Improving Business Processes with Enterprise-Wide Interactive E-Forms
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Quick Facts

Summary
An e-forms strategy incorporating SAP® Interactive Forms software by Adobe and Arch Forms Lifecycle Manager (Arch FLM) helps you automate forms data entry, improve user experiences, and increase compliance. This integrated solution helps you streamline business processes and automate the complete lifecycle of forms, from design to compliance. User interaction with enterprise-wide forms is simplified, allowing users to interact whenever or wherever they want, from any device they choose.

Business Challenges
• Reduce reliance on paper forms
• Simplify how employees, customers, and partners interact with enterprise forms
• Decrease errors due to manual input
• Improve ability to meet regulatory and corporate requirements
• Develop and deploy forms for interactive applications and mobile devices rapidly

Key Features
• Forms-based user interface – Implement interactive forms with a familiar look and feel
• Industry-standard Portable Document Format (PDF) forms – Access forms easily with Adobe Reader
• Centralization of forms – Enable version control
• Prepopulation of form data – Speed business process execution and minimize data entry errors

Business Benefits
• Simplify the deployment and management of interactive forms through an enterprise-level runtime environment
• Build forms-driven business processes that are connected to back-end applications and workflows
• Enable user interaction anytime, anywhere, and on any device through PDF, HTML, and Adobe Flex environments
• Streamline business processes with online and offline access to static and dynamic forms
• Integrate data from enterprise-wide solutions with standard functions that automatically update SAP applications
• Create a defensible audit trail through mandated processes that meet regulatory and corporate requirements

For More Information
Call your SAP representative, or visit www.sap.com/solutions/solutionextensions.
The Business Challenges: Productivity, Efficiency, and Compliance

Organizations depend on forms to run their business processes and operations. Surprisingly, many still rely heavily on paper forms. Others that use some type of electronic forms are experiencing only a fraction of the potential benefits. SAP, together with Adobe Systems Incorporated and Arch Consulting Ltd., can help you deliver an enterprise-wide electronic forms solution that enables business users to access forms anytime, anywhere, and on any device.

BUILDING AN ENTERPRISE-WIDE ELECTRONIC FORMS STRATEGY

Organizations continue to look for ways to simplify how employees, customers, and partners interact via forms across the extended enterprise. With the rapid proliferation of smartphones and tablets, the demand to deliver electronic forms to many people across multiple devices, both online and offline, is growing.

While businesses continue to seek increased user productivity, IT organizations are mandated to streamline and automate business processes and lower total cost of ownership (TCO). Although electronic forms are becoming more prevalent, there are still many important documents that are archived as paper. Therefore, IT has the challenge of streamlining forms-driven business processes across a continuum of both paper and digital forms.

Consequently, IT must efficiently develop and deploy interactive forms while effectively managing all the structured and unstructured data generated by the forms. To drive increased automation, this requires integrating data from a variety of solutions within an organization, including data from business process management, enterprise content management, and other enterprise business systems.

IMPROVING PROCESS EFFICIENCY AND EFFECTIVENESS

A successful electronic forms strategy helps you simultaneously meet the need for better user productivity, more efficient processes, and lower costs. Electronic forms offer many significant benefits over paper and digital imaging solutions, including the following.

Ease of Use
Electronic forms are simple and intuitive to use. This is especially true for your casual business users as well as for customers and suppliers who need to interact with your enterprise systems. Electronic forms can be used in both online and offline modes, offering flexibility as to where and when people choose to get work done.

Direct Connection to Enterprise Applications
A key benefit of electronic forms is that they can be integrated with your organization’s systems for enterprise resource planning (ERP), customer relationship management, human capital management (HCM), supply chain management, product lifecycle management, and other enterprise applications. Electronic forms are automatically generated with the most current information; and when new data is submitted in the forms, your enterprise systems are dynamically updated.

Improved Process Transparency, Audit Readiness, and Compliance
Electronic forms can be embedded in and tracked by business process and workflow engines so you always know the forms’ processing history, current status, and next steps. Forms can also be secured and locked to prevent unauthorized access. This helps ensure user adherence to your processes and provides you with a defensible audit trail that meets regulatory and corporate requirements.

Increased Efficiency over Paper Forms
Electronic forms can help overcome the inherent problems with paper that make processes more error prone and less efficient. They are easily prepopulated with current and accurate information, which reduces user input time. When forms change, people are automatically moved to the latest version. Electronic forms can embed business process checks and edits, preventing errors from being inserted into the form and eliminating rekeying errors. Electronic forms also eliminate the need to produce, store,
search, and archive large amounts of paper, which is expensive, time consuming, and a poor use of resources.

