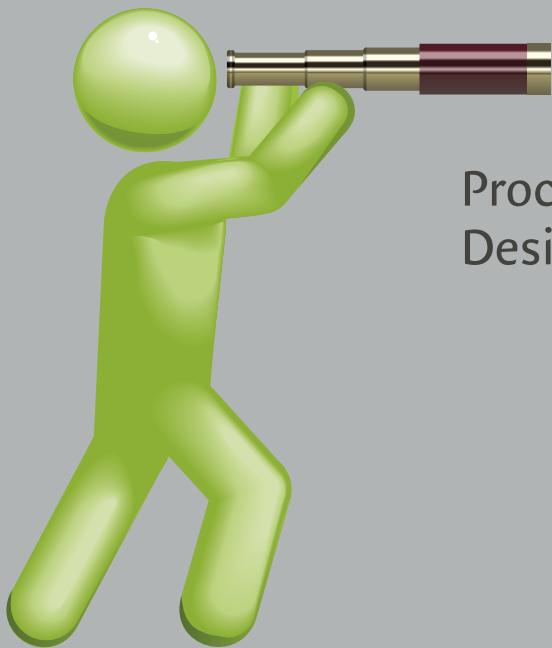


inubit Process Center



Processes in Focus:
Design – Automation – Optimization

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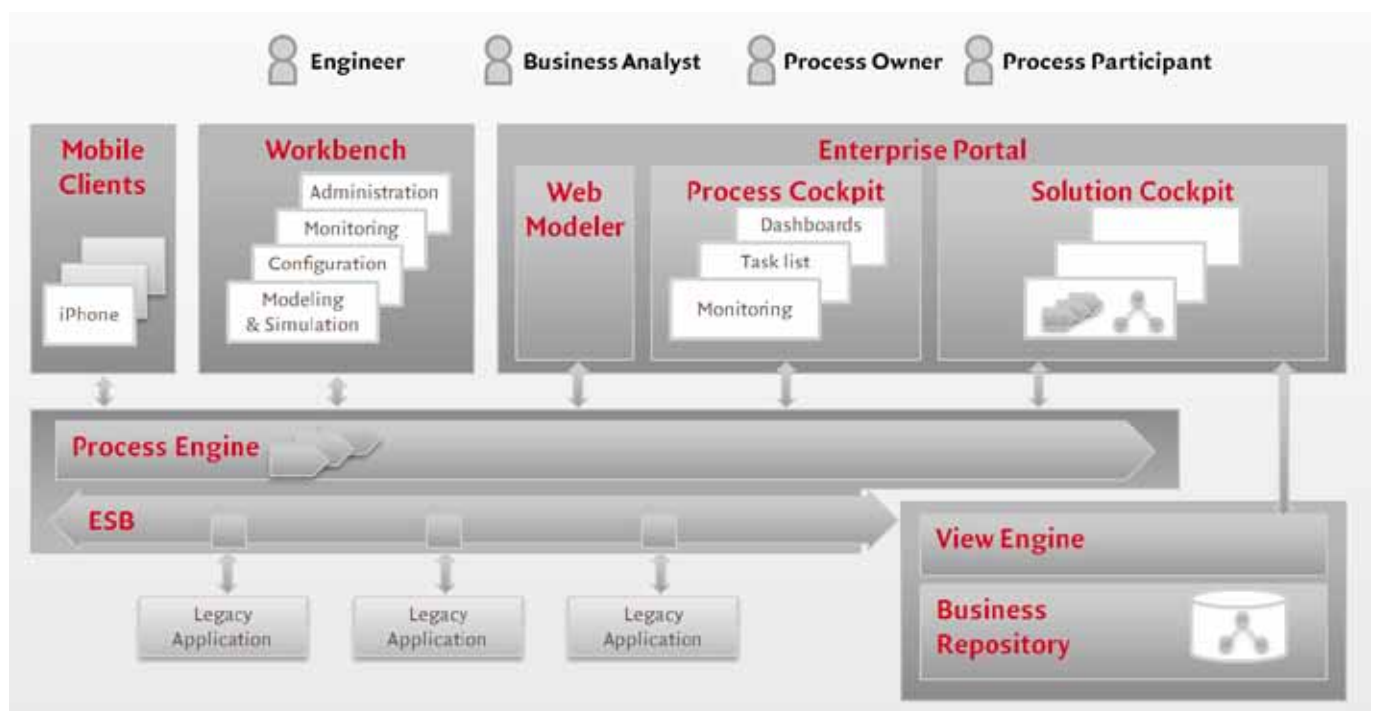
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inubit Process Center

