



# SYSMAN for Improved Management of Restarts

Robert Gezelter, http://www.rlgsc.com







As a courtesy to your fellow attendees, please verify that all electronic devices are set on silent or vibrate.





## History

- Present STARTUP.COM dates from approximately VAX/VMS 5.0
- Before that, there was no STARTUP database
- ♦ Unfortunately, many continued to modify SYS\$MANAGER: SYSTARTUP\_VMS.COM
- ♦ There is a better way: the STARTUP database

SYSMAN for Improved Management of Restarts





Present day OpenVMS STARTUP Sequence

- ♦ Controlled by SYS\$SYSTEM: STARTUP.COM
- Details contained in STARTUP databases
- As shipped, two databases:
  - ♦ VMS\$VMS.DAT and VMS\$LAYERED.DAT





#### STARTUP Phases

- ♦ Defined in sys\$startup: vms\$phases.dat
- Defaulted to INITIAL, DEVICES, PRECONFIG, CONFIG, BASEENVIRON, LPBEGIN, LPMAIN, LPBETA
- Phases can be added as needed

SYSMAN for Improved Management of Restarts



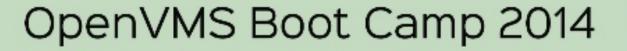


#### Location of STARTUP Databases

### **♦SYS\$STARTUP**:

- ♦ SYS\$SYSROOT: [SYS\$STARTUP], SYS\$SYSROOT: [SYSMGR]
- **♦ SYS\$SYSROOT translates to:**
- ♦ SYS\$SYSDEVICE: [SYSn.], sys\$sysdevice: [SYSn.SYSCOMMON.]







STARTUP Database: vms\$LayereD.Dat

- ♦ Normally in common [SYS\$STARTUP]
- ♦Search looks in sys\$startup:





Invocation of SYLOGICALS.COM

Normally invoked by SYS\$STARTUP:VMS\$DEVICES.COM





## STARTUP Logging

- **♦STARTUP\_P2** contains a "D", output log will be written to **SYS\$SYSTEM: STARTUP.LOG**
- ⋄can be set in SYSBOOT, SYSMAN, SYSGEN





#### General Pattern of STARTUP Files

- ♦ [SYS\$STARTUP] < facility > \$STARTUP.COM
- ♦SYS\$MANAGER:<facility>\$SYSTARTUP.COM





#### PCSI and STARTUP Database

- PCSI kits can automatically add entries to the STARTUP database
- No manual editing of startup files is required





Example: startup\$interactive\_logins

- ♦Used as part of enabling logins in VMS\$LPBEGIN-050\_STARTUP.COM
- ♦Should be defined in SYLOGICALS.COM



Live examples







## Summary

- **STARTUP** is your friend
- You can use the STARTUP database
- **STARTUP** allows multiple operations in parallel
- **STARTUP** allows better control of system starts





#### **Questions?**



## OpenVMS Boot Camp 2014 Questions



Slides and other materials:

http://www.rlgsc.com/openvms-bootcamp/2014/sysman-restarts.html





#### **Robert Gezelter Software Consultant**

35-20 167<sup>th</sup> Street, Suite 215 Flushing, New York 11358-1731

> gezelter@rlgsc.com http://www.rlgsc.com

Voice: +1 (718) 463 1079