



Aras Innovator 9 Release Notes



Aras Innovator 9.4

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Release History

Version	Date	Comments
9.0.0	02-22-2008	Initial Release
9.0.1	05-27-2008	Planned Maintenance Release
9.0.2	09-06-2008	Planned Maintenance Release
9.1.0	02-28-2009	Planned Maintenance Release
9.1.0 SP1	04-03-2009	Patch Release
9.1.0 SP2	04-24-2009	Patch Release
9.1.0 SP3	05-22-2009	Patch Release
9.1.0 SP4	07-17-2009	Patch Release
9.1.0 SP5	10-19-2009	Patch Release
9.1.0 SP6	12-30-2009	Patch Release
9.1.0 SP7	01-10-2011	Patch Release
9.2.0	04-01-2010	Planned Maintenance Release
9.2.0 SP1	06-14-2010	Patch Release
9.2.0 SP2	10-21-2010	Patch Release
9.2.0 SP3	01-03-2011	Patch Release
9.2.0 SP4	03-02-2011	Patch Release
9.2.0 SP5	04-05-2011	Patch Release
9.2.0 SP6	08-31-2011	Patch Release
9.3.0	06-10-2011	Planned Maintenance Release
9.3.0 SP1	01-06-2012	Patch Release
9.3.0 SP2	03-12-2012	Patch Release
9.3.0 SP3	04-30-2012	Patch Release
9.3.0 SP4	06-15-2012	Patch Release
9.3.0 SP5	09-05-2012	Patch Release
9.3.0 SP6	12-20-2012	Patch Release
9.3.0 SP7	02-19-2013	Patch Release
9.3.0 SP8	04-29-2013	Patch Release
9.4.0	07-31-2013	Planned Maintenance Release



1 Overview

The following sections provide a high level overview of the Enterprise Solutions included in the initial installation.

1.1 Aras Program Management

Aras Program Management is for performance driven companies of all sizes that require a practical solution for managing phase-based projects in a milestone & deliverable structure across the company and around the world with suppliers and customers.

Aras Program Management delivers strategic value by providing visibility across the entire portfolio of project programs. The solution combines executive dashboards based on real-time roll-ups of actual project management activities and deliverables with enhanced project status reporting. Team members collaborate effectively by simultaneously accessing the project plan online from anywhere in the world to get the latest status, receive updates, upload information, and complete activities. Traffic light indicators provide managers up to the minute status at a glance focusing attention on activities or projects that require action. Aras Program Management incorporates the PMI principles for managing projects.

Project templates define company standards and incorporate best practices as a starting point for future projects. The shared project knowledge repository enables projects to get started quickly. The Web-based solution improves program operations by standardizing similar project types and improving communication across the enterprise and with suppliers and customers.

Unmatched flexibility enables application modification to address specific competitive practices and provides the foundation for continuous improvement leading to greater effectiveness and shorter cycle times. Aras Program Management interoperates seamlessly with the other Aras solutions for Product Engineering and Quality Planning as well as new solutions created. When combined Aras solutions deliver comprehensive business functionality or use each independently to compliment existing systems and leverage previous technology investments.

1.2 Aras Product Engineering

Aras Product Engineering is for performance driven companies of all sizes that require a practical solution for product definition and change management across the company and around the world with suppliers and customers.

Aras Product Engineering delivers strategic value by providing actionable dashboards for visibility into key development indicators increasing productivity and streamlining development operations to improve profitability. Manage the product definition processes securely online to develop high quality products on time and on budget. Web-based change management workflow processes reduce cycle times and control product information release between departments, divisions, suppliers, and customers for effective coordination. Product and process information reuse increases productivity. Aras Product Engineering incorporates the CMII principles for Configuration Management and includes alternate workflows for simple change processes (ECO/MCO).



Unmatched flexibility enables application modification to address specific competitive practices and provides the foundation for continuous improvement leading to greater engineering effectiveness. Aras Product Engineering interoperates seamlessly with the other Aras solutions for Program Management and Quality Planning as well as new solutions created. When combined Aras solutions deliver comprehensive business functionality or use each independently to compliment existing systems and leverage previous technology investments.

1.3 Aras Quality Planning

Aras Quality Planning is for performance driven companies of all sizes that require a practical solution for managing quality planning and risk management processes across the company and around the world with suppliers and customers.

Aras Quality Planning delivers strategic value by providing a process-based approach to managing risks and preparing quality compliance documents for preproduction planning and product launch. Customer specifications, compliance requirements, and lessons learned from previous projects are captured in “templates” and become standard for all new product projects ensuring that the latest knowledge is incorporated. The Web-based quality planning solution improves product development operations by re-using information across parts, plants, and documents. Aras Quality Planning incorporates principles for Quality Planning found in the Advanced Product Quality Planning and Control Plan reference manual (APQP) and Potential Failure Mode and Effects Analysis reference manual (FMEA).

Unmatched flexibility enables application modification to address specific competitive practices and provides the foundation for continuous improvement. Aras Quality Planning interoperates seamlessly with the other Aras solutions for Program Management and Product Engineering as well as new solutions created. When combined Aras solutions deliver comprehensive business functionality or use each independently to compliment existing systems and leverage previous technology investments.



2 Product Features

The following section provides a brief overview of the features included in Aras Innovator 9. The sections describe the features for each Solution as well as an overview of some of the most significant enhancements to the Aras Innovator Enterprise Application Framework.

2.1 Aras Innovator Enterprise Application Framework

Aras Innovator includes numerous features within the Enterprise Application Framework, most of which are specifically designed to support the Solutions.

2.1.1 Single Sign-On

The Aras Innovator Single Sign-On feature provides a mechanism for companies to take advantage of an existing user authentication scheme so that an Aras Innovator login can be processed without the user entering an Aras Innovator specific password.

This feature has been architected so that it can be easily configured to adapt to an Active Directory / LDAP environment or, if the company has another user authentication scheme, hooks have been included to integrate a non-standard method.

2.1.2 Relationships to Multiple Item Types

An Aras Innovator administrator is now able to create a relationship definition that has multiple Item Types as the target of the relationship. This new feature, known as a PolyItem, greatly simplifies the task of creating Aras Innovator data models in which one item type must reference various other item types. Use a single relationship rather than creating a relationship for each and every Item Type referenced.

Another benefit for the end user is that now a single tab consolidates a large set of related Items in a single, tabbed view.

2.1.3 Aras Innovator Service

The Aras Innovator Service is a Windows executable program that runs as a Windows Service. It is used to automatically run Aras Innovator Methods on a periodic schedule, as specified in the InnovatorServiceConfig.xml file.

A single running instance of the Aras Innovator Service can be configured to periodically connect to any number of Aras Innovator Servers and for each Aras Innovator Server run any number of Methods. The standard Windows Event Viewer is used for logging program status and error messages.

Examples of Aras Innovator Service uses are:

- Running a Method that creates and sends Workflow reminder emails
- Running a Method nightly that creates a report and mails it to a set of users
- Running a Method nightly that updates time sensitive information for various item types



2.1.4 Combined In Basket

Aras Innovator has three types of user assignments – Workflow Activities, Project Activities, and FMEA Action Items. The Aras Innovator InBasket consolidates these assignments so that a user can view all their assignments on a single screen.

Each user can control their In Basket display to include assignments by type and/or status in any combination of the following;

- Type – Workflow Activity, Project Activity or FMEA Action Item
- Status – Active or Pending

2.1.5 Globalization and Localization Support

Aras Innovator has introduced the support of several features to support a user interface that can be adapted to the language and locale of the user.

Localization

- Multi-Lingual properties that display property based on locale defined language
- Toolbars and menus can be customized to local specific languages
- Display Date, Float, and Decimal properties based on region and language settings on client

Corporate Time Zone

- Ability to define a specific time zone as the Corporate Time Zone for the Innovator Server. This time zone will be used as a universal reference for Aras Innovator instances used across multiple time zones.



2.2 Aras Program Management

The following provides an overall summary of features in the Aras Program Management solution. This list is a high level summary and is intended to provide a general overview of the Solution functionality.

2.2.1 Dashboard Consoles

Dashboards are used to quickly display the status of the entire project portfolio or a specific set of program projects. Dashboards display traffic light indicators so executives and project managers focus on the projects or activities that require their attention. Users can quickly filter dashboards by a variety of fields to view only relevant projects.

2.2.2 Phases, Milestones, and Work Breakdown Structures (WBS)

Aras Program Management provides project managers with the ability to organize projects in the context of a WBS with related milestones as defined by the PMI Project Management principles.

WBS elements are used to organize a project in a work context that is important and relevant to product development operations. In many cases, companies use WBS elements to model program phases to support a phase-based project management model where phases can be defined to run sequentially or concurrently. In other situations, a project manager may want to break down projects by department or by functional areas of a product.

Milestones can be defined within the context of the WBS to identify and establish critical dates to which the project must be managed. Special scheduling options are available to allow the project manager to specify if the project plan is completely driven by milestone dates or by the scheduled start or finish dates.

2.2.3 Deliverables

Deliverables are the essential outputs of a product development project. They can consist of basic documents such as specifications, design documents or financial plans. Alternately, they can include Engineering Change documents, Bills of Material, Quality Planning documents (such as FMEAs, Control Plans and Process Flow Diagrams), and other items from custom solutions.

Aras Program Management is seamlessly integrated with standard Aras Innovator document management functionality as well as the Product Engineering and Quality Planning solutions to provide direct linkage to all of the deliverables identified above. The ability to manage the in-process status of the deliverables in real time, in the context of the project plan, is essential to providing the appropriate depth of information to executives and project team members.

2.2.4 Project Templates

Project templates standardize the phases, milestones, activities, and deliverables by project type and provide the consistent starting point for new projects. Project templates enable the designation of different project structures for different project types, product families or product lines, manufacturing sites, or customers.



Deliverables, activities, or compliance requirements can be embedded in a template to ensure inclusion.

Lessons learned from previous projects can be included in templates moving forward institutionalizing continuous improvement. Project templates provide a single project knowledge repository. In addition, standardized templates provide a consistent framework for KPI metrics.

2.2.5 Scheduling

Aras Program Management supports multiple scheduling algorithms; forward, backward and milestone scheduling.

Forward scheduling allows project managers to create dependencies between any activities and milestones to define precedence for all planned activities. This method uses the target start dates and durations as the basis for driving target completion dates for activities, milestones and the project as a whole.

Backward scheduling applies the principles in setting precedence, but uses target completion dates as the basis to set and plan activity start dates.

Milestone scheduling provides a more basic phase-based scheduling model without the associated complexity of activity and milestone precedence.

2.2.6 Resources

Resource assignments are modeled easily by creating project team definitions in each project template. When a new project is created from a template, individual assignments are automatically created throughout the project by simply identifying the users that will be fulfilling each role on the project team.

Individuals are able to track and respond to their assignments by reviewing their personal InBasket view in Aras Innovator. The InBasket provides each user with a list of their activity assignments that can be filtered and sorted by project, status, date or other criteria. This capability fosters a highly collaborative and accountable environment in which each user is responsible for the progress and status reporting of activities.

2.2.7 Activity Management

Activities and actions can be managed based on schedule and cost. Each user has an in-basket with assigned activities. The system automatically flags an activity that could have a negative impact on the project schedule based on definable business rules. All members of the team have instant visibility into all of the project activities and the current status of each. Activities can reference predecessor activities that must complete prior to the start of the successor activity.

Each activity can have associated timesheets where users record time spent on a given activity. The information can be used to calculate the amount of time and resource dollars spent on a given project.



2.2.8 Reports

Providing a set of popular reports allows companies to focus time on their business needs, not on creating reports. Aras solutions provide robust and easy to use reports and utilize the Reporting Services capabilities of Microsoft SQL Server for custom report writing.

Standard reports can be further customized to create company, site, or industry specific versions.

Prepackaged reports include:

- ♦ Gantt Chart
- ♦ Resource Time Report



2.3 Aras Product Engineering

The following provides an overall summary of features in the Aras Product Engineering application. This list is a high level summary and is intended to provide a general overview of the Solution functionality.

2.3.1 Engineering Change Management

Aras embeds Problem Report (PR), Engineering Change Request (ECR), and Engineering Change Notice (ECN) documents and workflows that conform to the CMII principles along with alternate options for simplified workflows for Engineering Change Order (ECO) and Manufacturing Change Order (MCO). The CMII engineering change workflow includes a Fast Track option for quick processing and standard reports based on the CMII reference model. The Aras change management functionality helps companies:

- Control product information changes between departments, sites, divisions, suppliers and customers worldwide
- Increase visibility into pending and released changes and the items affected by the changes
- Automate and streamline change control processes with online, graphical workflow

Both the ECR and ECN allow referencing of items that are affected in the change process. Actions can be associated with each affected item such as add, change, and delete.

2.3.2 Document Management

Centralized vaulting of documents and files with association directly to a product or part, combined with a change management environment helps companies control intellectual property and collaborate effectively over the Internet. Document management is used to store, search and control a product's requirements, specifications, and related documentation as it evolves and changes over the lifecycle of the product. The document definition allows multiple files to be attached to a single document item with classification-based metadata descriptors.

2.3.3 BOM Management

Aras Product Engineering provides the ability to define a multi-level product Bill-Of-Material structure (BOM). A BOM is a hierarchical list of sub-assemblies, components, and/or materials that make up the higher level component, assembly, product or system. Nested BOM structures are supported.

2.3.4 Alternate and Substitute Parts

Parts can be defined with a list of Alternate parts. Alternate parts represent globally interchangeable replacements that meet the required form, fit, and function requirements. Alternate parts can be used in place of the original part during manufacturing, field service, or maintenance repair and overhaul without compromising quality or reliability.

Substitute parts are BOM-specific Alternates. Substitute parts can only be used in place of the original part for the designated Bill-Of-Materials.



2.3.5 AVL/AML

Approved vendor lists (AVL) and approved manufacturers lists (AML) can be defined and linked to specific parts. Manufacturer/Vendor-specific information such as data sheets, catalog numbers, certification status, and other important information for the externally acquired or manufactured parts or material can be maintained. Support for AVL/AML definitions enables a company to create, share, manage, and track supplier performance status on a part-by-part basis.

2.3.6 Classification Driven Parts & Documents

Classification provides a robust way to manage complex types of part and document definitions bound by a predefined structure. Class properties are hierarchically inherited so relevant data is captured for each item within the context of its parent structure. Starter classification structures are provided and attached to the part and document definitions. These structures can be extended to best represent unique classification requirements.

2.3.7 State-Driven Business Processes

Business objects governed by state-based intelligence enable software to directly reflect a company's process. A lifecycle definition can be assigned to items within Innovator which then governs the allowed set of states (e.g., New, Prototype, Production, etc.) that an item can exist. Each entry or exit into a different state can change access permissions, send notification, and trigger custom business logic. The application provides predefined lifecycle maps on the following Items:

- ◆ Parts & Documents
- ◆ ECRs, ECNs, PRs
- ◆ AMLs, AVLs

Additionally, ECN workflow logic automatically controls promotion to different states as workflow is completed.

