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Satisfying Customer Needs with GroupWise® and Advansys® Formativ™

White Paper

April 2005

Summary

Advansys Formativ extends the GroupWise client, delivering ‘out of the box’ solutions and new opportunities for systems integration and business process automation. This white paper details how a combination of both commercial Formativ solutions, and the unique ability to create new solutions easily, is empowering GroupWise users worldwide. The paper concludes by illustrating how a diverse range of organizations use Formativ to solve their business problems.

Introduction to Formativ

Formativ provides a fast, easy and cost-effective way of extending GroupWise to meet business requirements. You can choose from modular ‘out of the box’ solutions or use the integrated development tool to create custom solutions. Solutions can utilize the powerful Formativ GroupWise user interface extensions, bringing a whole new dimension to GroupWise functionality. For the enterprise, Formativ's native Novell eDirectory™ support delivers fast, secure solution deployment.

Underpinning the power and flexibility offered by Formativ is its unique, *modular Formativ Framework*. The framework provides for hundreds of solutions to be integrated with GroupWise. These solutions may be created by the customer or provided by a reseller, integrator, solution provider or any other third party, including Advansys.

The modular solutions framework is illustrated below.

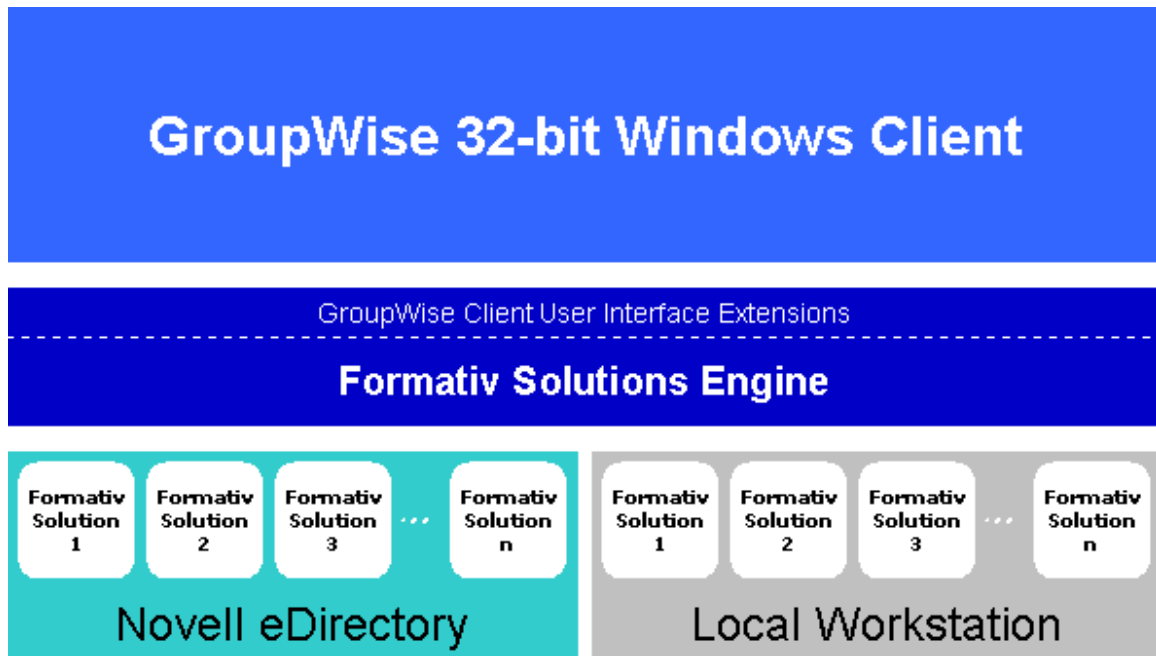


Figure 1 - The modular Formativ Framework

Typical Formativ solutions include:

- Extend the GroupWise client for new business tasks
- Design new GroupWise views
- Add new, simplify or hide existing GroupWise features
- Integrate GroupWise with corporate applications
- Turnkey collaboration based solutions
- Business process automation and workflow
- Integrate GroupWise with external systems

Solution Packs

Formativ provides a rich collection of GroupWise client extensions and enhancements, straight 'out of the box' by way of modular solutions and **Solution Packs**. Solution Packs are solution collections providing related sets of functionality. Discrete solution packs provide a cost-effective means for organizations to add only the functionality they desire. Additional solution packs may be installed as required.

A number of solution packs are available with Formativ, and include:

Presentation Pack - Create high impact correspondence and simple form input. Includes Multiple Signatures, HTML Stationery, Templates and Remote Image Inserter.

Personalized Emailer Pack - Offers fast, effective HTML and text communication with a personal touch. Supports GroupWise Address Books, CSV, SQL Databases and ACT!.

Message Saver Pack - Allows you to export and view GroupWise messages without GroupWise.

Calendar Pack - Enhancements for managing your GroupWise calendar. Includes Anniversaries, Calendar Dates, Day Blocker and Out of the Office.

Productivity Pack - A broad range of enhancements to make your GroupWise experience more efficient and productive. Includes Contacts Finder, Message Notes, Publish Message List, Quick Proxy, Quick Recipients, Reply Quoter, Search and Replace and Word Mail Merge.

Enterprise Solutions

With Formativ 2.0, Advansys introduced new enterprise solutions for GroupWise administrators. These solutions take advantage of the GroupWise 6.5 Trusted Application feature, which enables secure, central access to all mailboxes in the GroupWise system without the need for each user's password.

Enterprise Calendar Dates - Add common Appointments and Notes to your GroupWise users' calendars from a central location.

Enterprise Proxy - Allocate and audit individual or system-wide GroupWise proxy rights from a central location.

Many More Solutions!

There are many more solutions available from the Advansys Web site, www.advansyscorp.com. In addition, there are many **FREE** solutions available from GroupWise Cool Solutions, www.gwmag.com, at [Formativ Applet Central](#).

Creating New Solutions - Extending and Enhancing GroupWise

The core value proposition of Formativ is that it enables end-users, resellers, system integrators and other third parties to:

- create an unlimited range of solutions with the integrated development tool;
- exploit new Formativ GroupWise client user interface extensions; and
- leverage Formativ's unique solutions management system.

Creating new functionality for GroupWise with ease is a new concept for the contemporary GroupWise community. Until recently, most users, resellers and system integrators saw GroupWise as a closed system that was difficult and expensive to modify. Formativ has changed the GroupWise landscape forever. Tailoring GroupWise to address business requirements is now fast and seamless. New solutions are implemented by *Formativ Applets*, which may be written by organizations, purchased from third party vendors, or obtained free from the Formativ community.

Formativ Applets

Formativ Applets underpin the 'Out of the box' solutions and the ability to easily extend and integrate GroupWise. Combined with the modular solutions framework, applets are an essential component of the simplicity, power and extensibility of Formativ.

An applet may add new functionality to GroupWise, integrate GroupWise with another system or automate a business process. A very simplistic analogy could be made between an applet and the concept of a 'macro'. End-users, power users, resellers, VARs or third party development organizations can create applets. The Formativ applet language is 100% Visual Basic Script compatible, and contains hundreds of commands to access and integrate with GroupWise.

Meeting Customer Needs

Formativ provides a dual-pronged approach to meeting customer needs by:

- delivering 'out of the box' solutions; and
- enabling the creation of new solutions.

One or more Business Solutions Pack applets often satisfy key customer needs 'out of the box'. In these cases many customers will implement Formativ simply for these few key features, particularly when they know that, at any time, they can expand their solutions.

