How to Administer a PGDB

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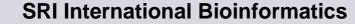
Getting Ready to Release

- **Decide on release frequency**
  - Don't wait until it's perfect to release it!
- **Run consistency checker**
  - Also updates organism-summary statistics
- **Update publications, authors in organism frame**
  - Right-click on organism, Edit->Frame Editor
- **Update Overview**
- **Deposit PGDB in SRI PGDB registry**
  - Will allow SRI to include it in BioCyc
- **Create new version of PGDB**
  - Edit against the new version, old version visible through web site
  - How to ensure web server sees right version?
- **Author release notes**

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Administering the Web Server

- **Web server is written entirely in Lisp!**
- **May need to restart server periodically**
- **We use website monitor to page admin when site is down**
- **http://xyzcyc.org/load-patches**
- **http://xyzcyc.org/purge-cache**
- **When an error occurs:**
  - (setf cwest::*debug?* t) to enter debugger

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Using RDBMS for Storage

- **Either Oracle or MySQL**
- **Enable concurrent multi-user updates**
- **Backup KB to File command from Pathologic**
- **Show Changes**
  - Lists all changes for a particular database object in reverse chronological order
  - Internal Ocelot representation of changes

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Show Changes

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Update Propagation

- **New version of Pathway Tools includes updates to MetaCyc**
  - New/updated compound structures, names, synonyms
  - Updated reaction substrates, EC numbers
  - Updated pathways
    - names, reactions, layout
    - pathways may be split into sub-pathways
  - New pathways, reactions, compounds
  - Duplicate reactions, compounds merged
- **Automated schema upgrade does not propagate any of these changes**

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Update Propagation

- **(propagate-updates-from-metacyc orgids)**
  - Internal tool – not user-tested!
  - Assumes any differences are due to changes in MetaCyc
  - Propagates only selected slots
  - Logs all changes, suggested changes – check results carefully!
  - Updates compounds, reactions
  - Updates pathway names, but not topology
  - Reports on differences in topology
  - Does not infer any new pathways
  - Work in progress!

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