**OPTIMIZING CORE PROCESSES**

Once you understand the many advantages of electronic forms, you can begin to apply them to specific requirements within your organization. You will quickly find that there is no shortage of opportunities to optimize processes and enable employees, customers, partners, and suppliers to be more productive. Listed below are just a few examples of where electronic forms are making business processes faster, more effective, and less expensive to execute.

**Human Capital Management**

Electronic forms improve HCM processes across the employee lifecycle in such forms-intensive areas as internal and external recruiting, employee onboarding, status and pay change, and terminations. Many HCM solutions, including the SAP® ERP Human Capital Management (SAP ERP HCM) solution, offer several standard electronic forms. According to the Aberdeen Group research, the best-in-class organizations that automated extended business processes and used electronic forms lowered onboarding and training costs by 10%, whereas other organizations saw a 6% increase in these costs.²

**Finance and Procurement**

Finance and procurement processes, such as submission and approval of purchase requests, new vendor onboarding, goods receipt, and expense management, are typically forms intensive. When electronic forms are embedded within your business processes, these activities can be significantly more productive, and compliance improves. This benefits finance and procurement while also freeing up your employees from administrative tasks to work on the more strategic aspects of their jobs. When processes involve third parties, electronic forms offer the simplest and lowest-cost method for them to interact with your processes and enterprise systems.

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An integrated e-forms solution helps you **streamline business processes** and automate the complete lifecycle of forms, from design to compliance.
LEVERAGING THE POWER OF AN INTEGRATED SOLUTION

You can take a best-practices approach to an electronic forms strategy by holistically exploring how your business can be transformed with the use of interactive forms. This includes looking at the entire lifecycle of forms, from designing the right ones to creating audit trails and repositories for compliance. To realize the full benefits of an electronic forms deployment, you must also integrate the technology with your business paradigm.

SAP, together with partners Adobe and Arch, offers an integrated solution that automates and extends business processes with highly intuitive forms for a broad range of users. The solution combines SAP Interactive Forms software by Adobe with Arch Forms Lifecycle Manager (Arch FLM), an SAP-endorsed business solution that is powered by the SAP NetWeaver® technology platform.

SAP Interactive Forms software is the foundation for the forms-driven business processes and user interfaces in SAP NetWeaver. Arch FLM offers standard best practices for optimizing SAP Interactive Forms with design, deployment, an operational infrastructure, and the functionality to extend electronic forms to multiple channels and devices, including mobile devices.

Figure 1 shows the comprehensive lifecycle of interactive forms and how organizations that adopt this approach are able to fully realize the benefits across the extended enterprise.

SAP INTERACTIVE FORMS BY ADOBE

SAP Interactive Forms is a powerful cornerstone for creating electronic forms throughout the enterprise. You can automate paper-based activities and extend the reach of SAP software to company executives, employees, partners, customers, and suppliers. People can be online or offline and still work on a forms-based business process, allowing your organization to become more efficient and effective. The key features of SAP Interactive Forms include:

- **Simple forms-based user interface** – Develop interactive forms with a familiar look and feel that drives business process automation through a direct link to back-end applications and workflows; users can complete forms online or offline using dynamic or static forms
- **Industry-standard Portable Document Format (PDF) forms** – Access forms everywhere using the ubiquitous Adobe Reader
- **Centralization of forms** – Support version control to help ensure usage of the most current form
- **Prepopulation of form data** – Minimize costly data-entry errors and speed business process execution with the automatic prepopulating of data when forms are accessed
- **Regulatory compliance and access control** – Create a defensible audit trail that meets regulatory and corporate requirements; this also prevents unauthorized access and helps ensure document integrity with digital signatures
- **External collaboration and easier access** – Deliver interactive forms to new users and business partners across multiple devices, whether online or offline

SAP Interactive Forms also integrates with other SAP software-based workflow technologies and comes with several prebuilt forms supporting standard scenarios from both SAP and our partners. The software uses Adobe LiveCycle Designer and Adobe Document Services, which are integrated into the design and runtime environments of SAP NetWeaver.

Figure 1 : Forms Lifecycle in SAP® Software Environments
ARCH FORMS LIFECYCLE MANAGER

Arch FLM is an enterprise software product that simplifies the implementation, deployment, and management of SAP Interactive Forms. With Arch FLM, you can go beyond the creation of electronic forms and move to an enterprise infrastructure for managing your forms and expanding forms delivery. The solution offers a rapid forms-development feature, an enterprise-level runtime environment for forms monitoring, version control, and other centralized services. Arch FLM also enables you to deploy forms to mobile devices and interactive applications.