Customers may have specific needs that cannot be satisfied by the 'out of the box' solutions. To meet such needs, it may be possible to make the appropriate modifications to a shipping solution. In other cases a new solution may need to be created. Formativ provides the tools and infrastructure to enable new solutions to be created easily by end-users, resellers, VARS or development organizations.

Formativ provides a synergistic set of tools, solutions and infrastructure that ensures customers are able to make GroupWise work the way they want, both today and in the future.

Unlike other common approaches to enhancing and customizing GroupWise, Formativ is not a monolithic application with a fixed set of features, nor is it a collection of discrete solutions, each with their own overhead and management issues. Formativ provides a unique modular solutions framework, which all solutions share and an unlimited potential for adding new solutions.

Formativ assists in meeting customer needs on several levels:

Commercial Solutions – Customers can choose to use any or all of the Advansys commercial solutions. Unlike other products, which offer a fixed set of GroupWise features, customers can deploy just the Formativ features they need. This eliminates unnecessary training costs.

Unlimited Solutions – Formativ is the only product on the market that offers customers the ability to create new solutions for GroupWise easily and cost effectively.

Modular Solutions Framework – All Formativ solutions share the same common base services. These services include solution registration, user interface, Formativ portal services and access to the lower-level facilities required to integrate with GroupWise. Formativ solutions are easier to create because developers do not have to concern themselves with repeatedly re-implementing fundamental services. This results in solutions being delivered faster and more cost effectively.

Management – Formativ was designed from the ground up with a manageability focus. Accordingly, all Formativ solutions, whether prewritten or created by the customer, reseller or VAR, inherently take advantage of Formativ's integrated management features. Formativ is fully eDirectory®/NDS enabled. Its capabilities on the desktop are manageable via the Directory. Formativ solutions can be stored *inside* the Directory and made available to users, groups, departments or the enterprise.

The four unique Formativ characteristics above represent a highly effective means of getting the most from Novell GroupWise.

Developing New Solutions

Formativ provides a wide range of resources and services for fast and easy GroupWise customization. Customer requirements can be met by creating new GroupWise solutions using Formativ applets. Developers, users, resellers and VARS no longer need to be familiar with several application programming interfaces and development languages.

Developing for GroupWise using tradition techniques requires the mastery of several low-level GroupWise programming interfaces. Traditional GroupWise development is a non-trivial undertaking, and normally the domain of experts, and is illustrated below:

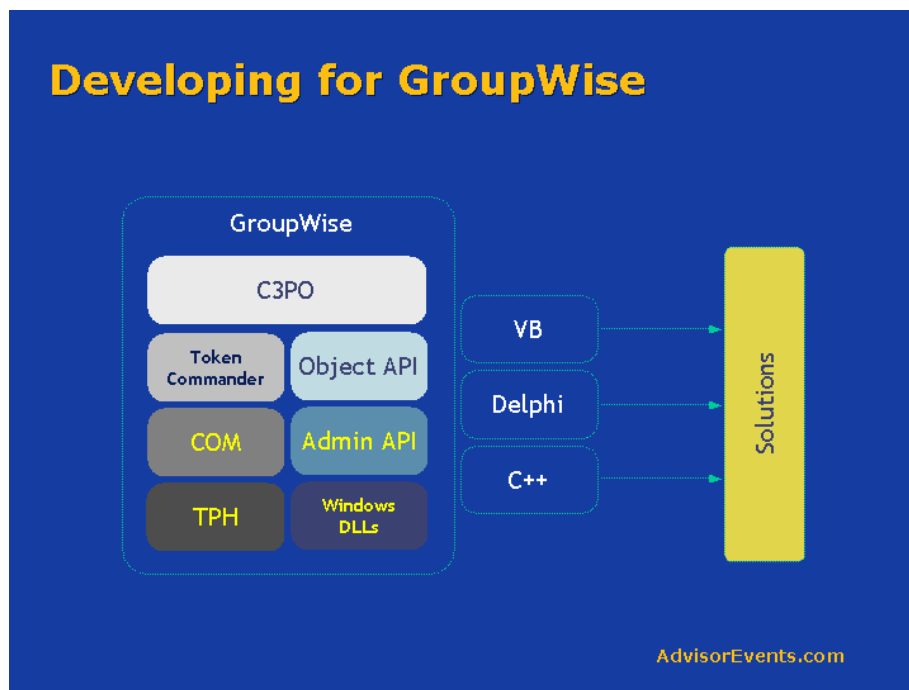


Figure 2 - Developing for GroupWise using traditional techniques

Formativ encapsulates the various GroupWise interfaces, and makes them available via the unified Formativ development environment and language. The result is simpler solutions that can be built and distributed far more quickly, as illustrated below:

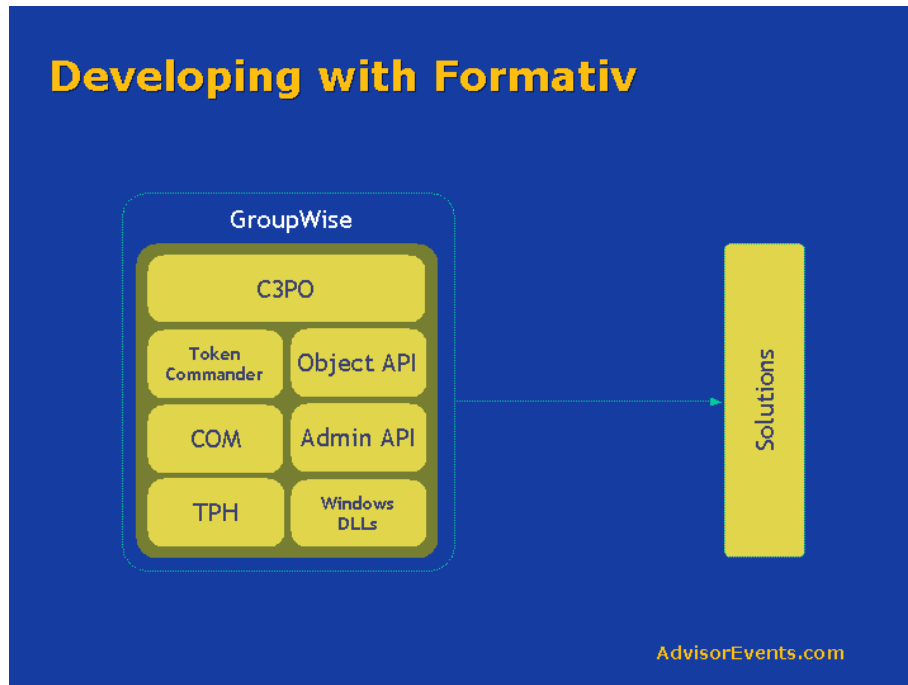


Figure 3 - GroupWise development with Formativ. Note the unification of the numerous GroupWise programming interfaces and technologies.

The Formativ modular solutions framework adds several new GroupWise client features that can be employed when developing new solutions. These range from encapsulation of the GroupWise message store to make access easier, through to the powerful Formativ Portal Manager™, which enables you to create rich, HTML content displayed as part of the GroupWise client.

Industry standards based applet language - Develop applets by using the Formativ applet language, a Visual Basic-like language. To provide easy access to the underlying GroupWise message store and the GroupWise client, the Formativ language includes hundreds of commands designed especially for use with Novell GroupWise.

