BREXX V2R5M3 Application Guide

Document Version 5.3
Authors: Peter Jacob (pej), Mike Großmann (mig)

Introduction

The BREXX Application Guide describes some of the applications available with Release.V2R5M3. They may not be fully developed, or tested, or foolproof, but they demonstrate the capabilities of BREXX and might be valuable to you.

Installation

After the installation of BREXX V2R5M3 will find them in the RXLIB library and can be invoked directly from your scripts.

RXDIFT(new-dsn,old-dsn,[option1],[option2]) Compare two datasets

---

RXDIFT compares two datasets and shows their differences.

New-dsn	This dataset is considered new how it evolved from old-dsn
Old-dsn	dsn which is the source for the compare
Option-1	**ALL** show all lines (changed/deleted/unchanged
	CHANGES show just changed/deleted lines
	Defaults to **CHANGES**
Option-2	**DETAILS** show the progress of the comparison
	SUMMARY shows only the summary result
	Defaults to **SUMMARY**

We have 2 scripts which slightly are different, with the following REXX we compare them and display the changes with FMTLIST

```
file1='PEJ.EXEC(dbdoc1)'
file2='PEJ.EXEC(dbdoc2)'

rarray=RXDIFF(file1,file2,'ALL','DETAILS')
  buffer.0='ARRAY 'rarray
  hdr1='New    Old     'file1'<-'file2
  hdr2='Lino   Lino    Lines'
 call FMTLIST ,,hdr1,hdr2
```

Result

```
New    Old     PEJ.EXEC(DBDOC1)<-PEJ.EXEC(DBDOC2)
Lino   Lino    Lines
08:23:47.288   0.000  Compare PEJ.EXEC(DBDOC1) with PEJ.EXEC(DBDOC2)
08:23:47.329   0.040  Dataset PEJ.EXEC(DBDOC1) read
08:23:47.370   0.039  Dataset PEJ.EXEC(DBDOC2) read
08:23:47.376   0.005  Datasets Hashes created
08:23:47.389   0.011  Temporary Arrays created
08:23:47.390   0.000  Start Compare process
08:23:47.393   0.003  Large overlap found 11 lines
08:23:47.395   0.005  Compare process ended, differences determined
08:23:47.399   0.003  Sequences analysed
```

```
Differences of PEJ.EXEC(DBDOC1)(new) with PEJ.EXEC(DBDOC2)(old)
00001  00001   call import KeyValue
00002  00002   call dbmsglv 'N'
00003  00003   say "OPEN  "DBOPEN()           /* Open Key/Value Database */
00004  00004   say "ROOM  "DBROOM('WORLD')       /* switch to WORLD  */
00005  00005   call dbremove('QUA',"Continent")  /* Remove records with
00006  00006   call dbremove('ANY',"Mu")         /* Remove records
00007  00007   call dbremove('CONTAINS',"265")
00008  00008   call dbremove('ONLY',"Wa")        /* Remove records with a
00009  00009   call dbremove('ALL')              /* Remove all records of
00010  00010   call dblist('ANY',"Mu")
00011  00011   call dblist('QUA',"Continent")
**del  00012   call dblist('ONLY',"Wa")
**del  00013   call dblist('CONTAINS',"265")
**del  00014   say "CLOSE "DBCLOSE()
00012  **ins   say "CLOSE "DBCLOSE()
deleted  lines 3
inserted lines 1
moved    lines 0
08:23:47.403   0.004  Summary produced
08:23:47.405   0.001  Cleanup completed
08:23:47.406   0.117  Compare completed PEJ.EXEC(DBDOC1) with PEJ.EXEC(DBDOC2)
```

Example:

```
file1='PEJ.EXEC(dbdoc1)'
file2='PEJ.EXEC(dbdoc2)'

rarray=RXDIFF(file1,file2)
  buffer.0='ARRAY 'rarray
  hdr1='New    Old     'file1'<-'file2
  hdr2='Lino   Lino    Lines'
 call FMTLIST ,,hdr1,hdr2
```

Result:

```
New    Old     PEJ.EXEC(DBDOC1)<-PEJ.EXEC(DBDOC2)
Lino   Lino    Lines
Differences of PEJ.EXEC(DBDOC1)(new) with PEJ.EXEC(DBDOC2)(old)
**del  00012   call dblist('ONLY',"Wa")
**del  00013   call dblist('CONTAINS',"265")
**del  00014   say "CLOSE "DBCLOSE()
00012  **ins   say "CLOSE "DBCLOSE()
deleted  lines 3
inserted lines 1
moved    lines 0
```

RXCOPY(new-dsn,old-dsn,[volume],['REPLACE']) Compare two datasets

RXCOPY is a speedy dataset copy service which handles the copy utilizing the original MVS tools (REPRO and IEBCOPY).

Volume The volume serial name that will receive the copied dataset. If omitted, MVS chooses the volume.

REPLACE replaces any existing target dataset which is in the system catalogue.