The inubit Process Center includes all the components of the inubit Suite that are necessary for holistic process management:

- ▶ inubit Workbench with the services Modeling & Simulation, Execution & Integration, Human Workflow, Monitoring & Reporting and optional SOA Foundation
- ▶ inubit Process Engine / Enterprise Service Bus
- ▶ Selection of required system connectors, format adapters, utilities and data converters
- ▶ inubit Enterprise Portal with inubit Process Cockpit (Process Viewer, Tasklist, Report Viewer) and optional inubit WebModeler

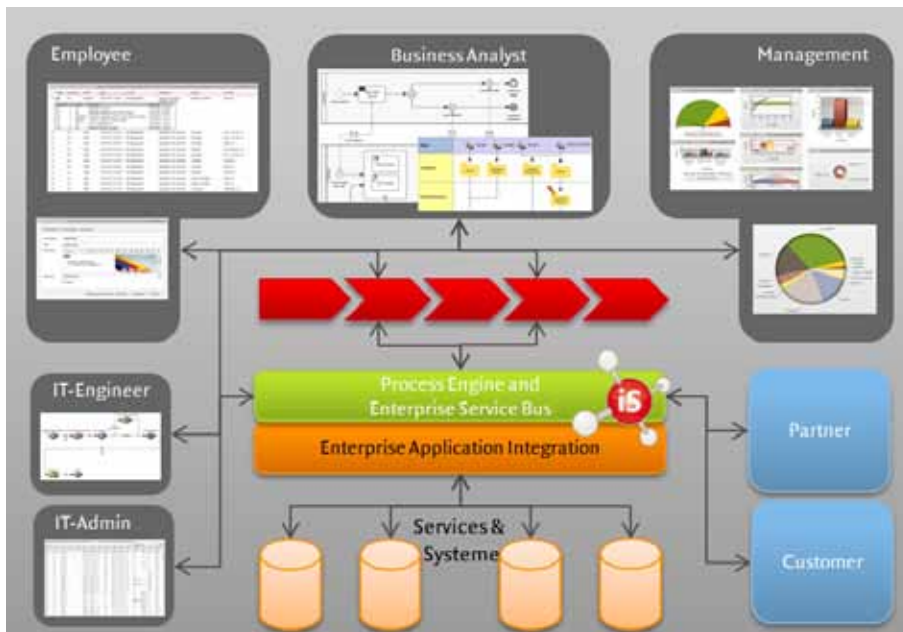
→ Architecture of the inubit Suite 6



End-to-End Process Management: Agility for your Business

Departments and IT both strive to design more efficient business processes and respond flexibly to new requirements. The Process Center of the inubit Suite provides the necessary technological platform for this. Within a standard software, you can define business processes, simulate them before production startup, implement them technically and finally monitor them in real time.

The company focuses on the core business processes here – involved employees, management, business partners and customers are actively integrated into the process execution and internal and external IT applications are integrated without media discontinuity. All stakeholders can map any process requirements using a shared platform. The modular structure of the software and the license model that grows with it also make it possible to expand process management initiatives as required and thus achieve fast return on investment (ROI) for each process.



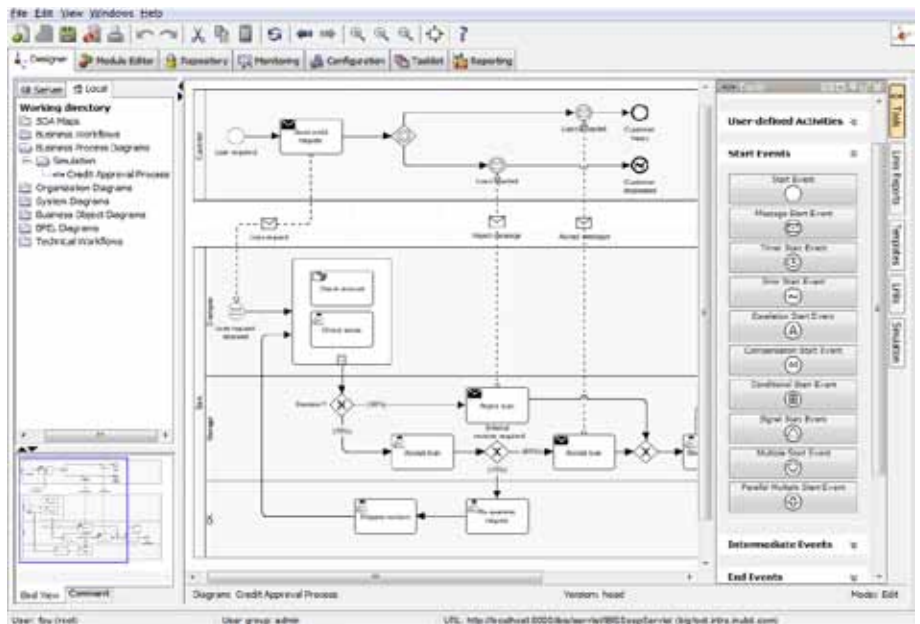
—> The inubit Process Center makes the company focus on the processes and integrates all stakeholders.

