORT-BAD-TRAN.
ADD +1 TO NUM-TRAN-ERRORS.
MOVE 'N' TO WS-TRAN-OK.
WRITE REPORT-RECORD FROM ERR-MSG-BAD-TRAN AFTER 2.
WRITE REPORT-RECORD FROM MSG-TRAN-SCALE-1.
WRITE REPORT-RECORD FROM MSG-TRAN-SCALE-2.
MOVE TRANSACTION-RECORD TO ERR-MSG-DATA3.
WRITE REPORT-RECORD FROM ERR-MSG-BAD-TRAN-2.

700-OPEN-FILES.
OPEN INPUT TRANSACTION-FILE
CUSTOMER-FILE
OUTPUT CUSTOMER-FILE-OUT
REPORT-FILE.
IF WS-CUSTFILE-STATUS NOT = '00'
DISPLAY 'ERROR OPENING CUSTOMER INPUT FILE. RC:'
WS-CUSTFILE-STATUS
The quick mark was set at the cursor location.
```

## 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 RDz**





# IBM ISPF Productivity Tool



# 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 !!**



# DSLIST 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/list defaults

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)
  
```

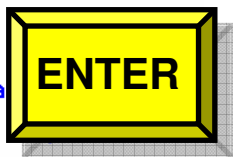
Data set list options:

```

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

When the list is displayed, enter the "/" line command for a  
TSO commands, CLISTS, or REXX execs are

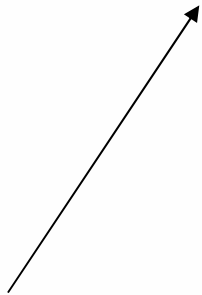
# DSLIST in OLIST (Object List) Format

```
-IPT- OLIST (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

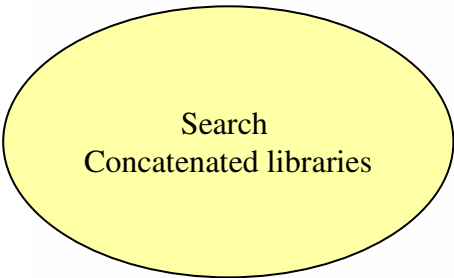
```
-IPT--EDIT L1----- DNET187.ADLAB.JCL ----- "A" will display assist
COMMAND ==>                                SCROLL ==> PAGE
```

NAME	RENAME	LIB	VV.MM	CREATED	CHANGED	ON VOLUME	DMPU07	SIZE	INIT	MOD	USERID
\$JOB		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
BAPAAPI		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									

# FindText Command (FT)

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

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
Open list  ==> DNET187 (or BLANK for reference list)
SCROLL ==> PAGE
```

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

**44 Datasets searched !!!**  
 Use # to reference  
 Member

```
-IPT- OLIST (E) ----- LEVEL DNET187.* ----- 593
Command    ==> 44 █
Open list  ==> DNET187 (or BLANK for reference list)
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.COBOBST'	
		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
```

# 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 JOBCARD                         Scroll ==> PAGE
***** ***** Top of Data *****
CC //DNET187C JOB (ACCTG), 'DNET187', CLASS=A, MSGCLASS=H, MSGLEVEL=(1,1),
CC //
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(,,TCP&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
***** ***** Top of Data *****
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 //SYSTEMM 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



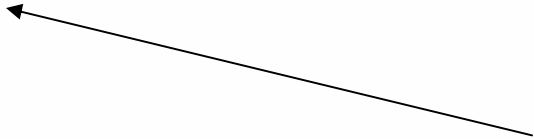
# Point and Shoot Dataset Name

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 XXFM01LOC EXEC PGM=IKJEFT01, DYNAMNBR=100
  DISP=SHR, DSN=FILEMGR.V7R1.SFMNEXEC
  SYSOUT=*
  SYSOUT=*
  IN DD *
  UMMY
  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  
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 -----
```

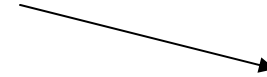
```
COMMAND ==> expdir █
```

```
SCROLL ==> PAGE
```

NAME	RENAME	LIB	VV.MM	CREATED	CHANGED	ON VOLUME	SIZE	DMPU07	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
BAPAAPI		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									

