K2® Special Edition

Easy-to-Build Workflows and Forms

FOR DUMMIES®

A Wiley Brand

Brought to you by

K2®

Lawrence Miller, CISSP

About K2

K2 Software provides low- to no-code business application platforms and solutions that span roles, departments, and data sources to make businesses more agile while simplifying processes and workflows. K2 eliminates the complexity of traditional software and replaces it with easy-to-use visual tools.

Founded in 2000, SourceCode Technologies, Inc., the developer of K2, is headquartered in Bellevue, Washington. Learn more at **www.k2.com**.

Easy-to-Build Workflows and Forms

FOR DUMMIES®
A Wiley Brand

K2® Special Edition

by Lawrence Miller, CISSP

FOR DUMMIES®
A Wiley Brand

Publisher's Acknowledgments

Table of Contents

Introduction

*I*n a world in which speed matters, businesses need agility and flexibility to quickly modify their processes and business practices in order to stay competitive. Traditionally, large companies have hampered process agility by locking themselves into monolithic systems, processes, and workflows.

Different business process management (BPM) suites have unique strengths and weaknesses. However, a common weakness among many BPM solutions is the lack of agility. Highly skilled developers and months (or even years) of coding are typically required to build and customize business applications. By the time an application is delivered, the business process may have changed, requiring further tweaking of the application and many more months of development time. As a result, businesses are stuck with outdated and inflexible applications and processes.

The rapid pace of modernization and evolving customer expectations is increasingly driving organizations toward business process transformation in the quest to achieve process excellence. Low-code business application platforms enable companies to rapidly build and deploy applications that are customized to meet their unique business needs. Unlike traditional BPM options, the opportunity to transform quickly and immediately realize the benefits are greater with low-code business application platforms.

Choosing the right solution for business process transformation will provide easy access to information and quantifiable results, while being agile, scalable, and powerful will give your business the tools it needs to stay ahead in a highly competitive market.

About This Book

This book explains how automated business workflows and forms help drive efficiency (Chapter 1); examines how businesses can use a single workflow solution across the

entire organization (Chapter 2); describes how to build automated, process-based workflows without being a developer (Chapter 3); explores different department use cases (Chapter 4); and provides key criteria to help you evaluate business app workflow solutions for your organization (Chapter 5).

Foolish Assumptions

It's been said that most assumptions have outlived their uselessness, but I assume a few things nonetheless!

Mainly, I assume that you are a line-of-business (LOB) manager or department head in an organization of some sort — perhaps a small or medium business, large enterprise, nonprofit, or military or government agency. This book is written primarily for nontechnical readers who don't necessarily work in an IT department. Or perhaps you're an IT leader or influencer interested in gaining a better understanding of how to support line-of-business leaders across your company.

I also assume that you're looking for a workflow and forms solution to help you automate critical business processes in your organization, and you don't want to become a software developer. You need a solution that's as easy as drag-and-drop so that you can get up and running as quickly as possible.

If these assumptions describe you, this book is for you!

Icons Used in This Book

Throughout this book, I occasionally use special icons to call attention to important information. Here's what to expect:

This icon points out information that you should commit to your nonvolatile memory, your gray matter, or your noggin — along with anniversaries and birthdays!

You won't find a map of the human genome here, but if you seek to attain the seventh level of NERD-vana, perk up! This icon explains the jargon beneath the jargon.

Thank you for reading; hope you enjoy the book; please take care of your writer! Seriously, this icon points out helpful suggestions and useful nuggets of information.

This icon points out the stuff your mother warned you about. Okay, probably not. But you should take heed nonetheless — you might just save yourself some time and frustration!

Beyond the Book

There's only so much I can cover in 48 short pages, so if you find yourself at the end of this book thinking "Gosh, this was an amazing book, where can I learn more?" just go to www.k2.com.

Where to Go from Here

With my apologies to Lewis Carroll, Alice, and the Cheshire cat:

"Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to," said the Cat — err, the Dummies Man.

"I don't much care where . . . " said Alice.

"Then it doesn't matter which way you go!"

That's certainly true of *Easy to Build Workflows and Forms For Dummies*, which, like *Alice in Wonderland,* is also destined to become a timeless classic.

If you don't know where you're going, any chapter will get you there — but Chapter 1 might be a good place to start. However, if you see a particular topic that piques your interest, feel free to jump ahead to that chapter. Each chapter is individually wrapped (but not packaged for individual sale) and written to stand on its own, so feel free to start reading anywhere and skip around to your heart's content. Read this book in any order that suits you (though I don't recommend upside down or backwards).

