

INTEGRATION BUILDER

Technical and Functional Overview (Series 4)

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EXECUTIVE SUMMARY

This document provides an introductory overview of IntApp. For more detailed information, including a live product demonstration and recorded customer case studies, please contact IntApp at: info@intapp.com.

INTAPP OVERVIEW

IntApp provides solutions that connect and centrally manage legal applications to increase attorney billability (**Time Builder**), ensure client confidentiality (**Wall Builder**) and maximize staff productivity (**Integration Builder**). With over one hundred legal customers and a vibrant community of technology and service partners, IntApp has been embraced and endorsed as an industry standard.

Integration Builder

Integration Builder allows organizations to connect and share data between applications in real time to streamline business processes such as new business intake. Enabling firms to rapidly address common challenges, IntApp provides pre-built solution templates, best practices and access to an energetic, collaborative user community of IT professionals.

Integration Builder delivers rapid integration without the cost, complexity and time required by traditional tools or custom development. Integration Builder:

- Rapidly solves key business and IT problems by providing a powerful, centralized integration environment and the pre-built solutions necessary to deploy solutions quickly and effectively.
- Reduces risk and expense by freeing organizations from inefficient, ad hoc processes and manual workarounds, by keeping
 important business data up-to-date, and by extending the useful lifespan of legacy applications.
- Extends IT capabilities by empowering IT to deliver more extensive solutions in less time and by accelerating the successful
 adoption of new, emerging technologies such as web services.
- Improves service to end users by streamlining, optimizing and automating existing IT and business processes and by serving as the resource and functional catalyst for the development more innovative solutions.

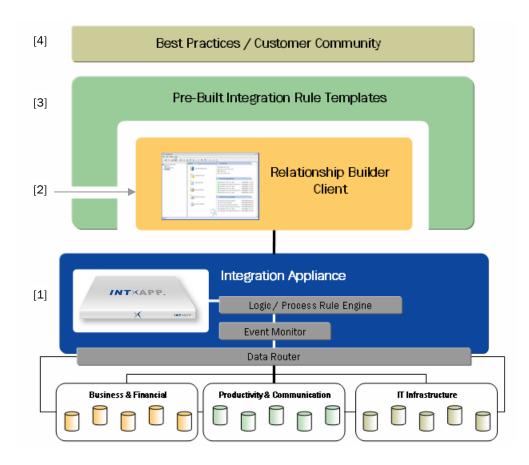
Solution Architecture

[1] Appliance (Integration Platform)

Integration Builder is provided as a self-contained appliance available in several configurations. The appliance is shipped pre-configured to a firm's specifications. This approach maximizes performance and reliability while minimizing installation overhead, maintenance requirements and upgrade issues.

[2] Client: Relationship Builder

The appliance is configured and controlled through a management client, Relationship Builder. Relationship Builder (RB) provides an intuitive interface to define, manage and track data communications across applications and data repositories.



[3] Pre-Built Integration Rule Templates

IntApp provides integration templates for common IT challenges such as data synchronization, user provisioning, and process automation. This saves IT organizations from having to build solutions from scratch. Over 200 pre-built templates are available, which can be used as-is or customized.

[4] Best Practices / Customer Community

A comprehensive knowledge base provides organizations with a broad collection of documentation, training, troubleshooting and solution development resources. Complementing the knowledge base, an interactive customer community web site offers a forum for IntApp users to interact with and learn from one another, to share experience and expertise, provide product feedback and to collaborate on common projects.

The IntApp Approach to Data Management

As data sharing and integration relationships are constructed using the graphical client, Integration Builder monitors registered data sources, awaiting defined change events. A change event may be the insertion of new information into a specific record or field or the modification or deletion of existing data.

Integration Builder does not act like traditional middleware. It does not broker or transport *all* data communication across *all* repositories. It only intervenes in response to qualified data events. This efficient approach ensures that system performance is neither significantly nor needlessly impacted.

Once a data event occurs, Integration Builder analyzes the change to determine the appropriate response. Based on the situation at hand, it then enacts any number of pre-defined response actions. These actions may include extracting, manipulating and communicating data from across any number of additional systems.