Integrated development environment - The Formativ development environment is integrated with GroupWise and appears as a natural extension of the GroupWise client. The integrated development environment, *FormativCentral*, includes a syntax highlighting editor, GroupWise integration tools and online documentation.

Easily add toolbar buttons and menu items to the GroupWise client – With ease, add new buttons to GroupWise toolbars and new items to GroupWise menus using Formativ. Choose a button image from the gallery, provide descriptive text, and with point and click simplicity, new buttons and menu items appear in GroupWise - with no programming.

Information about the newly created buttons and menu items is stored within each applet, so if you share your applet with others, your buttons and menu items appear automatically on their machines.

Create new views in GroupWise - Formativ lets you add completely new views to the GroupWise client via the integrated Formativ 2.0 Visual Forms Designer and the Formativ Portal Manager.

Part of the Integrated Development Environment (IDE) of Formativ Creator and Studio, the Visual Forms Designer enables you to create custom forms with dynamic event support and has access to over 130 components.

The Formativ Portal Manager enables the developer to control the display and processing of local and remote Web/HTML/XML content and forms, embedded directly within the GroupWise client. Any content that can be displayed by the current user's Microsoft Internet Explorer plug-ins, such as Adobe Acrobat, MS Word, PowerPoint, Excel, Macromedia Flash etc., can be displayed in a Formativ Portal. GroupWise data can also be displayed in any HTML compatible view within a portal. Specially formatted HTML URL links within a portal view can initiate the execution of other Formativ solutions and open GroupWise messages (the Today views use this feature).

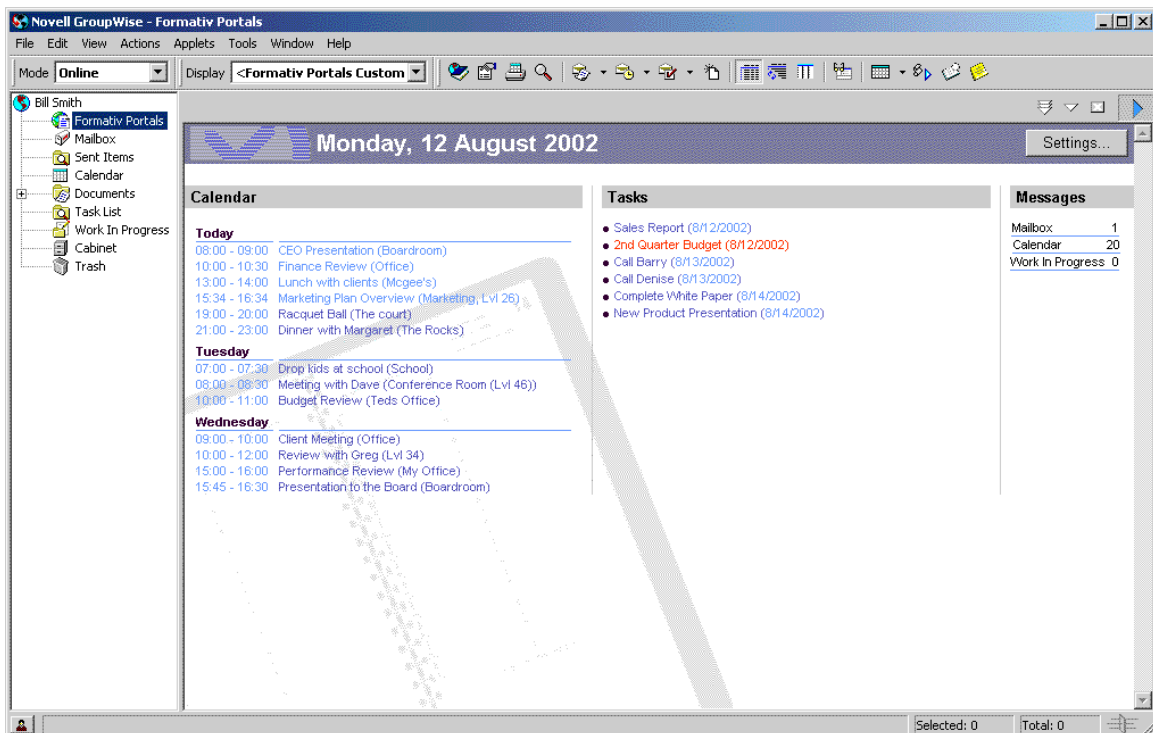


Figure 4 - The Today View - An example of Formativ Portal Manager™ technology

An example of a new view in GroupWise is the Formativ *Academic Timetable* view. Developed especially for educational institutions, this view presents GroupWise data in an easy-to-use, familiar timetable display for students, academics and support staff. An example is shown below.

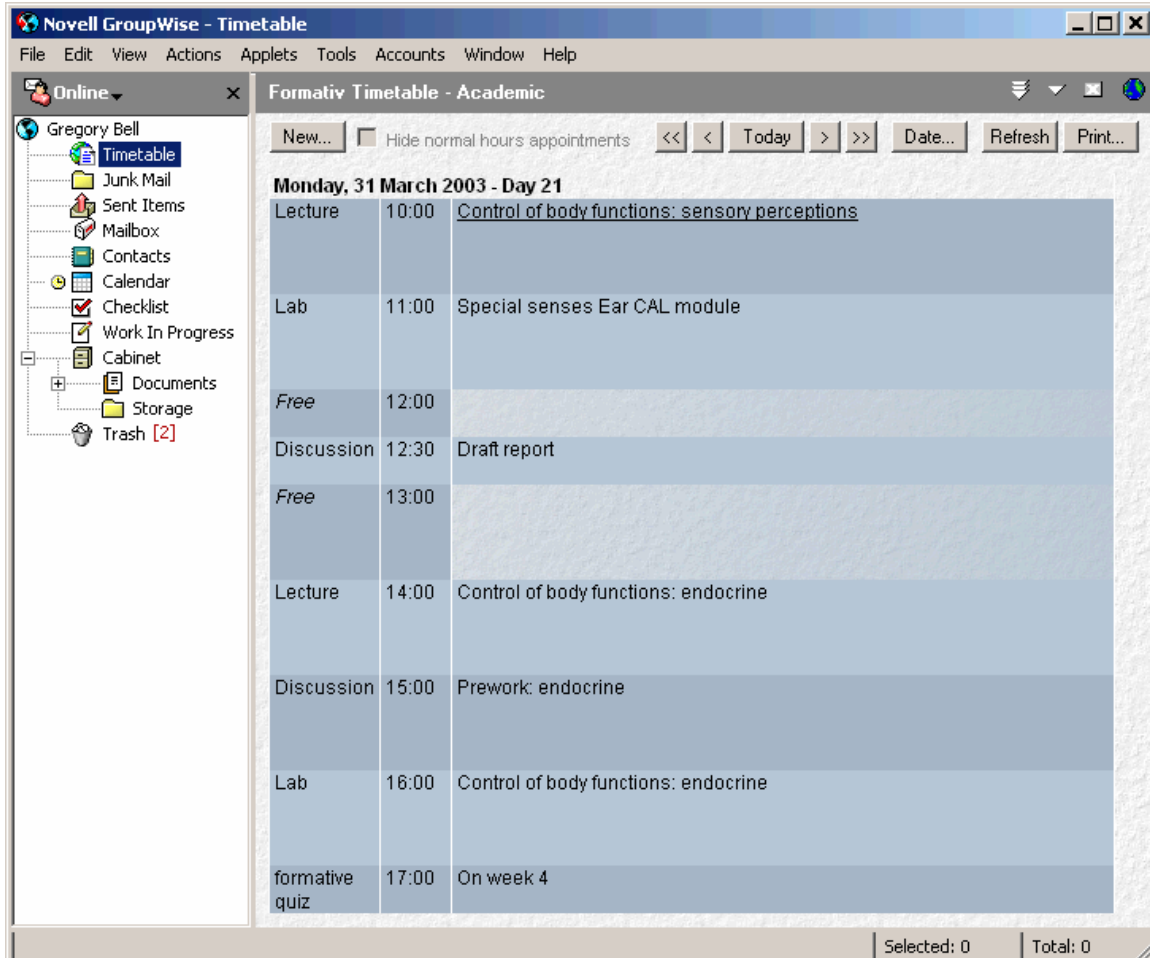


Figure 5 - Academic Timetable View

Active Web style dialogs and forms - Formativ supports Web style HTML dialogs, which can be displayed as part of the GroupWise client or as a standard floating dialog. You can now create dialogs that leverage the full power of the HTML language, including JavaScript. HTML dialogs can be located within the applet, on the local drive, an intranet or a public Web site and can contain both static and live HTML content.

