Tools for System I, Power I, IBM I on Power, iSeries, and AS/400.

Aurora Technologies, Inc.

Tools
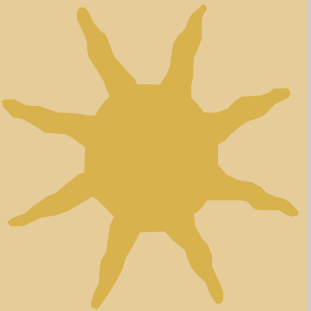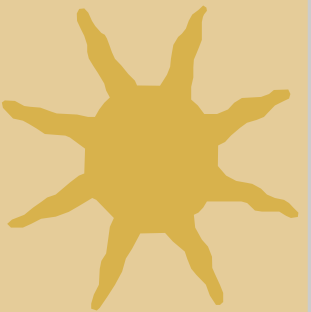
- ★ SQL
  - – Need to learn? http://www.w3schools.com/sql/default.asp
- ★ Rational Developer for i 7.5
  - – SEU doesnt support the latest RPG enhancements
- ★ Google

Tools

* STRSQL

* SELECT * FROM tickets

* SELECT   distinct(zztruck)
* FROM   tickets
* ORDER   by zztruck

* SELECT   zzticket
* FROM   tickets
* WHERE   zztruck like 'TIM TRUCKING%'

Tool

★ CMPPFM

Tip

* CMPPFM – identifying file changes without a journal
  - Show differences between source files
  - How about regular physical files ?
    * CMPPFM NEWFILE(TMELIB/EPRVTKLG2) OLDFILE(TMELIB/EPRVTKLG)

left

```
      IBM COMPARE V6R1M0   080215                                      05/26/10
NEW:       TMELIB/EPRVTKLG2(EPRVTKLG)                         OLD:       TMEL
                  LISTING OUTPUT SECTION (LINE COMPARE)


ID      SOURCE LINES
I -T00107105000158325 4/5/2010   SAVAGE 6  6040       J.H.LYNCH & SONS
D -T00107105000158325 4/4/2010   SAVAGE 6  6040       J.H.LYNCH & SONS
```

right

```
                                N-LN      O-LN
                         TYPE   LEN NUM      NUM
   X                     RPL=     1 0000001 0000001
   X

                         MAT=   118
```

Tips

★ QUSCMDLN
  – Great attention key program

```
Order Status:              1 = Rdy for PS     4 = Inv Printed
                           2 = PS Printed     9 = Order Held
                           3 = Rdy for Inv
..................................................................
:                          Command                              :
:                                                               :
:   ===> █_____       :
:                                                               :
:   F4=Prompt    F9=Retrieve    F12=Cancel                      :
:                                                               :
..................................................................
```

```
                Change User Profile (CHGUSRPRF)

Type choices, press Enter.


Print device . . . . . . . . . .   *WRKSTN      Name, *SAME, *WRKSTN, *SYSVAL
Output queue . . . . . . . . . .   TESTX        Name, *SAME, *WRKSTN, *DEV
  Library  . . . . . . . . . .      QUSRSYS     Name, *LIBL, *CURLIB
Attention program  . . . . . . .   QUSCMDLN     Name, *SAME, *SYSVAL...
  Library  . . . . . . . . . . .     *LIBL      Name, *LIBL, *CURLIB
```

Tips

★ F14 = Command string

```
                                                              More...

F9=All parameters   F11=Keywords   F14=Command string   F24=More keys
```

```
                    Display Command String


CHGUSRPRF USRPRF(DCTEST)
          ATNPGM(*LIBL/QUSCMDLN)
```

Tips

★ DSPPGMREF

Tips

★ DSPPGMREF – Poor man's Hawkeye

　　– DSPPGMREF PGM(*USRLIBL/*ALL)

　　　　　OUTPUT(*OUTFILE)

　　　　　OUTFILE(MYLIB/MYREF)

left

```
Library        Program      TEXT
                            Text
                            'Description'
ZWMSTEST       KCTEST1      create test data from JP receivers
ZWMSTEST       KCTEST1      create test data from JP receivers
```

right

Object Referenced	Library	Source File Name	File Usage	Record Format	Object Type
ZHSBHDX	APLUS2FTS	ZHSBHDX	3	ZHSBHDXR	F
WM670	*LIBL		0		D
XADAT	*LIBL		0		P
ORCTL	*LIBL	ORCTL	1		F
HSBH1	APLUS2FTS	HSBH1	4	HSBHDR	F

