Indesca 5.1.0 Business Solution Overview

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Indesca Business Solution

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Indesca

Indesca (Independent Scheduling Agents) is the Stonebranch Inc. business solution for enterprise job scheduling. It is a single workload agent that integrates with your current scheduling engine, enabling standardized system-wide processes and procedures.

Using Indesca, all elements of the business process are visible. Execution information can be stored in a centralized repository to further reduce the complexities of historical data and audit requirements.

Indesca allows job execution without regard to the platform or scheduling solution. It also enables the integration of multiple scheduling solutions. You can set up standardized Indesca processes to execute any workload anywhere in your environment, allowing job scheduling across platforms without specialized platform-dependent scheduling solutions or training.

The single scheduling tool environment allows for centralized monitoring and control over the environment with your existing tools. This allows for proactive management where jobs can be automatically delayed when resources are not available, avoiding time-consuming cleanup after multiple abends.

Indesca allows for integrated support and configuration for new types of workload applications, such as Internet and message-based processing. At the same time, it reduces the complexity of the environment while providing proactive intervention for system maintenance and server failures.

Additionally, Indesca promotes standardization of security policies and central configuration of its components. Other considerations include ease of platform deployment and consolidated audit history.

Implementation

Indesca provides simplified implementation, enabling rapid deployment throughout any environment. A common infrastructure and command language means that deployments are not platform-specific.

User's access to servers and files is managed via native operating system security. Also, user's access to Indesca is centrally managed. All Indesca installation materials and documentation are delivered electronically via the customer area of the Stonebranch website. This ensures that customers can always access the most current versions and documentation.

All Indesca functions and components are delivered in a single install package for each platform. Native operating system packaging simplifies installation. Indesca license keys are not CPU-specific. This simplifies deployment and ensures business continuity.

Stonebranch offers several programs to assist in implementation. These programs are targeted to help organizations implement the solution quickly in order to obtain the fastest return on investment. They include education, implementation, migration and consulting services. See our website at http://www.stonebranch.com/services.html for more information.

Infitran Business Solution

Infitran (Intelligent File Transfer) is the Stonebranch Inc. business solution for managed file transfer.

Infitran is comprised of many of the same components that comprise Indesca. For a description of Infitran and its components, see the Infitran 5.1.0 Business Solution Overview.

Indesca Solution Components

The following list introduces you to the individual components that comprise the Indesca business solution. Each component name is a link to more detailed information about that component.

Universal Command is the core component for Indesca's enterprise scheduling functionality. It allows you to extend the command line interface of

a local operating system to the command line interface of any remote system that can be reached on a computer network.

Universal Command Agent for SOA lets you extend the workload execution and management features of Universal Command to Internet and message-based workload.

Universal Event Monitor provides a platform-independent means of monitoring local and remote system events, and executing system commands and scripts based on the outcome of those events.

Universal Event Monitor for SOA integrates Internet and message-based applications with systems management functions, letting you monitor Internet and messaged-based applications and execute system commands or scripts based on the outcome from those applications.

Universal Enterprise Controller provides alerts for activity and availability of the Indesca components and Agents installed throughout your enterprise.

Universal Enterprise Controller Client Applications for Windows let you monitor and configure all Agents throughout your enterprise.

Universal Event Subsystem provides audit logging of all Indesca events for historical and audit purposes.

Universal Connector is a command line interface that lets you manage SAP background processing tasks from any scheduling system on any platform.

Universal Broker, required on all systems running Indesca, manages Indesca product components.

Universal Automation Center Agent automatically registers a Universal Broker with the Stonebranch Automation Center workload automation product.

Workload Automation 5 Utilities are included as part of the Indesca business solution. They perform a variety of functions for one or more platforms.

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Introduction

This page provides a description of each component that comprises the Indesca business solution:

Indesca Documentation

The Indesca 5.1.0 User Guide provides information on the enterprise scheduling features of Indesca, and the Indesca components that are required as part of the solution presented by each feature.
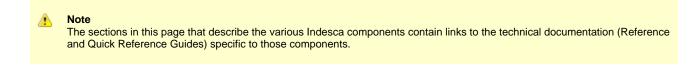
The User Guide:

- Describes how each feature fits into the Indesca business solution.
- Illustrates example solutions of how each feature can be implemented.
- Identifies the Indesca components used as part of each solution.
- Provides links to Reference Guides for the components.