Commercial/Protected Solutions - Formativ lets commercial developers and VARs protect the intellectual property within the Formativ solutions they create by using secure Flexalock™ technology. A Flexalock applet is a special format that allows the author to create trial solutions that include a fixed expiry date or a 30-day trial period. Use this

feature as a sales lead-in and capture tool, helping to ensure that a solution meets the customer's requirements and that the customer will contact you at the end of the trial period.

Associate solutions with GroupWise events - Formativ lets you trigger applets automatically when specific GroupWise events occur. For example, you can have an applet run automatically when GroupWise starts, new messages arrive in the In Box, when messages or particular types are opened, deleted, sent, etc.. Formativ exposes all TPH tokens as events, which opens up hundreds of ways to integrate solutions.

Custom forms and dialogs - The Formativ applet language enables you to create data collection forms, feedback dialogs, wizard dialogs - just about anything you need to have your solutions interact with your end users.

Create New Message Types – Formativ includes native support for Custom GroupWise messages. A custom message is a completely new message type to work with in the GroupWise client. You can define new views for the composition and viewing of custom messages, completely replacing native GroupWise views. Custom message types may also have their own icons that are used to identify the messages in the GroupWise client.

Custom message support lets you easily add new capabilities to GroupWise. For example, you could define a new support request message type, along with custom behaviors.

Create Trusted Applications – Formativ lets you create applet solutions using the new GroupWise 6.5 Trusted Application features. A Formativ applet using the Trusted Application services is able to access every mailbox in a post office without requiring proxy rights or knowledge of a user's password. Trusted Applications are secure, and managed via eDirectory

Easy access to third party services from your solutions - The Formativ applet language is based on COM technology. This means that your solution can employ any COM service installed on your PC. For example, your solution could:

- Extract information from the GroupWise address book and publish it using Microsoft Word;
- Import Outlook Address book information directly into GroupWise;
- Query your corporate CRM or human resources system for key information, then create a GroupWise message based on the data you extracted.
- Backup your GroupWise data to an SQL database.

The ease of access to third party software makes Formativ the ideal tool for integrating corporate systems with GroupWise.

Secure environment - Formativ applets are stored in a proprietary file format. They can only run within the secure Formativ environment. Applets cannot be executed as attachments, within email messages or from Windows. Applets are not executed by the Windows Scripting Host (although this does need to be installed).

Efficient Solution Distribution – Formativ Solutions are small enough to be efficiently stored and managed in eDirectory. While not a requirement, using eDirectory to manage and distribute Formativ solutions is the simplest way to distribute any number of solutions to a large number of users with no need to configure each workstation. Once the Formativ client software is installed, eDirectory management features enable the intelligent caching of Formativ solutions down to each workstation entitled to use a particular solution. This process is transparent to the user, and is illustrated below.

