Requirement Visualization & Prototype Model

Today's business users drive how they want their application to function and behave. They step up to fulfill the features and benefits their system needs to have in order to properly address and improve their day to day organizational processes, and rightfully so. The key is to provide stakeholders and business users a visualization technique of requirements, generally written in text, for an effective understanding and communication with users based on functional requirements in order to validate for final sign off before development begins.

Systems will be build right the first time around when requirements are expressed and visualized, and complex business processes are analyzed, improved, and brought to life. Working with Acolyst's Requirements Elicitation & Visualization Methodology (REVM), the joint CA Technologies and Acolyst Requirement Visualization & Prototype Model provides users with: a visual representation of their process models, their roles and relationships to process and data, sequence of activities and decisions, interactive simulated prototype screens and reports, and behaviors and functions of the proposed application and its linkage to other system requirements.

Visualization Enables Effective Communication

No matter how well requirements are written down, they are not very useful unless the analyst can communicate them effectively with the various business users, stakeholders, decision makers and the technical personnel who will implement them. The visually simulated communication requirements to stakeholders can be in distributed or local environments. Many times, critical details are left open to interpretation which can cause surprises, expensive rework, cost overruns and missed project milestones. Visualization of requirements will solve these issues by improving project team communications and productivity.

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Importance of Visualization When Replacing Legacy Systems

Visualization is important especially if a legacy system is being replaced. Some users of legacy systems are comfortable with the way their existing system is functioning and afraid of both the modification and the learning process of a new system. They are in a comfort zone and fear change. However, using Prototype Fusion, the users can visualize their desires and express ways they would anticipate improvements to a new system to ease their work life. The hesitant users are now more engaged in providing feedback. Requirement is an evolutionary process, as users start prototyping they often expand on the needs.

Collaboration across Departments

By utilizing Process Modeler to visualize process models of collaboration across different departments within an organization and then prototyping using Prototype Fusion, a user can begin to understand how effective simulation is used to bring stakeholders together especially in a collaborative environment – when everyone 'imagines' the future system, the issue is that everyone has a different image. When visualizing with Prototype Fusion, it creates a common image of the future product for all to see and test.

Imagine building a three level house, during the requirements stage, the number of bedrooms is indicated but one stakeholder envisions the master bedroom on the second floor another sees it on the third floor. The number of bathrooms is also indicated but is that with a single or double sink? When a user is able to visualize the modeled system and interact with it before it is built, the users will be comfortable knowing that they have an agreed-upon and understanding of how the final system will operate.

Why Utilize a Simulated Prototype?

The purpose of Prototype Fusion is to help prioritize (clarify what is really needed, and what is not), discover omissions (ensure requirements are complete), and close the expectation gap (managing expectation) of requirements.

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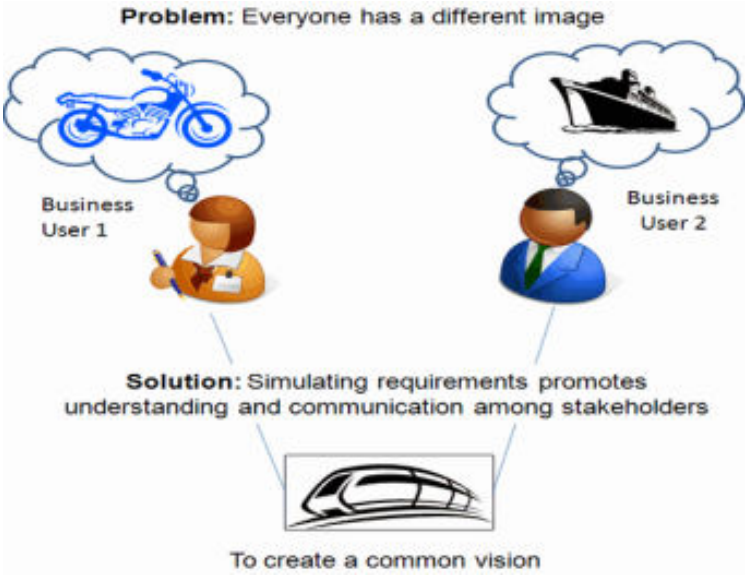
Prototype Fusion is a high-fidelity prototype which provides stakeholders the look and behavior they would typically expect for the final product to have. This helps stakeholder and business users to suggest improvements and new requirements as they utilize and test. This allows for the exploration of exception and alternative paths to occur when testing different scenarios (if/then logic).

Prototype Fusion also helps determine and significantly minimizes scope creep from occurring on the functional requirements of the project. Helping to reduce cost with change orders as through the ability of simulation, the business user can determine the true system behavior, features and functions, routing, in order to make appropriate changes necessary before the sign off of requirements and the build of the system.



