

{Editor's Note: These scripts are also available in OAUG's publications article archive at www.oaug.org/members/forumindex.html}

APPS-Automagic...

Anyone can be an APPS-DBA!

by Justin Hockemeyer
ArvinMeritor Inc.
hockemjd@meritorauto.com

The time, 2:35 am – the disaster, your global Oracle Applications instance has stopped running

In order to resolve the problem, the DBA (database administrator) has to copy the production instance back to a development box for support. The eight hours the DBA is about to spend on the copy could have taken twenty minutes, giving the DBA seven hours and forty minutes of time saved to start a diagnosis and make an attack plan. What can make this kind of difference?

To be a good applications' DBA, one needs to be able to get beyond the repetitious daily tasks in order to focus on the real issues. Processes such as instance refreshes, database copies, and general starting and stopping instances can easily consume a DBA's valuable time. Perhaps you have application DBAs sitting around without work to do, but chances are, with tight budgets, you've got to make a staff of ten do the work of forty. The fastest way to leverage

continued on page 44

11icmd

```
#!/bin/ksh
#-----#
#
# Module Name: 11icmd
#
# Purpose: Start/Stop the Oracle 11i Processes
#
#
# Example: Shell Name [Option] Start/Stop [Option] Instance
# Command Name
#
# 11icmd start VIS
# 11icmd stop VIS
# 11icmd start ALL
# 11icmd stop ALL
#
# Maintenance
# Date Author Description
# 10-May-2000 J.Hockemeyer Module design/creation
#-----#
# TEST: Number ($#) of arguments passed to this Shell on the command-line?
DIRNAM=$(dirname $0)

if [[ $# -ne 2 ]]
then
clear
print
print "#-----#"
print "# 11icmd: ArvinMeritor Oracle Application Control #"
print "#-----#"
print
read APPOPS? "Please Enter start -or- stop : "
read ORASID? "Enter the INSTANCE Name: "

$DIRNAM/11icmd $APPOPS $ORASID

elif [[ $2 != "ALL" && $2 != "all" && $2 != "All" ]]
then
APPOPS=$1
ORASID=$2
clear
print
print "#-----#"
print "# 11icmd: Meritor Oracle Application Control #"
print "#-----#"
print
#-----#
# SHELL: Variables
#-----#
typeset -L25 PORTTB=/var/opt/oracle/porttab_v11i
typeset -L44 RETVAL=/emc01/app/oracle/scripts/parse_porttab.sh

APPOPS=$( print $APPOPS | tr [A-Z] [a-z] ) # translate to lowercase
ORASID=$( print $ORASID | tr [A-Z] [a-z] ) # translate to lowercase
LOWER_ORASID=$( print $ORASID | tr [A-Z] [a-z] ) #translate to lowercase
UPPER_ORASID=$( print $ORASID | tr [a-z] [A-Z] ) # translate to Upper

export ORASID
export LOWER_ORASID
export UPPER_ORASID

#-----#
# Set Environment
#-----#

export UPPER_ORASID
. /opt/bin/appsel $ORASID
. $DIRNAM/./profile/${LOWER_ORASID}_profile.v11i

#-----#
# Fork for stop or start
#-----#

if [[ $APPOPS == "stop" ]]
then
# Stop the Webdb listener and process
$ORACLE_COMN/admin/scripts/adwdbctl.sh stop
$ORACLE_COMN/admin/scripts/adwlnctl.sh stop

# Stop the TCF process
$ORACLE_COMN/admin/scripts/adctfctl.sh stop

# Stop the Reports Server process
$ORACLE_COMN/admin/scripts/adreptl.sh stop

# Stop the Forms Server process
$ORACLE_COMN/admin/scripts/adfroctl.sh stop

# Stop the Forms Metric Server/Client processes
$ORACLE_COMN/admin/scripts/adfmsctl.sh stop
$ORACLE_COMN/admin/scripts/adfmcctl.sh stop

# Stop the concurrent manager
# Get password
```

```
APPFW=apps
$ORACLE_COMN/admin/scripts/admctl.sh apps/$APPFW stop

# Stop the Apache Process
$ORACLE_COMN/admin/scripts/adapctl.sh stop

# Stop the APPS listener
$ORACLE_COMN/admin/scripts/adalnctl.sh stop APPS_$ORASID

# Stop the Database listener
$ORACLE_COMN/admin/scripts/adlnctl.sh stop $ORASID

elif [[ $APPOPS == "start" ]]
then
# Start the Database listener
$ORACLE_COMN/admin/scripts/adlnctl.sh start $ORASID

# Start the APPS listener
$ORACLE_COMN/admin/scripts/adalnctl.sh start APPS_$ORASID

# Start the Apache Process
$ORACLE_COMN/admin/scripts/adapctl.sh start

# Start the concurrent manager
# Get password

APPFW=apps
$ORACLE_COMN/admin/scripts/admctl.sh apps/$APPFW start

# Start the Forms Metric Server/Client processes
$ORACLE_COMN/admin/scripts/adfmsctl.sh start
$ORACLE_COMN/admin/scripts/adfmcctl.sh start

# Start the Forms Server process
$ORACLE_COMN/admin/scripts/adfroctl.sh start

# Start the Reports Server process
$ORACLE_COMN/admin/scripts/adreptl.sh start

# Start the TCF process
$ORACLE_COMN/admin/scripts/adctfctl.sh start

# Start the Webdb listener and process
$ORACLE_COMN/admin/scripts/adwdbctl.sh start
$ORACLE_COMN/admin/scripts/adwlnctl.sh start

else
print "#-----#"
print "# Error: You have tried an action that is not supported #"
print "# Try start or stop. You tried: $APPOPS #"
print "#-----#"

fi
elif [[ $2 == "ALL" || $2 == "all" || $2 == "All" ]]
then
APPOPS=$1
for SID in $( grep -v "#" /var/opt/oracle/porttab_v11i | cut -c3-10 )
do
ORASID=$SID
if [[ $(grep -v "#" /var/opt/oracle/oratab_v11i | grep $ORASID |
cut -d:
-f3) == "Y" ]]
then
$DIRNAM/11icmd $APPOPS $ORASID
fi
done
else
clear
print
print "#-----#"
print "# Error!! Please provide start/stop and sid/all #"
print "# You provided: action: $1 sid: $2 #"
print "#-----#"
fi
```