2.3.8 Design-to-Goal

Parts can have defined goals such as cost and weight. Every part can be defined with a target, estimated and actual values. Overall rollups are dynamically calculated by evaluating a Part's entire BOM structure. Rollup of cost and weight of complex product structures enables one to evaluate goals against estimated and target values to determine engineering effectiveness and predictability in goal achievement.

2.3.9 Scorecards

Tracking key performance indicators (KPIs) is important to business success. Aras provides the ability to define metrics and display the results graphically using scorecard charts. Each metric series can include a hyperlink to open a specific item, to generate a report, or to invoke other custom business logic. Aras provides several standard KPI metrics for product development. These KPI metrics enable companies to focus better on strategic activities & innovation to increase overall product development effectiveness. Standard scorecard charts include:

- ◆ Product Innovation
 - # of changes per quarter: Product Improvement vs. Corrective Action



- Changes by origin
- ♦ Engineering Efficiency
 - Change cycle time: Fast Track vs. Standard Process
 - Time spent in each department
- ♦ Design to Goal
 - Cost vs. Goal
 - Weight vs. Goal
- ♦ Engineering Optimization
 - Parts used in multiple products
 - # of new parts by quarter
- ♦ Time to Manufacturing
 - Average time to release to manufacturing

2.3.10 Reports

Providing a set of popular reports allows companies to focus time on their business needs, not on creating reports. Aras solutions provide robust and easy ways to use reports and utilize the Reporting Services capabilities of Microsoft SQL Server for custom report writing.

Standard reports can be further customized to create company, site, or industry specific versions.

Prepackaged reports include:

- ♦ Multi-level BOM
- ♦ Quantity Rollup Report
- ♦ BOM Costing Report
- ♦ Problem Report (PR Report)
- ♦ PR Log Report
- ♦ ECR Report
- ♦ ECR Log Report
- ♦ ECN Report



2.4 Aras Quality Planning

The following provides an overall summary of features in the Aras Quality Planning solution. This list is a high level summary and is intended to provide a general overview of the Solution functionality.

2.4.1 Failure Mode & Effects Analysis (FMEA)

FMEA functionality helps companies identify and mitigate reliability risks during design, development and engineering. Aras supports two types of FMEAs: Product Design FMEAs (DFMEAs) and Manufacturing Process FMEAs (PFMEAs).

As opposed to using spreadsheets, Aras FMEA functionality is supported by a centralized database creating a true set of living documents. FMEA information is accessible online over the Internet simultaneously by multiple users enhancing collaboration.

A process-based approach drives FMEA characteristics through related quality planning and product development documents for consistency, coordination, and control.

2.4.2 FMEA Actions

FMEA Actions are activities within Aras. Actions are initiated and assigned to a specific person and then appear in the person's in-basket. As Actions are completed they are removed from a person's in-basket and the entire product development project team is immediately aware of the status for enhanced collaboration. Reports provide a quick snapshot as to the overall product FMEA status.

2.4.3 Process Flow Diagrams

Process flow diagrams (PFDs) graphically define the production process providing a definition of the steps and stages during manufacturing and focusing the product development team on the overall process as opposed to individual parts or operations. Process flow diagrams are integrated with FMEAs and Control Plans for data reuse, consistency, and coordination.

2.4.4 Control Plans

Control Plans define the characteristics, inspection & test parameters, and specification measurements and tolerances for a new product to meet quality, reliability, and customer requirements. A Control Plan describes the mechanisms and actions required at each step of the manufacturing process to assure consistency and minimize variability.

2.4.5 Application Sensitive Data Entry

Intelligent grids enable complex data relationships to be easily displayed and edited in a spreadsheet-like format. The intelligent grids automatically merge cells or create nested branches to simplify document creation and improve usability. Grids can easily be extended and configured to include additional information while retaining formatting and data integrity.



2.4.6 Libraries

Specific libraries can be established to standardize fields such as Failure Modes, Effects, and Control Mechanisms. Fields can be grouped by product family or product line, customer-specific requirements, supplier capabilities, or other categorization methodologies. Standard fields make creating quality documents fast and easy and simplify data analysis.

2.4.7 Quality Plan Linkages

Aras maintains relationship links between quality planning items throughout the product's lifecycle so that when information is updated in one place it is automatically added to other related items. FMEAs, Control Plans, and PFD's are integrated so that the required information, such as the characteristics and operations, is shared between all documents automatically.

Quality plans can be accessed directly or from the Part Item so product development teams have the necessary information at their fingertips. Team members can add additional information to quality plans easily facilitating collaboration. Information linkage reduces the time and resources needed to gather the relevant information for reporting or submitting to a customer, or for auditing.

2.4.8 Part Family Support

Part families allow for a creation of a single FMEA to be shared by multiple parts. This reduces the amount of data that needs to be entered and maintained and provides consistent documentation across an entire line of products. Changes and updates made in one place propagate automatically to all the connected documents.

2.4.9 Product Templates

Product Templates provide a standard basis for new products with a consistent set of embedded requirements for product development. Templates enable the designation of different quality requirement structures for different project types, product families or product lines, manufacturing sites, or customers. Compliance requirements can be embedded in a template to ensure inclusion.

Field failure and reliability testing results from existing products can be included in templates moving forward institutionalizing continuous improvement. Product templates provide a knowledge repository of product development quality practices. In addition, standardized templates provide a consistent framework for future data analysis.

2.4.10 Document Management

Documents are created and stored in a secure, centralized database providing online access, intellectual property control, data & document reuse, and document linkage relationships. The Web browser-based system includes comprehensive revision change control based on the CMII principles for configuration and change management and maintains a complete revision history (see Aras Product Engineering section).

2.4.11 Reports

Providing a set of popular reports allows companies to focus time on their business needs, not on creating reports. Aras solutions provide robust and easy to use reports



and utilize the Reporting Services capabilities of Microsoft SQL Server for custom report writing.

Standard reports can be further customized to create company, site, or industry specific versions.

Prepackaged reports include:

- ◆ Design FMEA
- ◆ Process FMEA
- ◆ FMEA Actions
- ◆ Process Flow Diagram
- ◆ Control Plan



3 Upgrading from Previous Releases

There are two potential states from which a customer may wish to upgrade to Aras Innovator 9.4.

1. Aras Innovator 9.3 is running in production and you wish to upgrade to the Aras Innovator 9.4 release
2. You are running a version of Aras Innovator that is previous to release 9.3.

The following sections will provide you guidance as to how to upgrade from any of the three described states.

3.1 Upgrading to Aras Innovator 9.4 from Aras Innovator 9.3

For customers with an active Premiere Subscription, Upgrade Services are available to migrate your production Aras Innovator 9.3(any service pack) version directly to Aras Innovator 9.4.

Customers with an active Premiere Subscription can request Upgrade Services by contacting Aras Support at support@aras.com.

3.2 Upgrading to Aras Innovator 9.4 from Earlier Releases

Customers with an active Subscription should contact Aras Support at support@aras.com to discuss the available options.



4 Bug Fixes and Known Issues

4.1 Version 9.4.0

Aras Innovator 9.4.0 is a maintenance release. The primary objective of the release is to introduce new features and capabilities in an Open release to the Aras Community. Its secondary objective is to deliver support for Windows 8, Internet Explorer 10, and Windows Server 2012.

4.1.1 Enhancements in 9.4.0

4.1.1.1 Enterprise Application Framework

- Framework Features
 - Introduce support for TRUaras, an advanced Managed File Transfer service from Trubiquity. This service allows users to securely exchange files of any size with customers, suppliers and others from within Aras Innovator. TRUaras provides tracking, traceability and an audit trail of every file transfer for compliance purposes.
 - Improve support for the Baseline Versioning Discipline. Simplify the required configuration steps, reduce version proliferation and focus on common use cases.
 - Introduce flexible feature activation and license management capabilities for Aras Subscriptions and Add On solutions. Allowing administrators to quickly and easily enable new features from within the Aras Innovator environment.
 - Improve FileType definitions with clearer, more consistent names and descriptions. Add new FileTypes for commonly used Microsoft Office, CAD, and industry-standard files.
 - Improve special character handling in simple search
 - Update the Classification dialog to refine "Expand All" and "Collapse All" options, provide class filtering capabilities and automatically highlight the currently selected class
 - Improve handling of locked items in Configurable Grids
 - Introduce a new mechanism for caching static content to improve system performance
- Platform Support
 - Introduce support for Internet Explorer 10
 - Introduce support for Windows 8 as a client operating system
 - Introduce support for Windows Server 2012 as a server operating system
- Installer
 - Allow additional framework license attributes to be added in the main installer



4.1.1.2 Product Engineering

- Extend the Authoring Tools List to include tools supported by Aras Office Connector and CAD Connectors.
- Documents
 - Add new Document Types and template properties to support standard Office Connector functionality
 - Thumbnail image now available on the Document form
- CAD Documents
 - Incorporate all features from the 9.3 "CAD Hotfix" (Hotfix 016146)
 - New bounding box coordinate properties allow the storing of the graphical extents of CAD models
 - New CAD instance capability to allow CAD Connectors to manage instance-specific information such as transformation matrices
 - New CAD variables allow definition of length and angular units, and transformation matrix format
 - Add labels to commonly-used properties, for display within CAD Connectors
 - CAD uniqueness set to Document Number plus Type, to allow CAD models and drawings to have the same number, if desired
 - Improve where-used display in the CAD Parents tab
 - Improve CAD structure handling by disabling the PE_DeleteCADStructure method on the CAD ItemType
 - Improve performance of CAD connectors using database query optimization techniques
- Express ECO Impact Matrix
 - Improve the query and refresh performance of the Impact Matrix
 - Allow users to easily remove unnecessary rows
 - Improve configurability of the Impact Matrix user interface by making it change item agnostic. This change only makes the Impact Matrix user interface configurable, not the required server side change processing logic.

4.1.1.3 Program Management

- Improve user feedback while updating and scheduling project activities

4.1.1.4 Utilities

- Improve the Batch Loader utility, by enhancing its ability to cancel a load operation quickly and cleanly



4.1.2 Issues Fixed in 9.4.0

Framework

Issue #	Description
006768, 021678	Improved display of versionable Items on Desktop
012296, 019157	Removed restrictions that prevented the use of some special characters in the search criteria.
012719, 013699, 015193	Resolved problems with Saved Searches on the Root Level in TOC
014485	Problems caused by automatic escalations of Workflow Assignments were eliminated. Sign-off Tabs on Simple MCO and Express ECO now update properly on escalation.
015054, 018487	Introduced support for displaying a Form Item on a TOC Category.
016494	Introduced managed file exchange
017064	Added Filtering to Classification Dialog, enhancing the usability of the classification dialog for large class hierarchies
017177	Added new facilities to programmatically manage configurable grid behavior.
017845	Fixed issues with re-sizing Where Used Dialog
018533	Increased display to allow the Assigned To column in InBasket to allow more than 32 characters
018692	Improved performance of Pick Related Action in Relationship Grid. Eliminated loading extra information and triggering unrelated events. The "get" action for Search Browser population is performed with level 0 instead of 1.
019314	Made it possible to set the stored_length value in the user interface on Property items of data type "List".
019719	Improved installer to use a single MSI file for x64 and x86 systems
021159	Eliminated problems with Paste Special for Parts and Documents.
021507	Exceptions in relationship grid w/ Sort across pages were eliminated
021827	Improved code of the configurable grid to better handle situations where the lock status of items is out of sync between the client and the server.
021876	Improved performance of History Tracking

Product Engineering

Issue #	Description
013682	Improved performance of ECN promotion.
014067, 015305, 016380, 018229	Significantly improved performance of Impact Matrix grid and query during initial load and refresh.
014217, 014578	Corrected Multi-Level BOM Report to properly reflect repeating nodes.
014372	Updated the 'Simple Change' Workflow Map to set the 'Cancel Change' activity as an End Activity
015119, 016110	Implemented "Delete Row" action in the Impact Matrix in Express ECO
016226	Added Thumbnail image property to the Document ItemType and Form
016191, 016315, 016615	Updated ECOs to move Documents and CAD Documents from In Review to Preliminary state when their ECO is rejected from In Review back to In Work.



016269	Incorporated all features from the 9.3.0 "CAD Hotfix" (Hotfix 016146) into the standard product
016270	Improved CAD structure handling by disabling the PE_DeleteCADStructure method on the CAD ItemType
016315, 018084	Affected Items on Simple ECOs are returned to Preliminary state when the Simple ECO is voted to reject the changes and the Workflow Process returns to the "Draft Changes" Activity.
016529	Improved Has Changes Flag calculation to exclude DCOs in the Cancelled state.
016621	Extended the Authoring Tools List to include tools supported by Aras Office Connector and CAD Connectors.
016676	Affected Items on ECNs are returned to Preliminary state when the ECN is voted to reject the changes and the Workflow process returns from "Review Documents" Activity back to "Update Documents" Activity
016982, 017971	Thumbnail images on forms scaled down to 150x150 pixels
016984	Added new Document Types and template properties to support Aras Office Connector functionality
016987	Improved FileType definitions with clearer, more consistent names and descriptions. Added new FileTypes for commonly used Microsoft Office, CAD, and industry-standard files.
017077	CAD ItemType unique key to include both Document Number (item_number) and Type (classification) to allow CAD models and drawings to have the same number, if required.
017078	Added labels to commonly-used properties for display within CAD Connectors
017233	Updated the "external_id" property on the CAD ItemType and Document ItemType to be indexed for better performance.
017259, 017850	Introduced CAD instance capability to allow CAD Connectors to manage instance-specific information such as transformation matrices
018317	Updated the "Superseded" state of the CAD Life Cycle Map to be flagged as a released state.
018318	Updated the "Superseded" state of the Document Life Cycle Map to be flagged as a released state.
018319	Updated the "Superseded" and "Obsolete" states of the Part Life Cycle Map to be flagged as a released state.
018441	Multi-Level BOM relationship view on Parts greatly improved load time for large BOM structures
019133	On Express ECO Affected Relationship is now updated when Related Item is versioned.
019375	The Authoring Tool property on Document and CAD ItemTypes are now visible in grids in order to easily see the source tool of the file
019376	Introduced new bounding box coordinate properties to allow storing the graphical extents of CAD models
019946	Eliminated alignment issues in ReverseItemGrid.html
020402	Signoffs Tab "Vote Now" improved to allow keyed_name with double quotes.
020914	Introduced the ability to reuse the Impact Matrix grid UI on other change order ItemTypes. This portability is still dependent on the Affected Items metadata and does not change the server side requirements of the grid functionality.
020920	When a CAD Document has multiple Parts related to it and shows the Parts tab, the tab displayed properly with no webpage error.
021027	Eliminated problems with identifying the correct BOM against the Affected Item Relationship when a Part Item is versioned on "Start Work" vote in Express ECO
021311	Errors with copying CAD item were eliminated
021732, 021733	Eliminated issues that could occur with versioning parts through the New Number column on Impact Matrix in Express ECO



022368, 022369	Improved the CAD Document "Parents" tab to show both linked and unlinked parent CAD Documents, giving a more accurate representation of where-used status.
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Program Management

Issue #	Description
016344	Improved performance of Schedule Project and Update project for projects with thousands of activities.
016562, 021500	Fixed inconsistent behaviors in Project grid UI
017926, 018725, 018950	Fixed an issue that prevented an Item opened from the Deliverables Tab of Program Management Activity from executing actions that spawned a modal dialog such as the "Add to Change..." Action and the "Revisions" dialog.
018572	Improved performance of GetActivitiesNumbers method in Program Management. As a result Project load time improved up to 10 times.
021740	Fixed issues with date arithmetic in Program Management.