Created in the ABAP programming language, Arch FLM requires only a standard working knowledge of SAP software, allowing for faster adoption and quicker demonstration of reduced TCO. Arch FLM has a runtime environment that manages a portfolio of forms, with standard functions such as posting information back into SAP applications, version control, forms monitoring, and reporting. The runtime environment incorporates best practices based on years of successful forms deployments. Arch FLM also simplifies form sharing and reuse so that a form previously designed for one process or division can be leveraged by another. Similarly, forms can be broken into subforms and components that can also be reused. This approach significantly lowers development costs and implementation times for new forms, allowing you to focus on the business processes that need enhancing.

As Figure 2 illustrates, Arch FLM can also deploy the same form data to the HTML and Adobe Flex environments in addition to Adobe PDF formats. This allows you to provide your employees with access to forms-based business processes from any device or application that you choose, providing them with maximum flexibility.

THE POWER OF INTERACTIVE FORMS

When you use SAP Interactive Forms together with Arch FLM, you will be able to:
• Streamline the user experience by automating tasks
• Save time and money by reducing costs associated with manual data entry
• Comply with regulations through the use of mandated forms and automatic auditing and archiving processes
• Improve efficiency by greatly simplifying the deployment and management of interactive forms
• Empower users by providing interactive forms access everywhere

Figure 2: How Arch FLM Works

Figure 3: Implementing Enterprise-Wide Interactive Forms

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Custom development  Delivered with Arch FLM

SAP® Interactive Forms software by Adobe
SAP NetWeaver® technology platform
The Benefits: Learn from Successful Customer Implementations

SAVING TIME WHILE CREATING CONVENIENCE AND EASE OF USE

SAP is helping organizations around the world provide interactive forms solutions that are increasing user productivity, creating efficient forms-driven business processes, and lowering costs throughout the enterprise.

CSC: Improving Access in a Global HCM System

Computer Sciences Corporation (CSC) has more than 93,000 employees in over 90 countries delivering more than US$16 billion in annual revenue. CSC’s global HCM strategy involves deploying a worldwide system based on common HCM processes. This strategy supports regional differences and extends shared back-office services to the rest of the world by leveraging functionality found in SAP software.

The goal of CSC’s HCM project with SAP was to develop a scalable solution with a user-friendly self-service front end for global deployment based on standard processes that met regional legal requirements. The company implemented a solution that shared services spanning both business scenarios and employee processes. The business scenarios included implementing complicated compensation rules so that select employee expenses could be reimbursed as part of total compensation, medical and family benefits, vacation requests, or work/shift allowances. The employee processes included allowing employees to fill out an online form, such as an expense report, and attach required documents or receipts. The form was routed into an automated workflow for manager approval or comments. This implementation is now used by over 18,000 employees and nearly 500 managers worldwide.

CSC has over 130 forms in production today for its business scenarios and employee processes. The company built and tested its first 30 forms in 6 weeks. With the deployment of SAP Interactive Forms, CSC now has a connected workflow that makes for smooth and efficient business processing. The key features that make this possible are:

• Forms that are prepopulated with current employee information
• Forms that automatically validate input for proper format, eligibility, and other requirements
• Ability to leverage existing workflows, so status and next steps are clear at all times

As a result, CSC has developed an intuitive system that allows employees to complete thousands of forms per week without any training, support, or extensive support calls. The employees like using the new system, especially when compared to prior processes and old manual systems. The new forms-based approach makes for a greatly simplified landscape with a single stop for all requests and status checks. According to Eric Bernhard, solution architect at CSC, “Adopting SAP Interactive Forms by Adobe has resulted in a tremendous time saving and satisfaction for our employees. They are thrilled with the ease of the automated processes that they are now able to enjoy as opposed to the manual processes that slowed them down in the past.”

Serco: A Simplified Forms Deployment

Serco Group plc is an international service company that combines commercial know-how with a deep public service ethos. Around the world, the organization improves essential services by managing people, processes, technology, and assets more effectively. Serco advises policy makers, designs innovative solutions, integrates systems, and delivers services to the public.

SAP, together with Adobe Systems Incorporated and Arch Consulting Ltd., can help you deliver an enterprise-wide electronic forms solution that enables business users to access forms anytime, anywhere, and on any device.
Serco supports governments, agencies, and companies that seek a trusted partner with a solid track record of providing assured service excellence. The organization offers operational, management, and consulting expertise to a variety of sectors, including aviation, defense, education, local government, and the commercial sector.

As part of its vision to be the world’s greatest service company, Serco has embarked on an HCM transformation program called “Empower.” One of the tools chosen to facilitate the Empower program was SAP ERP HCM. A central objective of the SAP implementation was to standardize HCM processes by globalizing local best practices into a consistent global Serco best practice that was supported by shared services and technology.