Prototype Fusion demonstrates the behavior and the visual representation of the system. Behavior is what happens, when it happens, conditions, triggers, etc. Visual is the how the application screen will look and behave.

The beauty is that Prototype Fusion is not a throwaway prototype and can actually be used and become the working product should the stakeholder decide through the purchase of additional licenses. The final product result has the ability to meet various non-functional requirements such as security,

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performance, scalability, usability, operational, and so on, when it is time to evaluate if Prototype Fusion will become the final system.

Creating the Simulated Prototype

From the Process Modeler, the intuitive and interactive simulated prototyping scenario is created with screens, templates, reports, workflow triggers, routing and notifications. Additionally, behaviors and conditions of field and data will allow for a clear communication during review and validation of requirements

Prototype Fusion is not just a static screen mock-up, but a user interface simulated screen that demonstrates behaviors and functions of fields, screen page, including complex calculations and much more. Prototype Fusion shows the actual relationship among objects and process flows documented in Process Modeler by linking screens within Prototype Fusion or designing based on a parent / child relationship. Scenarios that are designed can be simple, unique, high risk or even complex.

An important feature of Prototype Fusion is the ability to use sample data using a simulation database that allows users to make decision on the presentation of their screens, results of calculated formulas and report data. Data helps to enhance communication of requirements among stakeholders and make simulation more realistic.

Connecting the Process, Data, and Workflow

Prototype Fusion has the ability for the user to visualize the workflow and to see where the workflow starts and ends. Workflow, business rules, and conditional logic is created to connect the process flow that can be tested using sample data and bringing the simulation to life, all in real time.

This allows users to visualize the screens, data, business rules, search filter options plus walking through the workflow steps that trigger notifications and routing for an approval process. Branching steps are behaviors that are triggered based on the action selected; if/then logic, approve/reject, yes/no.

The connection with the data permits Prototype Fusion to generate a prototyped report for stakeholders and business managers / supervisors in determining and verifying the information that they would need for their reports and how they want their report to be visually represented. Report prototyping will also be generated from the use of sample data provided. Reports can be generated using pie, line, bar charts, gauge, and data list.

Publish Requirements

The simulated prototype is then published to a web browser where the stakeholders can access and review through the browsers (IE, Mozilla, Opera, Safari) anywhere in the world and provide valuable feedback quickly before requirements are signed off and development begins.

Validation of Requirements

Post the publishing of requirements and obtaining feedback, the analyst can validate the elicitation, analysis, specification during the visualization modeling process allowing users and stakeholders to shorten the feedback loop by seeing and testing the interactive user interface and uncovering misconceptions early in the project. As users interact and validate the prototype providing feedback, any modifications are effectively documented in all areas including Erwin Process Modeler, to ensure integrity of the requirements before sign-off.

With the Prototype Fusion, it is easier to obtain sign-off due to the enhanced understanding and confidence the user feels by interacting with the high fidelity prototype system. The communication allows for ease of decision making in brainstorming, approving requirements and re-checking to make sure that no requirement has been missed before sign-off.

Sign-Off on Requirements

Stakeholders are more comfortable signing-off on finalized requirements when end users interact with a prototype model, stakeholders are able to determine how users will respond to the proposed design, and analysts develop a prototype model illustrating the full understanding and intended application.

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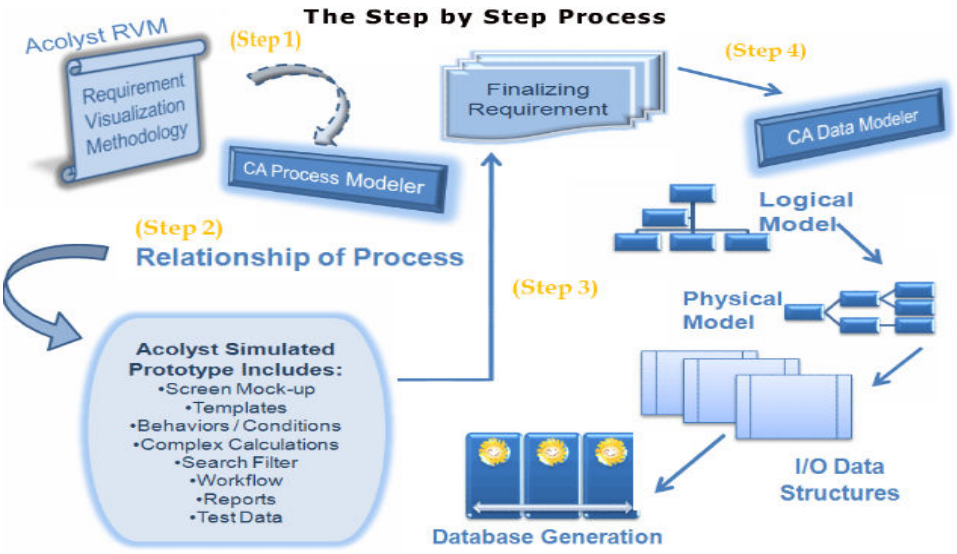
Once requirements have been signed-off, the data administrator can then visualize and align the complex data structures and models with business requirements at the logical level and the database design at the physical level.