Quality Planning

Issue #	Description
012223	Characteristics related to linked module operations in a Process Planner can be prevented from being deleted from Part, Process Planner, or Module via the Characteristics Browser Dialog. If the deletion is not allowed, a proper notification is presented to the user.
021514	Eliminated issues when a user deletes a Process Planner which has FMEA Actions and the FMEA Actions have owner.

Tools and Utilities

Issue #	Description
014881	Improved the Batch Loader "Stop" button so it no longer requires all transactions to be failed and logged before the process stops.
021517	The Aras CAD to PDF Conversion Rule is extended to include all valid CAD file extensions which can be processed by the HOOPS Converter.
022245	Updated the Aras CAD to PDF Converter to use HOOPS Converter version 1.11

4.1.3 Known outstanding issues in 9.4.0

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.



011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
016670	<p>If you edit Activity2 to change the Precision of the property "rollup_actual_work", a deadlock error can occur.</p> <p>"Transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim...."</p>	<p>In SQL Server 2005, the error occurs because of an issue with the user defined data type. Subscribers can contact Aras Support at support@aras.com for assistance fixing this manually.</p> <p>Alternately, the issue has been resolved in SQL Server 2008, and upgrading to the latest version will eliminate the issue.</p>
021945	Baseline versioning discipline on Part BOM is not compatible with the Impact Matrix	
021946	Baseline versioning discipline on Part BOM is not compatible with the multi-Level BOM Structure relationship	



4.2 Version 9.3.0 Service Pack 8

Aras Innovator 9.3.0 SP8 is a patch release. Its primary objective is to introduce the Aras CAD to PDF converter. Its secondary objective is to fix a small number of critical issues identified by Subscribers.

4.2.1 Enhancements in 9.3.0 SP8

4.2.1.1 Enterprise Application Framework

- Framework
 - Introduced CAD to PDF conversion capabilities to enable creation of viewable files and thumbnails of multi-level multi-file CAD assemblies.
- Usability
 - Improved the user interface for right to left languages like Hebrew
- Tools and Utilities
 - Enhanced the configuration options of the Package Import Export Utilities.

4.2.2 Issues Fixed in 9.3.0 SP8

Framework

Issue #	Description
020134	Introduced new walkthrough documentation for developers implementing new applications in the Conversion Server.
020341	Improved the error message given when the search criteria specified cannot be displayed in the search mode
020528, 020530, 020781	Fixed a parser error that could occur when attempting to run a "SELECT *" as part of Innovator.applySQL against a table for a versionable ItemType.
020730	Enhanced the parameters grid to display the properties according to the sort_order defined on the Properties of the ItemType. Previously, the order was determined by name and could not be overridden.
020822	Fixed error in Workflow Maps that caused Workflow Processes to become stuck on an Activity with wait for all inputs during a loopback through the process.
020982	Enhanced configurable grid to retain the previous value entered if new search is cancelled when editing Item cells.
021011	Fixed error that could cause the main grid to load larger or smaller than the available frame when switching search modes.
021133	Introduced the Aras CAD to PDF converter.
021136, 021254, 021266, 021269	Improved support for right to left languages (e.g. Hebrew) data entry and display in grids.
021151, 021673	Fixed error that could occur when working with an Item that has relationships with a NULL related_id, when a value is expected.

Tools and Utilities

Issue #	Description
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016677	Improved the logging of the Package Import Export Utilities
021655	Added the ability to specify a target manifest file for the command line utility of the Package Import Export Utilities.

4.2.3 Known outstanding issues in 9.3.0 SP8

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
016670	If you edit Activity2 to change the Precision of the property "rollup_actual_work", a deadlock error can occur. "Transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim...."	In SQL Server 2005, the error occurs because of an issue with the user defined data type. Subscribers can contact Aras Support at support@aras.com for assistance fixing this manually. Alternately, the issue has been resolved in SQL Server 2008, and upgrading to the latest version will eliminate the issue.



4.3 Version 9.3.0 Service Pack 7

Aras Innovator 9.3.0 SP7 is a patch release. Its primary objective is to fix a small number of critical issues identified by Subscribers. Its secondary objective is to enhance the performance of the API's used by CAD integrations.

4.3.1 Enhancements in 9.3.0 SP7

4.3.1.1 Enterprise Application Framework

- Framework
 - Introduced the ability to override the metadata cache on the client
 - Improved the performance of the PE_GetResolvedStructure API
- Usability
 - Introduced the ability to unlock Items while voting without changing tear-off windows.



4.3.2 Issues Fixed in 9.3.0 SP7

Framework

Issue #	Description																																							
013909	Introduced the ability to unlock the Item associated with a Workflow Process from the Activity Voting dialog.																																							
020031	Fixed issue with Internet Explorer 9 cache that caused files from the vault to fail to display the second time the end user views the File Item.																																							
020137	Introduced a Variable Item "Aras.Client.MetadataService.Url.Salt" that can be used to force the metadata cache to reload. By increasing the value of the variable by 1, the end users will refresh the metadata cache the next time they log in.																																							
020283	Fixed an error that causes the AssignmentID for the onClose event of a Workflow Process Activity to return the related_id for the Activity Assignment. The AssignmentID for the onClose event of a Workflow Process Activity now correctly returns the ID of the Activity Assignment.																																							
020311	<p>Enhanced the performance of the PE_GetResolvedStructure Method for large CAD assemblies.</p> <p>1) The first requirement was to tune how repeated nodes were evaluated to reduce the memory required on the server.</p> <p>2) The second requirement was to fix an error in the result of the action getItemRepeatConfig. The bug occurred when the same node repeated in the structure multiple times. In the CAD structure below labeled "Full", note that the same CAD Item C appears 3 times in the complete structure.</p> <table><tr><th>Full</th><th>9.3.0 SP6</th><th>9.3.0 SP7</th></tr><tr><td>A</td><td>A</td><td>A</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td>B</td><td>B</td><td>B</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td>+--+--+</td><td>+--+--+</td><td>+--+--+</td></tr><tr><td>C D C</td><td>C D C</td><td>C D C</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td>E C E</td><td>E C</td><td>E C</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td>F E F</td><td>F E</td><td>F</td></tr><tr><td> </td><td> </td><td></td></tr><tr><td>F</td><td>F</td><td></td></tr></table> <p>The CAD structure labeled "9.3.0 SP6" the result of getItemRepeatConfig for the same CAD Item is shown. Note that CAD structure shows incorrect behavior that when an Item is repeated in a structure but at a different levels. The entire item sub-tree is returned again in the AML instead of just a reference to the first occurrence.</p> <p>In the CAD structure labeled "9.3.0 SP7", note that CAD structure shows the correct behavior that when an item is repeated in a structure only a reference to the first occurrence is returned.</p> <p>3) Finally, a recommended template was developed for situations where the CAD structure generates AML that still consumes large amounts of memory to process on the server and load on the client. The template is intended for use by CAD integration developers as an alternative to using select="*" as a starting point for development. A targeted query helps reduces the size of the return for large CAD</p>	Full	9.3.0 SP6	9.3.0 SP7	A	A	A				B	B	B				+--+--+	+--+--+	+--+--+	C D C	C D C	C D C				E C E	E C	E C				F E F	F E	F				F	F	
Full	9.3.0 SP6	9.3.0 SP7																																						
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	<p>assemblies.</p> <pre> <AML> <Item type='CAD' id='5B0D68A3D4CE487B8AE4066D0832A515' action='PE_GetResolvedStructure' resolution='AsSaved' select='authoring_tool,authoring_tool_version, classification,config_id,description, external_id,external_owner,external_type, generation,id,is_current,item_number, locked_by_id,major_rev,name,native_file, state,thumbnail,viewable_file'> <Relationships> <Item type='CAD Structure' select='classification,config_id,external_id, external_owner,external_type,generation, id,is_current,major_rev, related_id,source_id' repeatProp='related_id' repeatTimes='0' /> <Item type='CAD File' select='id, related_id'> <related_id> <Item type='File' select='id, filename' > <Relationships> <Item type='Located' select='file_version, related_id(id, vault_url)' /> </Relationships> </Item> </related_id> </Item> </Relationships> </Item> </AML> </pre>
020326	Fixed issue where clicking on the vertical scroll of a grid causes horizontal scroll reset to original position.
020393	Fixed issue where main grid will fail to load when selecting an ItemType in the TOC
020505	Enhanced the Parameters grid to allow the use of the Filtered List data type

4.3.3 Known outstanding issues in 9.3.0 SP7

Framework		
Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have



		been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
016670	If you edit Activity2 to change the Precision of the property "rollup_actual_work", a deadlock error can occur. "Transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim...."	In SQL Server 2005, the error occurs because of an issue with the user defined data type. Subscribers can contact Aras Support at support@aras.com for assistance fixing this manually. Alternately, the issue has been resolved in SQL Server 2008, and upgrading to the latest version will eliminate the issue.
021011	When changing Search Modes, the main grid can load as a size different from the available frame	Resize the main window to force a refresh

4.4 Version 9.3.0 Service Pack 6

Aras Innovator 9.3.0 SP6 is a patch release. Its primary objective is to introduce the Japanese language option into the installer. Its secondary objective is to introduce the IOME.CheckinManager API.

4.4.1 Enhancements in 9.3.0 SP6

4.4.1.1 Enterprise Application Framework

- Framework
 - Introduced the Japanese language option in the installer.
 - Introduced a mechanism for passing information from the onBefore to the onAfter event handler in server side Methods.
 - Created the IOME.CheckinManager for multi-threaded, asynchronous, structured file upload with conflict detection support.
 - Introduced logic for preserving cookies in requests from managed code to better support reverse proxies.
 - Introduced support for AML compression in IOM.HttpServerConnection class.
- Usability
 - Improved performance of Save operation in Aras Innovator client

4.4.2 Issues Fixed in 9.3.0 SP6

Framework

Issue #	Description
006992	Introduced a mechanism of passing data between event handlers inside a single AML request. The introduced mechanism ensured that any event handler was able to add\modify\read the data. The introduced mechanism also ensured that the data was automatically discarded at the end of the request. Typically, the implemented mechanism was used to pass data between onBefore and onAfter event handlers.
013047, 019050	Fixed Simple Search in the relationship grid to allow searches on the first column in the grid. Typically the first column in a relationship grid represents "Locked By" property of the related Item.



016140	Created IOME.CheckinManager - incorporated multi-threaded, asynchronous, structured file upload and conflict detection capabilities into the API.
017880	Introduced support for the MHTML format in the report query for Reporting Services Report Items. (Parameter rs:Format=MHTML)
018037, 019217, 019809	Corrected the fixed/float behavior of a Property of type Item on an ItemType with is_relationship=1 to ensure the behavior flag specified on the Property definition will be obeyed as specified.
018283	Improved performance of Save operation in Aras Innovator client. The client mechanism responsible for update and synchronization of Aras Innovator client windows was made more efficient and robust.
019139	Introduced support for searching based on a Property of type Foreign in all standard search modes.
019246	Fixed issue that can occur when opening the search dialog on a Form for a property that references the ItemType "ItemType".
019277	New onChange event is introduced for a text field inside a toolbar.
019304	Introduced support for AML compression in IOM.HttpServerConnection class to improve performance of AML transfer.
019305	Included the Japanese language option in the installer
019476, 019547	Fixed an error that happened when the Relationship Tab fails to display the Form view after opening the Item window from the context of another Item window in Internet Explorer 9.
019539	Introduced support for recursive foreign properties.
019665, 019923, 019460, 020284	Restored Path property value in the context of the on_vote event. Added a new mechanism for obtaining all voting paths, if there was a vote of multiple paths.
020064	Introduced the logic in the client code that prevents the loss of the cookies attached to the requests to the server made from the managed code. This was necessary in order to support secure reverse proxies, VPN solutions, firewalls and portals.
020090	Enabled filters for inner tags or attributes in a Configurable Grid definition. For example: Relationships/Item[@type="MyRelationship"] [propofrelationship="123"] /related_id/Item[@type="MyRelated"] [name="myname"]
020237	Modified TreeGridContainer control to prevent performance detonation when a significant number of rows was added via AddXmlRow into the grid
020394	Improved COM accessibility of IOM.WinAuthHttpServerConnection class

Tools and Utilities

Issue #	Description
019791	Fixed error that could prevent the Batch Loader GUI from validating the AML used to vault a File.

4.4.3 Known outstanding issues in 9.3.0 SP6

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.



009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
016670	<p>If you edit Activity2 to change the Precision of the property "rollup_actual_work", a deadlock error can occur.</p> <p>"Transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim...."</p>	<p>In SQL Server 2005, the error occurs because of an issue with the user defined data type. Subscribers can contact Aras Support at support@aras.com for assistance fixing this manually.</p> <p>Alternately, the issue has been resolved in SQL Server 2008, and upgrading to the latest version will eliminate the issue.</p>

4.5 Version 9.3.0 Service Pack 5

Aras Innovator 9.3.0 SP5 is a patch release. Its primary objective is to provide localization enhancements of the installer to improve support for Japanese operating systems. Its secondary objective is to fix a small number of critical issues identified by Subscribers.

4.5.1 Enhancements in 9.3.0 SP5

4.5.1.1 Enterprise Application Framework

- Framework
 - Introduced localization capabilities into the installer.
 - Introduced Japanese text and prompts into the installer.
- Usability
 - Provided a simple method to modify TOC Categories, and allow multiple levels of folders in the TOC of the main window.

4.5.2 Issues Fixed in 9.3.0 SP5

Framework

Issue #	Description
016830, 018726	Improved the behavior of "Reset Life Cycle" process that is triggered when an Item in is saved in a life Cycle State with is_released=1. When an Item is returned to the Start state of the Life Cycle Map via the "Reset Life Cycle" process, Item permissions are set to the permissions specified on the Start state of the Life Cycle Map.
018080	Introduced support for a multilevel folder structure within the TOC.
018312	Introduced a modal warning dialog in the case where the User is attempting to copy a relationship which has been modified but has not been saved.
018385	Enabled onAfterCopy server event after Copy/Paste operation. When one performs Copy/Paste on a relationship, onAfterCopy server event is triggered.