Supported Applications

IntApp supports a wide variety of standard legal back office applications, including:

Business & Financial Productivity & Communication IT Infrastructure **Document / Record Management Directory Services** Accounting Elite (MS SQL and Informix) DOCS Open / Open Text DM5 Active Directory • CMS / Aderant Novell NDS iManage / Interwoven WorkSite LDAP FileSurf LegalKey **Email / Collaboration** Portal / Intranet Time / Cost Tracking DTE Exchange SharePoint Carpe Diem Lotus Notes Plumtree Time Tracks VoIP Handshake RIM/Blackberries LawPort RightFax **CRM** Other Resources HR Ceridian InterAction Excel ADP Apex Access Ultipro Salesforce.com MS SQL Filesystems (MS or Unix) iVantage Web Services Entre PeopleSoft

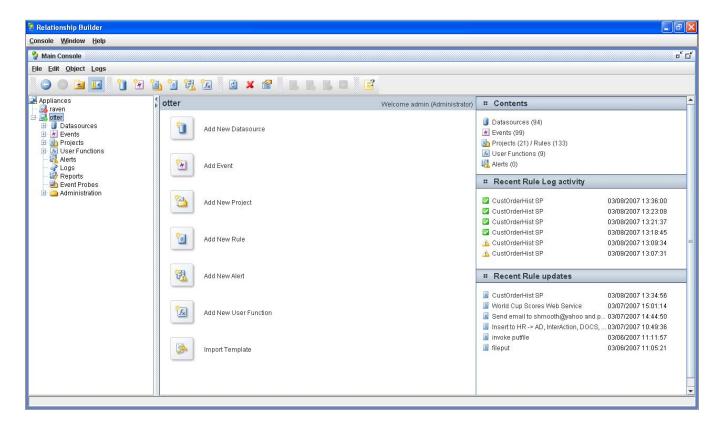
Additionally, Integration Builder can interact with and integrate any application or data source that relies on an SQL database or repository that can be accessed via ODBC. The technology can also can act as a web service client and interact with web-service enabled applications and data repositories.

INTEGRATION PROJECT CREATION

Integration Builder uses a "**project**" metaphor to organize integration and data sharing relationships. The best way to understand how the technology reduces the complexity of integration is to review the process of implementing such projects.

Relationship Builder GUI Interface

All integration relationships are created and controlled through a management client, Relationship Builder. Relationship Builder (RB) provides an intuitive interface to quickly define, easily manage, and automatically track data communications and internal processes. As a pure Java Swing application, RB can run in any environment supporting Sun's freely-available Java Runtime Environment (J2SE 5.0 JRE). Installing the client on a Windows or Linux workstation is straightforward, requiring only a web browser to access the local IntApp appliance.



Importantly, RB can connect to multiple IntApp appliances at once. This allows organizations deploying multiple appliances, either in development environments, or as functionally-focused resources (such as ethical wall enforcement solutions) to manage all activity through a single interface.

Registering and Connecting to Data Sources

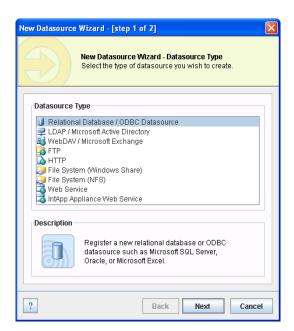
Data sources are the endpoints for the integration and data sharing definitions created and controlled through IntApp. Supported data sources include:

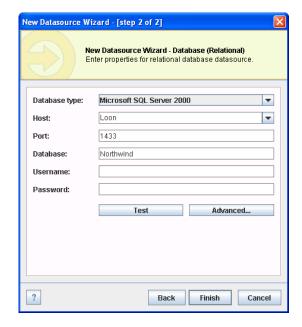
- Relational databases
- Web services / service-enabled applications
- · Microsoft Active Directory / LDAP
- File systems (Windows, Unix and Linux)
- ODBC-enabled data sources
- FTP servers
- · Text files
- Web pages
- Spreadsheets



By registering a data source, organizations enable the appliance to connect, monitor and manage data flows involving that entity. Integration Builder can interact with multiple applications or data sources.

Data sources are registered by activating a registration wizard and entering basic configuration and access information such as a server hostname, database type, user name and password. To streamline the process, the wizard includes a "Test Connection" feature which validates the configuration data and availability of the new data source. Once registered, data sources are accessible through the expandable "Data sources" tree display on the left hand window in the RB interface.





The data structures of registered data sources can be viewed directly through Relationship Builder (down to a field level).