The graphical design features help modelers visualize data structures. Erwin Process Modeler (PM) synchronization with Erwin Data Modeler (DM) can link and export the entities, attributes, and activities from PM to DM for the next phase of the project cycle.



Visualization & Prototype Model Benefits

- ✓ Automates any type of process
- ✓ Quicker project implementation by using output from REVM
- ✓ Visualizes complex relationship to understand business flow
- ✓ Transforms relationships into easily manipulated fields
- ✓ Inventory, store, and manage created test data to analyze processes
- ✓ Reduces errors and miscommunications between stakeholders and users
- ✓ Provides full visibility of the entire business process
- ✓ Greater flexibility to adapt to changing business conditions
- ✓ Allows users to visualize system requirements before purchasing expensive software
- ✓ Builds engaging screens through graphical user interface
- ✓ High-Fidelity Prototype gives stakeholders a realistic-looking product
- ✓ Demonstrates complex workflows
- ✓ Database look-ups, validations, calculations and conditional branching

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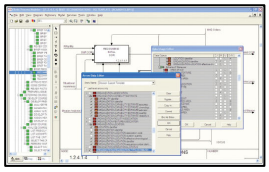
Process Steps for the Visualization & Prototype Model

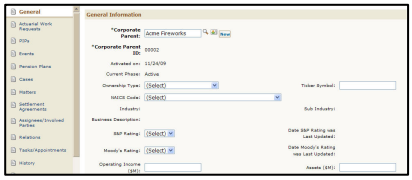
Step 1: Analyze business processes and requirements, and develop a detailed description of the functions and processes the organization must perform to meet business objectives.
Tool: Acolyst REVM

Step 2: Develop business process diagrams that illustrate the organization's information flow and the relationships between each business area.
Tool: CA Technologies ERwin Process Modeler

Step 3: Rapidly transform requirements into a simulated working model that includes screens, templates, reports, complex calculations, workflow, behaviors and conditions for end users to evaluate and test.
Tool: Acolyst Prototype Fusion Software



Step 4: Users interact with the working model and validate or suggest modifications to finalize their requirements. By allowing this, users can better visualize their information requirements.
Tool: Acolyst REVM



Step 5: Enables users to visualize complex data structures, inventory information assets and establish enterprise-wide standards for managing data. Users have the ability to design transactional systems, data marts and data warehouses. Integrates with Process Modeler using built-in data usage functions and metadata support.
Tool: CA Technologies ERwin Data Modeler

Continue process until all business areas have been fully defined

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Visualization & Prototype Model Toolkit

CA Technologies ERwin Process Modeler
Is a powerful modeling tool that can help users visualize, analyze and improve complex business processes. The Process Modeler enables analysts to clearly document important aspects of any business process, such as which activities are needed, how they are performed and controlled, what resources are required, and what outcomes or outputs are produced.

Acolyst Prototype Fusion Software
Is a low risk, high quality, cost sensitive prototyping software with many benefits and features that allow organizations to simulate requirements and show stakeholders how the future application will look and behave in order to optimize an organizations IT investment. The Acolyst Prototype Fusion software creates a working model that includes screens, templates, reports, workflow, behaviors and conditions for end users to evaluate.

CA Technologies ERwin Data Modeler
Is a data modeling product that enables users to visualize complex data structures, inventory information assets and establish enterprise-wide standards for managing data. It streamlines the design process by generating physical and logical models and synchronizes the model with the database design.

Bundled Suite Includes

- CA Technologies ERwin Process Modeler software plus 1 Year Maintenance
- Acolyst's Prototype Fusion software plus 1 Year Maintenance (includes 10 user test license to test prototyped behaviors, functions, routing, notification, searching, workflow, report, and to test sample data)
- CA Technologies ERwin Data Modeler software plus 1 Year Maintenance

Analyst and other services offered through Acolyst will be at the discounted and approved government GSA rate for both commercial and government clients until September 28, 2010.

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