Tips

★ Record Format level checking

– Every Record format has a unique identifier

- Its length
- Name, number and order of fields
- Data types, sizes and decimal positions of fields

```
   5/26/10                  Display File Description
DSPFD Command Input
  File  . . . . . . . . . . . . . . . . . . . . : FILE       ORHED
```

```
  Format        Fields    Length   Identifier
  ORHEDR           219      1457    56000C2055FA4
    Text . . . . . . . . . . . . . . . . . . . :           Order Header Forma
```

```
File  . . . . . :   QPDSPPGM                        Page/Line   3/30
Control . . . . .   +1                              Columns     1 - 78
Find  . . . . . .   _____
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
   Object  . . . . . . . . . . . . . . . . . . :   ORHED
     Library . . . . . . . . . . . . . . . . . :   APLUS2FJP
     Object type . . . . . . . . . . . . . . . :   *FILE
     File name in program  . . . . . . . . . . :   ORHED
     File usage  . . . . . . . . . . . . . . . :   Output
                                                    Update
     Number of record formats  . . . . . . . . :          1
       Record Format       Format Level Identifier    Field Count
         ORHEDR              56000C2055FA4                 219
```

Tips

★ Record Format level checking

- Does not include
  - TEXT, COLHDG
  - CHECK, EDTCDE, EDTWRD
  - REF, REFFLD (as long as a change here doesnt affect size)
  - CMP, VALUES, RANGE
  - DFT
  - Key Fields !!
  - Access Path keywords (ie ascending/descending) !!
  - Select / Omit !!
- There's no need to have a logical by Company and Customer and another one by Company, Customer and Date. Just add date to the first logical and recompile it.

Tips

* OVRPRTF

Tips

★ Spooled Files V6 +

   – PDFs   OVRPRTF FILE(TEST) DEVTYPE(*AFPDS)

               TOSTMF('/home/teagan/test.pdf') WSCST(*PDF)

   – Usual

```
Select files for:
  User  . . . . . . . . . . . . . .   *CURRENT      Name, generic*, *CURRENT.
  Print device . . . . . . . . .   *ALL          Name, *ALL, *OUTQ
  Form type  . . . . . . . . . .   *ALL          Form type, *ALL, *STD
  User data  . . . . . . . . . .   *ALL          User data, generic*, *ALL
  ASP  . . . . . . . . . . . . .   *ALL          1-32, *ALL, *ASPDEV
  Spooled file . . . . . . . . .   *ALL          Name, generic*, *ALL
Job name . . . . . . . . . . . .   *ALL          Name, generic*, *ALL
  User . . . . . . . . . . . . .                 Name, generic*, *ALL
  Number . . . . . . . . . . . .                 000000-999999, *ALL
```

   – By Date

```
Time period:
  Start time and date:
  Beginning time . . . . . . . .   *AVAIL        Time, *AVAIL
  Beginning date . . . . . . . .   *BEGIN        Date, *BEGIN
  End time and date:
  Ending time  . . . . . . . . .   *AVAIL        Time, *AVAIL
  Ending date  . . . . . . . . .   *END          Date, *END
ASP device . . . . . . . . . . .   *             Name, *, *SYSBAS, *CURASPGRP
Output . . . . . . . . . . . . .   *             *, *PRINT
```

Tips

★ ## Jobs and Logs

– Use named jobs – SBMJOB CMD(CALL PGM(X) JOB(somejob)

– Also good for session/workstation Ids

– LOG(4 0 *SECLVL) - use on SBMJOB cmd or CHGJOB cmd

  if adding to a CL program add a MONMSG in case the user doesnt have *JOBCTL authority.

  • Can be done while a job is active ! (best for batch jobs)

– ## SBMJOB

  • USER – Can specify any valid user profile (certain IBM 'Q' names excluded)

  • PRTTXT – The system will print this text on the bottom of EVERY page

  • SCDDTE, SCDTIME – Schedule date and time for this job to run

  • DSPSBMJOB – Specifies if the job will be displayed on WRKSBMJOB cmd

  • SBMFOR – Specifies which user the job will appear for on WRKSBMJOB

Handy tools to be aware of

★ IFS and RPG

   http://www.scottklement.com/presentations/RPG and the IFS.pdf

★ Get data in an external DB from RPG w/JDBC

   http://www.scottklement.com/presentations/External Databases from RPG.pdf

★ Create an Excel spreadsheet from RPG w/ POI

   http://www.scottklement.com/presentations/Excel Spreadsheets from RPG with POI.pdf