Supported Data sources:

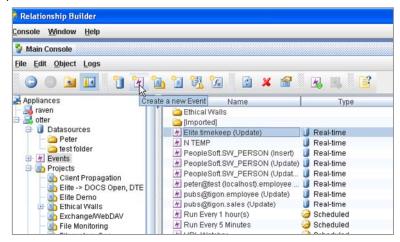
Relational Databases	File Servers and Systems	Sources Accessible via ODBC	LDAP Directories	WebDAV Servers
 Microsoft SQL Server DB2 UDB / AS400 IBM Informix Oracle MySQL PostgreSQL 	Windows FilesystemUnix/Linux FilesystemFTP Servers	 Text Files FileMaker Pro IBM Lotus Notes Microsoft Access Microsoft Excel Paradox UniVerse 	Active Directory NDS / eDirectory Generic LDAP- compliant stores	Exchange Generic WebDAV- compliant stores

Web services and service-enabled applications (Discovery of WSDL-described methods and execution via SOAP or REST)

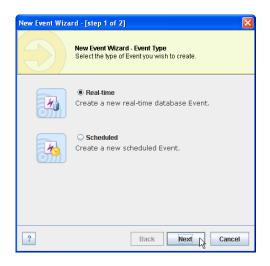
Creating an Integration Project, Events, and Rules

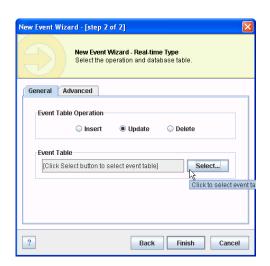
Integration Projects may contain any number of "rules," which perform pre-defined operations according to their design. These rules can be run manually or set-up to run in response to subscribed "events." Events, in turn, can be scheduled to occur periodically or when an SQL operation takes place on a database table.

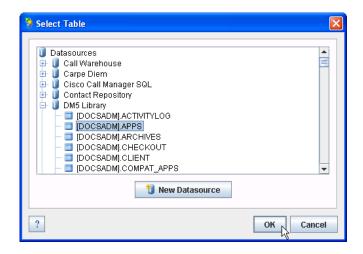
To create an event, an administrator activates the new event command by clicking the appropriate icon, selecting a menu option, or invoking its keyboard shortcut.



When a new event is created, Relationship Builder prompts the administrator to select the "event type," and in the case of real-time event, specify the cause event table to monitor.

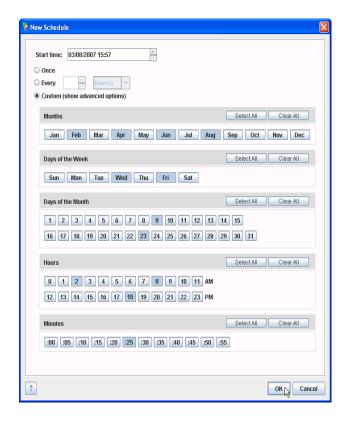








Real-time events respond immediately to data events that meet predetermined criteria. For example, in the case of a user provisioning rule, a real-time event can be used to monitor an HR application for a new user entry into the system. Additionally, advanced functionality can limit monitoring to specific fields or gather additional information at the time of a triggering event.



Scheduled events can be set to activate automatically according to any periodicity. For example, in the case of weekly reports, a scheduled rule can be used to poll data across multiple applications and present formatted email reports to defined distribution lists. They can also be executed manually at any time.

A rule "subscribed" to a particular event contains the set of tasks and actions to be carried out upon the firing of that event. For example, a rule-event relationship may look something like the following:

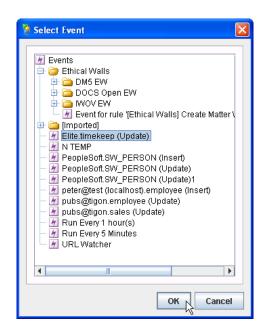
Event – Monitors an HR user table for an insert

Rule - Carries the new user information to a distinct payroll application table.

To allow for increasingly complex integrations, the event to rule subscription relationship is a one to many relationship. Similar to events, an administrator creates a new rule by clicking the appropriate icon, selecting a menu option, or invoking its keyboard shortcut.

Upon creation of a rule, Relationship Builder asks the user to subscribe the newly created rule to a particular event. The user can navigate a folder structure to select the appropriate event or defer to do this at a later time.