Reference Guides provide detailed technical information about the usage, syntax, format, and values of component commands and configuration

options, as well as other information specific to the component.

Quick Reference Guides provide summary information on the usage, syntax, format, and values of component commands or configuration options.

> ⚠️ **Note**
> The sections in this page that describe the various Indesca components contain links to the technical documentation (Reference and Quick Reference Guides) specific to those components.

Stonebranch also provides separate documents for the installation of operating system-specific packages and for component-specific error messaging. For links to these documents, see Additional Documentation at the end of this chapter.

Universal Command

Universal Command extends the command line interface of a local operating system to the command line interface of any remote system that can be reached on a computer network. Any type of program, command, or script file that can be run from the command line interface can be run by Universal Command.

The Universal Command interface is operating-system independent. The remote and local systems can be running two different operating systems.

Universal Command consists of two components:

- Manager, on the local system, extends a command line interface to a remote system.
- Server, on the remote system, executes commands on behalf of the manager.

The manager supplies input files to, and receives output files from, the remote command on the server in real-time. As long as the remote command is running, the manager runs. When the remote command ends, the manager ends with the exit status of the remote command. With standard out and standard error as well as the exit status of the remote command available from the manager, there is no need for access to or expertise on the remote operating system.

As such, Universal Command interfaces with your platform-specific job scheduling solutions, providing visibility and control throughout your entire enterprise. This enables you to have an end-to-end view of all workload activity.

Technical Documentation

For detailed information on Universal Command, see the following documents:

Universal Command 5.1.0 Reference Guide

Universal Command 5.1.0 Quick Reference Guide

Universal Command Agent for SOA

Universal Command Agent for SOA – the SOA "Publisher" – is a workload execution component that is available for use with Indesca. It extends the workload execution and management features of Indesca to Internet and message-based workload. It lets you invoke these workloads using protocols such as JMS, HTTP, and SOAP.

Universal Command Agent for SOA gets its payload input from Universal Command through STDIN. When the parameters and data are passed in, the workload execution request is processed and any return data is passed back to Universal Command.

It can be initiated from a variety of sources, regardless of platform, such as one or more job scheduling systems, workflow engines, or EAI tools, as well as from business applications and end users.

Universal Command Agent for SOA enables you to:

1. Consolidate your Internet and message-based workload within your current Enterprise Scheduling environment.
2. Use your existing scheduler, or other workload management applications, along with your new or existing Stonebranch components.
3. Use your existing development, test, and production business processes.
4. Use a single point of workload execution that is not tied to specific vendor hardware or software platforms.

> ⚠️ **Note**
> Universal Event Monitor for SOA – the SOA "Listener" – is a file-based event monitoring component available for use with Indesca that can be triggered by internet and message-based events.

Technical Documentation

For detailed information on Universal Command Agent for SOA, see the following documents:

Universal Command Agent for SOA 5.1.0 Reference Guide

Getting Started with Universal Command Agent for SOA - MQ Connector 5.1.0

Getting Started with Universal Command Agent for SOA - XD Connector 5.1.0

Universal Event Monitor

Universal Event Monitor provides a platform-independent means of monitoring local and remote system events, and executing system commands and scripts based on the outcome of those events.

It integrates with your workload management infrastructure to initiate both movement of the data to the appropriate platform and immediate processing of the data as soon as it is available; that is, by executing system commands and scripts based on the outcome of the events that it is monitoring.

Universal Event Monitor detects file creation in real-time on the operating system level and invokes a "handler" to take action on every file matching predefined criteria – whether it is renaming it, processing it locally, moving the file to another server, or notifying your job scheduling system to initiate further processing. It provides rule-based alerts and notifications that enable you to immediately handle any issues that may arise.

Universal Event Monitor can run in either of two-modes: demand-driven or event-driven.