Transparent Processes as the Basis for Maximum Efficiency

With the inubit Workbench and the optionally available inubit WebModeler, the inubit Process Center provides all the tools required for easily and quickly modeling and optimizing processes, organizations, resources and IT systems. This makes the process flows in your company transparent for staff and management. These process flows also form the basis for the technical implementation and are subject to monitoring and continuous improvement at the same time.

Modeling business processes

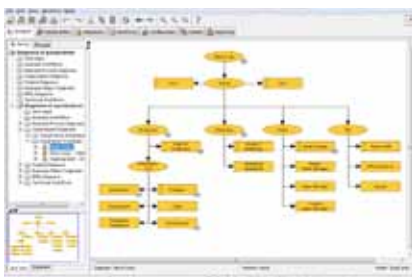
Business process models can be modeled as Business Process Diagrams (BPDs) using the BPMN 2.0 standard. A “simple profile” facilitates getting started with BPMN modeling by reducing the elements to the most important modules. Integrated validation also ensures compliance with the BPMN standard. This enables business users without specific BPMN knowledge to model processes – in the inubit WebModeler as well as collaboratively with other parties involved in the process. For the business-related configuration of the processes, you can use business rules such as value-based rules that directly affect the technical execution level.



→ Business processes are modeled using the BPMN 2.0 standard and can then be simulated. In addition, they are the basis for process automation. You can generate technical workflows from Business Process Diagrams.



→ In the inubit WebModeler you can collaborate with other process stakeholders to create process models.



→ Organizational structures are displayed using organization diagrams. Within process models, you can link to the respective resources to define responsibilities for tasks or processes.

In addition to process flow diagrams, you can map the following model types:

- ▶ Process landscape maps visualize the entire process landscape and provide an overview of the structure of processes and responsibilities.
- ▶ Organization diagrams provide a visual representation of the organization and are used to define personnel resources (organizational units, roles, substitutes, and persons, including working times). Existing organization diagrams can be synchronized from primary systems such as Active Directory, LDAP or SAP HR.
- ▶ System diagrams visualize the IT and service infrastructure. They also make it possible to configure third party systems and manage partners.
- ▶ Business Object Diagrams map business objects and form the basis for creating data-centric business solutions using the inubit Solution Center.
- ▶ SOA Maps provide visual representation of an SOA structure across multiple organization levels and show the distribution of front-end, process, orchestration and service components across different applications.

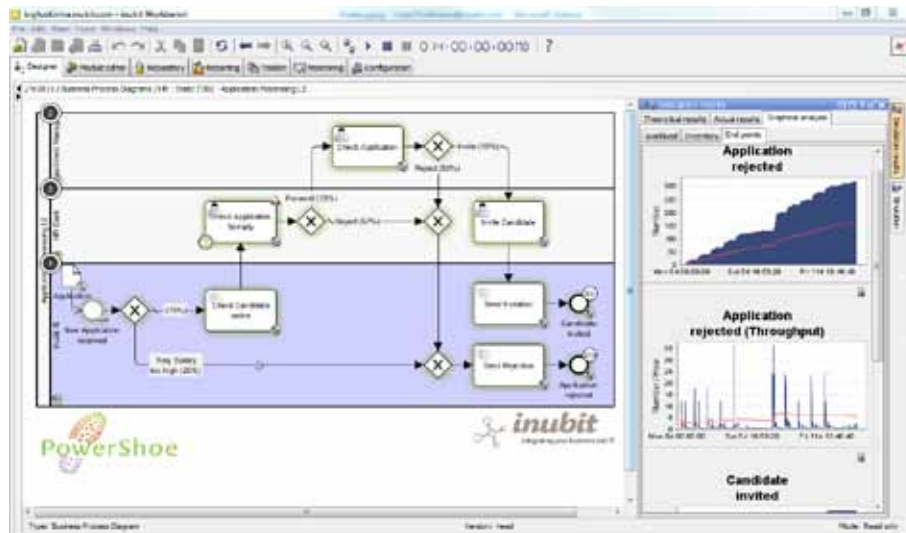
All model types of the inubit Suite are structured hierarchically. This enables absolute continuity from top-level processes down to detailed processes.