REPRO is used to duplicate sequential datasets. The DCB information from the source dsn is utilized to create the target dsn before the copy process.

```
call rxcopy('pej.temp','PEJ1.TEMP',,'REPLACE')
```

```
-------------------------------------------------------------------
RXCOPY PEJ.TEMP INTO PEJ1.TEMP REPLACE
-------------------------------------------------------------------
DSN PEJ.TEMP is sequential, invoke REPRO
Create 'PEJ1.TEMP' with DSORG=PS,RECFM=VBM,UNIT=SYSDA,LRECL=137,BLKSIZE=1692,PRI=1,SEC=1
'PEJ1.TEMP' successfully created
NUMBER OF RECORDS PROCESSED WAS 15
```

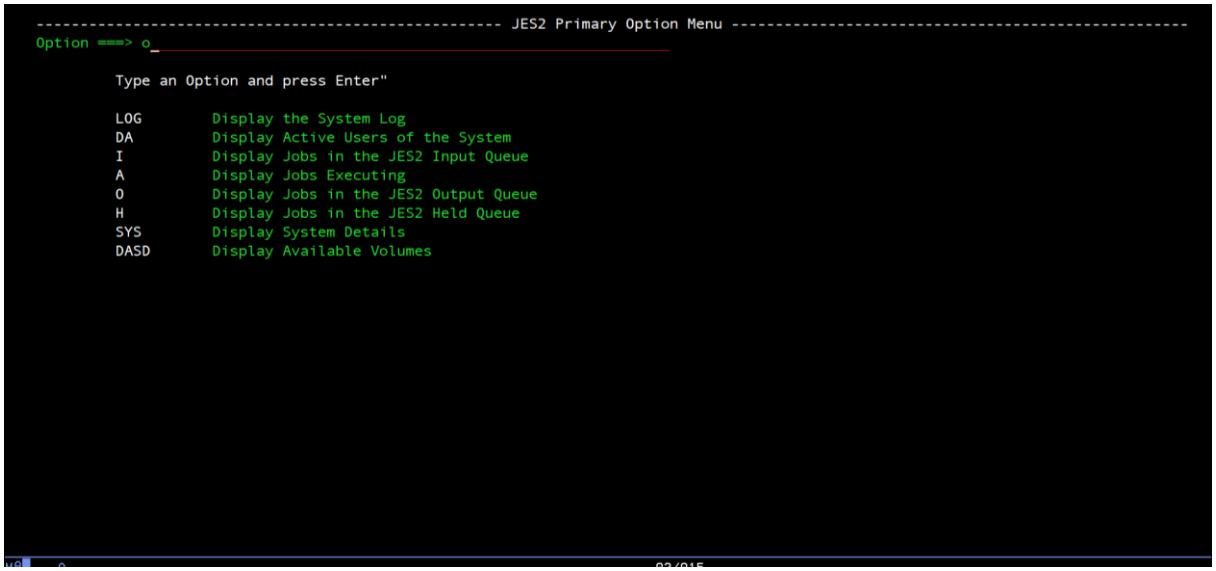
IEBCOPY copies partitioned datasets. The DCB information from the source dsn is used to generate the target dsn before the copy procedure. IEBCOPY must be in authorized mode, therefore if you run it within ISPF, it must be authorised. Plain TSO is authorised, so you may run it there.

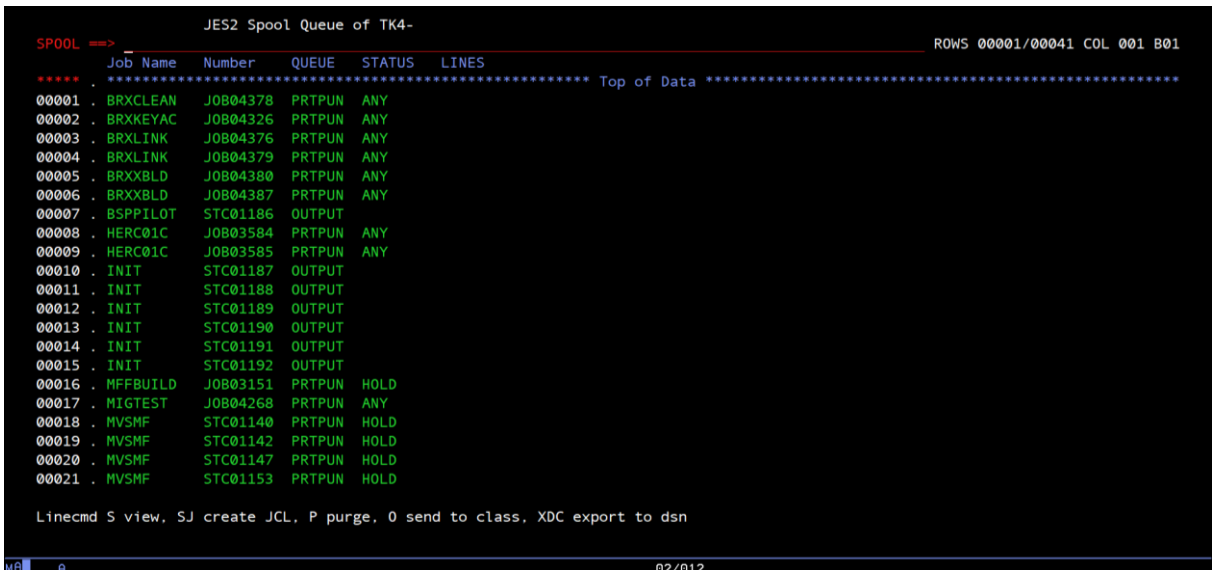
```
call rxcopy('pej.temp80','PEJ1.TEMP',,'REPLACE')
```