- In demand-driven mode, the Universal Event Monitor manager provides the Universal Event Monitor server with event definitions and event handlers, which is a command or script that the server executes based on the outcome of the event. This can be initiated from any system running Indesca and scheduled through your scheduling engine.
- In event-driven mode, a server monitors one or more system events simultaneously based on event definitions stored in its event definition database. The server monitors each event until it is no longer active, or until the event-driven server ends.

Universal Event Monitor supports the most modern security standards and methodology, including SSL encryption.

UEMLoad

The UEMLoad utility handles all event definition and event handler database management tasks, including adds, updates, deletes, and lists / exports. UEMLoad forwards database requests to a UEM Server, which validates the information.

Technical Documentation

For detailed information on Universal Event Monitor and UEMLoad, see the following documents:

Universal Event Monitor 5.1.0 Reference Guide

Universal Event Monitor 5.1.0 Quick Reference Guide

UEMLoad 5.1.0 Quick Reference Guide

Universal Event Monitor for SOA

Universal Event Monitor for SOA – the SOA "Listener" – is a file-based event writing component that is available for use with Indesca. It lets you create file-based events from inbound Internet and message-based messages, and write the events to file.

Universal Event Monitor for SOA integrates Internet and message-based applications with systems management functions such as alerting and notification, incident and problem management, Job scheduling, and data movement.

> ⚠️ **Note**
> Universal Command Agent for SOA – the SOA "Publisher" – is a workload execution component available for use with Indesca.

Technical Documentation

For detailed information on Universal Event Monitor for SOA, see the following document:

Universal Event Monitor for SOA 5.1.0 Reference Guide

Universal Enterprise Controller

Universal Enterprise Controller provides alerts for the activity and availability of the Indesca components and Agents installed in your enterprise. It prevents jobs from starting and files from being transferred or processed during hardware failures or network issues.

Universal Enterprise Controller issues alerts when a component becomes unreachable or unavailable, as well as when the component is again available. These alerts can be picked up by your automation tool and used to pause the submission of jobs and file transfers for nodes that are unavailable, and resume submission once network connectivity or system availability has been re-established, without manual intervention.

You can route these alerts to your existing automation console. This allows for a simple, quick and comprehensive integration, as these systems can remain unchanged when additional agents are added to your infrastructure.

Universal Enterprise Controller installs on a single, central platform, providing the management layer that enables the Universal Event Subsystem, I-Activity Monitor, I-Management Console, and I-Administrator to centralize visibility and management of your workload infrastructure.

UECLoad

UECLoad is a command line application that permits Universal Enterprise Controller users to add, delete, and view Agents in the Universal Enterprise Controller database.

Via UECLoad, a user can add or delete individual Agents, or supply an Agents definition file (**deffile**) with definitions to be added or deleted from Universal Enterprise Controller. UECLoad also can be used to export audit and history records created with the Universal Event Subsystem to multiple formats including text, html, and csv.

Universal Event Subsystem

The Universal Event Subsystem is a subsystem used by most Indesca components that records, routes, and manages event messages generated by Indesca components.

Event messages are generated whenever a component performs an action that impacts the computing environment on which it executes. The records are stored centrally and can be exported for audit and history reporting, as well as for archival.

Technical Documentation

For detailed information on Universal Enterprise Controller, UECLoad, and the Universal Event Subsystem, see the following documents:

Universal Enterprise Controller 5.1.0 Reference Guide

Universal Event Subsystem 5.1.0 Event Definitions

UECLoad 5.1.0 Quick Reference Guide

Universal Enterprise Controller Client Applications

Universal Enterprise Controller Client Applications are a suite of three stand-alone client applications for Windows operating systems used to manage and provide visibility to the Indesca infrastructure:

- I-Activity Monitor
- I-Management Console
- I-Administrator

I-Activity Monitor

The I-Activity Monitor client application provides you with end-to-end visibility of workload management activity throughout your Indesca environment.

It provides a graphical user interface for displaying information about the current status and posted alerts for all Agents and SAP systems being monitored by Universal Enterprise Controller.

Whether the workload consists of regular jobs, scripts or commands, I-Activity Monitor lets you see where all processes are executed, as well as when, where, and how they were initiated.

I-Activity Monitor identifies Infitran file transfer jobs, the current state of each transfer, and every instruction executed in a file transfer script. This enables you to know exactly which files have been transferred and which files are still pending.