All models are version managed and imported or exported in the central repository. An authorization management function is also integrated. The process models can be created in several languages and existing processes can be imported from external systems (ARIS, Adonis, Bonapart or via XPD 2.1).

Simulating process models

Modeled process flows can be simulated before the technical implementation. Step-by-step simulation validates processes with regard to their process flow and determines their times and costs. The metadata required for that is stored using flexible metadata management.

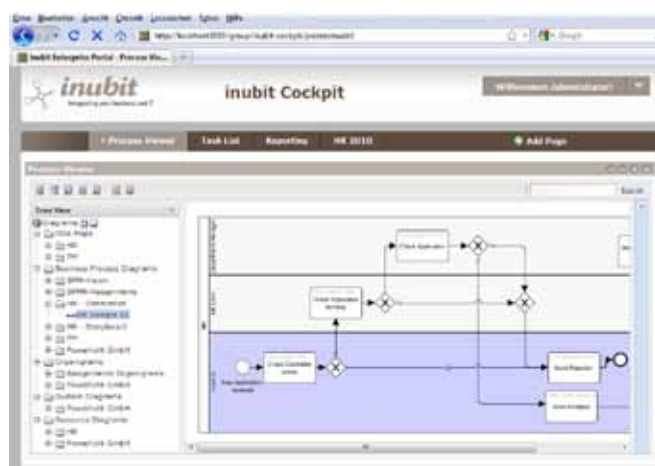
You can also use extended simulation to detect possible resource bottlenecks at an early stage. This extended variant enables you to simulate the process models realistically and includes all available resources (number and working hours of staff, tools, materials). Hence, it determines the actual cycle times for a process and load capacity times of the available resources. Graphical feedback helps you analyze the results.



→ Extended simulation in the inubit Workbench: determination of cycle times and resource bottlenecks as the basis for optimizing the process even before it is technically implemented.

Documenting processes

To display defined business process flows transparently to all employees or to make them available in the context of an audit, all process models can be published on the intranet using the Process Viewer. In addition, the documentation of the processes as a process manual is a permanent component of the inubit Process Center. You can automatically generate the desired process model reports and you can individually configure the scope, layout and format.



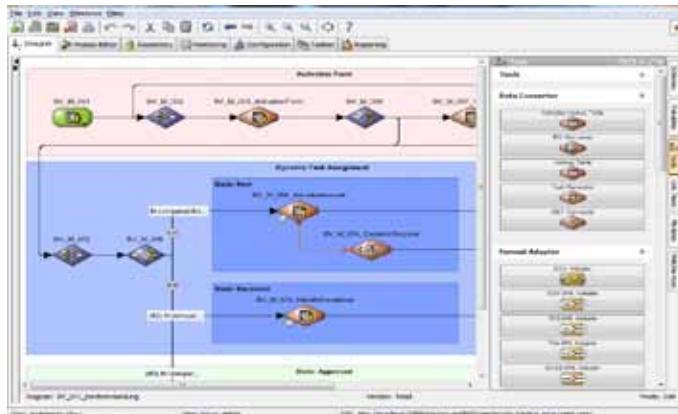
→ In the inubit Process Viewer, employees can display process models, use links to navigate to connected processes or use the full-text search to find relevant processes. At this point, you can also adjust the business rules and thus directly influence the process execution.

High Productivity in the Implementation of Processes

Business Process Management is designed to make business processes flow more efficiently. The inubit Suite also enables you to implement the processes quickly and easily. The graphical configuration of executable workflows without programming as well as functions in the generation area notably increase efficiency in the implementation of processes.

Executing processes using technical workflows

Business Process Diagrams are technically implemented using technical workflows in order to be executed using the inubit Process Engine. A graphic Workflow Designer makes it easier to configure the workflows. This is done using user-friendly drag & drop and wizards; you do not have to write a single line of code.



→ Business processes are executed using technical workflows. The graphic configuration of the processes facilitates easy implementation.

All BPM artefacts are managed in a central repository. This includes version management for workflows and modules, including tagging and branching as well as the visualization of changes between different versions. To make adjustments to workflows audit-proof, they must be explicitly released before they are deployed.