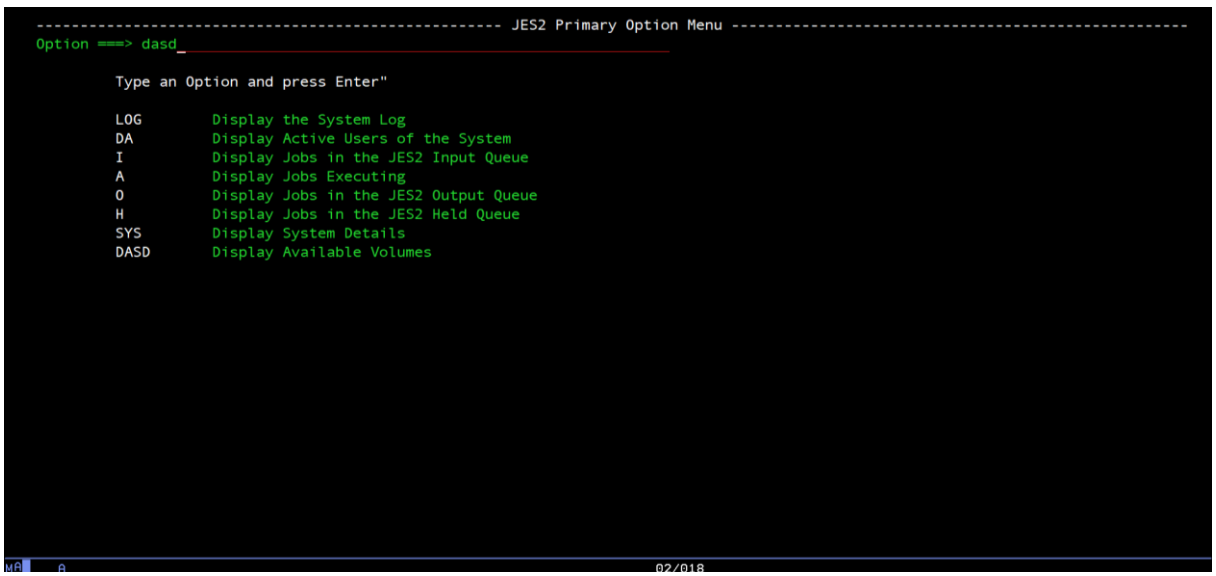
```
-------------------------------------------------------------------
RXCOPY PEJ.TEMP80 INTO PEJ1.TEMP80 REPLACE
-------------------------------------------------------------------
DSN PEJ.TEMP80 is partitioned, invoke IEBCOPY
Target Dataset 'PEJ1.TEMP80' has been removed, due to remove option
Create 'PEJ1.TEMP80' with
DSORG=PO,RECFM=FB,UNIT=SYSDA,LRECL=80,BLKSIZE=6400,PRI=25,SEC=3,DIRBLKS=1
'PEJ1.TEMP80' successfully created
Prepare IEBCOPY
IEBCOPY completed, RC=0 0
1                                        IEBCOPY MESSAGES AND CONTROL
STATEMENTS
-IEB167I  FOLLOWING MEMBER(S)  COPIED  FROM INPUT DATA SET REFERENCED BY
SYSUT1   -
 IEB154I  PEJ1     HAS BEEN SUCCESSFULLY  COPIED
 IEB154I  PEJ2     HAS BEEN SUCCESSFULLY  COPIED
 IEB144I  THERE ARE 0000024 UNUSED TRACKS IN OUTPUT DATA SET REFERENCED BY
SYSUT2
 IEB149I  THERE ARE 0000000  UNUSED DIRECTORY BLOCKS IN OUTPUT DIRECTORY
 IEB147I  END OF JOB -00 WAS HIGHEST SEVERITY CODE
```