018412	Eliminated failures to promote controlled Items from Workflow Process attached to versionable Items.
018542	Corrected errors when forming search criteria for multi-value list properties causing searches to use the Value label rather than Value value in the AML.
018611	Enabled proper invocation of Life Cycle Promotion from Workflow Processes when the controlled ItemType is versionable
018795	Improved the delete confirmation dialog to display the ItemType label instead of name, thus allowing localization of the displayed message where applicable.
018837	Refresh Icon was added to the Inbasket.
018861	Grid method addColumn is corrected.
018931	Eliminated check for the existence of the Item before calling an onAfterUpdate method. This is consistent with the behavior before version 9.3.0 SP1
018974	Error when unlocking and saving versionable dependent item is eliminated
019068, 019069	Performance of the "Export to Excel" feature from client grids containing large datasets is improved. Memory utilization of the operation is significantly reduced.
019135, 019138	Enabled support for query conditions against foreign properties in AML. As a result, there is no difference between AML involving foreign properties and AML querying direct properties. AML can be written without special consideration for the foreign properties data source.
019137	Eliminated issues caused by sorting available promotions list right before promotion. Ensured that item is always promoted to a selected lifecycle state.
019238	Localized the Aras Innovator installer for Japanese operating systems with user visible prompts and text in Japanese language.
019346	<p>Made possible through IOM.Item methods (like setProperty(..); etc.) to create the following AML:</p> <pre><Item type="Part" action="get"> <OR> <item_number>PartA</item_number > <item_number>PartB</item_number > </OR> </Item></pre> <p>Using C# the method code would look something like the following:</p> <pre>Innovator inn = this.getInnovator(); Item myItem = inn.newItem("Part", "get"); Item logOr = myItem.newOR(); logOr.setProperty("item_number", "PartA"); logOr.setProperty("item_number", "PartB"); myItem = myItem.apply();</pre>

4.5.3 Known outstanding issues in 9.3.0 SP5

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed



	checkout/checkin of files from a property of type Item with source File.	with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
016670	If you edit Activity2 to change the Precision of the property "rollup_actual_work", a deadlock error can occur. "Transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim...."	In SQL Server 2005, the error occurs because of an issue with the user defined data type. Subscribers can contact Aras Support at support@aras.com for assistance fixing this manually. Alternately, the issue has been resolved in SQL Server 2008, and upgrading to the latest version will eliminate the issue.

4.6 Version 9.3.0 Service Pack 4

Aras Innovator 9.3.0 SP4 is a patch release. Its primary objective is to provide enhancements for visualization capabilities in the conversion server. Its secondary objective is to fix a small number of critical issues identified by Subscribers.

4.6.1 Enhancements in 9.3.0 SP4

4.6.1.1 Enterprise Application Framework

- Framework
 - Enhanced conversion capabilities from Actify© to enable creation of viewable files and thumbnails of multi-level multi-file CAD assemblies.
- Usability
 - Provided a simple, visual mechanism in the filter criteria of the simple search mode, the filter criteria of the advanced search mode, and in configurable grids to launch secondary dialogs in addition to the F2 hotkey

4.6.2 Issues Fixed in 9.3.0 SP4

Framework

Issue #	Description
015727, 018464	Issues that can occur when parallel paths use looping in Workflow Map with Wait For All Inputs on automatic Activities are rectified.
016266, 018450	Relationship grids enhanced to eliminate issues displaying multi-valued list search criteria.
018211, 018316	Problems with method PE_GetResolvedStructure are rectified. Issues were related to calling the method with repeatTimes greater than 0 and to retrieving asReleased configurations.
018271	Enhanced Reporting Services portal page to allow the configuration to specify the domain in the portal login credentials.
018275	Provided a simple, visual mechanism to launch item search dialog in addition to the F2 hotkey in the simple search, advanced search and configurable grid.
018387	Failure to Float when a versionable item is referenced by two of more items



	belonging to the different Item Types is eliminated.
018401	Fixed issue that caused the Export to Excel and Export to Words buttons to become temporarily disabled on Relationship Tabs when they should be enabled
018456	Enhanced Actify-based Conversion server to enable creation of viewable files and thumbnails of multi-level multi-file CAD assemblies.
018456	Improved memory utilization of Innovator Server. Utilization of Heap memory reduced by factor of 10-20.
018468	Aras Innovator core code was changed to never substitute (float) related_id value with the id of the latest version of a child for relationships with "fixed" and "hard fixed" behavior flag.

4.6.3 Known outstanding issues in 9.3.0 SP4

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
016670	If you edit Activity2 to change the Precision of the property "rollup_actual_work", a deadlock error can occur. "Transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim...."	In SQL Server 2005, the error occurs because of an issue with the user defined data type. Subscribers can contact Aras Support at support@aras.com for assistance fixing this manually. Alternately, the issue has been resolved in SQL Server 2008, and upgrading to the latest version will eliminate the issue.

4.7 Version 9.3.0 Service Pack 3

Aras Innovator 9.3.0 SP3 is a patch release. Its primary objective is to deliver support for Microsoft SQL Server 2012. Its secondary objective is to fix a small number of critical issues identified by Subscribers.

4.7.1 Enhancements in 9.3.0 SP3

4.7.1.1 Enterprise Application Framework

- Framework
 - Support for Microsoft SQL server 2012



- Usability
 - Provided a simple, visual mechanism to launch secondary dialogs (item search, date, etc.) in addition to the F2 hotkey in the relationship grid
 - Improved the format of data exported via the Export to Excel option.
 - Introduced the ability to execute multiple onSearchDialog events.

4.7.2 Issues Fixed in 9.3.0 SP3

Framework

Issue #	Description
003990	Included an ellipsis button inside relationship grid cells to launch Item search dialogs
012604, 016351, 018442, 018445	Improved the format of data exported via the Export to Excel option.
013193	Issue with Method Editor invocation are eliminated by removing dependency on unused libraries.
015900, 017902	Eliminated failure in the SharePoint Integration for when using a dedicated user to download file
017163, 018050	Fixed issue to recursively invoking events from Life Cycle Transition
017983	Introduced the ability to execute multiple onSearchDialog events.
018043	New relationships with float behavior automatically adjusted at the instant of creation to point to a latest generation of a related item
018047	Fixed error in Workflow Maps that caused Workflow Processes to become stuck on an automatic Activity with wait for all inputs during a loopback through only one of the inputs.
018121	Introduced support for SQL Server 2012
018181	Enhanced history tracking on foreign properties.
018200	Removed GlobalSpec component search from the Search Center page
018294	Display issue with rendering a scrollbar on grid when TreeGrid is populated via API is eliminated

Tools and Utilities

Issue #	Description
017826	Package Import Export utilities fixed to import ItemType changes with action "edit" from the Fixes folder of a package

4.7.3 Known outstanding issues in 9.3.0 SP3

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent	If you intend to edit File properties of a manually-created version, always unlock the



	vaulted data during checkout/checkin of files from a property of type Item with source File.	version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
016670	If you edit Activity2 to change the Precision of the property "rollup_actual_work", a deadlock error can occur. "Transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim...."	In SQL Server 2005, the error occurs because of an issue with the user defined data type. Subscribers can contact Aras Support at support@aras.com for assistance fixing this manually. Alternately, the issue has been resolved in SQL Server 2008, and upgrading to the latest version will eliminate the issue.

4.8 Version 9.3.0 Service Pack 2

Aras Innovator 9.3.0 SP2 is a patch release. Its primary objective is to fix a small number of critical issues identified by Subscribers. Its secondary objective is to introduce new conversion server APIs.

4.8.1 Enhancements in 9.3.0 SP2

4.8.1.1 Enterprise Application Framework

- Framework
 - Introduced public APIs for use with the File Conversion Server
- Usability
 - Introduced the ability to view the Item properties dialog from the Item menu

4.8.2 Issues Fixed in 9.3.0 SP2

Framework

Issue #	Description
017380, 017832, 017435, 017434	Installer corrected to resolve problems with windows folder permissions in Windows Server 2008.
017998	Introduced a public API for the File Conversion Server.
015231	Resolved intermittent errors when opening the login window in a new Internet Explorer process.
014008, 013638	Fixed error instantiating a Workflow Process from a Life Cycle state when changes to the Workflow Map are made in the same session.
011163	Added the ability to view the Item properties dialog from an Item tear-off window.
013028	Form editor updated to eliminate issue in Internet Explorer 8 where Field position is moved outside of visible editor space when the Field label selected.
017454, 017376,	Corrected issue that caused error dialogs to load behind the InBasket vote dialog in Internet Explorer 9.



017833, 018048	
016997	Scrolling issues in relationship grid fixed.
014849	Updated the "Save As" functionality to set is_current=1 on the copy of the Item, when creating copies of non-current generations.

4.8.3 Known outstanding issues in 9.3.0 SP2

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
016670	If you edit Activity2 to change the Precision of the property "rollup_actual_work", a deadlock error can occur. "Transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim...."	In SQL Server 2005, the error occurs because of an issue with the user defined data type. Subscribers can contact Aras Support at support@aras.com for assistance fixing this manually. Alternately, the issue has been resolved in SQL Server 2008, and upgrading to the latest version will eliminate the issue.
017163	Post server event method is not fired on the Item that was promoted from method code executed during the post server event on another Items promotion.	



4.9 Version 9.3.0 Service Pack 1

Aras Innovator 9.3.0 SP1 is a patch release. Its primary objective is to introduce an integrated framework for file conversion within Aras Innovator. Its secondary objective is to fix a small number of critical issues identified by Subscribers.

4.9.1 Enhancements in 9.3.0 SP1

4.9.1.1 Enterprise Application Framework

- Framework
 - Introduced fully integrated framework to easily setup, administrate, manage and monitor file conversions within Aras Innovator
 - Introduced new visualization capabilities from Actify©, including the ability to convert native CAD files to a neutral format and visualize them in .3D files
 - Improved server debug logging to consolidate log files
 - Separate 32-bit and 64-bit installers introduced on InstallShield 2012 platform
- Usability
 - Improved client performance with client-side caching of Metadata
 - Performance enhancements to login
 - Introduced a mechanism to drag and drop files from inside the client to Windows folders
 - Introduced the ability to configure the "Item saved successfully" dialog to be optionally replaced with a popup notification

4.9.2 Issues Fixed in 9.3.0 SP1

Framework

Issue #	Description
012742	Grid alignment problems are eliminated.
013272	Problems with refreshing Reporting Services reports called programmatically from Client Methods are eliminated. API for opening new IE window in new Process is implemented. The method <code>OpenIEWindowInNewProcess</code> was added to class <code>Utils</code> .
014074	Introduce new visualization capabilities from Actify©, including the ability to convert native CAD files to a neutral format and visualize them in 3D
014075	Provide a simple mechanism to drag and drop files from inside the Aras Innovator client to Windows folders.
014802	Improved removal of Aras Innovator software from the server.
014920	Intermittent UI errors in relationship grid are eliminated.
015554	Improved the structure browser side-by-side comparison tool in Internet Explorer 9
015655	Fixed error that caused duplicate Workflow Activity reminders associated with versionable item.
015690	Eliminated errors with showing main tree in Internet Explorer 9
015704	Updated Internet Explorer 9 compatibility of the Workflow Map editor.
015713	Enhanced calculations of Workflow Escalation to support corporate time zones



015795	Issues with cursor shape over links in Internet Explorer 9 are eliminated
015796	Problems with viewing files in Internet Explorer 9 are eliminated
015797	Eliminated form display issues
015806	Eliminated Life Cycle Map display issue in Internet Explorer 7
015909	Problems with displaying Print Preview of a form with thumbnail image are eliminated.
015941	Improved server error logging to limit the amount of logging data stored in one file
016082	Problems with updating team identities are eliminated.
016117	Intermittent errors in relationship grid related to Team assignment are eliminated.
016234	Reduced installer size by converting scripts to UTF-8
016300	Eliminated calls to satellite assemblies on non-English OS. Significantly improved login performance for non-English clients.
016311	Eliminated Workflow Map editor issues in Internet Explorer 9
016362	Removed checks for cookies from the login.aspx file. This made caching of login.aspx possible and improved login performance.
016381	Performance during the evaluation of Team Identity membership improved.
016396	Fixed GetItemRepeatConfig action failures.
016410	Updated Client Side Debugging section of Programmer's guide to document Client Methods debugging in MS VS2010
016415	Obsolete PublishWS (Innovator Web services)web application is eliminated from Installation. Documentation was updated to remove configuration instructions for PublishWS.
016486	Problems with interaction between Item Version action and PolyItem are eliminated
016631	Eliminated context errors in InvokeAction to prevent loss of data when Item is modified from action.
016684	Improve Metadata Cache to store metadata persistently in browser cache utilizing cross-browser format. Improved performance between client invocations.
016787	Improved login performance by using Common Table expressions, when supported.
016799	Improved the installer to allow installation of the file conversion server component
015478, 012728	Enhanced usability by allowing the "Item saved successfully" dialog to be optionally replaced with a temporary popup notification indicating save status
015580, 016420	Problems with Multi-Valued List selection in Internet Explorer 9 are eliminated.
015949, 016390	Eliminated refresh problems with external image on a form
016539, 016725	Error when "onCompleteActivity" method programmatically promotes other Project Activities is eliminated. Follow up issue with event invocation on programmatically promoted Project Activities will be fixed later

Program Management

Issue #	Description
013477	Eliminated error when Project Activity is opened from email and notification message is set

Tools and Utilities

Issue #	Description
013613	Eliminated errors in the Package Import Export utilities when importing a package that contains a workflow and a life cycle that references that workflow are eliminated.
014231	Improved the handling of system properties in Language Import Export Tool
016713	Enhanced Package Import Export utilities to remove references to Methods associated with Life Cycle Maps from "unknown" packages



4.9.3 Known outstanding issues in 9.3.0 SP1

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
016670	If you edit Activity2 to change the Precision of the property "rollup_actual_work", a deadlock error can occur. "Transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim...."	In SQL Server 2005, the error occurs because of an issue with the user defined data type. Subscribers can contact Aras Support at support@aras.com for assistance fixing this manually. Alternately, the issue has been resolved in SQL Server 2008, and upgrading to the latest version will eliminate the issue.
017163	Post server event method is not fired on the Item that was promoted from method code executed during the post server event on another Items promotion.	



4.10 Version 9.3.0

Aras Innovator 9.3.0 is a maintenance release. The primary objective of the release is to introduce new features and capabilities in an Open release to the Aras Community. Its secondary objective is to deliver support for Internet Explorer 9.

4.10.1 Enhancements in 9.3.0

4.10.1.1 *Enterprise Application Framework*

- Framework
 - Introduce versioning and "versioning disciplines" for relationship items to provide additional configuration management capabilities
 - Introduce the ability to define a Team for an item and assign permissions, workflow assignments, etc. based on Team membership
 - Standardized support for thumbnails and other vaulted images
 - Improved uniqueness handling for versioned Items
 - Introduce support for Internet Explorer 9 and remove support for Internet Explorer 6
- Usability
 - Improve the format of exported Excel data
 - Launch the class browser dialog with the current value selected in the class tree

4.10.1.2 *Product Engineering*

- Additional change management options, including Document Change Orders [DCOs] and a new type of Engineering Change Order [ECO]
- Manual revisioning to create and release revisions of change-controlled Items without change management processes
- Detailed change planning and impact analysis through a specialized "Impact Matrix" user interface
- Provide a new way to validate that a change is ready to be moved to the next step
- Introduce multi-level BOM as a tab on the Part form
- Introduce a standardized data model for all CAD integrations

4.10.2 Issues Fixed in 9.3.0

Framework

Issue #	Description
008981	Improved uniqueness handling to prevent perceived violations of a unique key
011094	Add a field on the Report form for the administrator to set a method
011389	Client cache coherence is improved.