In addition, I-Activity Monitor can display activity regardless of whether it was initiated by a scheduling system, workflow engine, business application, or end user.

I-Management Console

The I-Management Console client application provides a graphical user interface for remote configuration of all Stonebranch Agents in an

enterprise. From a single machine, you can configure a single Agent's components or, simultaneously, multiple Agents.

With I-Management Console, you can define standard security access and authentication policies and ensure that they are active across all servers. You can define which users are allowed to change the policies. An audit log lets you determine when changes were made – and who made them.

I-Management Console lets you distribute configuration information to any server, regardless of its operating system or Indesca release level. It knows which properties apply for each individual Agent based upon release level and operating system, and will only send the appropriate properties to each Agent.

I-Administrator

The I-Administrator client application lets you maintain information on all Agents that Universal Enterprise Controller monitors and the SAP systems to which Universal Enterprise Controller has access. It lets you add, modify, and delete users, Agents, groups, and SAP systems.

I-Administrator also lets you maintain Universal Enterprise Controller users and their permissions.

Technical Documentation

For detailed information on Universal Enterprise Controller Client Applications, see the following document:

Universal Enterprise Controller Client Applications 5.1.0 User Guide

Universal Connector

Universal Connector is a command line interface that controls background processing within an SAP system, allowing any computer on a network to manage SAP background processing tasks from any scheduling system on any platform.

When Universal Connector is told which SAP system to connect to and what background processing tasks to perform, it connects to that SAP system and processes the request.

Universal Connector provides the functionality to integrate SAP systems into both local administrative tools and enterprise system management infrastructures. It lets you extend your existing scheduling tools to SAP batch workloads, enabling you to manage all of your scheduling activities from one tool.

Certified by SAP, Universal Connector uses standard SAP interfaces only, such as XBP3.0, without installing any modules into the SAP environment or onto a SAP server. It installs on a single central platform and connects to any number of SAP systems.

Universal Connector integrates with your output management tools to provide central audit and archive capability for both SAP joblogs and spoollists. Additionally, error messages logged to the SAP system log during the job's execution are copied to its joblog, enabling you to identify and resolve SAP batch issues without requiring access to the SAP system.

Technical Documentation

For detailed information on Universal Connector, see the following documents:

Universal Connector 5.1.0 Reference Guide

Universal Connector 5.1.0 Quick Reference Guide

Universal Broker

Universal Broker manages Indesca product components.

It receives requests to start (or restart) a component on behalf of a user (person or component). Universal Broker tracks and reports on all components that it has started until their completion.

Universal Broker is required on all systems running Indesca.

Technical Documentation

For detailed information on Universal Broker, see the following documents:

Universal Broker 5.1.0 Reference Guide

Universal Automation Center Agent

Automation Center is the Stonebranch workload automation solution. Automation Center performs job scheduling, file transfer, and event monitoring across all server platforms in the enterprise.

The Universal Automation Center Agent (UAG) component provides agent services for an Automation Center server. UAG enables an Automation Center server to schedule workload, transfer files, and monitor events on the agent system. UAG completely and seamlessly integrates with Automation Center server to provide distributed, workload automation throughout the enterprise.

Universal Automation Center Agent (UAG) automatically starts when the Universal Broker starts and stops when the Universal Broker stops.

Technical Documentation

For detailed information on Universal Automation Center Agent, see the following documents:

Universal Automation Center Agent 5.1.0 Reference Guide

Workload Automation 5 Utilities

Workload Automation 5 Utilities are included as part of the Indesca business solution.

> ⚠️ **Note**
> Some utilities are operating-system specific.

Universal Certificate

Indesca supports X.509 version 1 and version 3 certificates to securely identify users and computer systems. Although implementing a fully featured PKI infrastructure is beyond the scope of Indesca, if your organization has not yet established one, the Universal Certificate utility can be used to create digital certificates and private keys.

Universal Control

Universal Control provides the ability to start and stop Indesca components, and to refresh component configuration data.

Universal Copy

Universal Copy provides a means to copy files from either manager-to-server or server-to-manager. (For full-featured managed file transfer, see the [INF510:Infitran 5.1.0 Business Solution Overview.)