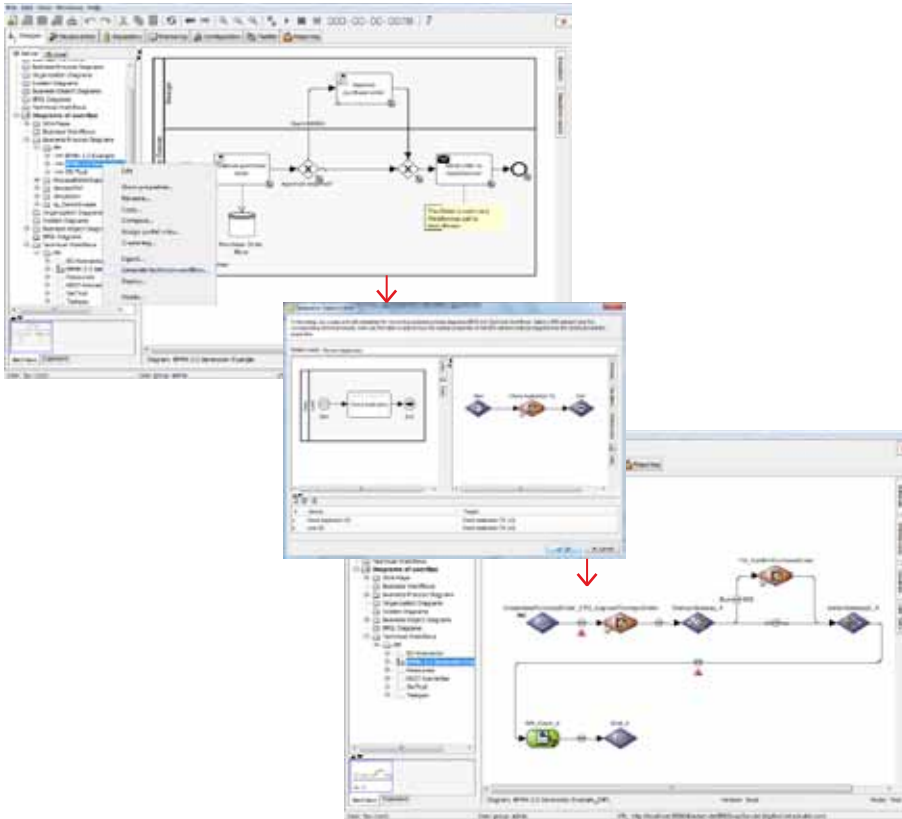
XML, XSLT and XPath technologies are used to map input and output messages as well as process control. Processes can be controlled using branches, parallel processing and summarization. The inubit Suite supports all popular workflow and EAI patterns for this purpose.

In addition, the following features are available:

- ▶ Multi-level prioritization of process instances is possible.
- ▶ Error branches, alternative connectors, scopes and retry mechanisms enable comprehensive error handling.
- ▶ The definition of transaction scopes enables you to save the actions of several connectors using a transaction.
- ▶ A graphic test mode is available for debugging workflows.
- ▶ Extended iS unit tests provide an integrated environment for regression testing of processes.
- ▶ A graphic watch mode enables you to monitor running processes.
- ▶ Input and output messages can be typed on all modules to automatically validate the data flow.

Generating executable workflows

You can configure technical workflows manually but they can also be generated automatically from Business Process Diagrams. To generate them, numerous patterns that contain the generation logic are available. Users can also individually extend these patterns at any time.



→ The generation of executable workflows from Business Process Diagrams shortens the implementation phase of BPM projects.

For business objects defined in Business Object Diagrams, round-trip generation is possible with an XML schema. You can generate the persistence level as well as the CRUD Services (Create, Read, Update and Delete) from the XML schema. This enables you to quickly integrate business objects in technical processes.

