

API RBI Software Release Status

API RBI User Group

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Software Development Goals

- Goals
 - Minimize operating system dependencies and installation problems with Windows/Office applications
 - Decrease the time and cost for software development and implementation of new technology
 - Decrease the time for software testing and validation
 - Reduce the incidents of bugs
 - Facilitate maintenance and distribution
 - Eliminate outdated or redundant functionality
- Software Product:
 - Enterprise Network product
 - Standalone PC-based installation
 - World class software tool
 - Support multiple databases (MySQL, MSSQLServer, Oracle)

Status Summary

- Software Status:
 - V8.0.05 released for use in late spring 2006
 - V8.01 current production version of the API RBI software, released late summer
 - V8.02 due out late fall
- Third Party Review of Consequence modeler

Version 4

- Development:
 - Web based tool intended to be distributed and operated over an internet/intranet
 - Personal Web server user interface (GUI)
 - Fortran calculator
- Status:
 - Web based tool found to be too slow for practical application
 - Personal Web server still an MS tool with system conflicts
 - Overly complex architecture
 - Abandoned development in late 2002

Version 5

- Development:
 - Standalone PC-based product
 - Java GUI – completely redeveloped from V4 functionality and form layouts
 - MySQL database
 - Fortran calculator with additions and improvements
 - User and Administrative Guides and Interoperable specification provided
- Status:
 - Released 2/2004
 - Used in limited application as first “production” release
 - Replaced by V6 2/2005

Version 6

- Development:
 - Improvements to GUI, Fortran calculator and database functionality
 - Speed improvements in navigation and calculations
 - Initial Network, multi-user functionality
 - Added MS SQLServer and Oracle database capabilities
 - Added Database browser (PC) and remote node
 - Improved guides and documentation
- Status:
 - Released 2/2004
 - Replaced by V7 2/2005

Version 7

- Development:
 - Fully Network, multi-user capabilities through collaboration with individual user companies
 - Currently operating network at three locations
 - Script Wise installation process to replace relatively manual installation
 - Added Import/Export interface for user data management
 - + Manage data in Excel for PC based applications
 - + Remote Node data from MySQL database to enterprise database
 - Added equipment types and damage mechanisms for thinning
 - Improved guides and documentation
- Status:
 - Released 2/2005
 - Validation testing provided input to production release 9/2005
 - Will be replaced by V8 in 4/2006

Version 8.0

- Development:
 - L2 Consequence modeler revision to inventory calculations
 - API RBI Service was rewritten to prevent shutdown of all services when user logged off
 - Normalization of database
 - + Eliminated reference tables
 - + Split tables with multi-functionality (e.g. separate input from calculated results, separated damage types)
 - + Restructure comments handling
 - + Develop automatic upgrade from V7 database structure
 - Server Changes
 - + Changes required for removal of reference tables
 - + Implement caching of static data to improve performance
 - + Implemented new filter capabilities – expanded filter choices, Added AND
 - + Improved/Added report capabilities
 - + Allow up to 12 instances of the server on a single server computer
 - Improved guides and documentation, Re-written BRD consistent with V8 capabilities
 - Interface with Meridium V3
- Status:
 - Released 4/2006

Version 8.01

- Development:
 - Consequence modeler fluid additions and calculation improvements
 - + Inventory liquid/vapor level input and inventory calculations returned
 - + toxic model creates a new fluid when consequence model is changed from original to new.
 - Remote node Unit drag/drop populates Corporation and Plant
 - Import/export Excel tool extended to SQLServer and Oracle applications
 - Reports:
 - + Inventory group reports components assigned to each inventory group
 - + Material code reports materials assigned to components
 - + Modified PRV inspection history report
 - + General review and clean-up of report content and formats
 - Add Inspection history GUI alert in PRV
 - Swap eeg databases directly from application
 - Further speed and database optimization improvements
 - + modify caching to improve database performance for large databases
 - Improved guides and documentation, Re-written BRD consistent with V8.01 capabilities
- Status:
 - Released 8/2006

Version 8.02

- Development:
 - HE bundle module improvements
 - Increase PRV protection for up to 20 Components
 - Consequence modeler fluid additions and calculation improvements
 - Validation and Calibration of new consequence modeler (L2) with old (L1) consequence model
 - Report additions and Improvements, as possible
 - Further speed and database optimization improvements
 - Improved guides and documentation, Re-written BRD consistent with V8 capabilities
- Status:
 - Release due late 2006

Scarab Site

- 104 entries since V7
- 78 Closed
- Currently 25 Open Issues

Category	Issues
Consequence Modeler	6
Cracking	1
Inspection Planning	1
Lining	1
Metric	2
PRD	5
PRD, Report	2
Report	1
Tank	2
Thinning	2
Translator	2
Total	25

V8.02+

- Encourage wide-spread production use of V8.02 for pressure vessels, piping, bundles, tanks and PRD's
- Identify GUI improvements based on production use
 - Increase use of J-tree navigation
 - Broaden use of file filter
 - Reduce navigation actions by identifying shortcuts (eg. calculation to inspection planning)
- Report additions and improvements
- Bug fixes, as identified
- Improve speed, network installation operation and optimize database structure, as identified