Universal Database Dump

Universal Database Dump Berkeley db_dump utility is tailored specifically for Stonebranch databases. It allows you to dump one or more databases for backup and restore purposes.

Universal Database Load

Universal Database Load Berkeley db_load utility is tailored specifically for Stonebranch databases. It provides the ability to restore a database that has been previously dumped.

Universal Display Log File

Universal Display Log File is available on the iSeries platform. It provides the ability to read job log files and write them to standard out and optionally delete the files after read.

Universal Encrypt

Universal Encrypt encrypts the contents of command files into an unintelligible format (for privacy reasons).

Although all Indesca command line options can be encrypted with the Universal Encrypt utility, most organizations use it to encrypt and store authentication credentials such as userid or password. The encrypted command file can be decrypted only by Stonebranch product programs. No decrypt command is provided to decrypt the command file.

Universal Event Log Dump

Universal Event Log Dump (UELD) is a utility that selects records from one of the Windows event logs and writes them to a specified output file.

All records from a log can be dumped, or event records can be selected according to the date and time that they were generated. UELD can be run any time as a stand-alone application. It also is designed to work with Universal Command, which provides centralized control from any operating system and additional options for redirecting output.

Universal Message Translator

Universal Message Translator translates error messages into return (exit) codes based on a user-defined translation table.

Every command ends with a return code that indicates the success or failure of the command execution. Typically, a return code of 0 indicates success; all other codes indicate failure. However, a small number of commands do not set their return code under failure conditions; instead, they issue error messages. Based on the user-defined translation table, Universal Message Translator translates these error messages into return codes.

Universal Install Merge

The Install Merge (UPIMERGE) utility merges options and values from one component configuration file or component definition file with another.

UPIMERGE runs automatically during the Indesca installation upgrades on UNIX and Windows. During the install, UPIMERGE combines options and values from existing configuration and component definition files with the options and values in the most recent versions of those files (delivered with the distribution package). The result of each merge is a single file, with preserved options and values residing alongside any new options and values that were introduced to support new Indesca features.

Universal Query

Universal Query queries any Universal Broker for Broker-related and active component-related information. This utility can be issued from any Indesca installation to query any broker in the Stonebranch infrastructure.

Universal Return Code

The Universal Return Code utility is a Windows utility that performs the function of ending a process with a return code that is equal to its command line argument.

The return code of a Windows batch script is the return code of the last command executed. Universal Return Code can be used as the last command to set the return code of the batch script to something different than the return code of the last command executed.

Universal Spool List

Universal Spool List provides the ability to list database records. The functions that Universal Spool List provide are required for possible database clean-up or problem resolution at the direction of Stonebranch, Inc. Customer Support.

Universal Spool Remove

Universal Spool Remove provides the ability to remove component records from the Stonebranch databases. Universal Spool Remove should only be used at the direction of Stonebranch, Inc. Customer Support.

Universal Submit Job

The Universal Submit Job (USBMJOB) utility is a command for the iSeries environment that encapsulates the IBM Submit Job (SBMJOB) command.

USBMJOB builds on the functionality of SBMJOB by providing a job submission command that better suits the needs of a remote user issuing IBM i commands via Indesca.

Universal Write-to-Operator

The Universal WTO (UWTO) utility is a command line utility for the z/OS UNIX System Services (USS) environment.

Universal WTO issues two types of messages to z/OS consoles:

1. Write-To-Operator (WTO) messages
2. Write-To-Operator-with-Reply (WTOR) messages.

Technical Documentation

For detailed information on Workload Automation Utilities, see the following documents:

Workload Automation Utilities 5.1.0 Reference Guide

Universal Certificate 5.1.0 Quick Reference Guide

Universal Control 5.1.0 Quick Reference Guide

Universal Query 5.1.0 Quick Reference Guide

Additional Documentation

In addition to component-specific documentation, Stonebranch also provides the following documentation for Indesca:

Installation

Workload Automation 5.1.0 Installation Guide

Workload Automation 5.1.0 Installation Overview

Messages and Codes

Workload Automation 5.1.0 Messages and Codes