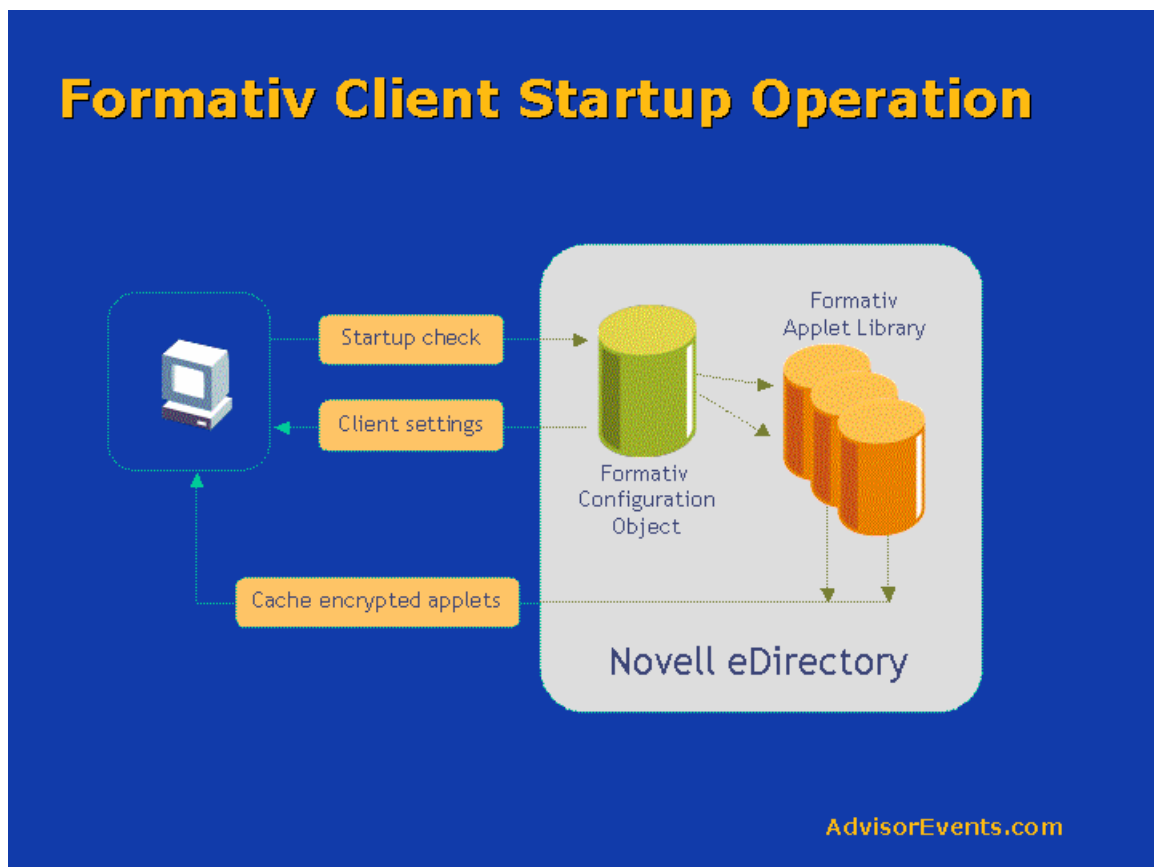


Figure 6 - Caching Formativ solutions to the workstation on start-up

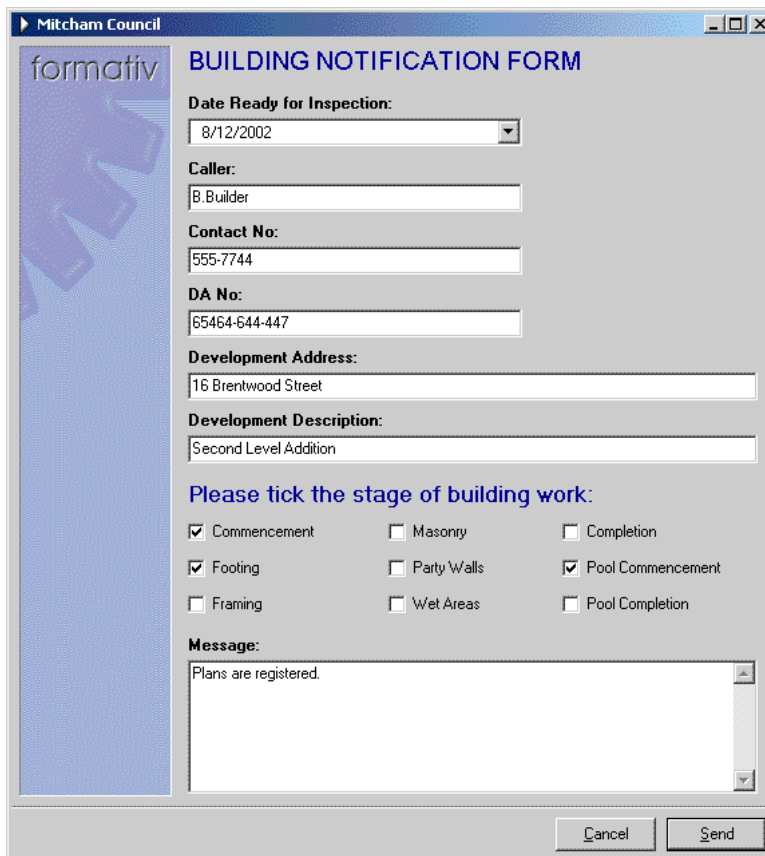
Case Studies and Examples

The following case studies are taken from organizations using Formativ to meet their specific requirements.

Case Study 1: Process Automation in Government

A Local Government authority needed to improve the efficiency of their Building Notifications reporting responsibilities. The authority was required by State Development Regulations to a) record information relating to building notifications on file and b) undertake random audit inspections in accordance with its Building Inspection Policy. The Authority was required to compile statistical information on a quarterly basis on the level of inspections undertaken.

Maintaining data integrity was essential for the Authority to be able to enforce breaches of the Development Act in the courts. For the Authority to succeed in any such legal proceedings, it was critical to demonstrate a robust system of recording this information.



The screenshot shows a web-based form titled "BUILDING NOTIFICATION FORM" from Mitcham Council. The form includes the following fields and options:

- Date Ready for Inspection:** A dropdown menu showing "8/12/2002".
- Caller:** A text input field containing "B.Builder".
- Contact No.:** A text input field containing "555-7744".
- DA No.:** A text input field containing "65464-644-447".
- Development Address:** A text input field containing "16 Brentwood Street".
- Development Description:** A text input field containing "Second Level Addition".
- Please tick the stage of building work:** A section with nine checkboxes:
 - Commencement
 - Masonry
 - Completion
 - Footing
 - Party Walls
 - Pool Commencement
 - Framing
 - Wet Areas
 - Pool Completion
- Message:** A text area containing "Plans are registered."

At the bottom of the form are "Cancel" and "Send" buttons.

Figure 7 - Collecting building notification information

The Authority undertook a review of the available technologies and products that may be suitable to solve the problem. The customer was already a GroupWise user and recognized that many of the core services provided in GroupWise (such as messaging and task management), could potentially be used in a solution. In addition, users were comfortable using the GroupWise environment and it made little sense to introduce another layer of complexity.

The Authority submitted a specification to Advansys. The workflow automation requirements included the creation of custom dialogs, calendar management and reporting facilities. A specific requirement was the automatic creation of an Excel® Spreadsheet to be used for the external Statutory reporting process.

In a matter of days Advansys was able to provide the first version of the Formativ solution to the client. After minor fine-tuning the solution went live. The solution was created within the space of one week. As the Formativ solution integrated seamlessly with GroupWise, training time and costs were minimal.

Case Study 2 – Process Automation for the Legal Industry

A Legal firm wanted to manage its caseload better by using long-range reminders associated with key tasks. When a task was entered into GroupWise, the firm wanted to automatically generate alarmed weekly reminder items associated with the task. With this approach a standard GroupWise notification could be used on a weekly basis to advise partners and associates about issues weeks (or months) in advance.

The legal firm had other requirements:

- If the target task is deleted, associated reminder items should be deleted from the calendar.
- If the target task is completed, associated reminder items should be removed automatically from the calendar.
- When the target task is completed, the solution should enable the user to create a new task automatically, due on the same date in the following year, along with associated weekly reminder items.

As GroupWise was already used for task and calendar management, the firm preferred to utilize GroupWise. After a search for existing solutions, the legal firm's reseller contacted Advansys.

Case Study 3 – Outlook® to GroupWise Conversion in the Banking Sector

A bank had made the decision to migrate from Microsoft Exchange/Outlook to Novell GroupWise. The GroupWise specialist assisting the bank had experience with Formativ and decided it was an appropriate tool to address the migration issues.

Many users had taken advantage of the Outlook stationery feature. This feature enabled messages to be created with HTML-based content. If user acceptance of GroupWise was to be strong, management knew they had to find a way of providing a similar feature in GroupWise.

Formativ ships with a stationery solution 'out of the box'. This solution provided nearly all the functionality required by the bank. In consultation with the Bank and their GroupWise specialist, the shipping Formativ solution was modified to work as required.

To perform the actual data migration from Outlook to GroupWise, an existing example Formativ solution was used for the calendar import and one was created to migrate email messages.

Case Study 4 – Lotus Notes® to Novell GroupWise Migration in the Government Sector

A large State Government department had made the decision to migrate from Lotus Notes to Novell GroupWise. The migration team within the department used specialized tools and techniques to extract email from Notes and add it to end-users GroupWise accounts. A major problem for the migration team was replicating the Notes folder structure within GroupWise.

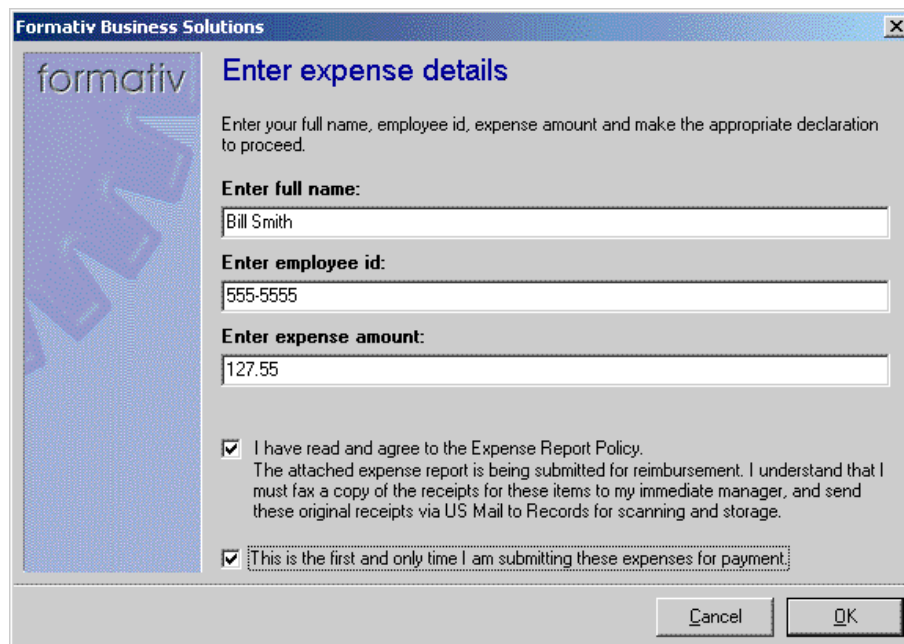
The Department approached Advansys regarding a Formativ solution. Their current technique for manually replicating the folder structure was taking far too long. A sample folder description file was supplied to Advansys, as well as the folder identification convention used by the migration team. Formativ was used to quickly create a solution that processed each account, reading the folder information and moving the messages into their associated folders. The solution resulted in a cost-effective and rapid migration.