During the design phase of the program, and as the teams applied process excellence principles to their solution design, several important requirements were identified. The goal of the requirements was to ensure that process weakness points were minimized while increasing process efficiency and delivering consistent repeatable processes. They included clear audit trails for approvals, one point of data entry, and an intuitive interface to help ensure people would welcome and adopt the new processes and technology.

Serco chose SAP Interactive Forms with Arch FLM technology because the functionality of this integrated solution supported the SAP ERP HCM software and addressed several of the project’s requirements, including:

- A fully integrated forms solution with a short implementation and deployment timeline; Arch helped design and develop 11 forms that support critical business processes in 15 elapsed days (100 days of effort), which represented a 30% savings against the original budgeted build effort
- The ability to utilize fully automated forms with data from SAP ERP HCM, validate data entry, and write back to SAP ERP using the Arch FLM workflow based on the HCM organizational hierarchy; this provided full audit trails and measurable process execution timelines
- Reduction in the number of transactional engineers required to operate the solution
- Increased flexibility for wider access across the enterprise, including users from finance and procurement
- Multiple browser compatibility, with a design that met the requirements for a variety of Web browsers
- An easy knowledge transfer, which occurred within six working days via two classroom-based training courses

According to Richard Bradshaw-Clifford, solution architect at Serco, “By laying the foundation with Arch FLM and SAP Interactive Forms by Adobe, we have established a long-term capability for implementing our electronic forms strategy. The next step in Serco’s journey is to extend the solution into other functional areas and to provide access and approvals to these forms via mobile interfaces.”

Edison Mission Energy: Better Interaction with Partners

Edison Mission Group (EMG) manages the competitive power generation business and other unregulated subsidiaries of Edison International. Under the EMG umbrella, Edison Mission Energy (EME) is engaged in the business of developing, acquiring, owning or leasing, operating, and selling energy and capacity for independent power production in the United States. EMG’s continuing operations consist of owned or leased interests in more than 44 power generation facilities in 14 states, with an aggregate capacity of approximately 10,000 megawatts of electricity produced from coal, natural gas, biomass, and wind.

A successful electronic forms strategy helps you simultaneously meet the need for better user productivity, more efficient processes, and lower costs.
The EME division faced several challenges with paper-based forms and the organization’s interactions with suppliers, including:

- Error-prone and easily outdated forms
- Manual, tedious, and inefficient data reentry and update functions
- Hard-to-track status of processes

All of the above resulted in high costs related to production and storage, which added up to US$30 million per year for the global organization.

In addition, EME had issues related to casual users who were not familiar with enterprise applications, and thus, the company wanted to provide users with more intuitive access. External users of the system, such as EME’s suppliers, were disconnected from the system, making it cumbersome to capture data.

EME implemented SAP Interactive Forms and embedded the software in its business processes. With the SAP solution, EME created a variety of interactive forms, such as supplier request forms and procurement status dashboard forms. These forms provided an error-free communication path between EME and its suppliers, saving time and improving efficiency.

According to Patrick Bellor, director of ERP platform services and the enterprise portal at EMG, “After implementing SAP Interactive Forms by Adobe, Edison Mission saw a significant improvement in our operational efficiency, with far fewer data-entry errors, time savings due to virtual elimination of manual data entry, and a lot better user experience.”

You can take a best-practices approach to an electronic forms strategy by holistically looking at the entire lifecycle of forms, from designing the right ones to creating audit trails and repositories for compliance.
Enterprise-Wide Access: Anytime, Anywhere

ENHANCING ENTERPRISE SOLUTIONS WITH INTERACTIVE FORMS

Adopting an electronic forms strategy has many benefits, regardless of your line of business or industry. These benefits include:

• Increasing ease of use for your enterprise applications by providing connectivity via a user-friendly interface
• Improving automatic adherence to your processes and creating a defensible audit trail that meets your regulatory and corporate requirements
• Overcoming the inherent problems with paper that make your business processes more error prone and less efficient

In addition, interactive forms can embed business process checks and edits into your solution that prevent errors in entering or rekeying data. Electronic forms also eliminate the need to produce, store, search, and archive large amounts of paper, reducing costs and time and saving resources.

Together with our partners, SAP is helping you deliver an enterprise-wide electronic forms solution that enables you to provide access to your users anytime, anywhere, and on any device.

FIND OUT MORE

To learn more about how SAP can help your organization implement an interactive forms solution, call your SAP representative today or visit us on the Web at www.sap.com/solutions/solutionextensions.

FOOTNOTES

2. Ibid, page 2.

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