011802	Eliminate a .NET dependency in the Method Summary report
012222	Increased the size of the "Report Query" field in the Report Form.
012949	Vault Server support for the renaming of the File Item and the physical file in server events. Vault Server now sends a special request to the Innovator Server for the added/updated File Item name.
013051	Eliminated issue with On Complete Methods of Client Actions
013333	Removed the Identity List and the Unsaved Items List from the AboutMySession dialog.
013404	Increased allowed length of the "filename" property length to 128 characters long on the File ItemType.
013417	Problems with relationship grid UI are eliminated.
013479	Added "where" and "idlist" attributes support to Unlock AML action. Achieved a factor of x50 performance improvement comparing to unlocking multiple items one-by-one.
013485	ntext, text, and image data types in Aras Innovator database are converted to nvarchar(max), varchar(max), and varbinary(max) to comply with Microsoft SQL Server future versions requirements.
013653	Improved handling of calculated values at the database level
013732	Improved logging of unhandled server errors
014056	Introduce the ability to define a Team for an item and assign permissions, workflow assignments, etc. based on Team membership
014145	Problems with using the "Add To Package Definition" in non-English locale are eliminated. Action will now enforce the required use of English labels in Package Definitions.
014262	Improved performance of the ReadText() vault API
014266	Fixed error that failed to remove unique index on the database table when setting all properties on an ItemType to is_keyed=0 on an ItemType that previously had Unique properties defined.
014753	Added sorting of by creation date to the processing of Replication Transactions.
014814	Added sort order property to system event handler to govern order of execution.
014823	Increased available data in system events log.
014842	Eliminated problems with Workflow Escalation Duration interpretation.
014966	Add a new "Files" tab on Manufacturer Parts to attach supporting documentation
014973	Official support for Internet Explorer 9
014974	Introduce versioning and "versioning disciplines" for relationship items to provide additional configuration management capabilities
015047	Error in search_container.js is eliminated.
015250	Improved vault security
015270	Eliminated multiple instances of the same Workflow Activity in InBasket for Activities associated with versionable Items were escalated.
015407	Fixed error when all Workflow Assignments are Completed or Disabled and no path has a voting weight equal to 100. This scenario will now force the activity to follows any "default" path available.
009871, 014078	Improved usability by launching the class browser dialog with the current value selected in the class tree
012603, 013743	Lock status image is excluded when using the "Export to Excel" feature.
012863, 014616	Multiple problems with Multi-Valued lists in Client UI are eliminated.
014148, 013884	Display issue with Workflow Process UI on IE8 are eliminated.
013532, 015017	Removed support for Internet Explorer 6
014173, 015076	Enabled Item.getProperty method to return language values of multi-lingual properties.



015306, 015241	Search performance on data sets with millions of Item is improved by a factor of x25.
013101, 013447, 011305, 010634, 011505, 012303	Improved an ability to edit class structures in the populated database interactively and through AML import. Changes to the class structure are validated and fully propagated.
014730, 014793, 014796, 014797, 014798	Fixed issues with publishing Innovator Web Services in different software environments (IIS, OS) and Innovator Web Services security are resolved.

Product Engineering

Issue #	Description
010258	Improved ECN validation logic
013812	Eliminated ECN Affected Item failure to float new_item value if the Part is changed while the ECN is being edited.
014057	Introduced a standardized data model for all CAD integrations
014058	Provided enhancement visibility to pending changes for CAD documents
014062	Provided the ability to create and release revisions of change-controlled items (i.e. Documents and Parts) outside the context of change management
014063	Provided the user with a way to validate that a change is ready to be moved to the next step
014066	Introduce detailed change planning and impact analysis through a specialized "Impact Matrix" user interface
014087	Provided enhancement visibility to attached File Items for CAD documents
014093	Improved the Product Engineering solution to take advantage of the new thumbnail image capabilities
014136	Improved Affected Items handling for all change items
014288	Improved internal handling of Part Goal rollup values
014967	Provided simple mechanisms to choose which Change Management processes to expose to users and to add items to the exposed changes
014968	Introduced a "Shared" flag for Files attached to Documents and control access based on this flag
014969	Provided enhancement visibility to attached File Items for Documents
014970	Provided enhancement visibility to pending changes
014975	Introduce the "Express ECO" change type for enhanced ECO capability, including use of the Impact Matrix user interface
014976	Introduce the "Express DCO" change type for enhanced Document change management
015310	Support additional change types on the Changes tab for Parts and Documents
015453, 015454	Support manual release and revisioning for CAD Documents
015496	Improved interaction between GrantIdentity and error handling. Fixing this issue also corrects ECO/ECN promotion behavior after user errors.
013882, 013410	Fixed concurrency issues related to the case of multiple simultaneous large ECN promotion (Eliminated deadlocks, improved performance)

Program Management

Issue #	Description
013352	Eliminated problems with completed Project Activities being colored incorrectly in custom rules. Time zone information and functions are introduced in the Innovator Database.



013494	Improved handling of item property links in the Project Grid
013614	Support a higher total number of hours during project rollout
014126	Eliminated integrity issues when removing WBS element.
014291	Eliminated problems with adding Project Activity if all WBS elements are not fully expanded zone information and functions are introduced in the Innovator Database.
014360	Fixed issues with the handling of the user defined properties of type Item of Project Activities in the Project Grid.
014415	Project Activity calculated fields are displayed in the Form after the change in assignments without needing to open the Form again.
014616	Added the ability to delete Project in the "closed" state.
013436, 013432	Eliminated scheduling errors in European time zones related to scheduling the project before and after daylight savings change. Time

Tools and Utilities

Issue #	Description
014828, 009550, 015489, 015056	Package Import Export Utilities improved to account for Item names that include special characters
015063	Improved Package Import Export command line utility version reporting.

4.10.3 Known outstanding issues in 9.3.0

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.



4.11 Version 9.2.0 Service Pack 6

Aras Innovator 9.2.0 SP6 is a patch release. Its primary objective is to introduce enhancements to file replication. Its secondary objective is to fix a small number of critical issues identified by Subscribers.

4.11.1 Enhancements in 9.2.0 SP6

4.11.1.1 Enterprise Application Framework

- Framework
 - Introduced the ability to resubmit failed replication transactions
 - Automatic resubmission according to database variables
 - Manual resubmission from transaction logs
 - Batch resubmission callable from the Aras Innovator Scheduler Service
- Usability
 - Form editor tool enhanced for Internet Explorer 8 compatibility.

4.11.2 Issues Fixed in 9.2.0 SP6

Framework

Issue #	Description
014266	Fixed failure to remove the unique key and indexes from SQL tables when the Unique flag on all properties have been disabled.
015052	Exposed I18NSessionContext interface to C++ applications using COM version of IOM API
015534	Foreign Properties with multi-lingual source now properly return values based on session locale
013462	item_info Field updated to allow word wrap of contents in IE8
015790	Enhanced support for recursive data to getItemRepeatConfig
015422	Fixed automated Activity escalation to execute once for Workflow Processes associated versionable Items and not once per generation.
013417	Intermittent failures to paint relationship grid on forms are eliminated.
015483, 014883	Failures in Send Email Reminders Method are eliminated.
015428	Significant performance enhancements for loading of large InBaskets (up to 10x for certain data patterns)
015996, 015337	Fixed intermittent error loading Calendar UI Control
014148	Enhanced Workflow Process Item's window for IE8 compatibility
014145	Client action "Add to Package Definition" now fixed to force PackageGroup Items to be created using the English name of an ItemType as the group name.
014148	Eliminated intermittent error causing input of the character 'r' to be ignored
016101	Issues with loading cached forms via a hyperlink to a polyitem eliminated.
014894, 013403	Eliminated issue evaluating permissions when a user is a Member of more than 300 group Identities.
015793	Introduced the ability to interactively and programmatically re-submit failed replication transactions
015650, 015799	Issues with sorting in custom grids utilizing the Aras Innovator grid controls are eliminated. Sorting is now properly performed according to the data type of the



	selected columns.
015449	The label, and not the value, is now properly displayed for the properties of type list in the relationship grids when using the printable view.
013798	Resolved client refresh problems on forms when item promotion is invoked programmatically from Methods
016092	Intermittent failures to synchronize information in forms and relationship grids are eliminated.
015923	Corrected order of client events in a relationship grid.
012689, 015986, 015981, 015982, 015985, 015988	Enhanced the Form editor to improve compatibility with IE8
014753	Introduced use of the created_on date as the order for processing Replication Transactions in queue.
015076	IOM method getProperty with language parameter now returns requested language value for multi-lingual properties

4.11.3 Known outstanding issues in 9.2.0 SP6

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.



4.12 Version 9.2.0 Service Pack 5

Aras Innovator 9.2.0 SP5 is a patch release. Its primary objective is to introduce Check-Out Manager IOM extensions. Its secondary objective is to fix a small number of critical issues identified by Subscribers.

4.12.1 Enhancements in 9.2.0 SP5

4.12.1.1 Enterprise Application Framework

- Framework
 - Introduced Check-Out Manager IOM extensions
 - Enable a single request to checkout and/or lock a collection of files
 - Allow asynchronous downloading of files in parallel
 - Introduced calculated Vault URL to improve performance of vault operations.

4.12.2 Issues Fixed in 9.2.0 SP5

Framework

Issue #	Description
012801	Enhanced public API of HttpServerConnection class to allow the configuration of the timeout.
014890	The Check-Out Manager IOM extensions enable a single request to checkout and/or lock a collection of files. This process improves the download time by reducing the number of requests. This extension also allows asynchronous downloading of files in parallel rather than in series to aid in performance, but optionally synchronous download of files is supported. The programmatic support for progress indicator, cancel, pause and resume functions is built into the extension. This is all the more useful in the case of CAD Documents that require an entire document structure to be downloaded at once.
015300	Reset Life Cycle State action improved to update not_lockable property on an Item during a manual versioning of the Item.

Tools and Utilities

Issue #	Description
014766, 015357, 015429	Fixed issue that can cause the Scheduler Service to fail to execute methods after first scheduled run.

4.12.3 Known outstanding issues in 9.2.0 SP5

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.



009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
013331	Overflow error in .NET while viewing Workflow Process or main grid.	Log out and start a new session

4.13 Version 9.2.0 Service Pack 4

Aras Innovator 9.2.0 SP4 is a patch release. Its primary objective is to fix a small number of critical issues identified by Subscribers.

4.13.1 Issues Fixed in 9.2.0 SP4

Framework

Issue #	Description
013331	Fixed intermittent .NET overflow error that could occur when viewing a Workflow Map.
013164, 014498, 014549	Eliminated an unnecessary Life Cycle State change warning when changing Item classification from NULL to a value.
014328	Fixed a problem with changing the permission of an Item in a method triggered by an event.
014623	Fixed error during the cloning of a Workflow Process Activity that had been previously delegated.
014870, 015160	Eliminated an error in recursion that could cause a fault in the w3wp.exe that occurred when loading Activity2 and Activity2 Assignments in the InBasket.
015005	Enhanced InBasket to load Workflow Process Activities associated with versionable source ItemTypes.
015176	Fixed a display issue with the printable view displayed by Internet Explorer 8 that caused the relationships to display overlapped with the main form text.
015192	Fixed error that occurred when attempting to change the file name of the file associated with a property on a versionable Item.
015260	Fixed IOM apply() method to support hashtable parameter containing 1 key/value pair.

4.13.2 Known outstanding issues in 9.2.0 SP4

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.



009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
013331	Overflow error in .NET while viewing Workflow Process or main grid.	Log out and start a new session

4.14 Version 9.2.0 Service Pack 3

Aras Innovator 9.2.0 SP3 is a patch release. Its primary objective is to introduce enhancements to User administration. Its secondary objective is to fix a small number of critical issues identified by Subscribers.

4.14.1 Enhancements in 9.2.0 SP3

4.14.1.1 Enterprise Application Framework

- Framework
 - System Events introduced to allow administrators to trigger method code on successful login, failed login, and logout.
 - Support for Password Authentication on Workflow Map Transitions with Windows Authenticated Users introduced.

4.14.2 Issues Fixed in 9.2.0 SP3

Framework

Issue #	Description
011314, 013601, 014370	Enhanced ability to encrypt configuration file passwords in: InnovatorServerConfig.xml (Database connection string password and Reporting Services user password.) VaultServerConfig.xml (Vault admin password) \\Innovator\\Server\\replication.config (Replication user password)
013420	Fixed issue in the GetKeyedName event that prevented programmatically setting the keyed name of the User ItemType via method.
013552	Fixed issue when old physical file fails to delete after renaming the File Item without versioning.
013581	Introduced CSS for multi-value list fields to work around compatibility mode issue in Internet Explorer 8.
013582	Introduced the ability to use Windows Authentication with Workflow Activity sign-off.
013615	Fixed UI failure to resize the vertical scrollbar in the configurable grid that could be caused by inserting nested rows into a grid without going beyond the height of the original frame.
013728	Enhanced search UI to automatically accommodate foreign properties in filters.



014224	Introduced the System Event ItemType allowing the execution of methods on successful login, failed login, or logout. These events can be used to track and log their execution providing a basic framework for user tracking.
014510	Introduced the initial_value property on the Sequence ItemType. When a Sequence Item is first created, the initial_value is copied to the current_value. This allows imported AML packages to contain an initial value for a Sequence that will not overwrite the current_value if the imported Sequence Item already exists in the target Aras Innovator instance.
014564	Made the IOM.dll backwards compatible with the Aras Innovator 9.2.0 open release for use with external integrations.
014579	Server side AML parser improved.
014581,	Fixed file replication error that occurred when filename contains ampersand (&).
014633	Fixed error that causes completed ReplicationTxn Items to fail to be converted into ReplicationTxnLog Items.
014670, 014661	Fixed issue in timeout exception handling in the replication thread.
014716	Due to an issue in the Microsoft regasm.exe utility capitalization of method names in different classes was adjusted. As a result the capitalization of the IServerConnection.GetUserId method was changed to IServerConnection.getUserId so that it matches the corresponding method name from Innovator class.
014759	Enhanced core functionality for versioning Items to help improve performance in large operations like ECNs.
014820	Fixed error in order of execution for Activity Methods.

Tools and Utilities

Issue #	Description
014244	Fixed success/failure count errors in the summary section of the Batch Loader logs.

4.14.3 Known outstanding issues in 9.2.0 SP3

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
013331	Overflow error in .NET while viewing Workflow Process or main grid.	Log out and start a new session



4.15 Version 9.2.0 Service Pack 2

Aras Innovator 9.2.0 SP2 is a patch release. Its primary objective is to fix a small number of critical issues identified by Subscribers. Its secondary objective is to enhance error logging.

4.15.1 Enhancements in 9.2.0 SP2

4.15.1.1 Enterprise Application Framework

- Framework
 - Introduced the ability to pass "From State" and "To State" context to PRE and POST methods of a Life Cycle Transition.
 - Performance enhancements to Classification Dialog.
 - Performance enhancements to Structure Browser.
 - Introduced automatic capture of errors from client controls.
 - Enhanced the client messages of server errors.