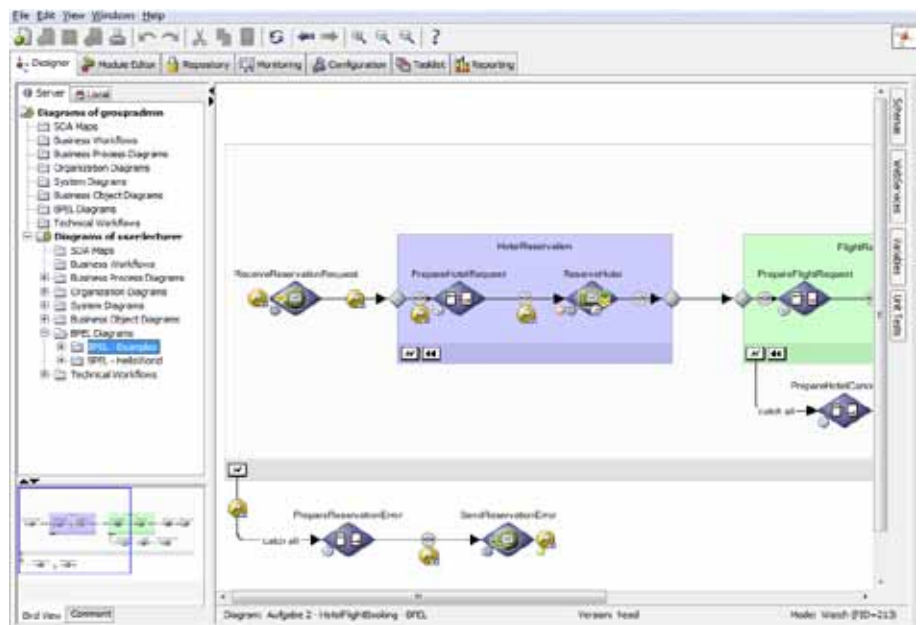
Consolidating the business and technical levels

The link between business models and technically executable workflows makes it possible to navigate from the high-level business process down to an executable process via a detail process without media discontinuity. This makes it possible, for example, to categorize technical error messages and place them in the process context. Tasks in the task list and reports can likewise be linked with the corresponding process step.

Setting up Service-Oriented Architectures (SOA)

The inubit Suite provides a comprehensive SOA infrastructure. It unites all mechanisms required to implement and operate a service-oriented IT landscape. It provides not only a wide range of convenient tools, but also has the ability to quickly and easily enable existing applications for Web Services.

- ▶ The inubit Suite itself is completely service-oriented, i.e. all functions are accessed using Web Services.
- ▶ The inubit Process Engine and central Enterprise Service Bus (ESB) are used to execute processes and call services.
- ▶ SOA Maps serve as the visual basis for setting up a service-oriented architecture. They show how front-ends, process, orchestration and service components are distributed across various applications.
- ▶ Services can be orchestrated into processes using BPEL 2.0. It is possible to import and export BPEL 2.0.



→ BPEL workflow in test mode

- ▶ The inubit Suite can be used to integrate any external Web Services of your choice or provide entire processes as Web Services.
- ▶ An integrated UDDI 3.0 is available as a central service repository. The UDDI browser can be used both for internal and external repositories.
- ▶ You can use the graphical Web Service Editor to create your own Web Services.
- ▶ Long-running transactions are optimally supported in combination with consistent version management.
- ▶ All important standards, such as WS-Security, WS-Policy, WS-Trust 1.1 (Security Token Service) and WS-Reliable Messaging 1.1 are supported.
- ▶ MTOM for the transfer of large files using SOAP is supported.
- ▶ Forms and user interfaces can be generated from XML schemas and WS descriptions.

- ▶ A REST Connector is available for providing or calling Web Services according to the REST architecture principle.

Integrating Systems and Implementing all Communication Channels

The inubit Suite provides more than 70 standard connectors and adapters for integrating IT systems and using a large number of different communication protocols. The modules are configured using wizards and graphical interfaces. Supplemented with format adapters for all non-XML formats and an SDK for developing your own plug-ins, it offers unlimited options for implementing even the most complex SOA, EAI and B2B scenarios.

The following modules are designed for use with the inubit Process Center since they cover common requirements for process management initiatives. If you need additional connectors and adapters, you can individually compile these using the full version of the inubit Suite.

System connectors	abas, AS/400/iSeries, Backup, Business Object, Database, Execution, File, ftp(s), http(s), inubit IS, ITA, JAAS, Java Reflection, JCA, JMS, LDAP, Livelink (IXOS), Mail, MS Exchange, MS MQ, Open Office, REST, RFID, SAP, SAPERION, Secrypt, Selenium, SNMP, UC4, VFS, Web Services, WebDAV, WebSphere MQ
Format adapters	CSV, Excel, Flat File, MIME
Data converters	XSLT Converter, Lookup Tables, Complex Lookup Tables, FO Converter
Utilities	Barcode Generator, Compressor, Cryptographer, Data Stream Modifier, Encoder, inubit IS Configuration, Report Data Collector, SMIME, XML Enveloper, XML Formatter, XML Validator, File, Line Reader

Legacy systems can be optimally integrated using a decentralized remote connector. Embedded partner management makes it possible to manage the master data for a large number of business partners. Powerful test and debugging functions are available at the level of the individual modules as well as generally in the form of the iS-Unit tests.