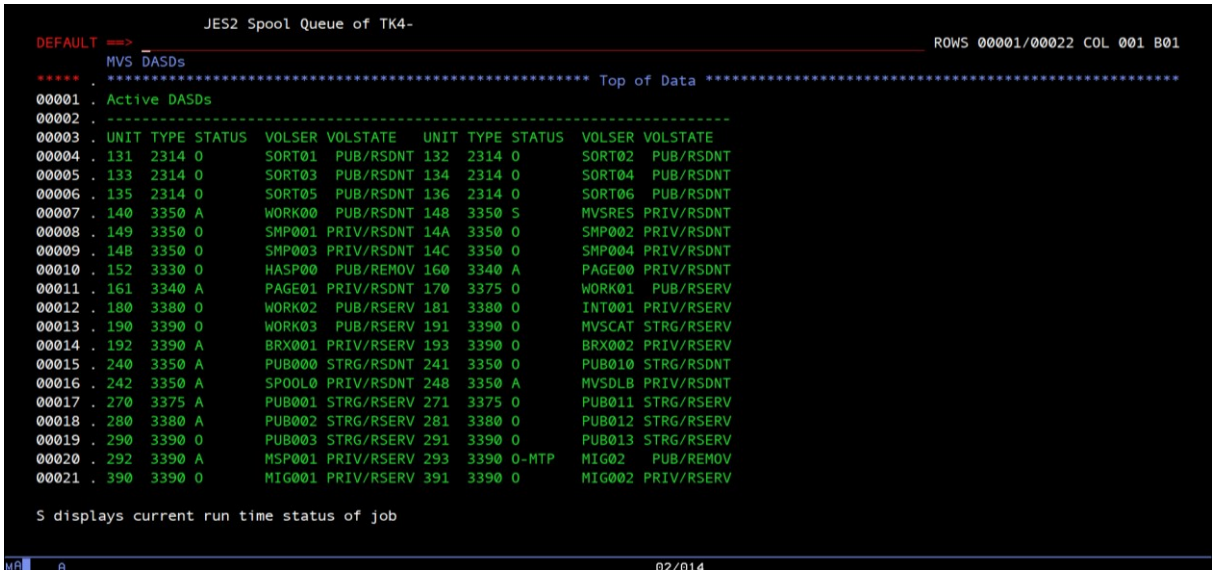
JES2 Spool Viewer

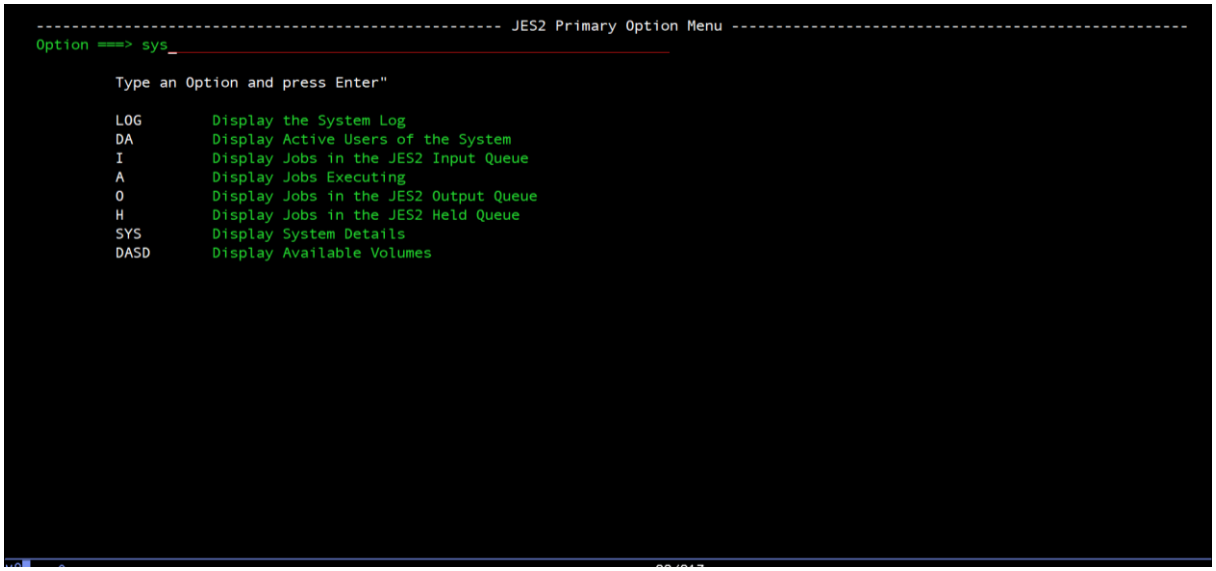
The JES2 Spool Queue Viewer wants to add some more functionality to the ISPF3.8 function. Some of the functionalities as screenshots.

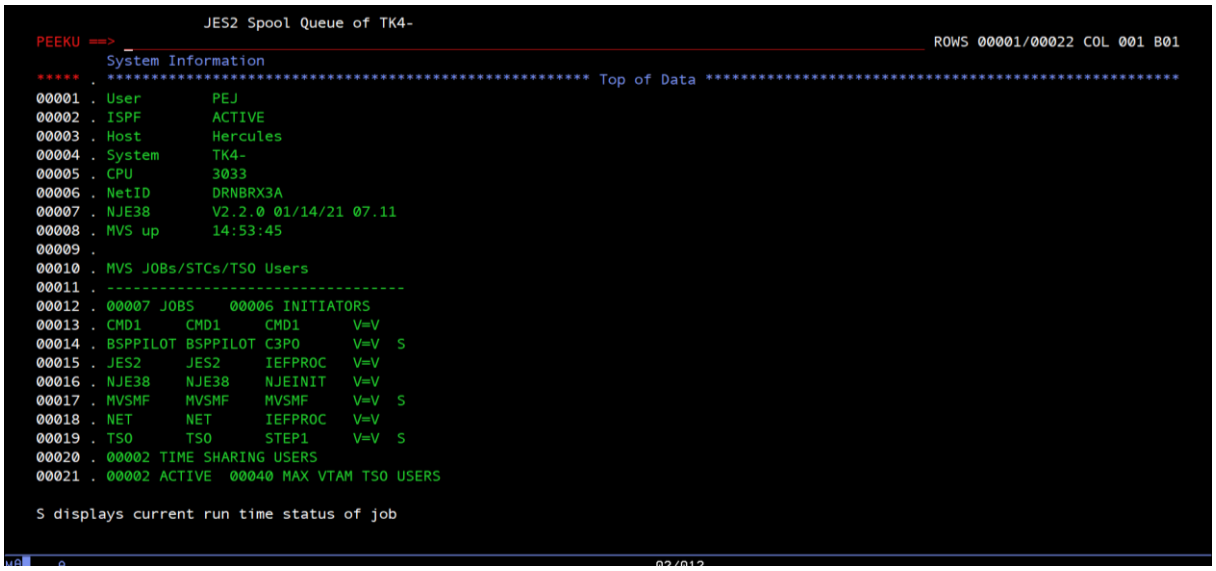

JES2 Primary Option Menu
Option ===> o
Type an Option and press Enter"
LOG Display the System Log
DA Display Active Users of the System
I Display Jobs in the JES2 Input Queue
A Display Jobs Executing
O Display Jobs in the JES2 Output Queue
H Display Jobs in the JES2 Held Queue
SYS Display System Details
DASD Display Available Volumes