4.15.2 Issues Fixed in 9.2.0 SP2

Framework	
Issue #	Description
013104	Fixed .NET errors that occurred when UI is updated by separate threads.
013286	Form load error when form contains more than one field for Properties of Type=Item and Data Source = File fixed.
013355	Client issue fixed where the UI can fail to pick up all typed characters into a field on a form or grid.
013493	<p>Enhanced AML return from a request for a property with a Polymorphic ItemType as the data_source.</p> <p>The parent property of the Item will have the value of attribute "type" set to the name of the polymorphic ItemType (e.g. <affected_id type="Change Control Item" ...>). This will allow a custom handler code to determine the name of the polymorphic type of the property.</p> <p>Each polymorphic Item that is returned under the mentioned above property will have the specific type (e.g. "Part") independent of how many polyitems the result contains. This will allow custom handler code to determine the specific type of the polyitem without requiring an additional call to determine the name of the specific type based on the value of <itemtype> property returned with each poly-item. For example:</p> <pre><Result> <Item type="Affected Item" ...> ... <affected_id type="Change Controlled Item" ...> <Item type="Part" ...> ... </Item> </affected_id> </Item> <Item type="Affected Item" ...> ... <affected_id type="Change Controlled Item" ...> <Item type="Document" ...></pre>



	<pre> ... </Item> </affected_id> </Item> ... </Result> </pre>
013544	Client improved to recover from scenario where lock status is updated out of session to allow user to discard session changes and update client from server.
013558	Classification dialog performance improved for loading of large class structures.
013599	The setup of the /NotificationServer web application was improved to fix errors received on the client based on the server Region and Language settings conflicting with expected settings. This presented as an authentication error on the client at login.
013637	Structure Browser performance improved.
013701	Introduced corrected handling of all possible values of HKEY_CURRENT_USER\SOFTWARE\Microsoft\Internet Explorer\Main\TabProcGrowth registry key on Aras Innovator client login.
013967	Client handler introduced to log information about unhandled exceptions in client controls. The handler will store two files for each error in the "%Application Data%\Aras Innovator" folder on the client. One file is a screenshot of the error and the other file contains the information text about error.
014100	Ability to determine "From State" and "To State" context of an Item promotion by introducing "transition" node containing "Life Cycle Transition" Item is added during PromoteItem action to the AML which is passed to the PRE and POST event handlers of Life Cycle Map promotions.
014142	Fixed error in synchronization of client DOM when changes are made to an Item that were applied to the Item window opened from the relationship grid.
013730, 013731	Enhanced details of errors passed to client side error message dialog.
013905, 013910	Server side AML parser improved.
013137, 013274, 013412	Just Ask Innovator help has been updated to add User Notification, update Workflow Map content, and fix broken document links.
012951, 013402, 013491	Script timeout error in bypass_logon_wait login hook for Windows Authentication fixed.
013196, 013625, 013883	Fixed intermittent error on login with client running Outlook 2007.

Tools and Utilities

Issue #	Description
013556, 013742	Fixed error in the Batch Loader logging of success and failure count when error occurs.
013977, 013693	Fixed error in the Batch Loader that can occur when loading data containing @# (e.g. @1) in the target data file.

4.15.3 Known outstanding issues in 9.2.0 SP2

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.



007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
013331	Overflow error in .NET while viewing Workflow Process or main grid.	Log out and start a new session

4.16 Version 9.2.0 Service Pack 1

Aras Innovator 9.2.0 SP1 is a patch release. Its primary objective is to provide a prepackaged vault replication feature. Its secondary objective is to fix a small number of critical issues identified by Subscribers.

4.16.1 Enhancements in 9.2.0 SP1

4.16.1.1 Enterprise Application Framework

- Framework
 - Packaged vault replication feature introduced for the benefit of distributed installations with the requirement for high performance file access. Vault replication can be invoked on demand, on file change, on user- defined schedule or manually.
 - Vault replication configurable rules provided to allow the definition of different replication modes for different vaults, file types, file ownership, logged-in user or based on any other user defined filter.

4.16.2 Issues Fixed in 9.2.0 SP1

Framework

Issue #	Description
012965, 013362	Intermittent script error thrown during closing of Aras Innovator Internet Explorer process fixed.
013364	Eliminated notification service dependency on availability of port 80 in IIS.

Tools and Utilities

Issue #	Description
013117	Database upgrade tools updated to include modifications for replicated vaulting feature.
013549	Case sensitivity issue addressed in license issuing system.



4.16.3 Known outstanding issues in 9.2.0 SP1

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
013331	Overflow error in .NET while viewing Workflow Process or main grid.	Log out and start a new session



4.17 Version 9.2.0

Aras Innovator 9.2.0 is a maintenance release. Its primary objective is to deliver support for Internet Explorer 8, Windows 7, and Windows Server 2008 R2 in an Open release to the Aras Community. Its secondary objective is to introduce new features used in site administration and maintenance.

4.17.1 Enhancements in 9.2.0

4.17.1.1 Enterprise Application Framework

- Framework
 - Support for Windows Server 2008 R2
 - Enhanced the server to automatically check for the availability of a newer version of the software and notify users any newer version.
 - New subscriber license key feature introduced that enables additional capabilities such as productivity utilities and subscriber-only add-ons
 - API introduced for the Licensing of Aras Partner Add-On components.
- Usability
 - Notification feature introduced that will allow administrators to publish messages to end users and optionally receive confirmation of each user reading the message.
 - Enhanced UI to display available notification messages to users in the status bar.
- Tools
 - Introduced license key capabilities for the Batch Loader.

4.17.2 Issues Fixed in 9.2.0

Framework

Issue #	Description
010966	"Check Escalations" and "Send Email Reminders" methods added to the default install for use with the Aras Innovator Scheduler Service.
012103	License Management Enhancements
012183	Broken links in Just Ask Innovator fixed.
012269	Workflow Map.name stored length increased from 32 to 128 Workflow Map.label stored length increased from 64 to 128 Workflow Process.label stored length increased from 64 to 128
012347	Workflow Process Form layout improved.
012758	Deadlock errors in main grid fixed.
012877	Removes windows authentication login hooks from default install.
013054	Improved support for localized help.
013258	Improved publishing of web services in IIS7
008072, 012772	Fixed error when adding when adding sub-classes to the ItemType classification structure.
012777, 013002	Installation code improved to prevent possible failures during removal on Windows Server 2008 R2



013150, 013157	Fixed error in IOM Item.CheckOut method for filenames containing "+" character.
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Product Engineering

Issue #	Description
010126	Enhanced Fixed/Float behavior of Affected Item references in ECNs and ECOs.
011884	Affected Item handling changed to promote changed items to "Superseded" on the ECN/ECO transition to "Released".
012494	Fixed possible failure of the PE_GetAffectedItemHandlingOrder method.
012934	Modified Fixed/Float behaviors of Part Life Cycle Map
012476, 012793	Fixed handling of Part BOM Permissions after life cycle state has been reset.

Program Management

Issue #	Description
011480	Added Comment Field to Activity2 Task Form.
011504	Added multi-lingual support for "Status" on the Project Form.
012311	Eliminated Gantt chart issues which manifested themselves when displaying in quarters.
012312	Eliminated errors in the Project Tree when calculating predecessor of added elements and the tree is not fully expanded.
012428	Fixed error when adding when adding Project Team Identities when a Project Role is referenced in large structures many times

Tools and Utilities

Issue #	Description
013117	Batch loader licensing enhanced

4.17.3 Known outstanding issues in 9.2.0

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
012965	A script error may be thrown during logout if context menu selection is not released first.	
013331	Overflow error in .NET while viewing Workflow Process or main grid.	Log out and start a new session



4.18 Version 9.1.0 Service Pack 7

Aras Innovator 9.1.0 SP7 is a patch release. Its objective is to fix a small number of critical issues identified by Subscribers.

4.18.1 Issues Fixed in 9.1.0 SP7

Framework

Issue #	Description
010894	Performance enhancements made to loading of relationships grids.
012832	Altered relationship grid to work around a known issue in Internet Explorer 7 when the UserAgent string is greater than 260 characters.
013020	Fixed issue with double byte user names in the To and From of emails sent by Aras Innovator.
013031	Fixed intermittent issue where a virtualized client throws a script error on login.
014247	Fixed printable view issues where "Restricted" text is displayed for fields of a relationship row for which the User does not have permission to Get the related Item.
014462, 014547, 014709	Fixed intermittent error on login with client running Outlook 2007.

4.18.2 Known outstanding issues in 9.1.0 SP7

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
012476	Order of execution error can cause the permission on a relationship Item to fail to reset with the source Item when the Source Item has the Life Cycle State reset to the Start state.	A method must be added to the ItemType that forces the correct permission_id on the relationship Item. Subscribers should contact Aras Support for assistance.
012722	New Method security enhancements can prevent successful completion of upgrade from Aras Innovator 9.0 to Aras Innovator 9.1.0 SP5.	Upgrade to from Aras Innovator 9.0 to Aras Innovator 9.1.0 and then to Aras Innovator 9.1.0 SP7
013002	Error during uninstall on Windows Server 2008 due to file system	Open the permission on the file system for the Aras Innovator Installation folder, and



	permissions.	run the uninstall process again.
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Product Engineering

Issue #	Description	Workaround
012494	When an ECN calculated the order of execution for versioning Affected Items, the calculation can fail when two Affected Items have the same related Items in the BOM structure on the same level.	The PE_GetAffectedItemHandlingOrder Method must be modified to eliminate this error. Subscribers should contact Aras Support for assistance.

Program Management

Issue #	Description	Workaround
012428	When a Project Role is referenced in large structures many times, the role assignment method can fail.	The PM_updateAssigneesPerRole and PM_onAfterUpdateAct2Assgmnts Methods must be modified to eliminate this error. Subscribers should contact Aras Support for assistance.

Quality Planning

Issue #	Description	Workaround
011922	When upgrading a database from Aras Innovator 9.0, if a DFMEA or Process planner has a multiple references to the Same characteristics, then there will be multiple creations of that Characteristic as a Part Characteristic item. However, by logic only, one of those characteristics can be related to a single part.	This issue must be handled as part of the upgrade process of each database individually. Those who require assistance resolving this issue should contact Aras at info@aras.com to discuss your support options on this issue.
012635	Not all Quality Planning dialogs are Internet Explorer 8 compliant.	

4.19 Aras Innovator 9.1.0 Service Pack 6

Aras Innovator 9.1.0 SP6 is a patch release. Its primary objective is to fix a small number of critical issues identified by Subscribers. Its secondary objective is to introduce support for Windows 7 clients.

4.19.1 Enhancements in 9.1.0 SP6

4.19.1.1 Enterprise Application Framework

- Framework
 - Performance enhancements to relationship grids and configurable grids.
- Usability
 - Support for Windows 7 clients introduced.



4.19.2 Issues Fixed in 9.1.0 SP6

Framework

Issue #	Description
010894	Performance enhancements made to loading of relationships grids.
012126	Performance improved for the inserting of rows and nested rows in configurable grids.
012284	Relationship grid search bar modified to default to "No Search Criteria" if there are no criteria present in the search preferences.
012629	Classification browser updated to display all node text in black.
012810	Error fixed where server can timeout based on wrong default time period when waiting for SQL server to reply.
012857	Treegrid control enhanced to better handle the dynamic text length of localized clients.
012888	Fixed error that could prevent Field Events from saving when updating a form.
012890	Fixed IOM error using the Item.checkout in a client side JavaScript method that caused checkout to fail.
012975	Enhanced Aras Innovator client's ability to authenticate through a proxy server.

Tools and Utilities

Issue #	Description
012876, 012894	Fixed import utility to prevent the tool from using localized language variables.

4.19.3 Known outstanding issues in 9.1.0 SP6

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
012476	Order of execution error can cause the permission on a relationship Item to fail to reset with the source Item when the Source Item has the Life Cycle State reset to the Start state.	A method must be added to the ItemType that forces the correct permission_id on the relationship Item. Subscribers should contact Aras Support for assistance.
012722	New Method security enhancements can prevent successful completion of upgrade from Aras Innovator 9.0 to Aras Innovator 9.1.0 SP5.	Upgrade to from Aras Innovator 9.0 to Aras Innovator 9.1.0 and then to Aras Innovator 9.1.0 SP6
013002	Error during uninstall on Windows Server 2008 due to file system	Open the permission on the file system for the Aras Innovator Installation folder, and



	permissions.	run the uninstall process again.
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Product Engineering

Issue #	Description	Workaround
012494	When an ECN calculated the order of execution for versioning Affected Items, the calculation can fail when two Affected Items have the same related Items in the BOM structure on the same level.	The PE_GetAffectedItemHandlingOrder Method must be modified to eliminate this error. Subscribers should contact Aras Support for assistance.

Program Management

Issue #	Description	Workaround
012428	When a Project Role is referenced in large structures many times, the role assignment method can fail.	The PM_updateAssigneesPerRole and PM_onAfterUpdateAct2Assgmnts Methods must be modified to eliminate this error. Subscribers should contact Aras Support for assistance.

Quality Planning

Issue #	Description	Workaround
011922	When upgrading a database from Aras Innovator 9.0, if a DFMEA or Process planner has a multiple references to the Same characteristics, then there will be multiple creations of that Characteristic as a Part Characteristic item. However, by logic only, one of those characteristics can be related to a single part.	This issue must be handled as part of the upgrade process of each database individually. Those who require assistance resolving this issue should contact Aras at info@aras.com to discuss your support options on this issue.
012635	Not all Quality Planning dialogs are Internet Explorer 8 compliant.	

4.20 Version 9.1.0 Service Pack 5

Aras Innovator 9.1.0 SP5 is a patch release. Its primary objective is to introduce client enhancements in performance and platform support. Its secondary objective is to introduce security enhancements.

4.20.1 Enhancements in 9.1.0 SP5

4.20.1.1 Enterprise Application Framework

- Framework
 - Performance has been enhanced by using the Internet Explorer cache to store static content. This feature will have the greatest benefit to WANs with high latency issues, and is controlled on the server. This does not require configuration or setup of the end user's computer.



- Security feature is introduced allowing administrators to limit the execution of a method to users who are members of a particular identity.
- Security feature introduced that restricts the accessing of files directly in the vault server without authentication and proper permission.
- Security feature introduced to improve detection and prevention of SQL injections.
- Usability
 - Support for Internet Explorer 8 introduced.

4.20.2 Issues Fixed in 9.1.0 SP5

Framework

Issue #	Description
010445	Vault security enhanced to allow authentication information be required to access files directly from the vault. This authentication will be used to check permissions when directly accessing the file in the vault.
010551, 011595, 011273, 012054	Vulnerabilities addressed to improve detection and prevention of malicious SQL injections.
011069	Search functionality in relationship grids enhanced to improve searching of properties with a data source of a polyitem ItemType.
011269	InBasket improved to display Identity from the Workflow Activity Assignment, Identity From the Project Activity2 leader, Identity From the Project Activity2_Assignment, or Identity from the FEMA Action. Depending on the inbasket Item.
011466	Fixed errors in Sort Across Pages functionality.
011647	SharePoint integration enhanced to obfuscate password on dedicated user.
011671	InBasket fixed to prevent errors when opening repeated modal dialogs.
011770, 011993, 012039, 012155	Fixed errors in search features.
011801	Installer error when installing web services feature in IIS7 fixed.
011939	TOC font set to fixed upper limit to prevent errors when client font is larger than 12.
011962	Fixed errors in editing classification.
012080, 012081	Eliminated unnecessary AML calls to improve WAN performance with high latency problems.
012106	Introduced the ability to share a Saved Search with a group Identity by setting owned_by_id to the group Identity.
012147	Introduced standard mechanism that will allow SharePoint documents to be referenced as an Item.
012190	Errors in Delegate functionality of Workflow Activities fixed.
012412	Duplicate call during onSearchDialog event eliminated.
012432	Workflow History Report dialog fixed.
012515	Error in polyitem code fixed to allow UI access to poly source Item and not polyitem itself when following links to Items through relationships or Item Properties.
012557	Aras Innovator login page enhanced to spawn a new Internet Explorer process during login, and not reuse exiting iexplore.exe processes. This enhancement is not compatible with the Internet Explorer 8 "Recover last session" feature, as the client is not loaded through the default access page.



