

9. MIGRATING TO NEW ZTWS RELEASES

You can upgrade your TWS/Graph 5.3 installation up TWS 8.6, but please understand that new fields like user fields are not supported with TWS/Graph 5.3. If you want to see all fields in your netplans or in TWS/XRef, you must upgrade to TWS/Graph 5.4. The following chapters describe a minimal upgrade for TWS/Graph 5.3

The files listed below must be adapted

- TWSGRAPH.CLIST(OPZXPARM)
- "Old" TWS/Graph jobs which are still used.
- The transaction procedures OPCGAD and OPCGCP (If you are using TCP/IP or APPC)
- If you want to use the ISPF dialog of TWS/Graph, you must replace some panels, see "Replace Panels" on page 31.

You must also download the appropriate load modules from HORIZONT's homepage and copy them into your TWS/Graph load library, e.g. TWSGRAPH.LOAD:
http://www.horizont-it.com/public_html/fix.htm

zTWS Parameters in OPZXPARM

The following parameters have to be modified in TWSGRAPH.CLIST(OPZXPARM)

```
/*-----*/
/* TWS DATASETS, SUBSYSTEM, VERSION */
/* OpzOVer TWS release */
/* OpzAdDs AD<-VSAM file */
/* OpzWsDs WS-VSAM file */
/* OpzOiDs OI-VSAM file */
/* OpzRdDs RD-VSAM file */
/* OpzSiDs SI-VSAM file */
/* OpzMsDs TWS message-library */
/* OpzLdDs TWS load-Lib */
/* OpzLdLL TWS load-Lib in linklist? TWS 8.2 OpzOVer = "9" */
/* TWS 8.3 OpzOVer = "B" */
/* OpzSSys TWS subsystem TWS 8.5 OpzOVer = "C" */
/* TWS 8.5.1 OpzOVer = "D" */
/* OpzDCal Name TWS-default calendar TWS 8.6 OpzOVer = "E" */
/*-----*/
OpzOVer = "E"
OpzAdDs = "P390A.PROD.TWS.V8R6.AD"
OpzWsDs = "P390A.PROD.TWS.V8R6.WS"
OpzOiDs = "P390A.PROD.TWS.V8R6.OI"
OpzRdDs = "P390A.PROD.TWS.V8R6.RD"
OpzSiDs = "P390A.PROD.TWS.V8R6.SI"
OpzLtDs = "P390A.PROD.TWS.V8R6.LT"
OpzMsDs = "P390A.PROD.TWS.V8R6.SEQMSG0"
OpzLdDs = "P390A.PROD.TWS.V8R6.SEQQLMD0"
OpzLdLL = "N"
OpzSSys = "OPBC"
OpzDCal = "DEFAULT"
```

These modifications are taken into account immediately. That means that all jobs generated after the modification are correct.

zTWS Parameters in "old" Batch Jobs

All jobs which have been generated by TWS/Graph or TWS/XRef before the modification of OPCXPARM, for example unload jobs which read the AD or the CP every day, have to be modified manually.

CP Unload

```
File Edit Confirm Menu Utilities Compilers Test Help
-----
EDIT          P390G.SPFTEMP1.CNTL          Columns 00001
00072
Command ==>          Scroll ==>
CSR
***** Top of Data *****
TWS/GRAPH 4.2',MSGCLASS=T,
D,REGION=6M
*****
OPGICPU9 for TWS 8.2
OPGICPUB for TWS 8.3
OPGICPUC for TWS 8.5
OPGICPUD for TWS 8.5.1
OPGICPUE for TWS 8.6
*****
ARM
000000
//*****
000007 //PARM EXEC PGM=IEBGENER
000008 //SYSIN DUMMY
000009 //SYSPRINT SYSOUT=*
000010 //SYSOUT SYSOUT=*
000011 //SYSUT1
000012 INIT CWBAS( ) HIGHDATE(711231) SUBSYS(OPBC)
000013 //SYSUT2 DD DISP=(NEW,PASS),DSN=&&PARM,SPACE=(TRK,(1,1)),
000014 // UNIT=SYSDA,
000015 // DCB=(RECL=80,RECFM=FB)
000016 //*
000017
//*****
000018 //* UNLOAD CP SUBSYSTEM=OP9C
000019
//*****
000020 //CPUNL EXEC PGM=OPGICPUB,REGION=6M,
000021 // PARM='DEP(0),ER(0)/'
000022 //STEPLIB DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6.SEQQLMD0
000023 //PRGRCF DD DISP=(NEW,PASS),DSN=&&PRGRCF,
000024 // SPACE=(TRK,(1,1)),
000025 // UNIT=SYSDA,
000026 // DCB=(LRECL=80,BLKSIZE=8000,RECFM=FB)
000027 //SYSPRINT DD SYSOUT=*
000028 //SYSOUT DD SYSOUT=*
000029 //EQQMLIB DD DSN=P390A.PROD.TWS.V8R6.SEQQMSG0,DISP=SHR
000030 //EQQMLOG DD SYSOUT=*
000031 //EQQYPARM DD DISP=(OLD,DELETE),DSN=&&PARM
000032 //OPGTEXT DD DUMMY
000033 //OPGPC DD DISP=OLD,DSN=P390G.TWSGRAPH.CP
000034 //OPGDAT DD DUMMY
000035 //PARMIN DD *
000036 OPCSUBSYSTEMNAME=OPBC
000037 PIFMSGLEVEL=1
000038 LISTINSYSPRINT=Y
000039 OPGPC=OS2
```