JES2 Spool Queue of TK4-
SPOOL ===>
ROWS 00001/00041 COL 001 B01
Job Name Number QUEUE STATUS LINES
***** . ********** Top of Data **********
00001 . BRXCLEAN JOB04378 PRTPUN ANY
00002 . BRXKEYAC JOB04326 PRTPUN ANY
00003 . BRXLINK JOB04376 PRTPUN ANY
00004 . BRXLINK JOB04379 PRTPUN ANY
00005 . BRXXBLD JOB04380 PRTPUN ANY
00006 . BRXXBLD JOB04387 PRTPUN ANY
00007 . BSPPILOT STC01186 OUTPUT
00008 . HERC01C JOB03584 PRTPUN ANY
00009 . HERC01C JOB03585 PRTPUN ANY
00010 . INIT STC01187 OUTPUT
00011 . INIT STC01188 OUTPUT
00012 . INIT STC01189 OUTPUT
00013 . INIT STC01190 OUTPUT
00014 . INIT STC01191 OUTPUT
00015 . INIT STC01192 OUTPUT
00016 . MFFBUILD JOB03151 PRTPUN HOLD
00017 . MIGTEST JOB04268 PRTPUN ANY
00018 . MVSMF STC01140 PRTPUN HOLD
00019 . MVSMF STC01142 PRTPUN HOLD
00020 . MVSMF STC01147 PRTPUN HOLD
00021 . MVSMF STC01153 PRTPUN HOLD
Linecmd S view, SJ create JCL, P purge, O send to class, XDC export to dsn


JES2 Primary Option Menu
Option ===> dasd
Type an Option and press Enter"
LOG Display the System Log
DA Display Active Users of the System
I Display Jobs in the JES2 Input Queue
A Display Jobs Executing
O Display Jobs in the JES2 Output Queue
H Display Jobs in the JES2 Held Queue
SYS Display System Details
DASD Display Available Volumes


JES2 Spool Queue of TK4-
DEFAULT ===>
ROWS 00001/00022 COL 001 B01
MVS DASDs
***** . ********** Top of Data **********
00001 . Active DASDs
00002 . ----------
00003 . UNIT TYPE STATUS VOLSER VOLSTATE UNIT TYPE STATUS VOLSER VOLSTATE
00004 . 131 2314 O SORT01 PUB/RSDNT 132 2314 O SORT02 PUB/RSDNT
00005 . 133 2314 O SORT03 PUB/RSDNT 134 2314 O SORT04 PUB/RSDNT
00006 . 135 2314 O SORT05 PUB/RSDNT 136 2314 O SORT06 PUB/RSDNT
00007 . 140 3350 A WORK00 PUB/RSDNT 148 3350 S MVSRES PRIV/RSDNT
00008 . 149 3350 O SMP001 PRIV/RSDNT 14A 3350 O SMP002 PRIV/RSDNT
00009 . 14B 3350 O SMP003 PRIV/RSDNT 14C 3350 O SMP004 PRIV/RSDNT
00010 . 152 3330 O HASP00 PUB/REMOV 160 3340 A PAGE00 PRIV/RSDNT
00011 . 161 3340 A PAGE01 PRIV/RSDNT 170 3375 O WORK01 PUB/RSERV
00012 . 180 3380 O WORK02 PUB/RSERV 181 3380 O INT001 PRIV/RSERV
00013 . 190 3390 O WORK03 PUB/RSERV 191 3390 O MVSCAT STRG/RSERV
00014 . 192 3390 A BRX001 PRIV/RSERV 193 3390 O BRX002 PRIV/RSERV
00015 . 240 3350 A PUB000 STRG/RSDNT 241 3350 O PUB010 STRG/RSDNT
00016 . 242 3350 A SPOOL0 PRIV/RSDNT 248 3350 A MVSDLB PRIV/RSDNT
00017 . 270 3375 A PUB001 STRG/RSERV 271 3375 O PUB011 STRG/RSERV
00018 . 280 3380 A PUB002 STRG/RSERV 281 3380 O PUB012 STRG/RSERV
00019 . 290 3390 O PUB003 STRG/RSERV 291 3390 O PUB013 STRG/RSERV
00020 . 292 3390 A MSP001 PRIV/RSERV 293 3390 O-MTP MIG02 PUB/REMOV
00021 . 390 3390 O MIG001 PRIV/RSERV 391 3390 O MIG002 PRIV/RSERV
S displays current run time status of job


JES2 Primary Option Menu
Option ===> sys
Type an Option and press Enter"
LOG Display the System Log
DA Display Active Users of the System
I Display Jobs in the JES2 Input Queue
A Display Jobs Executing
O Display Jobs in the JES2 Output Queue
H Display Jobs in the JES2 Held Queue
SYS Display System Details
DASD Display Available Volumes


JES2 Spool Queue of TK4-
PEEKU ===>
ROWS 00001/00022 COL 001 B01
System Information
***** . ********** Top of Data **********
00001 . User PEJ
00002 . ISPF ACTIVE
00003 . Host Hercules
00004 . System TK4-
00005 . CPU 3033
00006 . NetID DRNBRX3A
00007 . NJE38 V2.2.0 01/14/21 07.11
00008 . MVS up 14:53:45
00009 .
00010 . MVS JOBs/STCs/TSO Users
00011 . ----------
00012 . 00007 JOBS 00006 INITIATORS
00013 . CMD1 CMD1 CMD1 V=V
00014 . BSPPILOT BSPPILOT C3PO V=V S
00015 . JES2 JES2 IEFPROC V=V
00016 . NJE38 NJE38 NJEINIT V=V
00017 . MVSMF MVSMF MVSMF V=V S
00018 . NET NET IEFPROC V=V
00019 . TSO TSO STEP1 V=V S
00020 . 00002 TIME SHARING USERS
00021 . 00002 ACTIVE 00040 MAX VTAM TSO USERS
S displays current run time status of job

