

PyCell Studio, Version 4.2.3, Release Notes

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Introduction

Welcome to PyCell Studio, Version 4.2.3, released 2008-04-02.

This is not an April Fool's joke. We can't tell you what we did, but we know you will like it. Version 4.2.3 is like an iceberg; the most important changes are below the surface. This release is faster and uses less memory compared to previous releases of PyCell Studio, and compared to our competition.

See Change Requests for specific differences from Version 4.2.0.

These release notes summarize the important enhancements, bug fixes, and other changes which have been made since Version 4.2.0. For complete technical details, please see the related documentation.

New Features and Enhancements

1. Pyros
 - Persistent rulers
Graphical rulers remain on-screen.
 - Improved redraw speed
Hierarchical designs are redrawn much faster. Environment variable CNI_PYROS42_HIER_DEBUG is no longer supported.
 - Multi-parameter stretch handles
Ciranova stretch handle protocol supports multi-parameter stretch handles. Pyros layout viewer enhanced to demonstrate this capability.
2. Wing IDE
Persistent values in the Ciranova > New PyCell Project form when returning to a previously defined project.
3. API Enhancements.
 - Instance.flatten(), InstanceArray.flatten()
Flatten instance to simple shapes, returned as a Grouping. Connectivity from within the instance is not preserved.
 - Grouping.flatten()
Recursively flatten lower levels of Grouping within a Grouping.
 - Path.getBoundary()
New option, orderFollowPath, to return boundary points in same order as the path.
 - PointList.onEdge()
Detects whether a point is on the edge of a PointList.
 - PointList.containsPoint()
Detects whether a point is contained withing the area inside a PointList.

- `PointList.isSelfIntersecting()`
Detects whether a `PointList` intersects itself.
- `PointList.getArea()`
Return the signed area enclosed by a `PointList`. Following standard convention, area is positive when `PointList` is ordered counter-clockwise, negative when ordered clockwise.

4. OpenAccess version

PyCell Studio Version 4.2.3 ships with OpenAccess 2.2p072. Support for OpenAccess 2.2 Data Model 4 is coming up soon!

Change Requests

Like many companies, Ciranova uses Bugzilla (www.bugzilla.org) to track change requests. As yet, Ciranova does not have a publicly accessible request tracking system. If your request was assigned a Bugzilla number, you should have been notified by Ciranova technical support when it was closed. Otherwise, you can check the following listing of Bugzilla requests which were closed for this release.

2008-04-02

- 273 Request persistent rulers in Pyros
- 395 Pyros should automatically re-synch for new submaster
- 447 Request API for flattening an instance
- 448 Pyros shows empty display for Contact with large number of cuts
- 724 Stretch handles in Pyros are wrong when instance is not R0 orientation
- 1009 Request Grouping.flatten() method
- 1020 Performance issue with cngenlib --view and Spiral Inductor
- 1465 CNI130 & CNI180 Santana.tech to be updated for connectivity
- 1510 Changes for consistent help message and options in cntechconv
- 1560 Enhance PointList to have an ordering method
- 1567 Viewers should check for oaInst without submaster binding
- 1585 Request documentation stop using "i" and "ii" page notation
- 1590 Abutment documentation to specify only level1 pin shapes are involved
- 1591 Stretch handle documentation to specify only level 1 properties are used
- 1592 Stretch handle documentation to provide multi-parameter example
- 1598 Pyros should support multi-parameter stretch handles
- 1602 Remove irritating disclaimer from cndispconv
- 1621 cntechconv to support conversion from an OpenAccess technology library
- 1639 Pyros redraw during instance update is still slow
- 1643 Use cni130 tech node for all documentation examples
- 1647 od2 enclosure rules in cni130 need to be fixed
- 1656 Pyros shows busy cursor when dialogs are displayed
- 1657 Wing IDE shows wrong Ciranova version
- 1665 Random Seg Fault when closing Pyros
- 1673 Use of Grouping affects time to exit DloGen
- 1693 Default behavior for environment variable CNI_LOG_DEFAULT is unfriendly
- 1728 PyCell Explorer core dumps when technology file rule does not exist
- 1729 Pyros repeatedly complains about unrecognized layers in display defs
- 1732 Should not copy pcells from one OA library to another OA library
- 1741 cntechconv enhanced to supported techDerivedLayers()
- 1744 Technology consistency check crashes PCell plug-in
- 1745 cnexp -V should not generate banner message
- 1754 cngenlib fails on windows debug
- 1758 Abutment error causes Pyros to crash
- 1759 cnpy aborts when a library has no tech attached
- 1762 Wing IDE to show project setting, enable changes in different sessions
- 1774 Cannot use ParamArray.add() in cnexp
- 1775 segfault after calling ParamArray.toOA()
- 1776 Segfault after destroying dlo and exiting with Ctrl+D
- 1782 pyros segfaults when and instance is rotated and then stretch handle is dragged