

Pathway Tools and BioCyc: Recent Progress and Future Directions

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- Two releases per year in Feb and Aug
- Major releases: Software, databases, and Web site
- Minor releases: Databases and Web site only



Version 8.0

- Pathway hole filler
- Protein features: schema, query, visualization, editing
- Navigator main menu redesigned



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Version 8.5

- Cellular Overview and Omics Viewer Improved
 - Users can create combined displays of gene expression, proteomics, metabolomics, and reaction flux measurements on the Omics Viewer
 - Drawing speed is improved
 - Metabolic pathways in the Overview are now grouped by pathway class
 - Zooming of the diagram is supported (desktop version only)
 - The periplasm and outer membrane have been added to the diagram, as have those proteins present in the periplasm and outer membrane
 - The layout of the Cellular Overview can be computed completely automatically by PathoLogic in a new PGDB
- Compound stereochemistry supported
- Support for JME chemical editor, molfile import/export

Version 9.0

- New genome browser
- More compact pathway diagrams
- Improved operon depictions
- Windows version performs better as a Web server, and is easier to install

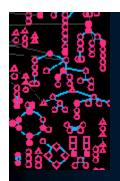


- Version 9.5, Sept 2005
 - New interfaces to Oracle and MySQL
 - Cell Component Ontology (CCO) introduced
 - Overview:
 - Display omics data on individual pathways
 - Save omics-viewer displays to files
 - Magnified views of pathways in Web Overview
 - Comparative genome browser
 - Comparative pathway analysis methods available
 - Cross-species comparison for pathways and reactions
 - Generate Genbank files from a PGDB



Version 9.5

- Added Marvin chemical structure editor
- Hyperlinks within comment text
- Reaction merging
- Transport identification parser
- PathoLogic runs under Windows
- PathoLogic handles pseudogenes
- PathoLogic can use other organism PGDBs for pathway prediction



Version 10.0, March 2006

- Added support for Gene Ontology
- New author crediting system
- New ptools-local directory
- New initialization file ptools-local/ptools-init.dat
- Auto-checkpointing of PGDB updates
- Find-Reaction-By-Substrates extended
- Compound windows link to regulated enzymes
- Gene and protein windows show sequence length



Coming in Version 10.5

- Generate metabolic poster and genome poster
- Overview semantic zooming
- Spell checker within editing tools
- New sequence retrieval dialog
- New source of sequence data for hole filler
- Hole filler will work under Windows
- Compound duplicate checker
- Consistency checker available through GUI



Coming in Version 11.0

- New advanced query form
- Better support for signaling pathways
- Metabolite tracing in the Overview