Case Study 5 – Workflow and System Integration in the Manufacturing Sector

A manufacturing company wished to automate its expense reporting and management processes. The company already used an expense reporting system and needed to integrate it with GroupWise.

The existing expense system would create an expense re-imbusement request that was moved manually from one manager to the next. Each request required approval/processing by three people before it could finally be approved. Reimbursement processing times were longer than desired.

The manufacturer did not wish to invest in an expensive workflow product. GroupWise was well accepted within the organization and contained many of the core services required for the process.



The screenshot shows a Windows-style dialog box titled "Formativ Business Solutions" with a sub-title "Enter expense details". The dialog contains the following elements:

- Title Bar:** "Formativ Business Solutions" with a close button (X).
- Logo:** "formativ" in a stylized font on a blue background.
- Text:** "Enter your full name, employee id, expense amount and make the appropriate declaration to proceed."
- Input Fields:**
 - Enter full name:** Text box containing "Bill Smith".
 - Enter employee id:** Text box containing "555-5555".
 - Enter expense amount:** Text box containing "127.55".
- Checkboxes:**
 - I have read and agree to the Expense Report Policy. The attached expense report is being submitted for reimbursement. I understand that I must fax a copy of the receipts for these items to my immediate manager, and send these original receipts via US Mail to Records for scanning and storage.
 - This is the first and only time I am submitting these expenses for payment.
- Buttons:** "Cancel" and "OK" buttons at the bottom right.

Figure 10 - Creating an expense reimbursement request

Formativ was used to automate the workflow required between managers and to integrate their existing expense management system with GroupWise. When a button is pressed in the GroupWise client, the Formativ solution verifies and extracts information from the expense management system, creating a new routing email message containing the expense reimbursement request. A dialog requires the user to make a statement regarding the validity of the expenses being claimed. Once the claim has been validated, the routing message is sent. As part of the workflow, the original claim form is converted to a fax format in Microsoft Word.

Case Study 6 - User and Distribution List Management in the Education Sector

A university needed to improve management of its GroupWise Distribution lists. Specifically, the university required the ability to export distribution list information into a Microsoft Excel® spreadsheet. Two reports were required: one showing all users and the distribution lists of which they were members and another showing all distribution lists with the associated membership details.

As Formativ provides easy access to the GroupWise administration services, solutions that met both requirements were created quickly.

Case Study 7 – Process Automation in the Banking Sector

A large bank required a simple form, which could capture and convey key information regarding new loan customers. A specific requirement was that the user should not have to create a new GroupWise message manually, and that they should not need to know the specific email address used by the loans processing department.

Formativ was used to create a user-friendly form which was displayed by pressing a new GroupWise toolbar button. When the form was submitted, an invisible GroupWise message was created and addressed, then populated with data from the form. Finally, the message was sent automatically to the loans processing department.

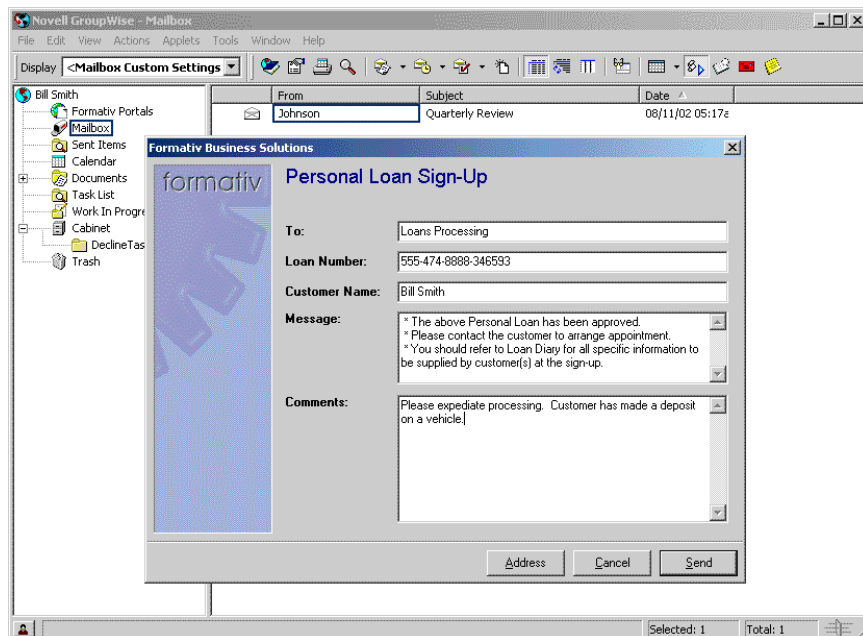


Figure 11 - Creating a personal loan signup request

With only a couple of hours required for its creation, this solution met all the customer requirements in an elegant fashion.

Case Study 8 – Systems Integration for the Travel Industry

A travel agency approached a GroupWise specialist to integrate their airline reservation system with GroupWise. The agency wanted to easily combine a traveler's itinerary from the central airline reservation system's terminal application with a GroupWise message containing distinctive corporate stationery (HTML). The existing system created a simple, plain text GroupWise draft message through the MAPI interface. The agency's desire to improve email presentation and systems integration was driven by the ever-present need to maximize customer service within a very competitive industry.

Having heard about the Formativ stationery solution and system integration capabilities, the GroupWise specialist approached Advansys to see if their customer's requirements could be met. After a quick review of the requirements, a few hours work yielded an initial solution based on a customized version of Formativ Stationery. As neither Advansys nor the GroupWise specialist organization had in-house access to the airline reservations systems software, fine tuning of the solution was done via the Internet using Webex remote control access to the agency's software. This was easy to achieve using Formativ's integrated GroupWise development tool, which enabled rapid modification of the solution remotely without the need for additional programming languages or installation programs.

Rather than using the MAPI option from the airline reservation terminal application, after generating the traveler's itinerary, the agency staff chose the copy to clipboard function, which copied the entire itinerary to the Windows clipboard. The agency staff then clicked a button in GroupWise, initiating the Formativ Itinerary solution, which created a new mail message, included the corporate stationery and inserted the itinerary text into the correct location. At this point the message was customized if required, addressed and sent. This is another example of a real world need being met quickly and cost-effectively with GroupWise and Formativ.

Case Study 9 - University business process automation and collaborative workflow

A European university had long relied on an outdated, error-prone purchasing system of manual checks and balances that often included lengthy delays as purchase requests were printed, then routed interoffice from person to person, building to building, and desk to desk. It wasn't unusual for an individual order to take up to three months to complete, and errors were common.

