

Keeping Current with Progress Releases

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Essentials

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About me...

- Over 30 years of Progress experience
- Always focused on operations - database, performance, BC/DR, installation & configuration
- Worked for Progress for some time
 - “Everything but legal and accounting”
 - Product Manager for the installation team for three years

- Avid BBQ Addict



Essentials

Essentials delivers cost-effective foundational IT solutions so you can focus on growing your business. It's what you need, when you need it – stabilized infrastructure, a rock-solid network, strengthened cybersecurity, and modernized business operations – all made simple and affordable.

We adapt best-in-class practices for small businesses, delivering greater simplicity, affordability, and efficiency, so you can focus on growing your company.

Essentials Team

- Who we are

Combined 158 years of OpenEdge DBA experience

- 5 onshore DBA's
- 2 offshore DBA's

- Migration Experience

- AIX to AWS – 1.5 TB database in ~ 4 hours
- Classic AppServer to PASOE – ...

Agenda

• What does keeping current mean?

- Quick overview of OpenEdge release layout
- Our environment
- What we do to keep current
- Additional Topics
- Summary

Keeping Current

- Running on a Long Term Supported (LTS) release
- Staying on the latest update
 - Being “almost” up to date
 - Testing, testing, testing
- If you can afford the risk of staying on the latest and greatest...
- If you can afford to update every 6 months...

Catching Up...

- It hurts, at first, to get current
- Planning and using the release landscape makes it much easier
- Understand why you need to be current
 - Security?
 - Feature/Functionality
 - The dreaded “support” statement...

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OpenEdge Release Explanation

- Three parts to it: A.B.C
 - A = Major Version
 - B = Minor Version
 - C = Update (formerly Service Pack)
- Major Versions
 - 9, 10, 11, 12, ??
- Minor Versions
 - 9.1, 10.2, 11.7, 12.2
- Updates
 - 9.1D, 10.2B, 11.7.20, 12.2.16
- Other - There is another level for special installs (debugging etc.) that Progress may have you do in some circumstances.

OpenEdge Release Explanation – Hidden Gems

- R-code compatibility
- Process you have to / should run
- Watch out for compatibility issues with other software
- How to install as someone other than root

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Our Environment

- OpenEdge 12.2
- Two applications, four environments each (DEV, TEST, UAT, PROD)
- 16 databases total
- 103+ AWS Linux 2 servers*
- ~6K users
- Database sizes: 200 GB to 3.5 TB
- We run EVERYTHING as a service account
 - This becomes important when applying updates
- Security patching is paramount in our environment

Our Environment (2)

- AWS Linux 2 (soon to be AWS 2023)
- Products we run
 - OpenEdge AEE Database
 - OpenEdge Management
 - OpenEdge Replication – replication sets
 - Progress AppServer for OpenEdge (PASOE)
 - Character User Interface / Graphical User Interface (CHUI & GUI)
 - AI log shipping for DR to alternate AWS region
 - Pro2Oracle

Our Environment – Business Requirements (3)

- Stay within 90 days of the current “patch”
- Address Security issues within a very short time.
- Reboot Linux every 30 days
- CI/CD – Three-week deployment schedule for schema changes (Non-prod)

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What We Do to Keep Current

- Install from the “outside in”
- Process is wholly scripted!
- Four scripts
 - Setup – Staging software
 - Step 1 – Backing up so we can recover quickly
 - Step 2 – Applying update
 - Step 3 – Backup new installation bits
- Validation occurs within every step and can't continue until everything is verified.
- Backout plan is to restore the backup – 5-minute recovery

What We Do to Keep Current (2)

- Reboot Linux servers every 30 days (goal)
- Stay within 90 days of the current OpenEdge LTS update we are on
 - Review update notes for any potential issues
 - Review PANS since release of Update for any potential issues
- Our Luxury – nightly outage (except Saturday) to clean up and restart things
 - Storage area maintenance
 - Apply Schema
 - Non-prod is typically a 15-20 minute outage
 - Prod is typically a 20-25 minute outage

Scripts – Setup / Configuration

- OE_update.cfg
 - Sets up the configuration environment
 - DLC, DLCWORK, Environment specific variables
- upgrade.ini
 - This is the INI file that feeds the silent install process.
- setup.sh
 - Untars installation
 - Copies PASOE instances.unix file for step 1
 - Verifies directories are ready for installation

Scripts – Backup and Installation

- update-step1.sh
 - Backs up DLC
 - Backs up PASOE instances
 - Verifies the backup
- update-step2.sh
 - Applies the update
 - Validates the update
 - Runs custom configuration tailoring for environment
- update-step3.sh
 - Makes a backup post update for disaster recovery purposes

Scripts – Recovery

- `backout*.sh`
 - Backs out the update from DLC installation
 - Backs out the update from PASOE instances
 - Runs custom repair processes that are needed

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Additional Topics

- This could all work for a new installation instead of an update!
- Sometimes being on the bleeding edge hurts...
- SecureCRT can be your best friend or your arch enemy
- Make sure you have compatible installations (12.2 vs. 11.7 vs. 12.8)

- Sample scripts listed here are available for you to start with

Additional Topics (2)

- Our example schedule
 - Updates occur twice a week (Tuesday & Thursday)
 - Happens during night processing
- 5-10 servers per night
- Databases are done last
 - Non-prod – night processing
 - Production – during infrastructure weekend (Monthly)
- Process is completed (with server reboot) within 20 minutes
- Complete the whole update in 4 weeks

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- It is in our best interest to stay relatively current
- This can be 98% automated – be careful of what you wish for...
 - We have run this over 200 times and are still leery of complete automation
- Ancillary processes are always a challenge (ie. Adminserver)

Contact Information

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