porttab_v11i

```
#!/bin/ksh
#-----#
# Oracle Applications 11i List of Environment port numbers.
#
# Note: Port conflicts are not checked/verified. The DBA must manually
# check/verify the ports and manually prevent port-conflicts.
#-----#
#
# ----- Ports -----#
# ENV-Name SID RPC Web Frm60 Rpt60 Apache Apache TCF Metrx Metrx Web2.5
# Net8 Net8 Port Port Port Port Port Port Data Reqs Port
#-----#
VIS 5021 5022 1000 1100 1200 1300 1400 1500 1600 1700 1800
TEST 5121 5122 1010 1110 1210 1310 1410 1510 1610 1710 1810
PROD 5621 5622 1060 1160 1260 1360 1460 1560 1660 1760 1860
```

oratab_v11i

```
#
# This file is used by ORACLE utilities. It is created by root.sh
# and updated by the Oracle8 and SQL*Net install procedures.
#
# A colon, ':', is used as the field terminator. A new line terminates
# the entry. Lines beginning with a pound sign, '#', are comments.
#
# Entries are of the form:
# $ORACLE_SID:$ORACLE_HOME:<N|Y>:
#
# The first and second fields are the system identifier and home
# directory of the database respectively. The third field indicates
# to the dbstart utility that the database should, "Y", or should not,
# "N", be brought up at system boot time.
#
# Multiple entries with the same $ORACLE_SID are not allowed.
#
#
VIS:/t03/oracle/visora/8.1.6:N
TEST:/t04/oracle/testora/8.1.6:Y
PROD:/t05/oracle/prodora/8.1.6:N
```

Figure 2

your ability is to notice the required “man” in the manual process. Let a set of scripts do the work, and let the hanging concurrent manager occupy the DBA’s mind.

Oracle Applications Release 10.7 was fairly simple to replicate and copy. Then came 11.0.x and 11i; Oracle has hidden port numbers, web listeners, and configuration files throughout the gigabytes of application files. The ones you may find one time, you may miss the next – it’s virtually an impossible game of hide and seek.

As described at OAUG’s Fall 2000 conference, Michael Barone and I have worked on a set of scripts we call “APPS-Automagic.” These scripts simplify the common tasks of automated database startup, shutdown, database refreshes, and database copies.

For a small company, these tasks may be miniscule, but at my company – a \$7 billion company with significant affect on the global automotive market – it’s a serious topic. With seven European plants on Release 10.7 (with a future upgrade required) and the upcoming eighteen-plant North American implementation, the success of the Oracle Applications here rides on leveraging such ideas and processes.

We will investigate two of the simpler, yet no less valuable parts: *11icmd* and *11icheck*. *11icmd* is the script that allows the DBA to start/stop instances with one command. For example: **oracle\$> 11icmd start VIS** will start all of the required processes, with the correct port numbers which are read from the *porttab_v11i* reference file.

11icheck is the script that quickly surveys the environment

continued on page 46

WEB RESOURCES: DATABASE ADMINISTRATION IN ORACLE APPLICATIONS

OAUG Conference Papers

This article is an excerpt from Justin’s Fall 2000 Conference paper, “Apps-Automagic: Be An Apps 11 DBA in 60 Minutes,” available on OAUG’s Conference Paper Database (www.oaug.org/prot/members/db_instr.html). Other database administration papers include:

- “Building a 100% Reliable Backup and Recovery for Oracle Apps,” by Dan Hotka
- “All About Oracle Database Fragmentation,” by Craig Shallahamer
- “Confessions of a Hacker: Diagnosing and Solving Applications Technical Problems,” by John Huschka
- “How to Make the Most of Your Standby Recovery Database,” by Mark Farnham
- “Upgrading to and Administering Release 11i: A Technology Perspective,” by Kent Noble

The Spring 2001 Conference will also feature many papers on database administration. Attend the conference, or visit the paper database two weeks prior to the conference to review these new papers.

OAUG Listservers

OAUGnet and *OAUGnet-DBA* provide an open forum for discussions of Oracle Applications, including database administration. Post your question here, or visit the archives for past discussions. See page 90 for subscription instructions.

OAUG Emporium

The OAUG Emporium is your one-stop resource for books on all aspects of Oracle Applications, including a wide range of books on database administration. OAUG members receive discounted prices on all books. You can also order OAUG Conference Proceedings CDs and OAUG logo items from the Emporium. Visit the OAUG Emporium at www.oaugemporium.com

Figure 1