Data Exchange between different MVS Environments

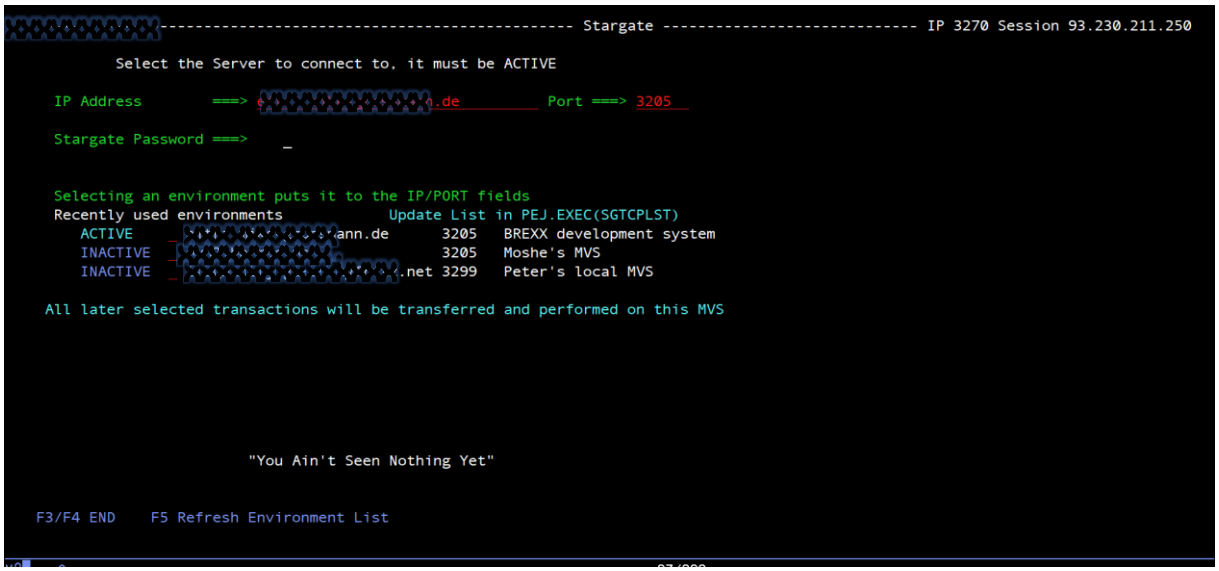
There is an easy way to exchange data between MVS systems.

Starting the Stargate Server

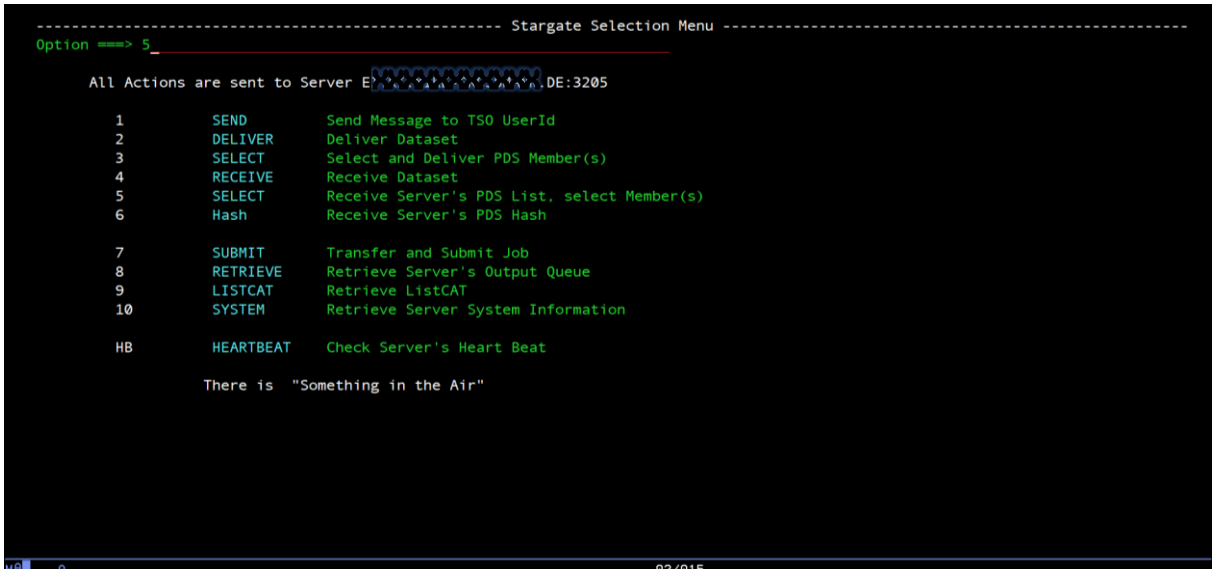
```
rc=stargate('RECEIVE',,3205)
say 'Stargate ended with RC='rc
return


13:14:54.884085 ..BASIC 3205      Stargate TCP Server start at Port: 3205
```

