

# **simplified systems incorporated**

## **Product Overview**

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### ***What we offer***

The Simplified Enterprise Platform (SEP): A powerful, application development platform enabling technically competent individuals to create and maintain fully customizable, industrial-strength enterprise database applications without the need for programming.

The Simplified Enterprise Platform will allow business process owners, subject matter experts, or business analysts to go directly from design to implementation of custom enterprise applications, greatly reducing the development process. This gives you unprecedented control over the design of your systems, and in a fraction of the time of traditional development methods.

In addition, current investments can be leveraged by using SEP's Data Bridge that allows one to interface with existing legacy systems, while at the same time leveraging the benefits of the Simplified Enterprise Platform.

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### ***Why Simplified?***

Among the biggest obstacles faced by companies developing custom business applications is trying to find ways to reduce the development life cycle. Time to market can be the difference between success and failure. Custom software gives companies a professional edge, while at the same time increasing productivity and ROI. Such software though has typically required a large investment, which in complicated projects may not pan out. Short time-lines, changing business requirements coupled with the typical large costs of designing, implementing, and maintaining business applications can make it difficult to obtain the true benefit technology has to offer. The market has responded to this situation by producing many tools and platforms to speed up the development life cycle. Examples include J2EE, .NET, code-generating design tools, and user interface design tools. Nonetheless serious deficiencies remain:

- Complexity: Current tools and platforms are developed specifically for developers and not for business process owners. This greatly increases the time for implementation because developers must be taught the business

logic behind the application they are developing.

- Lengthy Integration Process: Most tools in the market do not adequately address the issue of integration. If more than one tool is being used in a development effort, it can complicate the integration process. In the best case, the tools do not adversely affect merging the different pieces of the application together. In the worse case, these tools can make that process more difficult and time consuming because of the nature of the code that is generated.
- Complex Deployment Schemes: Using multiple tools inherently means needing to resolve the complexities of getting all aspects of an application working together in harmony. Even a homogeneous system can require a serious investment in ascertaining that. Issues of operating systems, interoperability, inevitably arise. Development tools, in their focus for only one aspect of the development life cycle tend to delay the issue of deployment, until it is ready to be problematic.
- Large Maintenance Cost: In the life of an application, maintenance can be the most expensive recurring cost. Current methodologies do little to address this important aspect of the development life cycle.

SEP directly addresses and solves these problems by providing a framework to accomplish the following goals to speed up the development life cycle:

- Simplicity: SEP's design makes the process of developing custom database driven applications easy and accessible to any businessperson. SEP's intuitive desktop tools, graphical tools and step-by-step wizards guide an individual through the process of creating an application. One can take an idea and bring it to realization, quickly and easily.
- Middleware Server: SEP's middleware server handles all interaction with the database including table and object creation. This greatly reduces both implementation and deployment time by freeing an individual from the time consuming task of dealing with the database. SEP's distributed architecture encapsulates enterprise functionality, removing the need to deal with the underlying complexity of application development.
- Eliminates Integration and Reduces Time to Production: By providing a single unified platform there is no need to integrate anything. SEP is a pre-integrated platform that hides complexity from the user, allowing resources to be devoted to the building of business logic.
- Simple Deployment: SEP's applications can be easily deployed to one or multiple machines through our powerful deployment mechanisms. Administrative complexities are minimized.

- Maintenance: The ease of use of SEP's graphical tools allows quick changes to be made quickly and reflected immediately. Those who understand the business are put in a position where they can best leverage technology. There is a clear separation of the role of domain expert and programmer, saving the need for teams of programmer to maintain complex code.

Simplified Systems offers an end-to-end solution focused on restricting custom code to the most specialized situations and hiding lower-level implementation issues. The application's data structure and business logic is created and maintained transparently for the individual. Issues such as load balancing, transactional control, concurrency control, and relational integrity are all handled internally and automatically.

For all but the most complex components of an application, no programming is required. Data storage, business logic, and user interface design are handled by easy-to-use tools, enabling developers and semi-technical business experts to construct an application without any coding - whatsoever. If any piece of an application is too complex to be built using the tools, custom code can be written and then imported into the tools. This enables programmers to develop the highly technical aspects of an application while at the same time allowing the business process owners to use that technology in a way that benefits their business in the best possible way.