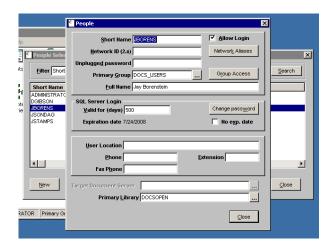


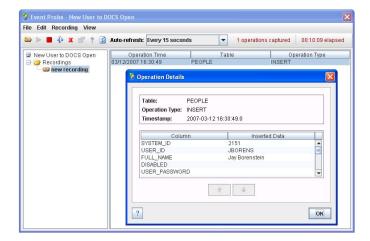


Event Probe: Simplifying Data Structure Assessment

The Event Probe feature provides administrators with a simple means to determine the database tables and fields they need to interact with in order to build rules that accomplish their goals. Typically employed in development environments where applications are isolated, Event Probe monitors and reports on the data-level changes that correspond to application-level events. These reports provide the insight necessary to construct direct data-level interactions through IntApp.

Example: An organization wishes to automate the creation of user accounts in DOCS Open based on updates to their HR system. In order to determine which DOCS table must be updated, an administrator activates Event Probe and configures it to monitor all data activity in the DOCS server. Using the native DOCS interface, the administrator creates a user account. Monitoring the system, Event Probe reports that several fields in the "PEOPLE" table in the DOCS server have been updated. The administrator then configures an IntApp rule to insert new records into this table whenever new account data is entered in the HR system. (This same procedure can be used to assess which table/fields in the HRIS system should in turn be monitored.)

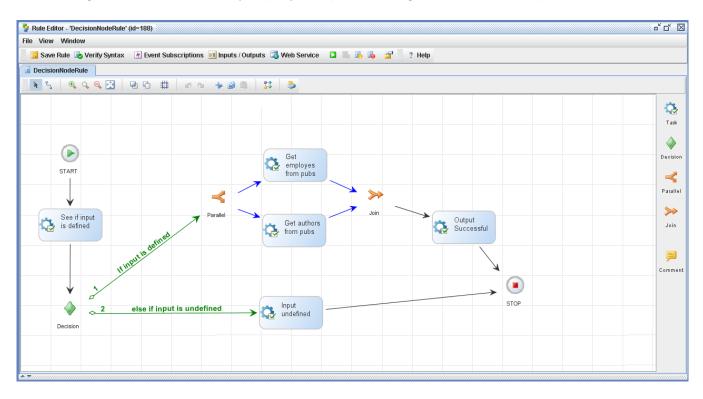




Note: For common legal integration activities and applications, such database information is already provided through IntApp's prebuilt integration solution templates.

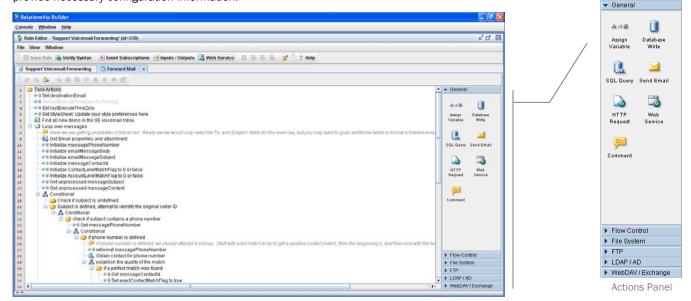
Building Integration Rules

RB provides a two-tier graphical design interface for modeling integrations, suitable for non-technical business users such as analysts or the highly technical systems analyst. In addition to providing a more intuitive and readable summary of rule architecture, this interface gives technical users the ability to specify which parts of an integration rule should run in parallel.



This second level interface displays the underlying logic behind this high level graphical design layout. It offers a wide variety of dragand-drop **actions** used to define data sharing relationships and manipulations. These actions are accessible through an actions panel that provides six categories of functional operators.

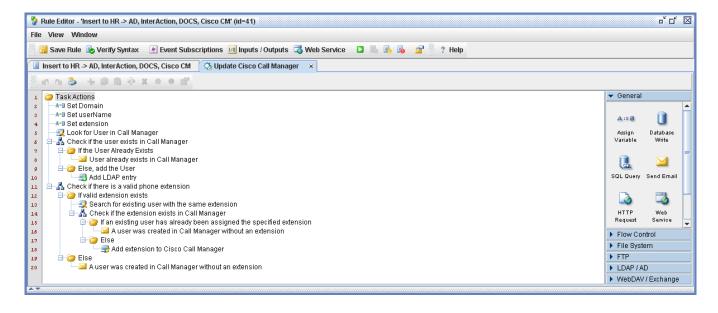
By dragging and configuring these actions, administrators can construct simple or complex integration rules. During the task design process, when specific actions are selected, the RB interface provides wizards and contextual cues to enable administrators to provide necessary configuration information.



