Introduction to Advanced Capabilities

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Aras
Aras Innovator®

✓ Modern XML Web framework for building Enterprise Applications

“Model-Based Service Oriented Architecture (SOA)” – Gartner

✓ Initial Installation includes 3 business-ready solutions, and access to a suite of community solutions

✓ Aras Innovator is a SOA (Web Services) with 100% of functionality available through SOAP + XML
Aras Out-of-The-Box Solutions

**Aras Program Management**
- New Product Project Portfolio
- Executive Dashboards
- Phase-based Programs
- Milestones & Deliverables
- Actions, Tasks, Activities
- Project Templates

**Aras Product Engineering**
- Bill Of Materials [BOM]
- Engineering Change Management
- Approved Vendor Lists
- Substitutes & Alternates
- Design-to-Goal

**Aras Quality Planning**
- Failure Mode Effects Analysis [FMEA]
- Inspection & Test Control Plans
- Process Flow Diagrams
- Critical Part Characteristics

Comprehensive Functionality  Simple Consistent Screens
Community Solutions

- Requirements Management
- CMMI
- Lean
- Quality Systems
- Environmental Compliance
- Part and Lot Traceability
- Incoming Inspection
- Variant Configurator
- Work Instructions & Routings
- Training & Skills Tracking
- Tooling Calibration and PM
- CAD Integrations
- ERP Integrations
- ITIL
- ...

Applying BPM, PLM and CM to Development, Quality, Manufacturing...
All Solutions based on Shared Services

Common Shared Services
- Structure Management
- BPM
- Classification
- Access Control
- Lifecycle State Management
- Document Management
- Activity Workflow
- Dashboards
- Reporting
- Libraries and Templates
- Federation
- Versioning

Simplifies Development and Customizing
Adding Community Solutions

1. Download from Aras website
2. Install using the Import Utility
3. Start using the solution!

- Add new features quickly and easily
- Benefit from others’ solutions
- No cost for open source solutions
Extending Solutions

1. Add new data to be tracked
2. Position in the Form Editor
3. Deploy!

- Track data important to your business
- Graphically design your own forms
- No programming needed
Extending Processes

1. Add a new process step
2. Assign to a user / group / role
3. Deploy!

- Model your own business processes
- Design processes graphically
- No programming required
Role-based User Interface

1. Reorganize navigation links
2. Create custom forms
3. Deploy!

- Simplify the user experience
- Create forms for customers and suppliers
- No programming needed
Classification

1. Create classes and properties

2. Create custom forms

3. Deploy!

- Build detailed part and document libraries
- Easily manage class-specific information
- Vary lifecycles, forms, etc. by class
Internationalization

1. Download Language Packs
2. Configure multilingual data
3. Deploy!

- Single server supports many languages
- Date and number formats match locale
- Define your own multilingual fields
Notification

- **User notifications**

- **Emails**
  - Keep users informed of work to be done
  - Push important administrative messages
  - Target delivery to users / groups / roles
Workflow

- **Infinite Looping**
  - Repeat activities as many times as necessary
  - Useful for update/review cycles
Dynamically Assigned Roles

- Automatic inclusion of ‘right’ person depending on class
- Simplifies complex approval structures
Workflow

Branching

- Activate multiple parallel activities
- Interactive voting or automatic splits based on rules
Workflow

Voting Weights

- Assign weights to different users / groups / roles
- Unanimous, majority rules, executive privilege, etc, etc
Workflow

System Activities

- Automatically executes business logic, methods
- Trigger integration logic
Subflows

- Separate large processes into smaller pieces
- Reuse common processes
Workflow

- Model complex business processes
- Powerful business process management
- Track history and extract process metrics
Custom Business Logic

- Rich event model
  - Form opened
  - Field edited
  - Item updated
  - Workflow vote
  - User logout
  - Etc, etc, etc

- Server, client and system events
- Validate, integrate, execute, log...
- Endless possibilities
Vault Distribution & Replication

- **Shared Vault**
  - Everyone uses a single vault

- **Distribution**
  - Files are stored local to the user

- **Replication**
  - Files are copied between vaults
  - Users always retrieve from local vault
  - On demand or automatic replication

- **Flexible deployment options**
- Accommodates slow network speeds
- Gets the needed file to the user quickly
Solution Packaging and Sharing

Source

Export Utility

Package

Import Utility

Target

optional

Community
Federation

- Federated properties
  - Display important values from other systems inside Innovator

- Federated ItemTypes
  - Entire item is stored in another system, but acts just like a native Innovator item
  - Search, display and update external data
  - Single, consistent user interface
  - Expose data stored in legacy systems
Integrations

**Authoring Systems**
- MCAD (e.g., CATIA, Pro/ENGINEER, SolidWorks)
- EDA (e.g., Mentor Graphics, Altium)
- Electrical Software
- Firmware
- MS-Office
- Desktop Publishing
- Graphic Design
- Simulation (e.g., ANSYS)
- CAM (e.g., Mastercam,MSC Software)
- CAPP
- Digital Factory (e.g., Siemens)
- Ideation (e.g., BRIGHTIDEAL)
- Requirements Mgt. (e.g., Rational)

**Enterprise Systems**
- ERP
- CRM
- PLM / PDM
- Sales Configurator
- Collaboration
- Costing
- Compliance

**PDM Legacy / Other Solutions**
- Windchill
- Agile
- Teamcenter
- Sharepoint
- Enovia
- aPriori
- Other Legacy Systems

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Integrations

- Many potential integration points & approaches

- Technologies
  - Federation
  - Web Services
  - AML
  - ESB / EAI
  - IOM
  - Flat File

- Unify your enterprise systems
- Many integration technology options (from modern to legacy capabilities)
- Numerous prepackaged integrations available

- Integrations available from Partners
  - CAD
  - Office
  - ERP
Application-Specific Clients

- Aras provides a full-featured client
  - Internet Explorer OOTB (for now)
  - General purpose
- Community clients
  - Browser-independent client
  - Mobile clients (iPhone, etc.)
  - Integrations (Office, CAD, etc.)
- Anyone can build a client
  - Anything that can send/receive SOAP/XML can be client
  - Target specific user types or processes
  - Embed PLM features in websites
Wrap Up

- Aras Innovator is more than PLM
  - Modern XML Web application framework for building Enterprise Business Solutions
  - Model-Based Service Oriented Architecture (Model-based SOA)
- Extend existing capabilities to meet your needs
  - Build and share enterprise solutions
  - Integrate with other enterprise systems
- Extremely Powerful, Endless possibilities...
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