Simplified allows businesses to create applications more quickly using less resources than competing solutions such as Java 2 Enterprise Edition (J2EE), .NET, code-generating design tools, and user interface design tools by unifying the development and deployment onto a single application platform, eliminating much of the source code needed to implement and integrate the various components of the solution. Applications built using the Simplified Enterprise Platform offer functionality and performance that is competitive with applications built using alternative development and deployment tools, while providing substantial savings in implementation and maintenance resources.

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## ***Key Product Features***

- *Accessible to Business People:* The simplified enterprise platform makes the world of developing applications available to the business process owner. This allows the development of applications quickly and more efficiently by those who understand requirements best.
- *Distributed:* A single system can be run across multiple machines allowing computing resources to be pooled. Different users or

branches of the same organization or even different organizations can share data .

- *Scalable*: Systems can start on a few computers and easily expand to thousands. Applications can be designed and deployed with the confidence that the architecture will grow with users needs.
- *Platform and database independent* Supports multiple Operating systems. All modern versions of Windows and most popular versions of UNIX. .All major relational databases such as Oracle, Microsoft SQL Server, Sybase, IBM DB2.
- *Customizable*: The business logic, middleware server, desktop applications, and web applications can be customized via powerful APIs (Application Programming Interfaces), as well as providing external access to other applications.
- *Drastically reduce Programming costs*: The reduction of the software development cycle will greatly reduce the costs associated with creating a custom application simultaneously enhancing the quality of the end product.
- *Dramatically improve efficiency of business processes*: With the drastically reduced “time to live” for business processes automated with SEP, businesses are provided with a “Real-Time Technology” to help bring them into the “Real-time Economy”.
- *Works with legacy systems*: With our Data Bridge component, new applications designed with SEP can work with “legacy” databases, preserving existing investments, tying them into the Simplified Platform.

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## **Compatibility**

Operating Systems:

- Windows NT/2000/XP
- Solaris 2.6 and later
- Linux

Databases:

- Microsoft SQL Server, v.7.0 and later
  - Oracle, v. 8.1.6 and later
  - Sybase ASE v.12.0 and later
  - IBM DB2 UDB v.7.0 and later
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## How it Works

### Data storage and retrieval

Users create the data structure using the Object Designer by picking a basic object type. One can specify the attributes of the object or combine one or more existing objects to create logical business objects. All necessary database modifications are done automatically for the user.



*Sample Wizard screen for defining the type of Object to create.  
This simple wizard will lead someone through the process of creating a new object.*

At runtime, the middleware server can retrieve and modify data in any of these objects. Permission schemes can restrict the operations that specific users can perform on both the object and attribute level. Connection pooling and load balancing ensure efficient use of middleware and database resources. . The middleware server ensures the consistency of all data in the database.

### Business Logic

Business logic is attached to a specific object and run on the middleware server. Business rules can be implemented using the Rule Editor, a pure point-and-click user interface for designing rules. Rules can be created to validate the user's action, examine pieces of data, determine values for related data, or to manipulate data elsewhere in the application. While built-in functions are provided for working with application objects and basic utility tasks, custom-coded functions can be exposed to the Rule Editor to expand its functionality.

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Total Calculation
* Call Get Parent on Demo - Order Details with Relation Code as Demo - Orders and store as Order
* Call Get Child on Order with Relation Code as Demo - Order Details and store as My Purchases
* Get Discount From Demo - Order Details and store as Discount
* Set Total = 0.0
* If Discount is greater than or equal to 1.0
  * Call Add error to Discount on Demo - Order Details , Message as Invalid Discount and Detail as Discount cannot be greater than or equal to 1
  *
  Otherwise
  * For all records in My Purchases store current element as My Purchases and initialize in First Record and check end with Last Record
  * Get Discount From My Purchases and store as Discount
  * Get Quantity From My Purchases and store as Quantity
  * Call Get Parent on My Purchases with Relation Code as Demo - Products and store as Product
  * Get Unit Price From Product and store as Unit Price
  * Set Discount = Unit Price * Discount
  * Set Unit Price = Unit Price - Discount
  * Set Unit Price = Unit Price * Quantity
  * Set Total = Total + Unit Price
  *
  * Set Total on Order equal to Total
  * Call Save on Order and store as Success
  *