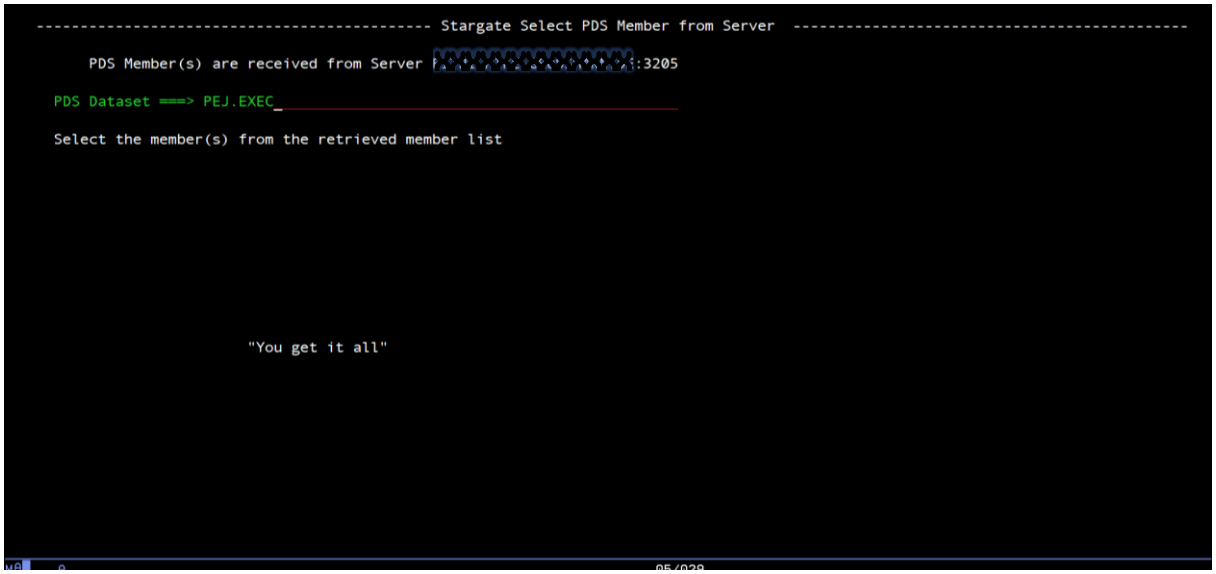
Launch the Stargate Client, which transmits and requests services and datasets:

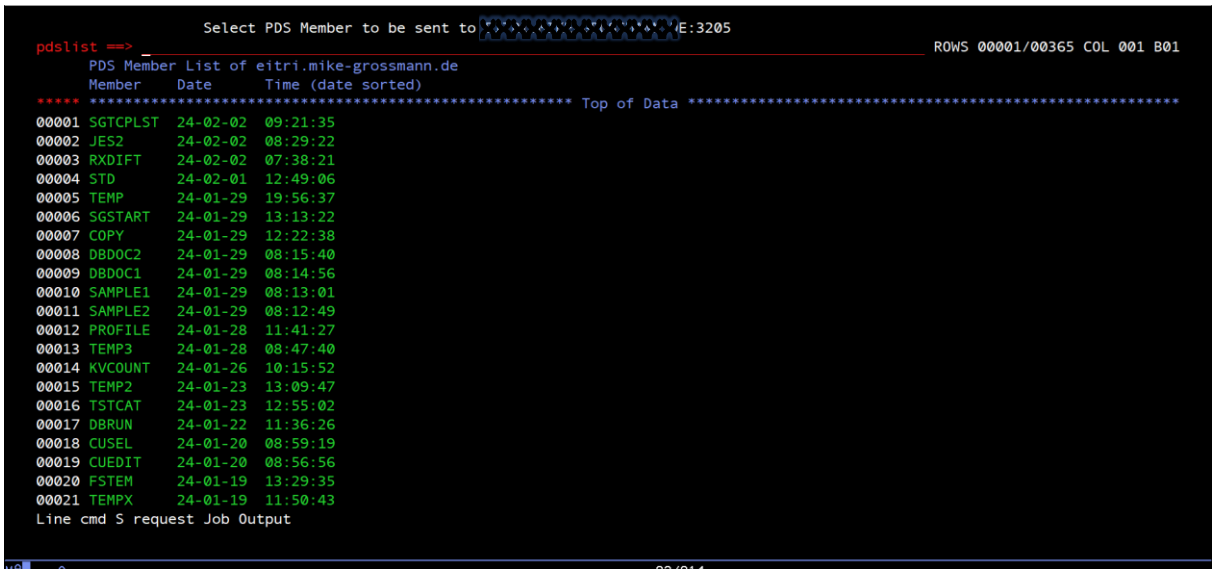
Here are some screenshots, just an overview:

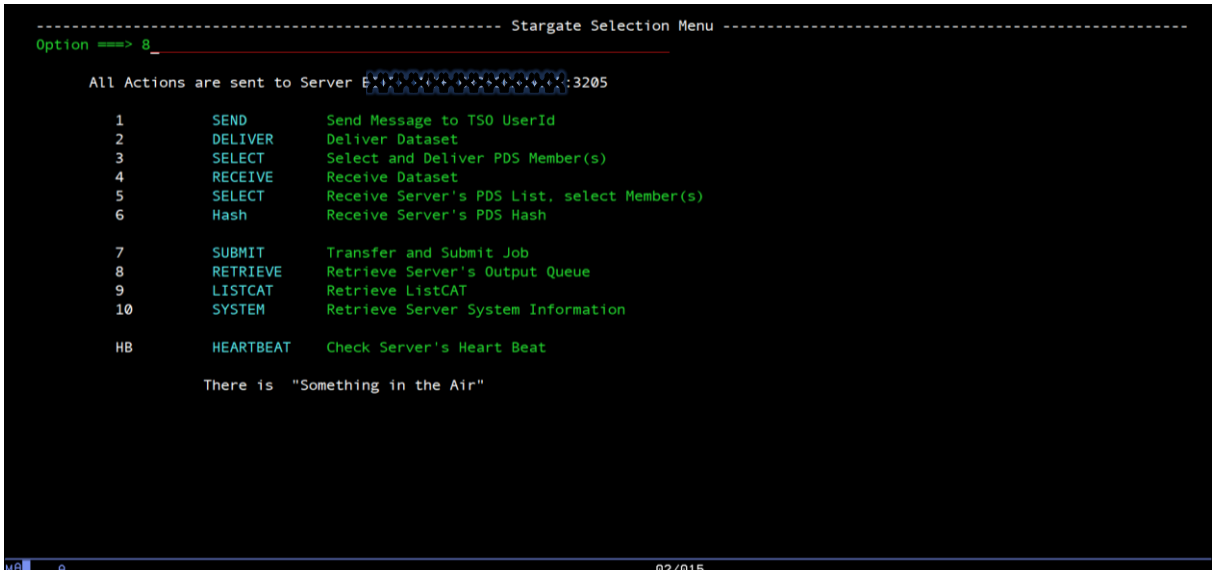


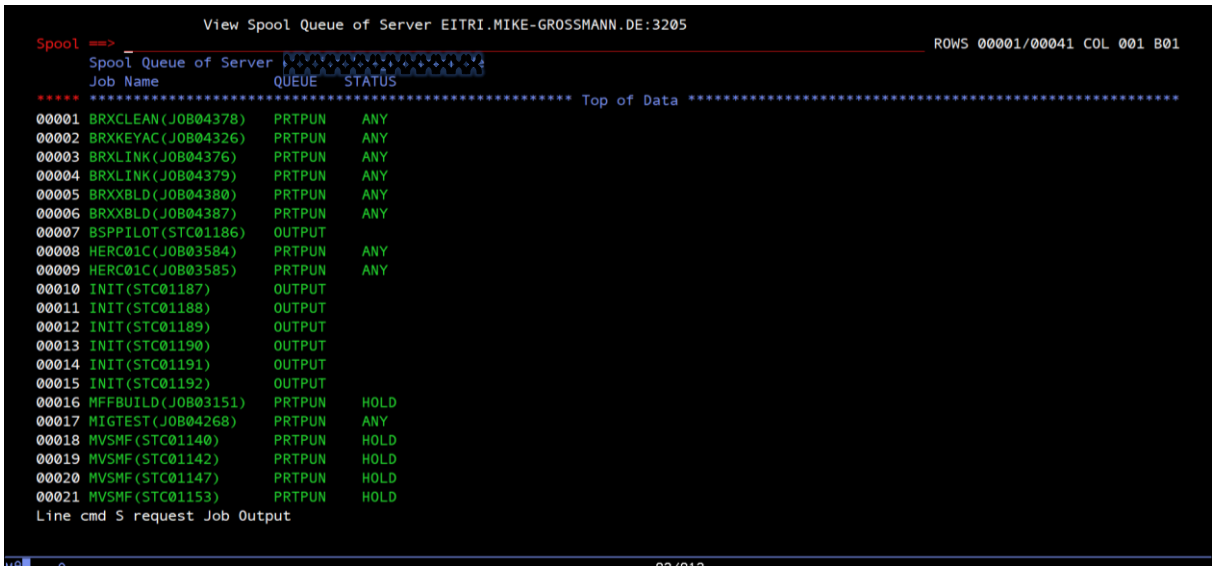
The MVS list can be tailored see “Tailoring the list of target MVSes”


Stargate Selection Menu
Option ===> 5
All Actions are sent to Server E[redacted].DE:3205
1 SEND Send Message to TSO UserId
2 DELIVER Deliver Dataset
3 SELECT Select and Deliver PDS Member(s)
4 RECEIVE Receive Dataset
5 SELECT Receive Server's PDS List, select Member(s)
6 Hash Receive Server's PDS Hash
7 SUBMIT Transfer and Submit Job
8 RETRIEVE Retrieve Server's Output Queue
9 LISTCAT Retrieve ListCAT
10 SYSTEM Retrieve Server System Information
HB HEARTBEAT Check Server's Heart Beat
There is "Something in the Air"


Stargate Select PDS Member from Server
PDS Member(s) are received from Server [redacted]:3205
PDS Dataset ===> PEJ.EXEC
Select the member(s) from the retrieved member list
"You get it all"


Select PDS Member to be sent to [redacted]E:3205
pdslist ===>
ROWS 00001/00365 COL 001 B01
PDS Member List of eitri.mike-grossmann.de
Member Date Time (date sorted)
***** Top of Data
00001 SGTCPLST 24-02-02 09:21:35
00002 JES2 24-02-02 08:29:22
00003 RXDIFT 24-02-02 07:38:21
00004 STD 24-02-01 12:49:06
00005 TEMP 24-01-29 19:56:37
00006 SGSTART 24-01-29 13:13:22
00007 COPY 24-01-29 12:22:38
00008 DBDOC2 24-01-29 08:15:40
00009 DBDOC1 24-01-29 08:14:56
00010 SAMPLE1 24-01-29 08:13:01
00011 SAMPLE2 24-01-29 08:12:49
00012 PROFILE 24-01-28 11:41:27
00013 TEMP3 24-01-28 08:47:40
00014 KVCOUNT 24-01-26 10:15:52
00015 TEMP2 24-01-23 13:09:47
00016 TSTCAT 24-01-23 12:55:02
00017 DBRUN 24-01-22 11:36:26
00018 CUSEL 24-01-20 08:59:19
00019 CUEDIT 24-01-20 08:56:56
00020 FSTEM 24-01-19 13:29:35
00021 TEMPX 24-01-19 11:50:43
Line cmd S request Job Output





Tailoring the list of target MVSes

BREXX.V2R5M3.SAMPLE(SGTCPLST)

```
;; ---------------------------------------------------------------
;; Tailor the TCP Address you usually use to access Stargate Servers
;;    the format is
;;      IP-ADDRESS port-number comment
;;      comment is optional
;; ---------------------------------------------------------------
   xxxx1.yyyyyyy.dddd            3205   my system 1
   xxxx2.yyyyyyy.dddd            3205   my system 2
   xxxx3.yyyyyyy.dddd            3205   my system 3
   xxxx4.yyyyyyy.dddd            3205   my system 4
   xxxx5.yyyyyyy.dddd            3205   my system 5
```

Table of Contents