Actions Category	Description
General	Common actions used to interact with data repositories to extract, insert or delete information
Flow Control	Logical operators used to implement conditions, branching and other situation-response mechanisms
File System	Functions for locating, retrieving and distributing files, as well as gathering metadata information and creating directories
FTP	Standard operators for interacting with FTP servers including content retrieval and population
LDAP / AD (Active Directory)	Standard methods for interacting with identity management repositories (including creating, modifying permissions or removing user records)
WebDAV / Exchange	Means to interact with WebDAV repositories including Microsoft Exchange, providing ability to extract, analyze and update user records and configuration data

Example:

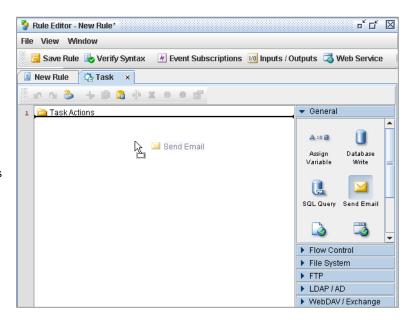
The following task implements a portion of a user provisioning rule, adding the user to Cisco Call manager through LDAP operations. In this example, the rule executes in real time whenever inserts are made to an HR database.



Email Notification

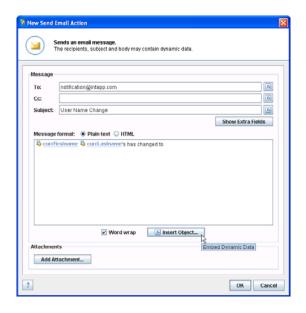
The email notification action provides a means to automate reporting activity and provide user notification. Administrators can configure email messages that are sent on a scheduled basis or only when defined criteria are met.

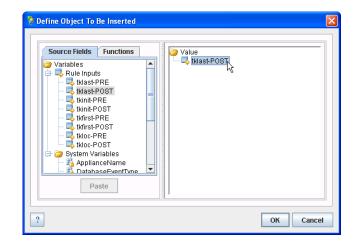
Email messages can be sent to pre-defined or dynamic recipients (or mailing lists). Messages may also include dynamic data as well as file attachments or embedded HTML, which can be constructed as part of rule operations or retrieved from accessible data sources.



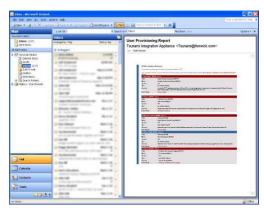
Example:

In order to streamline user provisioning processes, an administrator configures IntApp to send an email notification to a select group of recipients whenever an existing user's name is changed by the HR department. As part of this notification, the message includes the original user's name and the new name.





HTML-based email reports can also be created, streamlining internal notification processes.

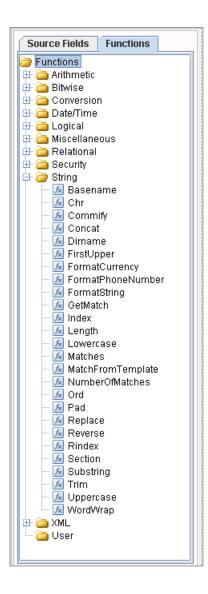


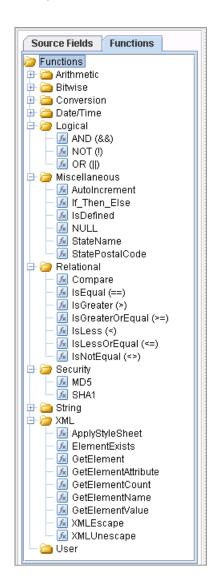
Data Transformation Functions

Relationship Builder includes an extensive library of functions which can be used to evaluate, manipulate and transform source and target data.

The library includes functions for performing string manipulations, standard and bitwise arithmetic, Boolean and conditional logic, date conversions, comparisons, regular-expression matching, as well as XML operations. Administrators may also create custom functions.