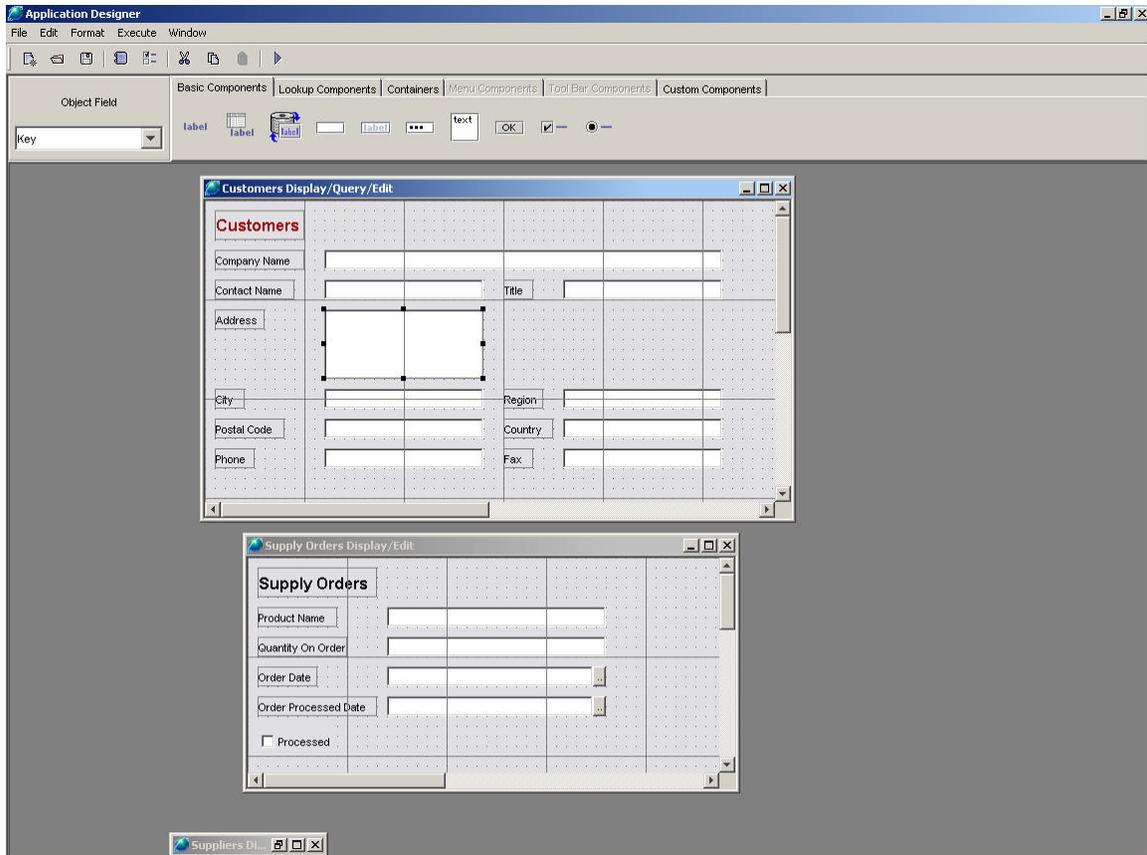
```

*A sample rule created in the Rule Editor.*

If the functionality offered by the Rule Editor is not enough to perform a specific task, a custom rule can be written in Java and attached to the object instead.

## User Interfaces

Users can build desktop client interfaces for their application using the Application Designer, or browser-based HTML client interfaces using the Web Designer. Simplified provides a rich component library built to interact with business objects. . There are several frameworks for searching, viewing, and editing data. All of this is provided in a common user interface framework that is shared across all forms.



*A sample form created in the Application Designer*

For complex or specialized user interfaces, the component library can be leveraged to integrate custom forms into an application, or write an entire custom application to interface with the system.

## Application Integration

The Data Bridge tool can be used to import, export, or replicate data from an existing relational database or XML/SOAP message to a Simplified application. In addition, the Data-Bridge supports plug-in modules to interface to other types of data (such as flatfile, EDI, or message-based middleware products) to expand the data bridge to use new data sources.

Other applications supporting Java/RMI or CORBA can be directly integrated with a Simplified application as a client of the application. Additionally, the Simplified middleware server can act as a client of an external system, maintaining a connection in the middleware session that can be used by business logic to retrieve data from and send data to another application.

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