

Atlantis 5 White Paper

SFI / Atlantis

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Introduction

Atlantis 5 was designed to add new systems integration and user interface refinements to Atlantis 4. Overall, the product has a much higher degree of stability and performance. This has been achieved by making the Atlantis Client and Servers have complete exception handling using a data driven Finite State Machine (FSM) Architecture. In addition, Atlantis 5 includes advanced visual tables and other visual parts that bring new abilities to an already advanced Document Management System.

The Finite State Machine is the basis for the main engine that operates both the Atlantis Client and Server. If an exception occurs, the state machine traps it and notifies the development department. The system can then recover and continue normal operation.

Database Support

Atlantis 5 readily supports the advanced open source database Postgres. This comes at no additional cost to SFI / Atlantis customers and provides one of the worlds most advanced SQL database systems. In addition, Atlantis automatically creates and maintains all the database tables that a client will need. The tables will automatically grow, shrink and generally morph according to the data the flow of a particular client business. The unique quality is that as new data management needs arise, a moderately skilled process engineer armed with the Atlantis Creator can implement all data maintenance in a few simple steps. This frees up a lot of resources for any business and also makes enterprise data highly accessible to outside systems.

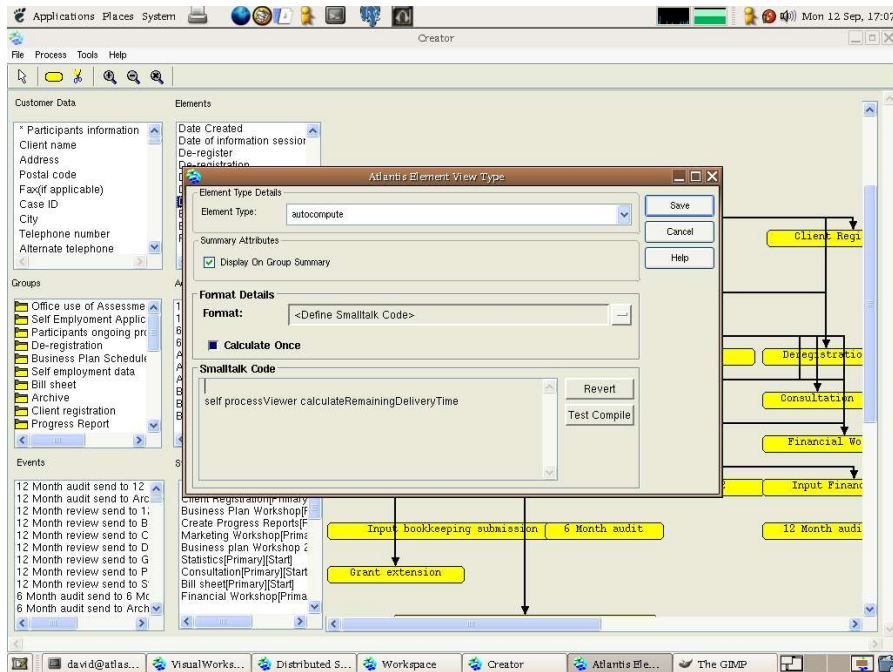
Atlantis 5 includes automatic ODBC connectivity through it's Atlantis Import / Export Wizard. This allows Atlantis to automatically connect to any SQL database which has an ODBC driver. Once the connection is made, Atlantis can import all data and make it available for process mapping and process control. This is much like fitting a round peg into a square whole, in the sense that database schema can rapidly be engineered into new process and then move back into a brand new working application. This is achieved within the tool set and thereby gives a lot of additional power to generate applications.

The implementation of this method of database control runs with the ability to directly store objects into the process. In conjunction with the Atlantis Client, it becomes easy to build custom applications for graphics, sound files, MS Word, Excel and other types of documents.

Atlantis to Visual Works API - Systems Integration

Atlantis 5 includes a new process controller interface that is directly programmable using Visual Works Smalltalk. The interface can be accessed using a feature called "Auto Compute" which works much like a function in an Excel Spreadsheet. The Atlantis implementation is made using Smalltalk and a direct API into Atlantis. This allows an Atlantis process engineer the unique

ability to put customizations on top of the Atlantis process control system. In addition, Atlantis 5 and 6 will allow custom controllers to be configured for each process. SFI / Atlantis provides a set of foundation classes from which specialized FSM controllers can be built. Again, this can utilize all the features of Visual Works in order to build powerful and high quality BPM solutions. For example, clients now have the ability to send and receive email to and from outside systems and integrate directly with MS Outlook. For a client that processes a large amount of email, this is a valuable and unique technology. A business can define its global process and include formatted emails that need to be handled as events and messages as part of a global business process. The Auto Compute interface can be extended to a variety of customizations, basically limited only by what Visual Works directly supports. The custom features are embedded inside a Finite State Machine computing model, thereby giving protection and built in quality management for custom source code. The following picture is a snapshot of the Atlantis Creator and the Auto Compute feature entering some custom Smalltalk code into a new process.



Another example of custom process controllers is the Atlantis 5 ability to operate as an advanced information exchange by operating as an intelligent FTP controller. For clients that use FTP, having an Atlantis 5 Server will allow them to send and receive files, as well as automatically transfer data in and out of the Atlantis database. This gives a new and valuable aspect for enterprise customers that use information portals.

SFI / Atlantis has begun to integrate financial and accounting capabilities into Atlantis 5 and to a larger degree in 6. Atlantis 5 Server has tested successfully using ODBC support for accounting software such as Acomba. Clients will need to have the latest Acomba ODBC driver and a systems integration plan. For those who do, information from accounting and financials can be managed and maintained as part of a global business process using Atlantis 5.

Atlantis 6 development has begun and focuses on integrating hardware and external devices

under a unified process control model. This will allow the inclusion of such protocols as RS/232 and devices such as RFID readers directly into a business process.

Information Portals

Atlantis 5 has a highly advanced object network that provides role based access control to business data, and secure access through firewalls, routers as well as low bandwidth connections such as dial up. This highly diverse networking capability allows a business to bring together all of it's people and resources even if they have a highly diverse and changing IT backbone or network. The flow of information is controlled using a Server side role based security model that fits seamlessly onto the Atlantis network.

Custom Visual Parts for Process Control

The Atlantis 5 client comes with a new and wide variety of business objects that can be used to rapidly develop unique process control systems. Clients can now implement process parts such as:

- data fields
- lists
- unlimited text areas
- support for attachments of any type
- user forums
- tables
- custom calculations
- business rules.

Platform Independent and Off The Shelf Integration

Atlantis 5 can be deployed for clients running Windows, Linux, AIX, Sun O/S, Macintosh operating systems. Through SFI / Atlantis, system integration solutions are available for such technologies as DB/2, Oracle, Sybase, Web Services, COM and ODBC.

Conclusion

Atlantis 5 is a cost sensitive technology that is highly scalable and can be rapidly deployed. It is a valuable enhancement to any organization with a need to grow. The Atlantis 5 solution now connects directly with Visual Works Smalltalk, providing a powerful new programming view into Atlantis. This maintains the now standard rapid deployment time of Atlantis while offering an enhanced ability to grow and change. Using all the benefits that Visual Works Smalltalk offers, an Atlantis 5 client can integrate a wide variety of applications under a single model. Looking ahead, Atlantis 6 offers the ability to integrate process mapping solutions directly with manufacturing and other industrial applications.