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 //                DSNAME=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 // DSNAME=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 //TRANSACTION 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 !!!**

# Shortcut Example ( OLH ) History List

```

  Display  Filter  View  Print  Options  Help
-----
HQX7730  -----  SDSF PRIMARY OPTION MENU  -----
COMMAND INPUT ==> olh                                     SCROLL ==> PAGE

DA      Active users
I       Input queue
O       Output queue
H       Held output queue
ST      Status of jobs

LOG     System log
SR      System requests
MAS     Members in the MAS
JC      Job classes
SE      Scheduling environments
RES     WLM resources

INIT    Initiators
PR      Printers
PUN     Punches
RDR     Readers
LINE    Lines
NODE    Nodes
SO      Spool offload
SP      Spool volumes

RM      Resource monitor
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'	

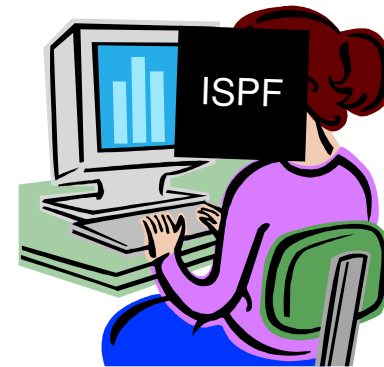
Last 100 Datasets in Olist Format  
positioned  
At the Referenced Member

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



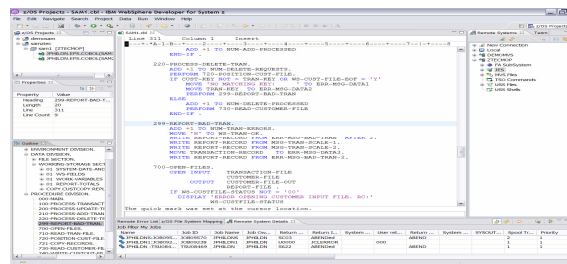


# Evolution of development environment

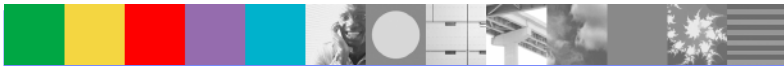


ISPF

- 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



RDz



# Productivity via Integration with RDz

The screenshot displays the IBM WebSphere Developer for System z interface with several key components:

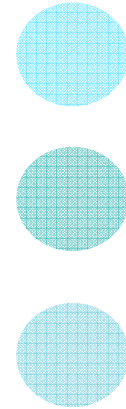
- File Manager:** Located at the top right, it shows a table of data with columns for NAME and ACCT-BA... (Account Balance). A red arrow points to the table with the text "Editing data with File Manager".
- Fault Analyzer Report:** In the center, the "Event Summary" section displays the text "IBM FAULT ANALYZER EVE". A red arrow points to this section with the text "Displaying Fault Analyzer report".
- Debug Tool UAF:** At the bottom, the "Debug" window shows assembly code for "JPHILDN.EPS.SYSDEBUG(SAM2)". A red arrow points to the code with the text "Debugging application with Debug Tool UAF".
- Properties Window:** On the left, it shows details for the current job, including "Name: My Jobs" and "Type: Job Filter".
- Remote Error List:** At the bottom, it provides a table of system errors.

C...	F	NAME	ACCT-BA...
11544	A	Graf, Polly	244.42
12689	A	Boyd, Luke A.	86.88
13062	A	Turner, Paige	*****
13295	A	Well, Alice	731.26
13943	A	Sawyer, Dinah	622.16
14207	A	Auerbach, Hans	11.11

Fault_ID	Job/Tran	User_ID	Sys/Job	Abend	I_Abend	Job_ID	Jobname
F01585	JPHILDNS	JPHILDN	ZT01	SOC7	SOC7	JOB05521	JPHILDNS
F01584	TRAD	CICSUSER	ADTMONO	AED3	AED3	STC02947	ADTMONO
F01583	CEDF	CICSUSER	ADTMONO	ATNI	ATNI	STC02947	ADTMONO

- 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

## 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

## Summary – What have we seen?

- Advances in development environments from 20<sup>th</sup> century to 21<sup>st</sup> 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 RDz 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



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