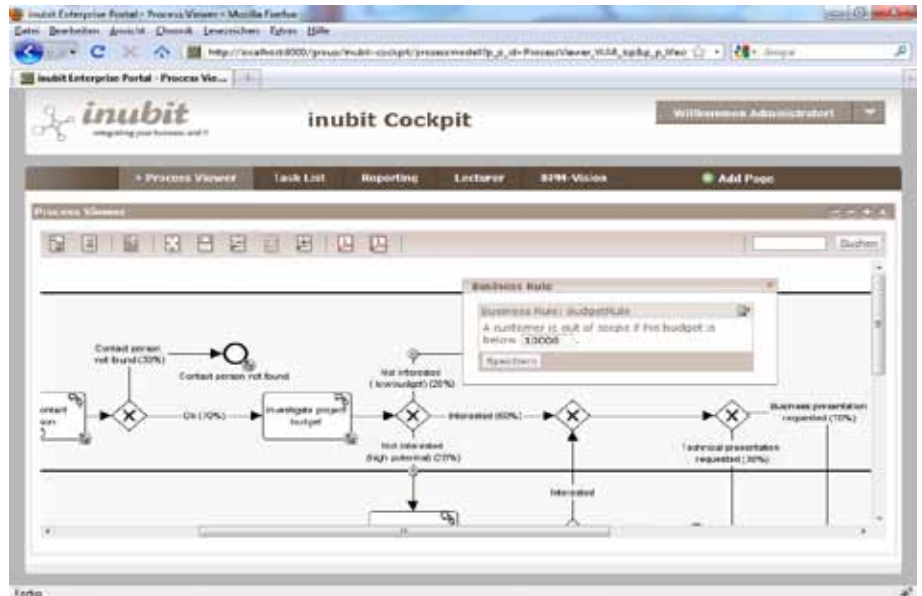
Different communication variants are possible: push/pull, synchronous/asynchronous as well as event-driven or time-controlled. The integration of the electronic signature and the integration of fax, SMS and voice systems and RFID solutions are also supported. Documents can be generated as PDF (also PDF/A) and other formats such as RTF and Postscript, and data can be encoded and decoded as well as compressed and extracted. The functionality can be enhanced during operation (hot deployment). A SOAP-based thin client interface makes it possible to address technical workflows from outside.

inubit Enterprise Portal for User Interaction and Reporting

The inubit Enterprise Portal is a complete process portal based on Liferay 6.0, but can also be integrated with other standard-compliant portal servers. The portal supports the portlet standards 1.0 (JSR 168) and 2.0 (JSR 286) as well as the Web Services for Remote Portlets (WSRP) 2.0 standard.

The inubit Enterprise Portal is the central interface for integrating employees or business partners into the processes and using the processes to provide business information. To do so, the portal already contains preconfigured BPM portlets in the form of the Task List, Report Viewer and Process Viewer.

The inubit Process Viewer displays the business process models. Key users can configure received business rules here. The Task List is used to include employees in (partially) automated processes in a role-based manner. The Report Viewer provides business information that can be visualized in the form of personalized dashboards. All information available in the portal is linked to the underlying process models. Users can thus easily put the information in the process context.



→ Process Viewer in the inubit Enterprise Portal

Users can also create their own portlets. These are deployed directly from the technical workflow and all it takes is a mouse-click. The inubit Enterprise Portal has an intuitive user interface. You can design the portal interfaces freely using point & click, or adjust them to your corporate design using CSS. Rich widgets can be used to quickly create sophisticated interfaces with the Form Designer. The portal consistently supports UTF-8 and can thus be configured in multiple languages.

Powerful user management maps user structures (company, branches and user groups) and integrates them in processes. A content management system and a document management system are integrated, whereby the Microsoft SharePoint protocol is also supported for storing and retrieving Microsoft Office documents. You can opt for an integrated operation of the portal and ESB or distribute them across several application servers. The portal can be linked to any number of ESB instances incl. load distribution for large numbers of users.

Integrating employees using human workflows

The interaction with users and therefore the integration of users into processes is one of the main elements of process automation. The Human Workflow functions of the inubit Suite support the task-oriented processing of process steps and provide configurable task lists that can be used for editing the corresponding tasks and forms.

User interaction is fully integrated into the technical execution level and linked to the business level. Tasks are assigned via roles. Rules and rule sets define forwarding and task assignment. The underlying organization diagrams are used for delegation and escalation as well as for substitution rules. As soon as new tasks are available, the user automatically receives a notification, which includes the specified processing times.

A WYSIWYG editor makes it easier to create forms. Layout adjustments are made using CSS. A generic client generator makes it possible to dynamically generate forms from WS descriptions and XML schemas at runtime. You can create multi-language forms. An enhanced export/import for task texts facilitates localization.