Automating and streamlining general procurement activity is a significant undertaking for any organization. The university learned there were few out-of-the-box solutions available for implementing procurement workflow with GroupWise. The goal was to develop a campus-wide purchasing workflow that was to implement, easy to extend, and easy to use for end users. Pre-packaged workflow solutions were considered, but they were expensive and far too complex to be an interim solution for connecting to a SAP

MM (Materials Management) Module. The university needed something simple that its users already knew and understood. They also needed an extensible, easy-to-use connection with the ordering system and the university's SAP system. The university recognized that many of the core services provided in GroupWise, such as messaging and task management, could be used in the procurement solution. University users were already comfortable using the GroupWise environment, and it made little sense to introduce another layer of complexity. GroupWise was identified as the obvious choice, but a tool was needed to customize it. Formativ was identified as the tool of choice.

Orders are now managed in spreadsheet files in shared folders. Formativ is used to provide check boxes for users who have a specific responsibility, such as order checking, completing empty fields, or inserting cost figures. Order status is also managed. A Formativ applet goes through all the current orders, looking in the spreadsheets for all the procurement details, converting the data to an Access database, writing data from GroupWise to the Access library. Data is then filtered for expenses, delivery dates, and specific costs.

Each person authorized to open an order has the ability to create new jobs in GroupWise Document Management. Individuals who 'own' orders can view and update them. The university faxes orders to vendors, which require departmental signatures. When we order PCs and other supplies and they arrive, we add them to inventory, and allot individual items to departments. This is all achieved in GroupWise using Formativ applets and Custom Fields in the DMS. Plans are underway to integrate the Formativ/GroupWise system to SAP on a campus-wide basis.

Example 1 – Support Request Workflow

Formativ supports GroupWise *Custom Messages*. A custom message is a completely new message type that appears as an additional message type to standard GroupWise email, notes, appointments, etc. Custom messages can have completely customized user interface elements, and introduce new behaviors. Custom messages can be displayed with their own opened and closed icons in GroupWise, making identification of such items easier.

Custom messages make building custom workflow easier and far more cost effective with GroupWise than previously available. Using the power of the Formativ applet language, including its ability to integrate with other systems (such as back-end SQL databases), organizations and third party developers can build workflow and other business process automation solutions simply and cost effectively.

An example of a simple workflow using custom messages is a support request system. A new message type is defined which is derived from a GroupWise task. The support request required many of the attributes shared by tasks, such as start date, due date and priority. Instead of manually supporting these attributes, the support message is

descended from a native task. Basing the support message on a task has the added benefit of integration with the standard GroupWise calendar and task lists. New opened and closed icons are also associated with the support message, making identification easier for both end-users and support staff.

The Formativ language is used to build a completely new message compose view. This view provides fields for users to enter a simple description and more detailed problem description. As the form is completely customized to the solution, there is no need for the user to address the message.

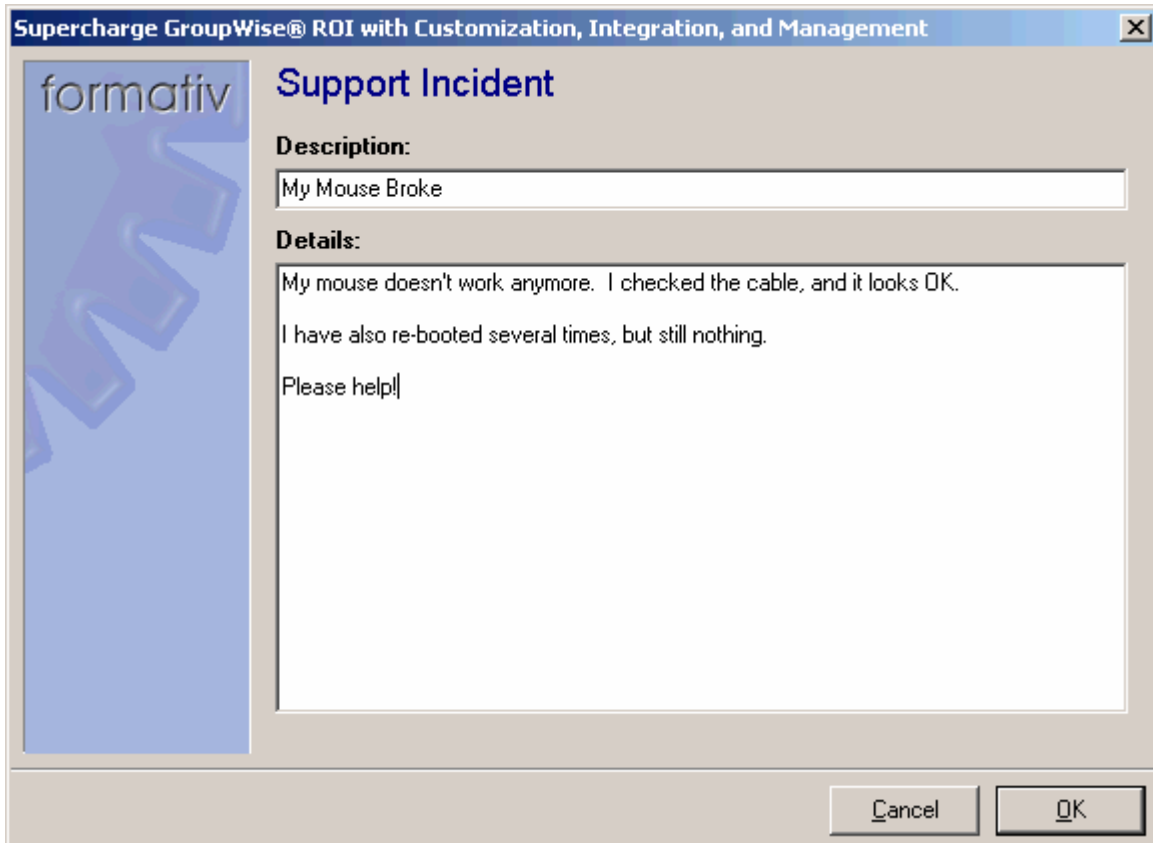


Figure 12 - Composing a support incident

Because Formativ makes it possible to override all base GroupWise standard behavior, the message exhibits its newly defined behavior whenever the user accesses the message. For example, if the message sender opened the message from the sent items folder, rather than the original GroupWise view displaying, the custom user interface is displayed.

When the message is received at the pre-defined support address, the custom view is again displayed. The message has custom icons associated with it, making it easier to determine the message type.