New OPC Subsys

New dataset name

New dataset name

New OPC Subsys

AD Unload

```
File Edit Confirm Menu Utilities
-----
EDIT          P390G.SPFTEMP1.CNTL          00001 00072
Command ==>                                roll ==> CSR
000001 //P390GX JOB , 'TWS/GRAPH 4.2'
000002 // NOTIFY=&SYSUID,REGION=6M
000003 //*
000004 //*****
000005 //* UNLOAD TWS-VSAM DSN=P390A.PROD.TWS.V8R6.AD
000006 //*****
000007 //ADUNL      EXEC PGM=OPUIADB,
000008 // PARM= ('DEP(0),ER(0) /',
000009 //          'OI=N PC=OS2 OD=N EX=Y PW=RNCECLI')
000010 //STEPLIB DD DISP=SHR,DSN=P390A.TWSGRAPH.LOAD23
000011 //          DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6.SEQQLMDO
000012 //SYSPRINT DD SYSOUT=*
000013 //SYSOUT DD SYSOUT=*
000014 //MODELIN DD *
000015 IA01EQ*
000016 //ADRKIN DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6.AD
000017 //ADRSIN DD DISP=SHR,DSN=*.ADRKIN
000018 //OPUOI DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6
000019 //OPUPC DD DISP=OLD,DSN=P390G.TWSGRAPH
***** Bottom of Data *****
```

OPUIAD9 for TWS 8.2
OPUIADB for TWS 8.3
OPUIADC for TWS 8.5
OPUIADD for TWS 8.5.1
OPUIADE for TWS 8.6

New dataset name

TWS/XRef

```
File Edit Confirm Menu Utilities
-----
EDIT          P390G.SPFTEMP1.CNTL          001 00072
Command ==>                                ==> CSR
***** Top *****
000001 //P390GX JOB , 'TWS/GRAPH 4.2'
000002 // NOTIFY=&SYSUID,REGION=6M
000003 //*
000004 //OPCXREF EXEC PGM=OPXIADB,
000005 //          PARM= ('DEP(0),ER(0) /',
000006 //          'ML=2 LN=21 PW=RNCECLI')
000007 //STEPLIB DD DISP=SHR,DSN=P390A.TWSGRAPH.LOAD23
000008 //          DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6.SEQQLMDO
000009 //SYSPRINT DD SYSOUT=*
000010 //SYSOUT DD SYSOUT=*
000011 //MODELIN DD DSN=P390G.TWSXREF.SYSIN,DISP=SHR
000012 //ADRKIN DD DSN=P390A.PROD.TWS.V8R6.AD,DISP=SHR
000013 //ADRSIN DD DSN=*.ADRKIN,DISP=SHR
000014 //DATOUT DD DSN=P390G.TWSXREF.LIST,DISP=OLD
000015 //
***** Bottom of Data *****
```

OPXIAD9 for TWS 8.2
OPXIADB for TWS 8.3
OPXIADC for TWS 8.5
OPXIADD for TWS 8.5.1
OPXIAD9 for TWS 8.6

New datasetname

zTWS Parameters in TCP/IP Procedures

If you are using TCP/IP: Modify the two TCP/IP procedures in USER.PROCLIB, or generate the two procedures again by using OPGXTCP.