The task list can be freely configured and is available as a web-based client (JSP or portlet). To improve usability, you can use functions like filtering and sorting. Links enable users to navigate from the task list directly to the business process model. User interaction can also take place using mobile devices (cell phones, PDAs, etc.). A native iPhone app is available for using Apple devices.

Documents and reports as well as external applications can also be integrated into the tasks and form contents can be signed. Furthermore, it is possible to configure a context-sensitive help via AJAX. Field validations take place using regular expressions or in server-based form using AJAX. You can use the task list to initiate ad-hoc processes.



→ Task list in the inubit Enterprise Portal



→ Employees who are often on the road can also be integrated into the company process flows using smartphones.

Monitoring and analyzing processes from a business perspective

To be able to evaluate and optimize processes, the required data must be collected when the system is running and be made available in real time. The comprehensive reporting functions of the inubit Suite can be used not only to visualize the actual data from the processes but also to analyze it in numerous ways using Key Performance Indicators (KPIs).

- ▶ Business reports provide key users and management with valuable information about processes in real time.
- ▶ The Process Data Logger enables the flexible acquisition of process data from the running process instances. This can be compared to target data from the process model.
- ▶ Animated diagram types visualize the acquired process data: Reports in table form, line, bar, area and pie charts can be used.
- ▶ You can define drill-downs for detailed information.



→ Report Viewer and dashboards in the inubit Enterprise Portal

- ▶ Personalized dashboards allow you to display business information in a personalized manner.
- ▶ The “inubit Process Monitor” process package is a powerful solution that enables key users to also monitor running processes from a business perspective. Hence, the available information is not limited to the current process step. Detailed information can also be queried and key users can actively control the processes, i.e. intervene.

Comprehensive System Administration

The smooth introduction and reliable operation of the inubit Suite are important criteria for controlling complex and critical business processes.

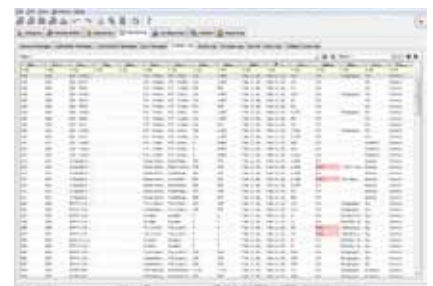
Monitoring processes technically

The inubit Suite ensures the traceability of the processes through comprehensive logging and monitoring.

- ▶ The Queue Manager enables you to see the status of all not yet successfully completed and waiting processes, stop processes, restart them, continue or delete them, or analyze errors.
- ▶ The system log shows technical workflows and system processes that have already been executed. Detailed information, such as status, priority and process ID, is available for each entry.
- ▶ The audit log makes it possible to monitor all administrative activities that users carry out on the server (e.g. login/logout) as well as changes to module and workflow configurations.



→ Queue Manager and process steps in detail



→ System log

Administering and operating the inubit Suite

The inubit Suite is standard-compliant and has an open architecture. The concept is based entirely on Java/J2EE. XML is the central data format. Thanks to its platform independence, the inubit Suite can be operated on Windows, Linux and Solaris and can run on all popular databases. The inubit Suite features a command cell client (CLI), SNMP support and full 64bit support. It can also be administered remotely, is client capable and cloud-ready.

Its scalability and high availability ensure that it can also be used for complex and critical business processes. Particularly in the enterprise environment it is important that the inubit Suite is well-suited to handling large volumes of data. Clustering for load distribution is possible at any time. The Remote Server (for use in the DMZ) is available to support security concepts. Staging and deployment can take place inclusive of automatic value changes (adjustment of the configurations). Integrated backup & restore is possible while the solution is running and point-in-time (PiT) recovery enables you to restore the system as it was at a certain point in time.

The multi-step, fine-grained rights system ensures secure data storage and user management. Alternatively, user management can be carried out via LDAP. All administrative actions by users can be reconstructed using the audit log. System security is ensured by supporting the electronic signature, SSL, S/MIME, client server authentication, security token service, central key management and password security.

inubit AG is a leading provider of holistic process management solutions. From the inubit Suite as the technological backbone, to BPM methodology and a wide range of services, inubit supports companies in all phases of business process management. To achieve sustainable results, inubit merges the requirements from IT and business departments and implements them in continuously applicable products and solutions with a good price-performance ratio. inubit is present in over 10 countries with its regional companies and local partnerships and has more than 450 customers worldwide.

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