These functions can be invoked within other IntApp actions. For example, to create an account name on a DM server, an organization may wish to extract the user's first and last name from an HRIS system and concatenate the two.





STREAMLINING INTEGRATION WITH PRE-BUILT SOLUTION TEMPLATES

Integration Appliance makes available over 200 pre-defined rule templates, providing organizations with an accelerated means to implement integration solutions. Following a straightforward process, administrators simply import and configure defined templates using Relationship Builder.

Selecting and Downloading Templates

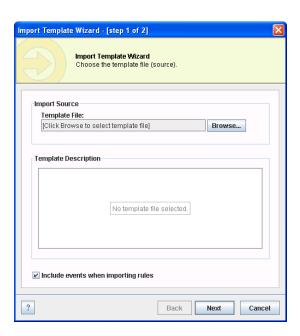
IntApp clients are provided access to the Integration Appliance Resource Center. The Resource Center provides IntApp administrators with organized sets of templates, cataloged by application and solution type. In addition to browsing by categories, administrators may also use a free-form text search to locate applicable resources.



Importing Templates

After identifying the appropriate template family on the Resource Center, the administrator downloads the files to their local workstation. Relationship Builder provides an automated template wizard which then steps the user through the import and configuration process.

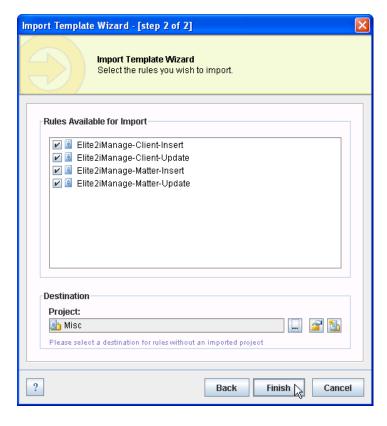
Template data contains storing folder and project structure metadata as well as linked event definitions. This feature streamlines the import and restoration process by providing the most accurate representation of the original rule definition as possible.



Configuring Templates

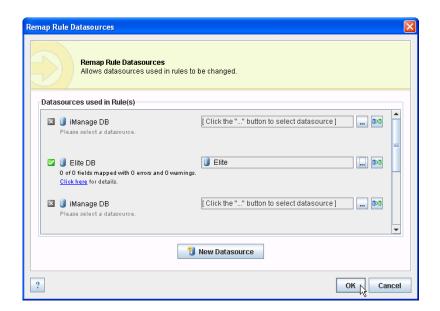
Template definitions frequently include several related rules. For example, a solution template for Elite to iManage communication may contain rule definitions that communicate client, matter and other information to iManage based on distinct events in Elite (such as insertions, updates or deletions).

As part of the import process, the administrator reviews descriptions of available rules and selects specific rule definitions to import and configure.



Mapping Dependencies

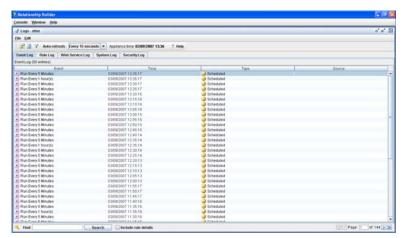
Next, IntApp provides a wizard used to map rules with appropriate data sources. This process matches data inputs and outputs defined by the rule template with the corresponding data source.



After completion of the import wizard, IntApp makes the rule(s) available for further review or customization by local administrars.

DATA EVENT AUDIT AND LOGGING

IntApp maintains the integrity of important business data across repositories and provides automatic reporting and logging of all transactions as well detailed records of access and performance of the integration appliance itself. Additionally, in-depth search and filtering functionality enables users to find information quickly and efficiently.

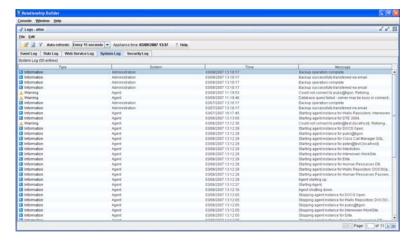


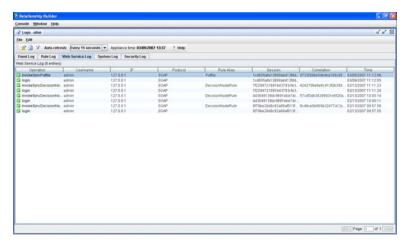
Event Log

Event logs give users visibility into the data source events that are driving rule execution. Advanced features allow users to drive into log details to understand which rules were triggered and what information was captured.

