COBOL for PeopleSoft Cheat Sheet

Troubleshooting

Remote Calls fail

- Check available space on the server (df –k)
- Run psrun.mak to build PSRUN & PSRUNRMT
- Check that all COBOLS are compiled (may require recompile)

Subscript out of range

If the COBOL log identifies the array then you must open the COBOL source program, identify the array and increase OCCURS value and MAX value where appropriate. This will require recompilation.

Cannot Find COBOL

- Open the application server (psappsrv.cfg) and/or process scheduler (psprcs.cfg) files and check if there have been changes to remote call location.
- Check that the COBPATH environment variable and location of COBOLS match (under UNIX psconfig.sh sets this value).

Multiple COBOL Errors

- Many programs are failing then execute the stored statements and recompile all COBOL programs

Tracing

It is possible to trace COBOL SQL by navigating to COBOL process type, for the platform, under PeopleTools and then adding in **255** between // in the parameter list (found between instance and DBFLAG). Execute the program again.

Before

%%DBTYPE%%/%%DBNAME%%/%%OPRID%%/%%OPRPSWD%%/%%RUNCNTLID%%/%%INSTANCE%%//%%DBFLAG%%

After

%%DBTYPE%%/%%DBNAME%%/%%OPRID%%/%%OPRPSWD%%/%%RUNCNTLID%%/%%INSTANCE%%/**255**/%%DBFLAG%%

In psprcs.cfg SQL tracing can be switched on by entering a value in TraceSql entry.

Trace output can be found in <PS_HOME>/appserv/prcs/<ENV>/log_output for process scheduler or <PS_HOME>/appserv/<ENV>/LOGS for remote calls

Tests

Test batch cobol from Peopletools > Process Scheduler > System Process Requests. Select Simple COBOL test program (PTPDBTST)
Test remote call from Peopletools > Utilties > Debug > Peopletools Test utilities. Press the remote call test button

Environment Variables

The following variables are required

- COBDIR=<cobol directory>
- COBPATH=<PS_HOME>/cblbin
- PATH=<cobol library directory>

Compilation

- The compilation programs are found in <PS_HOME>/setup directory
- Syntax for compilation is pscbl.mak {PTP* PTPTSSET}. Entering search strings or full names of cobols will limit the amount of cobols that are compiled.
- Always execute the psrun.mak after a compilation of cobols
- Peoplesoft creates two types of executable: .int and .gnt.
- PSRUN is used to execute .int and .gnt files.
- .gnt is quicker to run but slower to compile (binary code) whereas .int is quicker to compile but slower to run.
- Enter failures of gnt compilation in CBLINT.pt to compile as int.
- The lst folder contains the results of compilation for each program.
- Cobols are contained in <PS_HOME>/src/cbl and <PS_HOME>/src/cbl/base. Compilation is performed on all programs in <PS_HOME>/src/cbl.
- Errors are recorded in error.lst.
- Unicode compiled cobols are stored in <PS_HOME>/cblbinu whereas non-unicode in <PS_HOME>/cblbin

Stored Statements

COBOL programs execute SQL statements against the target database. These statements are located in the PS_SQLSTMT_TBL. They may be periodically updated during patching or upgrade and must match the data structures in the executing COBOL program.

Remote Call

Remote call enables the execution of COBOL programs remotely from PeopleSoft. This function is executed synchronously from the Application Server. Once a return value is received by PeopleSoft then the application resumes any additional code execution.

Remote Call can be executed from peoplecode in all events except SavePostChange, SavePreChange, Workflow and RowSelect.

The PTPECOBL interface program is a PeopleSoft executable that enables you to invoke your called COBOL module and pass it required values. You code the RemoteCall function to invoke PTPECOBL, which in turn calls the specified COBOL module.

```
RemoteCall ("PSRCCBL", "PSCOBOLPROG", "PTPECOBL",
"AECOBOLPROG", "MY_GNT",
 "STATERECORD", "MY_AET", "PRCSINST",
MY_AET.PROCESS_INSTANCE, "RETCODE", &RC,
 "ERRMSG", &ERR_MSG, "FIELD1", MY_AET.FIELD1, "FIELD2",
MY  AET.FIELD2);
```

COBOL and Animator

- Open two UNIX sessions:

  Session 1
  > setup PS environment i.e cd into PS home directory and run psconfig.sh
  > Create debuggable (idy file) COBOL (in PSCBL.MAK add -g flag to the COBOL compiler command (line beginning cob: e.g cob $PSCOBOPT -C 'MAKESYN "COMP-5" == "COMP"' -C 'OVERRIDE "TIME-OUT" == "TIME-OUT-MF"' -C 'ANS85 "SYNTAX"' -u -g -W e -P $cblfile.cbl) add line to copy .idy files to cblbin. There is already a line that copies the .idy for programs compiled as .int. Copy this line under the line that copies the .gnt files to cblbin.
  > set animator environment variables: export COBCPY=$PS_HOME/src/<cbl>||<cblunicode>, export COBANIMSRV=<COBOL program name>
  > initiate animator in sleep mode (cobanimsrv)

  Session 2
  > Setup PS environment i.e cd into PS home directory . ./psconfig.sh
  > Set animator environment variable:
  export COBANIMSRV=<COBOL program name>
  export COBCPY=$PS_HOME/src/<cbl>||<cblunicode>
  > run COBOL program
  export PS_SERVER_CFG=$PS_HOME/appserv/prcs/<domain>/psprcs.cfg
  PSRUN <COBOL program name>

- When the program starts running in the 2nd session, the animator will open up in the 1st session.

Conversion to UniCode

<PS_HOME>\bin\client\winx86\pscblucvrt.exe -s:<Source Directory> -t:<Destination Directory> [-r:<TEMP Directory>]