OPCGCP

```
File Edit Confirm                               st Help
-----
EDIT      USER.PROC                               Columns 00001 00072
Command ==>                                     Scroll ==> CSR
*****
==MSG> -CAUTION- Profile is ... to STATS ON. Stati
==MSG>          this member, at will be generate
000001 //OPCGCP  PROC  UID=USERID
000002 //CPUNL   EXEC PGM=OPGICPUB,
000003 // PARM=('HEAP(1M,256K),DEPTHCONDIM(0),ERRCOUNT(0) /',
000004 //          'PC=TCPIP,OS=OP9C')
000005 //STEPLIB DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6.SEQQLMDO
000006 //UWORK   DD DSN=,DISP=SHR
000007 //SYSIN   DD DUMMY
000008 //EQQYPARM DD DISP=SHR,DSN=P390A.TWSGRAPH
000009 //EQQMLIB  DD DISP=SHR,DSN=P390A.PROD.TWS
```

OPGICPU9 for TWS 8.2
OPGICPUB for TWS 8.3
OPGICPUC for TWS 8.5
OPGICPUD for TWS 8.5.1
OPGICPUE for TWS 8.6

New OPC Subsys

Steplib of the the new OPC

OPCGAD

```
File Edit Confirm Menu Utilities Compilers Test Help
-----
EDIT      USER.PROCLIB(OPCGAD) - 01.10           Recovery processed
Command ==>                                     Scroll ==> CSR
***** Top of Data *****
000001 //OPCGAD  PROC  UID=USERID
000002 //ADUNL   EXEC PGM=OPUIADB,
000003 // PARM=('HEAP(1M,256K),DEP(0),ER(0)/PC=TCPIP PW=RIKIYZF',
000004 // ' UID=&UID')
000005 //STEPLIB DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6.SEQQLMDO
000006 //UWORK   DD DISP=SHR,DSN=,*
000007 //SYSIN   DD DISP=SHR,DSN=,*
000008 //CEEDUMP DD SYSOUT=*
000009 //EQQYPARM DD DISP=SHR,DSN=P390Z.TWSGRAPH.V4R1.SK
000010 //EQQMLIB DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6
000011 //EQQMLOG DD DISP=(NEW,PASS),DSN=&&EQQMLOG,SPACE=(TRK,(1,1)),
000012 //          DCB=(RECFM=VBA,LRECL=134,REKSIZE=23476),UNIT=SYSDA
000013 //ADRKIN  DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6.AD
000014 //ADRSIN DD DISP=SHR,DSN=*.ADRKIN
000015 //OPUOI   DD DISP=SHR,DSN=P390A.PROD.TWS.V8R6.OI
```

New VSAM dataset names

Adapt Skels Member OPZSLT for TWS 8.3 (and later)

The forecast function of TWS/Graph needs a new DD statement EQQLOOP in step CPCREATE. Edit member TWSGRAPH.SKELS(OPZSLT), and insert a new DD statement into step CPCREATE.

```
EDIT          P390A.OPG.CLIST(OPZSLT) - 01.41          Columns 00001
00072
Command ==>                                         Scroll ==> CSR
000305 //CPCREATE EXEC PGM=EQQBATCH,PARM='EQQDTTOP',REGION=4096K
000306 )SEL &OPZLDDS NE &Z
000307 //STEPLIB DD DISP=SHR,DSN=&OPZLDDS
000308 )ENDSEL
000309 //EQQMLIB DD DISP=SHR,DSN=&OPZMSDS
000310 )SEL &OPZTPLGY NE &Z
000311 //EQQSCLIB DD DISP=SHR,DSN=&OPZSCDS
000312 )ENDSEL
000313 //EQQPARM DD DISP=(SHR,PASS),DSN=&&&PARM2 (XXXX)
000314 //EQQTROUT DD DUMMY,DCB=BLKSIZE=100
000315 //EQQMLOG DD SYSOUT=*
000316 //EQQDMSG DD SYSOUT=*
000317 //EQQDUMP DD SYSOUT=*
000318 //EQQLOOP DD SYSOUT=*
000319 //SYSMDUMP DD SYSOUT=*
000320 //EQQWSDS DD DISP=MOD,DSN=&OPGVSWWS
000321 //EQQADDS DD DISP=MOD,DSN=&OPGVSAD
000322 //EQQRDDS DD DISP=MOD,DSN=&OPGVSRD
000323 //EQQLTDS DD DISP=MOD,DSN=&OPGVSLT
000324 //EQQLTBKP DD DISP=MOD,DSN=&OPGVSLB
000325 //EQQCP1DS DD DISP=MOD,DSN=&OPGVSCP1
```

Replace Panels

If you want to use TWS/Graph's ISPF dialog, you must replace some panels, fixe packs can be downloaded from [HORIZONT'S homepage](#). Download the appropriate pack, unpack the files like load modules, and copy the files into your TWS/Graph panel library.