System Log

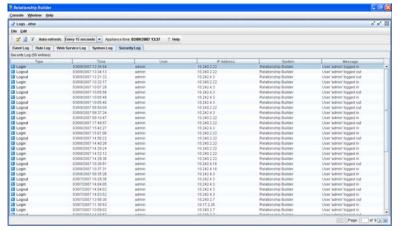
The System log gives appliance administrators important information regarding automated appliance backups, data source connectivity, and other system related events.





Web Service Log

In concert with the theme of advanced web services functionality, the Web Service log permits visibility into every invocation of a web-service operation through the appliance API.

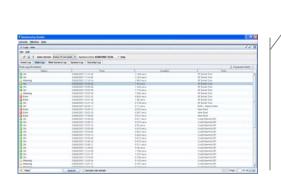


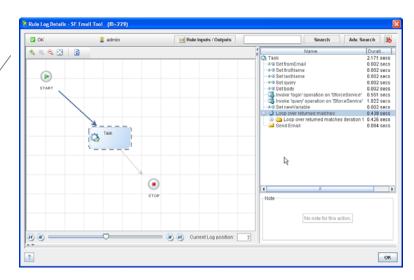
Security Log

The security log displays appliance level security related to user logins, logouts, and failed login attempts. Especially useful for larger firms, the log also presents users with IP address information and detail on whether the incoming request came through the web service API or through a Relationship Builder.

Rule Log

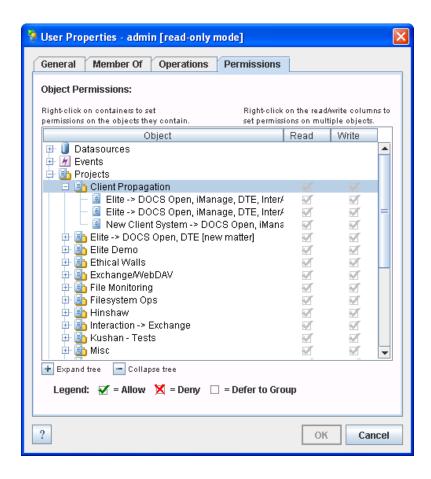
At the heart of Relationship Builder's logging capabilities is the rule log. The rule log provides appliance users with a full 360 degree view of data flow as it is being processed and transformed in real time. It displays rule status for rules that are being run in production or in simulation mode. For additional detail, users can drive into specific log entries to step through individual rule executions and gain visibility into the results of specific actions. Preference settings allow administrators to customize exactly what information is captured and to what degree (i.e. number of loop iterations, data value size, etc.), making it an invaluable tool for appliance users both during development and production.

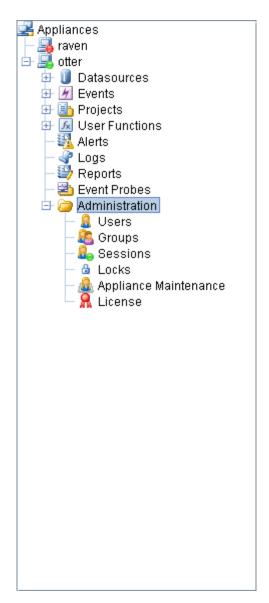




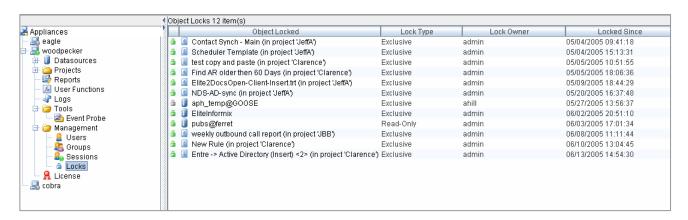
SECURITY AND ACCESS MANAGEMENT

Relationship Builder also provides organizations with new levels of visibility and control over IT resources. By centralizing integration, organizations can effectively manage and monitor administrator access and capability. Selecting from over 50 criteria, firms can establish extensive role and group security definitions, controlling which data sources and applications each user can access, interact with or change.





In cases where simultaneous administrative users may access the appliance concurrently, IntApp provides locking capabilities, protecting users from simultaneously editing the same integration definitions.