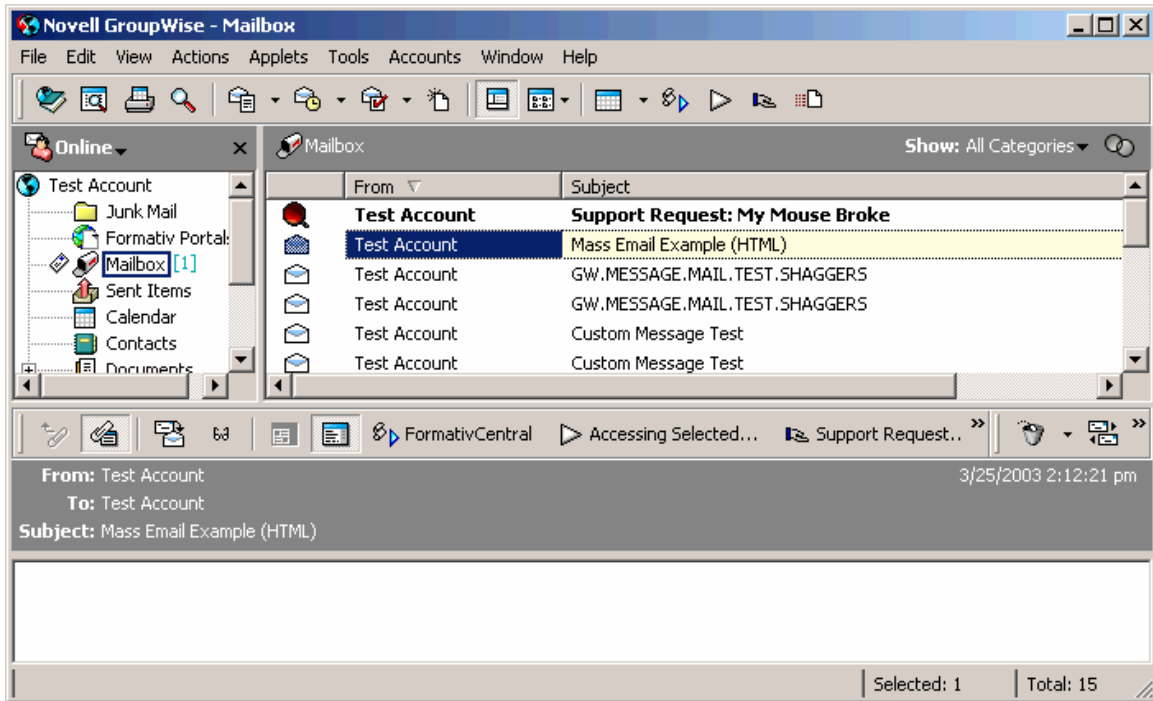


Figure 13 - Support incident arriving in the support mailbox. Note the custom icon for the message.

The support staff may then choose to accept the support incident. When the incident is accepted, custom Formativ code is executed that prompts the support staff to enter the name of the support staff member responsible for the issue. Code is also executed that sends a customized response to the sender indicating who is looking after the issue. Finally, and importantly, an entry is automatically made to a SQL database registering the issue. This SQL database can then be used to product management information and reporting information in real time.

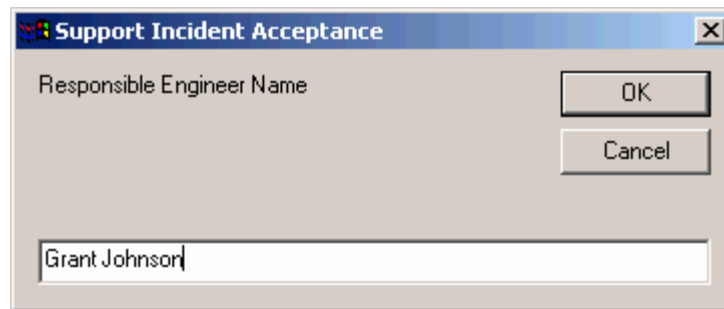


Figure 14 - Prompting for the responsible support engineer when accepting the request.

When the support incident is finally closed by way of the message being marked as completed in GroupWise, the incident record in the SQL database is automatically

updated to indicate when the matter was closed. Another message is automatically sent to the original recipient advising the support incident has been closed.

As this sample workflow updates a backend SQL database at each step of the workflow, it is a simple matter to extract management information regarding support incident status. In this example, a simple Formativ portal view is used to display the data in the SQL database.

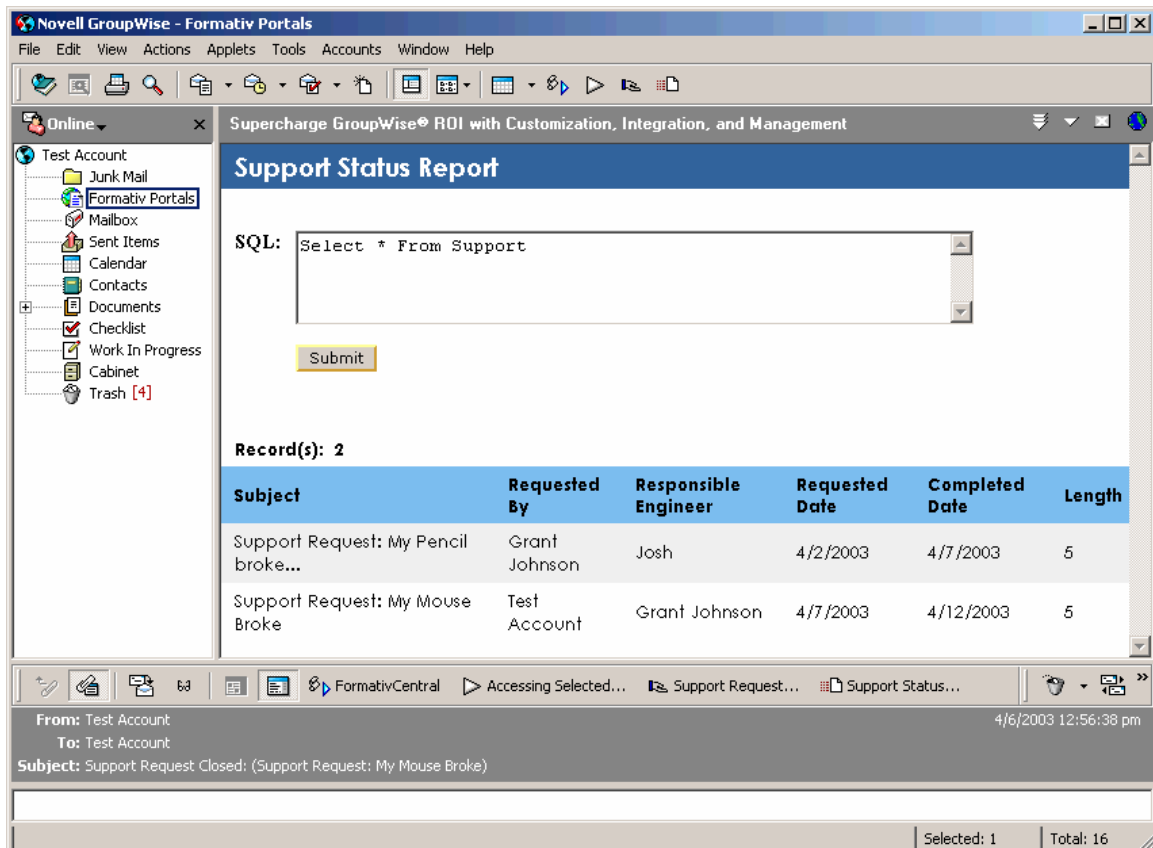


Figure 15 - A simple portal view of the support database allowing custom queries.

This example illustrates the power and flexibility of Formativ in providing simple workflow solutions in record time at an extremely low cost compared to traditional workflow solutions.

Summary

Organizations will always have changing needs. Organizations seeking to maintain a competitive advantage and obtain the maximum return on investment, particularly in difficult times, constantly strive to find new ways to work more effectively and efficiently. Although organizations have markedly varied needs, a common goal is to maximize their investment in GroupWise and other systems.

Advansys Formativ is the revolutionary product to address these needs. Formativ extends and enhances GroupWise and delivers new opportunities for 'out of the box' solutions, systems integration and business process automation. The more a customer relies on GroupWise for business, the more 'sticky' GroupWise becomes within their organization.

References

Some useful Novell GroupWise links, where Formativ information is featured, are shown below.

- [Novell PartnerGuide](#)
- [Novell DeveloperNet](#) and [Novell NDK](#)
- [Formativ Applet Central](#)

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