



OS 2200 DEVOPS

DevOps within ClearPath OS 2200 / Dorado

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Common misconceptions

Perceived pain points

- ClearPath OS 2200 is a legacy system
- CI/CD is a no go
- No available integration with DevOps tools
- OS 2200 cannot run opensource tools and languages



Busting the myth

ClearPath systems are legacy

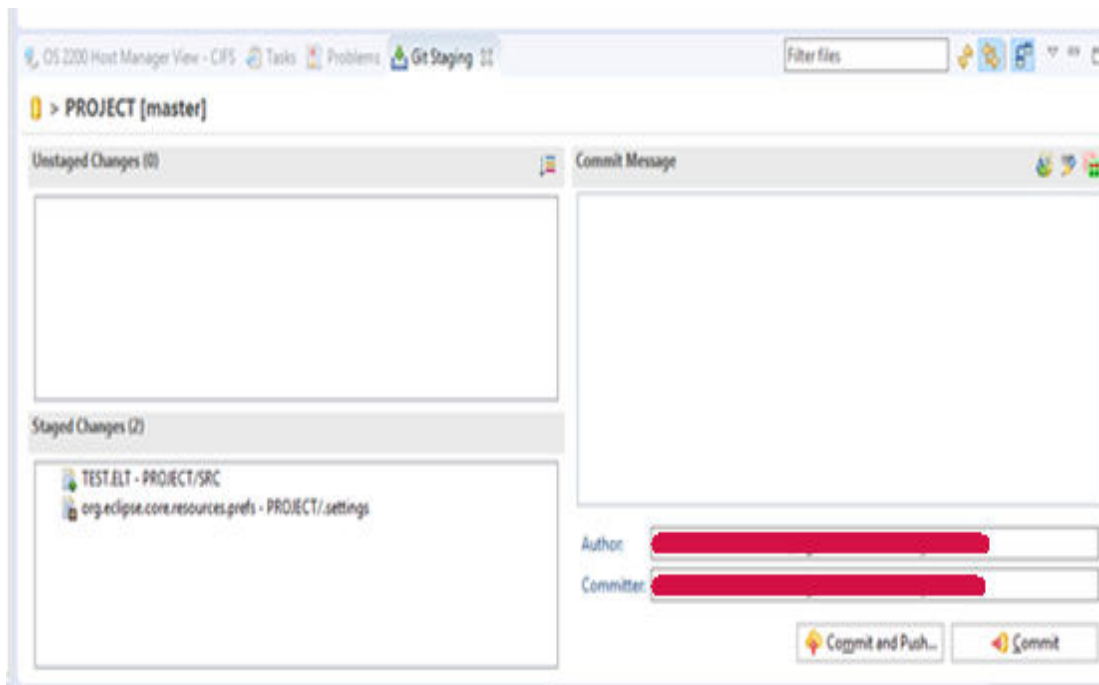
- ClearPath systems are one of the most diverse ecosystems in the industry
 - In addition to “legacy” programming languages
 - Windows .Net applications in ePortal, ABSuite etc
 - Java/Python applications in EPPs
 - Q-Processor for MQ
 - Etc.
- CP19 Extension brings native support within OS 2200

Developing on ClearPath OS 2200

- Unisys Eclipse for OS 2200
 - 2nd most popular IDE in the industry
 - Support for ClearPath programming languages
 - Seamless integration with the OS 2200 filesystem
 - Ability to compile, build and view errors from within the IDE
 - Syntax checking/highlighting and autocomplete
 - Real-time debugging using PADS
 - Git/SVN/TFS integration for OS 2200 projects
 - Work directly on the repository
 - Use IDE to pull/commit/push changes

Unisys Eclipse and Git/SVN/TFS

- Interact directly with OS 2200 source maintained in Git/TFS/SVN
- Team API compliant
- EGit bundled along with Eclipse



Continuous Integration/Deployment – OS 2200

- Jenkins
 - No native support, but its not the end of the road
- Example integration
 - Uses the telnet interface
 - Scriptable syntax, provides flexibility in running OS2200 tasks
 - Direct integration within Jenkins
 - Can be extended to run complex tasks, similar to a Jenkins pipeline

Telnet script – example

```
user:userid
pass:encrypted_pass
system:dsys

:start
@start lib*systemd.run3
timeout 300
print starting run 3
if 'RUN3 FIN' then step2
if 'RUN3 ERROR FIN' then error
if 'RUN3 ABORT FIN' then error

:step2
get lib*systemd.run3/out

:step3
@start lib*systemd.run4
timeout 300
print starting run 4
if 'RUN4 FIN' then step4
if 'RUN4 ERROR FIN' then error
if 'RUN4 ABORT FIN' then error

:step4
get lib*systemd.run4/out

:step5
compare lib*systemd.run3/out lib*systemd.run4/out
print $result
stop
```

Continuous Integration/Deployment – ePortal, ABSuite

- Standard Microsoft applications
- Visual Studio integration with Git, VSTS and other SCM tools
- Build with MSBuild or standard devenv
- Restful Web APIs to manage ePortal

Jenkins pipeline – an example

- ePortal webservice with OS 2200 tip transaction
- ePortal and OS 2200 code checked-in to git
- Git webhooks into Jenkins
- When new change is pushed
 - Build and stage ePortal using devenv
 - Deploy ePortal using WebAPIs
 - Build and deploy OS 2200 tip transaction
 - Run Automated tests

Extension kit (CP19 onwards)

- Industry standard scripting using Python (SSG)
- Access user files using Python/Java
- Native Git and SVN support
- Open Source programs
 - Bash
 - Grep
 - Git
 - Curl
 - ...
 - And more



We are not done...

In the works

- Extension kit
 - TIP support
 - DMS access
 - Performant RDMS access

- Unisys OS 2200 Eclipse
 - Syntax highlighting for ECL
 - Customisable colour schemes
 - Python support
 - Write and execute python scripts directly on OS 2200 from Eclipse IDE



Q&A / Discussion

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Thank You