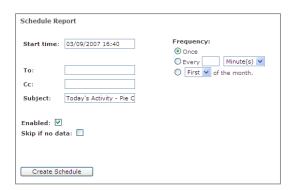


WEB-BASED REPORTING ENGINE

Integration Builder also provides a web-based reporting engine for better monitoring and management of integration and data communication activity. The flexible reporting interface presents users with a wide variety of customization options such as aggregate functions, groupings, and field selections. Additionally, the reporting engine comes preloaded with built-in templates for commonly used reports.

Scheduling

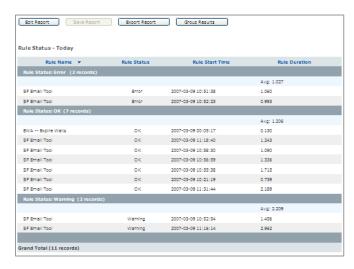
Scheduling functionality allows users to email customized reports to specific individuals or groups at periodic intervals.

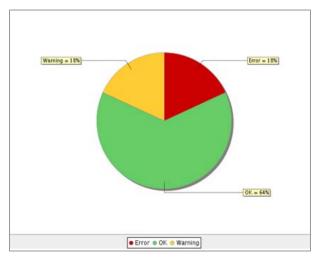




Charts & Graphs

Users can pair html based reports with colored charts and graphs to provide a better insight to larger data trends and relationships.



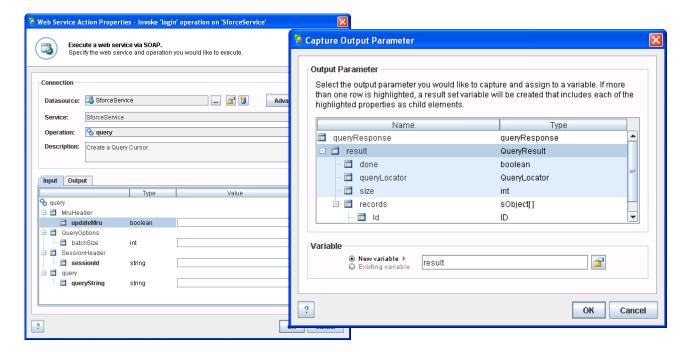


The ability to export report definitions and results allows IntApp users to communicate and share the business value of their integration infrastructure to other parts of the firm.

WEB SERVICES

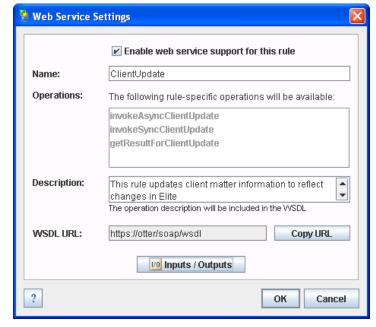
For organizations pursuing a services-oriented architecture (SOA), the Integration Builder provides web services capabilities to interact with, manage and create services. Organizations can interact with service-oriented applications, connecting them with legacy systems and controlling all data communication through a single interface.

Invoke Web Services – Users can register web services described by WSDL (Web Service Definition Language) documents, access and execute methods provided by those services via the SOAP protocol, and automatically parse and respond to the returned XML data.



Service-Enable Applications – Appliance rules can be published and invoked as web services. In this way, the appliance acts as an abstraction layer enabling organizations to service-enable legacy applications. It also enables remote rule activation through external sources such as a web page or custom internal application.

As an alternative to the SOAP web service protocol, users can implement Representational State Transfer (REST) requests to invoke web-service enabled rules, providing an additional level of flexibility.



CONCLUSION

IntApp is the leader in legal IT integration. Providing a standardized, centralized platform for data communications, IntApp is enabling a growing roster of firms to realize benefits unavailable through manual processes or custom script development, including:

Greater Performance

- Real-time reaction
- Event-driven response (ensuring minimal performance impact across integrated applications)
- Elimination of delays associated with manual processes or scheduled operations

Greater Control

- A centralized control center for all integration
- Extensive visibility and influence over all application connections and data flows through web-based reporting
- Reduction of data errors combined with automatic logging and audit capabilities

Greater Capability

- · Legal specific solutions such as client/matter propagation, user provisioning, and event-driven reporting
- A standard integration "language" and set of best practices focused on legal environments, resulting in improved quality and implementation speed
- · Reduction of risks associated with unplanned application outages through multiple risk and disaster mitigation features

For more information, visit: http://www.intapp.com or email: info@intapp.com.