012580	Failure to execute a onAfterCopy event fixed.
012730	Introduced standard Windows Authentication to the /Server/SharePoint/ web folder installed into IIS
012764	External web pages accessed through Aras Innovator must prevent caching in the client Internet Explorer. Reporting Services access has been handled through the introduction of the META tag <META HTTP-EQUIV="Expires" CONTENT="-1"> http://support.microsoft.com/default.aspx?scid=kb;EN-US;Q234067

Program Management

Issue #	Description
011515	Localization support for XML resources in Program Management solution enhanced

Tools and Utilities

Issue #	Description
012116, 012248	Support for Multi-Value list properties and fields enhanced.

4.20.3 Known outstanding issues in 9.1.0 SP5

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
012476	Order of execution error can cause the permission on a relationship Item to fail to reset with the source Item when the Source Item has the Life Cycle State reset to the Start state.	A method must be added to the ItemType that forces the correct permission_id on the relationship Item. Subscribers should contact Aras Support for assistance.
012722	New Method security enhancements can prevent successful completion of upgrade from Aras Innovator 9.0 to Aras Innovator 9.1.0 SP5.	Upgrade to from Aras Innovator 9.0 to Aras Innovator 9.1.0 SP4 and then to Aras Innovator 9.1.0 SP5

Product Engineering

Issue #	Description	Workaround
012494	When an ECN calculated the order of execution for versioning Affected Items, the calculation can fail when two Affected Items have the same	The PE_GetAffectedItemHandlingOrder Method must be modified to eliminate this error. Subscribers should contact Aras Support for assistance.



	related Items in the BOM structure on the same level.	
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Program Management

Issue #	Description	Workaround
012428	When a Project Role is referenced in large structures many times, the role assignment method can fail.	The PM_updateAssigneesPerRole and PM_onAfterUpdateAct2Assgmnts Methods must be modified to eliminate this error. Subscribers should contact Aras Support for assistance.

Quality Planning

Issue #	Description	Workaround
011922	When upgrading a database from Aras Innovator 9.0, if a DFMEA or Process planner has a multiple references to the Same characteristics, then there will be multiple creations of that Characteristic as a Part Characteristic item. However, by logic only, one of those characteristics can be related to a single part.	This issue must be handled as part of the upgrade process of each database individually. Those who require assistance resolving this issue should contact Aras at info@aras.com to discuss your support options on this issue.
012635	Not all Quality Planning dialogs are Internet Explorer 8 compliant.	

4.21 Version 9.1.0 Service Pack 4

Aras Innovator 9.1.0 SP4 is a patch release. Its primary objective is to fix a small number of critical issues identified by Subscribers.

4.21.1 Enhancements in 9.1.0 SP4

4.21.1.1 Enterprise Application Framework

- Usability
 - The Form editor has been improved to support a snap to grid functionality. This will enable fields to be placed in increments of 1, 5, or 10 pixels, allowing for easier organization of Form layout.
 - The relationship grid has been enhanced to allow files to be dragged and dropped directly onto a relationship grid for the File ItemType. Files dropped on these relationship grids will be treated as a new file.



4.21.2 Issues Fixed in 9.1.0 SP4

Framework

Issue #	Description
010112	Enable file drag and drop in relationships grids.
011323, 011440, 011472, 012168, 012402	Errors related to non-alphanumeric characters in file names and file paths fixed.
011422	Introduced the snap to grid functionality to the Form editor. Allowing form fields to be moved in increments of 1, 5, or 10 pixels.
011467	Fixed error in resizing Method Form.
011773, 011995	Fixed errors in the parameter tab.
011903	Improved the multi-value list Field type to fix errors in Internet Explorer 7.
011974	Fixed error in Form editor preventing the Fields from being dragged vertically in the UI.
012253	Fixed error where values returned from the date dialog are not localized when returning a value to the search criteria of the filter row.
012298	Search center improved to exclude Saved Searches that do not pertain to the main search grid and exclude Saved Searches that were automatically generated by User Preferences. Security enhanced to prevent users from executing Saved Searches from the Search Center for ItemTypes that they do not have TOC access for.
012359	Fixed error in parsing code that could cause htmls like the Project Tree to load slowly due to references to large numbers of images that did not resolve.
012366	Fixed error switching between relationship tabs displaying forms rather than grids.

4.21.3 Known outstanding issues in 9.1.0 SP4

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011515	Project Template does not localize properly. The column labels of the project grid relationship to project template are populated by calls to the projectGridLayoutXML.xml file in //Client/Solutions/Project/XML folder. However the call to this file is not always to the default English and not to the locale specific version of the file.	If you are running in one language that is not English, you can modify the default version of the XML. /Client/Solutions/Project/XML/ projectGridLayoutXML.xml
011985	On-line help is incomplete	Not all new features in Aras Innovator have



		been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
012476	Order of execution error can cause the permission on a relationship Item to fail to reset with the source Item when the Source Item has the Life Cycle State reset to the Start state.	A method must be added to the ItemType that forces the correct permission_id on the relationship Item. Subscribers should contact Aras Support for assistance.
012515	An error can occur when clicking on a link to an Item through a polyitem, causing the form for the polyitem and not the intended Item to open.	Open the Item through the main grid, and not through the polyitem.

Product Engineering

Issue #	Description	Workaround
012494	When an ECN calculated the order of execution for versioning Affected Items, the calculation can fail when two Affected Items have the same related Items in the BOM structure on the same level.	The PE_GetAffectedItemHandlingOrder Method must be modified to eliminate this error. Subscribers should contact Aras Support for assistance.

Program Management

Issue #	Description	Workaround
012428	When a Project Role is referenced in large structures many times, the role assignment method can fail.	The PM_updateAssigneesPerRole and PM_onAfterUpdateAct2Assgmnts Methods must be modified to eliminate this error. Subscribers should contact Aras Support for assistance.

Quality Planning

Issue #	Description	Workaround
011922	When upgrading a database from Aras Innovator 9.0, if a DFMEA or Process planner has a multiple references to the Same characteristics, then there will be multiple creations of that Characteristic as a Part Characteristic item. However, by logic only, one of those characteristics can be related to a single part.	This issue must be handled as part of the upgrade process of each database individually. Those who require assistance resolving this issue should contact Aras at info@aras.com to discuss your support options on this issue.

4.22 Version 9.1.0 Service Pack 3

Aras Innovator 9.1.0 SP3 is a patch release. Its objective is to fix a critical performance issue with Aras Innovator 9.1, where the client can become unresponsive while loading user interface elements.



4.22.1 Issues Fixed in 9.1.0 SP3

Framework

Issue #	Description
012055	Critical performance issue fixed, to prevent client from locking up and becoming unresponsive while loading user interface elements.

4.22.2 Known outstanding issues in 9.1.0 SP3

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011515	Project Template does not localize properly. The column labels of the project grid relationship to project template are populated by calls to the projectGridLayoutXML.xml file in //Client/Solutions/Project/XML folder. However the call to this file is not always to the default English and not to the locale specific version of the file.	If you are running in one language that is not English, you can modify the default version of the XML. /Client/Solutions/Project/XML/ projectGridLayoutXML.xml
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.

Quality Planning

Issue #	Description	Workaround
011922	When upgrading a database from Aras Innovator 9.0, if a DFMEA or Process planner has a multiple references to the Same characteristics, then there will be multiple creations of that Characteristic as a Part Characteristic item. However, by logic only, one of those characteristics can be related to a single part.	This issue must be handled as part of the upgrade process of each database individually. Those who require assistance resolving this issue should contact Aras at info@aras.com to discuss your support options on this issue.



4.23 Version 9.1.0 Service Pack 2

Aras Innovator 9.1.0 SP2 is a patch release. Its objective is to fix a small number of critical issues identified by Subscribers.

4.23.1 Issues Fixed in 9.1.0 SP2

Framework

Issue #	Description
010998	Fixed errors that can occur in complex Workflow scenarios involving looping through “default” and/or “override” paths to the same activity multiple times.
011772	Fixed error that can occur when a user must vote on a Workflow Activity under multiple roles on the same Activity.
011975	Text alignment for field labels can be fixed.
012020	Fixed on before unload event when values in relationship grid cells have not been committed to the dom and the tear-off window is closed.
012058	Enhanced the search dialog to allow the default window size to change based on the space required to show search toolbar content.
012140	Fixed errors in displaying printable view.

Tools and Utilities

Issue #	Description
011947	Fixed error in export/import of Workflow Map Variables.
012029	Enabled ability to export value property for Variable ItemType.

4.23.2 Known outstanding issues in 9.1.0 SP2

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from “not required” to “required”.	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011515	Project Template does not localize properly. The column labels of the project grid relationship to project template are populated by calls to the projectGridLayoutXML.xml file in //Client/Solutions/Project/XML folder. However the call to this file is not always to the default English and not to the locale specific version of the file.	If you are running in one language that is not English, you can modify the default version of the XML. /Client/Solutions/Project/XML/ projectGridLayoutXML.xml
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if



	you are having difficulty with a new feature.
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Quality Planning

Issue #	Description	Workaround
011922	When upgrading a database from Aras Innovator 9.0, if a DFMEA or Process planner has a multiple references to the Same characteristics, then there will be multiple creations of that Characteristic as a Part Characteristic item. However, by logic only, one of those characteristics can be related to a single part.	This issue must be handled as part of the upgrade process of each database individually. Those who require assistance resolving this issue should contact Aras at info@aras.com to discuss your support options on this issue.

4.24 Version 9.1.0 Service Pack 1

Aras Innovator 9.1.0 SP1 is a patch release. Its objective is to fix a small number of critical issues identified with Aras Innovator 9.1.0.

4.24.1 Issues Fixed in 9.1.0 SP1

Framework

Issue #	Description
011961	action="getPermissioms" fixed for the Manager and Owner Identities.
011967	Fixed the Can Add permission for adding a relationship with use_src_access=1.
011982	Fixed bad HTML call in the Form editor.
011994	Updated API Reference.
011997	Saved Searches with show_on_toc=1 will not attempt to load if there is both no Label in the session language and no label in the default(English) language.
012006	Modified server to allow table SQL triggers to execute normally.

4.24.2 Known outstanding issues in 9.1.0 SP1

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011515	Project Template does not localize properly. The column labels of the project grid relationship to project template are populated by calls to the projectGridLayoutXML.xml file	If you are running in one language that is not English, you can modify the default version of the XML. /Client/Solutions/Project/XML/



	in //Client/Solutions/Project/XML folder. However the call to this file is not always to the default English and not to the locale specific version of the file.	projectGridLayoutXML.xml
011975	Text alignment for field labels cannot be set.	
011985	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
012058	The Search Dialog can load with a toolbar that is wider than the fixed width of the dialog. This can cause the "Return Selected" and "Exit" toolbar buttons to not show in the frame.	Resize the window after opening to show the full toolbar, or select the toolbar buttons from the toolbar dropdown at the right edge of the toolbar.

Quality Planning

Issue #	Description	Workaround
011922	When upgrading a database from Aras Innovator 9.0, if a DFMEA or Process planner has a multiple references to the Same characteristics, then there will be multiple creations of that Characteristic as a Part Characteristic item. However, by logic only, one of those characteristics can be related to a single part.	This issue must be handled as part of the upgrade process of each database individually. Those who require assistance resolving this issue should contact Aras at info@aras.com to discuss your support options on this issue.



4.25 Version 9.1.0

Aras Innovator 9.1.0 is a maintenance release. Its primary objective is to introduce several new core end user features to the application framework. Its secondary objective is to introduce the new Quality Planning Modular Process Planners and an alternate Engineering Change Management process.

4.25.1 Enhancements in 9.1.0

4.25.1.1 *Enterprise Application Framework*

- Framework
 - A Web Service Builder is included for building and deploying focused web services that expose portions of Aras Innovator as part of a Service Oriented Architecture [SOA]
 - A configurable integration with Microsoft SharePoint is now included, allowing bi-directional communication and improved collaboration features.
 - Configurable History Tracking control is added over the actions logged in each Item's audit trail, including configurable field-level change tracking.
 - Life Cycle Maps may be configured based on the classification of an Item, allowing for more detailed control over status and permission.
 - Classification based Can Add control is introduced to allow administrators to restrict the users and groups that may create new Items of specific classifications.
 - Multi Value List data type introduced to allow selection of multiple list values in a single property from the exiting List items.
 - Permission model updated with Discovery permissions to provide an additional level of access control. Discovery Permissions allow certain users to see only basic information about items without having full access to sensitive data, easing deployment to the extended enterprise.
 - Localization support for workflow activities, instructions and votes introduced, providing for global deployment of Aras Innovator workflows.
- Usability
 - Enhanced ability to build complex searches is provided, including conditional and range query parameters.
 - Search criteria may be saved with user-definable names and shared across users and groups, providing quick and easy access to commonly used information.
 - Updated icons, toolbars, menus and tabs provide a modern look and a tighter integration with client Windows desktop themes.
 - A new "Redline" mode on relationship tabs provides an instant view of changes made to Bills of Materials, Approved Manufacturer Lists and other relationships since the previous revision.



- A new "Search Center" screen has been added to the TOC to perform searching tasks such as Aras Innovator Saved Searches, Windows Live searches, and Global Spec searches.
- Actify SpinFire Reader™ tool support introduced for 3D visualization, dimensioning and measurement.

4.25.1.2 Product Engineering

- New options for simple Change Management, including standard templates for Engineering Change Orders [ECOs] and Manufacturing Change Orders [MCOs] streamlines each change process to a single workflow.

4.25.1.3 Quality Planning

- Modular Process Planner introduces the ability to manage Process Planner Operations in modules that may be reused to create new Process Planners as well as allowing the sharing of operations between Process Planners.
- Process Planner Inspection Reports introduced to allow streamlined access to Process Planners.

4.25.2 Issues Fixed in 9.1.0

Framework

Issue #	Description
008185	The Just Ask Innovator help has been updated to include descriptions of new features as well as new sections for features previously undocumented.
009033	Search Toolbar features added to Relationships and Search Dialog to duplicate Main Search Grid behavior.
009304	Introduced View and Edit for workflow Items in the InBasket.
009419	API Reference improved to display valid API members' signatures in all four languages supported in Aras Innovator: JavaScript, C#, J#, and VB.Net.
009438	Server improved to automatically delete Package Elements when the associated Item is deleted.
009858	Introduced new timeout handling parameters to the Vault to better accommodate upload of large files.
010054	Search conditions for properties of type Items in the relationship grid are applied to the keyed_name of the property Item.
010138	Fixed error when deleting client-side PolyItem.
010198	Form Mode search option has been removed from the client.
010341	Microsoft SQL Server 2000 is no longer a supported database engine for the Aras Innovator server.
010343	Microsoft .NET Framework version 1.1 is no longer a supported environment for the Aras Innovator server.
010421	Inconsistencies in displaying of multiple relationships to the same Item in Structure Browser fixed.
010504	Localization of Life Cycle State through label introduced. Though multi-lingual label is not yet used in all places in the UI where state name is referenced.
010530	Fixed error in order of X-axis of dashboard reports.
010605	Microsoft Windows 2000 is no longer a supported client for the Aras Innovator.
010650	Introduced OR clause in simple search criteria from UI. The " " symbol can be used to search for multiple conditions on a single property like Project Status = "Active Pending"



010759	User search preferences will be saved as Saved Search Items and not as part of the Preference Item.
010854	Inconsistencies in passing "colNumber" argument to event method fixed.
010856	Asynchronous loading of images used in .NET controls to improve performance.
010911	Microsoft .NET Framework version 1.1 is no longer a supported environment for the Aras Innovator client.
011023	Workflows emails enhanced to support localization of the To and From fields of the email.
011037, 011248	Improved support for SSL (https) compatibility. Removed references to about:blank and replaced with references to blank.html.
011050	Fixed error handling special characters during Item property validation such as "&"
011057, 011055	Support for ReportServer2005.asmx introduced, allowing Aras Innovator access to Reporting Services 2005 or Reporting Services 2008.
011068	User interface updated to support use of client Windows Themes. Existing image files adjusted for consistency with new theme support.
011102	Fixed error thrown when reloading Advanced Search criteria when switching locations in the TOC.
011142	Date dialog introduced in date filter criteria to allow interpretation of localized dates to search query.
011165	Improved support for display of Forms in Hebrew.
011168	Fixed error in API Reference for Aras.Client.Controls Namespace
011180	Improved strong database login password support in the installer.
011208	The "Service Upgrade" option has been removed from the installer. The Aras Innovator installer cannot be used to upgrade your code tree.
011252	Fixed errors vaulting files with non-alphanumeric characters.
011281	Localization of TOC folders improved.
011296	LogMessage ItemType updated to allow language pack creation.
011303	Error in DateTime when checking in a file fixed.
011411	Search criteria input for Date properties now displays in session time zone.
011412	Improved error handling when ItemType has no form defined for View/Edit of Item.
011439	Toolbar images imbedded into control to allow client caching to improve performance in network connections with high latency.
011463, 011464	Improved date/time handling in the Japanese locale.
011485	Report editor form modified to support localization. Query Results section removed from Form.
011491	<p>Established better correspondence between elements of "config_path" and "select" attributes in AML "get" requests. For example:</p> <pre><Item type="GetItem_Structure_A" action="get" config_path=". GetItem_Structure_AX GetItem_Structure_AB" select="item_number,name item_number name,related_id"> ... </Item></pre> <p>Results in the following:</p> <ul style="list-style-type: none"> - brings properties item_number, name for type GetItem_Structure_A - brings property item_number for type GetItem_Structure_AX - brings properties name,related_id for type GetItem_Structure_AB
011565	Localization of Workflow Maps and Workflow Processes introduced.
011621	The default stylesheet has been modified to enforce colored backgrounds for required fields on forms.
011666	Life Cycle Maps are now related to ItemTypes through a relationship, and not a



	property. This was done to allow Classification based Life Cycle Maps.
011920	<p>Server methods that use cco.email.setup_smtpmail_server_and_send(...) have to be updated according to the below instruction. It is strongly recommended that Methods be changed to use the IOM, but if this is not possible the following is provided:</p> <p>Upgrade Instruction The typical custom code that uses cco.email.setup_smtpmail_server_and_send(...) looks like the following:</p> <pre> ... Var fromStr As String Var toStr As String Var subjectStr As String Var bodyStr As String ... Dim email As New MailMessage() email.From = fromStr email.To = toStr email.Subject = subjectStr email.Body = bodyStr cco.email.setup_smtpmail_server_and_send(email) </pre> <p>It has to be changed the following was:</p> <pre> ... Var fromStr As String Var toStr As String Var subjectStr As String Var bodyStr As String ... Dim email As New MailMessage() email.From = New MailAddress(fromStr) email.To.Add(toStr) email.Subject = subjectStr email.Body = bodyStr cco.email.setup_smtpmail_server_and_send(email) </pre> <p>NOTE: If toStr is a list of recipients (i.e. more than one email address; e.g. support@aras.com;info@aras.com) separated by “;” (semi-colon) then it has to be converted to the similar list but separated by ‘,’ (comma), otherwise email.To.Add(toStr) call will fail.</p>

Product Engineering

Issue #	Description
010980	Fixed problem where class specific fields would not display on default Document and Part Form.

Program Management

Issue #	Description
009912	Synchronization between Gantt chart scrollbars fixed.
010265	Introduced parameterized SQL to server to improve performance of retrieving large amounts of data like the Project tree data.
010361	Fixed error in the sort order of relationship tabs in the Activity Completion Worksheet.



010624	Support for displaying status color of Activity2 Item in the InBasket added.
010687	Fixed error with onNew client event for Deliverables
010991, 011514	Fixed error that can leave Activities associated with a Project Template locked when the Project Template is unlocked.
011307	Inconsistency between the polysource (i.e. Document) lock/save status and the Deliverable grid fixed.
011375	Fixed error in automatic assignments in Activities based on role.

Tools and Utilities

Issue #	Description
010220	Solutions Upgrade Tool can now export the managed_by_id, owned_by_id, and classification system properties. Support for these properties is included because the values are based on user input and not server rules.
011199	Batch Loader improved to allow the AML template to be saved to a separate file from the UI.

4.25.3 Known outstanding issues in 9.1.0

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.
011515	Project Template does not localize properly. The column labels of the project grid relationship to project template are populated by calls to the projectGridLayoutXML.xml file in //Client/Solutions/Project/XML folder. However the call to this file is not always to the default English and not to the locale specific version of the file.	If you are running in one language that is not English, you can modify the default version of the XML. /Client/Solutions/Project/XML/ projectGridLayoutXML.xml
011961	The action="getPermissions" can fail in certain scenarios. Specifically the permissions can be swapped for the Manager and Owner Identities.	
011967	The Can Add permission can be bypassed when adding a relationship with use_src_access=1.	This cannot be exploited through the UI, however this can be fixed by disabling use_src_access.
011982	The Form editor can experience performance issues due to a wrong call in the HTML.	Save a copy of the file \\Innovator\Client\cbin\icons\16x16collection s.gif as \\Innovator\Client\cbin\icons\16x16collection. gif
011985	On-line help is incomplete	Not all new features in Aras Innovator have



		been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
011997	Saved Searches with show_on_toc=1 can cause the TOC to fail to load if there is no Label in the session language AND there is no language in the default(English) language.	Assign a Label to the default(English) language.
012006	The server can fail to commit a save when there are SQL triggers on database tables.	Disable SQL triggers on the database tables.

Quality Planning

Issue #	Description	Workaround
011922	When upgrading a database from Aras Innovator 9.0, if a DFMEA or Process planner has a multiple references to the Same characteristics, then there will be multiple creations of that Characteristics as a Part Characteristic item. However by logic only one of those characteristics can be related to a single part.	This issue must be handled as part of the upgrade process of each database individually. Those who require assistance resolving this issue should contact Aras at info@aras.com to discuss your support options on this issue.



4.26 Version 9.0.2

Aras Innovator 9.0.2 is a patch release. Its primary objective is to introduce a new structure browser. Its secondary goal is to increase the API's capability to develop localized extensions of Aras Innovator.

4.26.1 Enhancements in 9.0.2

4.26.1.1 Enterprise Application Framework

- API
 - Improved API for localization of solutions and add-ons to Aras Innovator.
- Framework
 - Ability to compare the structures of two Items of the same ItemType in the Structure browser.
 - Ability to compare the structures of two generations of the same Item in the Structure browser.
- Tools
 - New AML based Batch Loader introduced
 - Microsoft SQL Server Date\Time conversion utility introduced

4.26.2 Issues Fixed in 9.0.2

Framework

Issue #	Description
010471	Fixed issues with workflow email notification (OnEscalate email).
010626	Use singular label as a node name in the Where Used and Structure Browser view.
010653	Added Where Used and Structure Browser to the Tear-Off window menus. Added Where Used to the Revisions Dialog context menu. Revisions dialog sorted by Generation number by default.
010715	Support for an individual OnBeforeNew event for each poly-source of a poly-item.
010720	Login Screen Behavior was improved.
010796	Text Color and Text Background Color Buttons are enabled in the formatted text editor
010819	Support for PolyItems in the structure browser.
010835	Support for the Turkish locale on the client (IE client)
010896	Fixed problems with looping WF.
010914	Added Structure comparison in the Structure Browser
010938	Fixed issues with "Get Copy of "File" files" menu option
010990	Reference to obsolete tools removed from Just Ask Innovator
010926	Support for viewing PolyItems in the main search grid
010823, 010666	Made configurable grid more robust, eliminated "stack overflow" issues, cell background color issues.

Product Engineering

Issue #	Description
010649	Corrected state of Part in BOM on changing with ECN



Program Management

Issue #	Description
010840	Fixed erroneous email notifications in PM (Activity2 Email sent to all users in database)

Tools and Utilities

Issue #	Description
010136, 010865, 010693, 010694, 010675	Enhanced Language Pack Management Utility - Added ability to export data belonging to different packages to separate folders. Added ability to skip erroneous lines on import. Improved logging, handling of non-alpha paths. Added command line parameters.
011147	New SQL Date\Time Conversion utility
E001155	An updated batch load utility provides a vastly improved method for bulk data loads, utilizing the power of Adaptive Markup Language [AML] to define import templates. <ul style="list-style-type: none">• AML templates and tab-delimited text files are used to perform the batch load• The utility is run from a command line or UI and may be scripted• Performance is vastly improved (x10) through using multiple threads and processes.

Quality Planning

Issue #	Description
010751	Fixed Bound Select dialogs do not return value

4.26.3 Known outstanding issues in 9.0.2

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
008185	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.



Quality Planning

Issue #	Description	Workaround
007624	Characteristic browser out of sync with displayed value when QP document promoted from Baseline to In Work state	The workaround for the problem is to open a characteristic browser and select a latest version of a characteristic, if desired. This should be done individually for each line in each document which got out of sync due to the versioning of a characteristic(s).

4.27 Version 9.0.1

Aras Innovator 9.0.1 is a patch release. Its primary objective is to introduce an upgrade procedure from Aras Innovator 9.0 to Aras Innovator 9.0.

4.27.1 Enhancements in 9.0.1

4.27.1.1 Enterprise Application Framework

- API
 - Ability to programmatically connect to the Innovator Server using IOM methods with Window's Authentication mode enabled
- Tools
 - Batchloader file encoding support

4.27.1.2 Program Management

- Ability to reorder Project Activities in the Project Tree

4.27.2 Issues Fixed in 9.0.1

Framework

Issue #	Description
010396	Added ability to programmatically connect to the Innovator Server using IOM methods with Window's Authentication mode enabled.
010612	Where Used dialog fixed to show all generations.

Product Engineering

Issue #	Description
010282	Eliminated deadlock errors under highly concurrent load.

Tools and Utilities

Issue #	Description
009951	Batch Loader support for non-English characters.



4.27.3 Known outstanding issues in 9.0.1

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
008185	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.

Quality Planning

Issue #	Description	Workaround
007624	Characteristic browser out of sync with displayed value when QP document promoted from Baseline to In Work state	The workaround for the problem is to open a characteristic browser and select a latest version of a characteristic, if desired. This should be done individually for each line in each document which got out of sync due to the versioning of a characteristic(s).
010751	Bound Select dialogs do not return value	Use pick lists for Bound Select values



4.28 Version 9.0.0

Aras Innovator 9.0.0 is a major release. Its primary objective is to introduce localization features like multi-lingual properties, UI localization, and time zone management.

4.28.1 Enhancements in 9.0.0

4.28.1.1 Enterprise Application Framework

- API
 - IOM extended for multilingual properties and locale support
- Usability
 - Locale support for menus and toolbars
 - Locale ItemType
 - Language ItemType
 - Multi-lingual properties
 - Corporate time zone
 - Unicode support for string and text properties
 - Locale-neutral data formats for Date, Float, and Decimal Properties
- Tools
 - New Export/Import utility for database language packs

4.28.2 Issues Fixed in 9.0.0

Framework

Issue #	Description
009182	Selecting the F5 key no longer refreshes the Main window and/or Tear-off windows of Innovator in Internet Explorer. This prevents the loss of session due to refresh. New public method (name=HideKeyboardInput) is added to the .Net UI controls API to support this functionality.
009521	Added Label property to the Action ItemType as a multi-lingual string to support UI localization.
009813	File ItemType updated to require filename property.
010161	Workflow Activity Assignment Escalate To value modified to default to the first available from Assignment Escalate To, Activity Manager, Workflow Owner, and Workflow Creator.
010195	Changing Activity Assignments in Workflow process fixed.
010216	New property added to Workflow Process ItemType that corresponds to the id of the Workflow Map used to generate the Workflow Process. (name=copied_from_string)
010327	Added support for indexing by system properties.
010342	Microsoft Windows Server 2000 is no longer a supported operating system platform for the Aras Innovator server.
010360	Aras Innovator will display an Item corresponding to source_id of a relationship in WhereUsed dialog when a Relationship Item is selected or expanded in the dialog. The displayed Item will be marked by a * in the dialog.
010372	Public method GetText is added to ICellComIncoming.(class Cell, .Net UI controls)



010387	Relationship Grid display is returned to "view" mode from "edit" mode when an Item is unlocked programmatically from the event code.
010465	Workflow Process History report fixed.

Program Management

Issue #	Description
010373	Default notifications, which are sent on the Project Activity activation, are updated to support Chinese locale.
009453	Added ExpandAll and CollapseAll to the TreeGrid .Net control API to enhance behavior in Gantt Chart.

Tools and Utilities

Issue #	Description
009603	New utility for importing and exporting language packs from the Aras Innovator Database

4.28.3 Known outstanding issues in 9.0.0

Framework

Issue #	Description	Workaround
006830	Cannot change a text property from "not required" to "required".	A workaround has been provided in the on-line help of Innovator.
007281	Vault server cannot resolve host name	The vault URL computed by Innovator can fail to calculate based on DNS settings. If you encounter a problem resolving the vault URL, please contact Aras support.
008185	On-line help is incomplete	Not all new features in Aras Innovator have been documented in the on-line help section of Innovator. Please contact Aras support if you are having difficulty with a new feature.
009389	Items left locked after manual versioning can result in inconsistent vaulted data during checkout/checkin of files from a property of type Item with source File.	If you intend to edit File properties of a manually-created version, always unlock the version first, then lock it again and proceed with editing.

Quality Planning

Issue #	Description	Workaround
007624	Characteristic browser out of sync with displayed value when QP document promoted from Baseline to In Work state	The workaround for the problem is to open a characteristic browser and select a latest version of a characteristic, if desired. This should be done individually for each line in each document which got out of sync due to the versioning of a characteristic(s).