I promise you won't get lost falling down the rabbit hole!

Chapter 1

Recognizing How Workflows and Forms Help Drive Efficiency

*T*he benefits of automating processes are clear. In a study by Cognizant, about half of the companies surveyed anticipated automation would significantly improve their business processes within three to five years. Unfortunately, three to five years is too long in today's competitive business environment.

In this chapter, you explore the benefits of automating your business processes and solutions that can help you achieve business agility through process automation and excellence.

Automating Workflows to Increase Efficiency

Almost every part of a successful business relies on information being available to the right people at the right time. Nevertheless, information flow is often hindered by manual business processes that are outdated, inefficient, and inflexible. Relax, it's not your fault!

REMEMBER

A business can only go as far and as fast as the information that powers it.

Consider the following all-too-common scenario: A core business process is initiated by someone searching for a form located somewhere on a shared network drive, and then printing a copy and manually entering the required information. The paper-based form is then routed from desk to desk or office to office for the necessary approvals, often delayed because someone is out on business travel or otherwise unavailable. After the form has been approved, someone else must log into multiple, disparate systems to enter the information from the form and collate the data. Throughout the entire manual and time-consuming process, multiple opportunities for errors arise, along with numerous potential bottlenecks such as lost or improperly routed forms and missing or incorrect information.

These manual, paper-based processes simply can't keep pace with the modern digital workplace. Already, workers are looking elsewhere. For example, according to International Data Group (IDG), 79 percent of employees use cloud-based file sharing and collaboration tools, such as Box, Dropbox, and OneDrive, for work-related purposes.

Why do people bring their own devices to the office and download their own applications ("apps") to get work done? The modern worker is tech savvy, and employees find ways to work around infrastructure limitations and rigid, outdated processes.

REMEMBER

According to Gartner (`https://www.gartner.com/doc/2715219/ digital-workplace-key-initiative-overview`), a *digital workplace* leverages the technical literacy of cross-generation employees — Millennials, Gen Xers, and even Baby Boomers — to do the following:

- ✔ Enable new and more effective ways of working
- ✔ Improve employee engagement and agility
- ✔ Exploit consumer-oriented styles and technologies

IDG reports that organizations expect the consumerization of IT in the enterprise to improve user satisfaction and productivity, process efficiency, collaboration, and business agility. In fact, data shows that companies are eager to keep users productive wherever they go and whenever they work:

✔ According to *Manufacturing Business Technology,* 55 percent of manufacturing professionals expect to increase their use of mobile technologies.

✔ According to *Workflow Magazine,* 74 percent of businesses that deploy mobile devices are motivated by a need to accelerate communication, and 63 percent of businesses deploy mobile devices to let employees work away from their desks.

Modern business apps must do more than simply enable users to read and reply to emails from their mobile devices. Users must be able to seamlessly complete routine tasks whether in the office or in the field, across all departments — for everything from customer onboarding and invoice approval to complex process management and analysis.

Organizations are well aware of the benefits of automating their business processes. According to a study by Cognizant's Center for the Future of Work, companies are automating 25 to 40 percent of their workflows, and businesses that automate processes are reducing costs by 15 percent year over year.

Yet many organizations are frequently frustrated by the high costs and long timelines associated with the development of custom workflows and forms to support automation. Those costs can be especially discouraging for businesses that want to extend workflows to their mobile users.

Transforming and Optimizing Your Business to Be More Agile

Automated workflows and forms can transform a business into a more productive, responsive environment — but those business apps need to accommodate rapidly changing business needs, a mobile workforce, and disparate line of business (LOB) systems.

Modern business apps that support critical workflows and forms must be

- ✔ Automated
- ✔ Scalable
- ✔ Flexible
- ✔ Fast to implement

Paper-based workflows are typically flexible, fast, and easy to implement but do not scale well and are, by their nature, manual (see Figure 1-1).

Many businesses develop "one-off" custom apps for specific business workflows. Although such solutions can be highly automated, they are not easily modified, do not scale well, can take months or even years to implement, and can be prohibitively expensive to develop and maintain.

A low-code business apps platform is an innovative solution that provides automation, scalability, flexibility, and agility to support critical business workflows and forms. In Chapter 2, you learn how you can use this solution yourself, without the help of a developer, to automate your business workflows and forms.
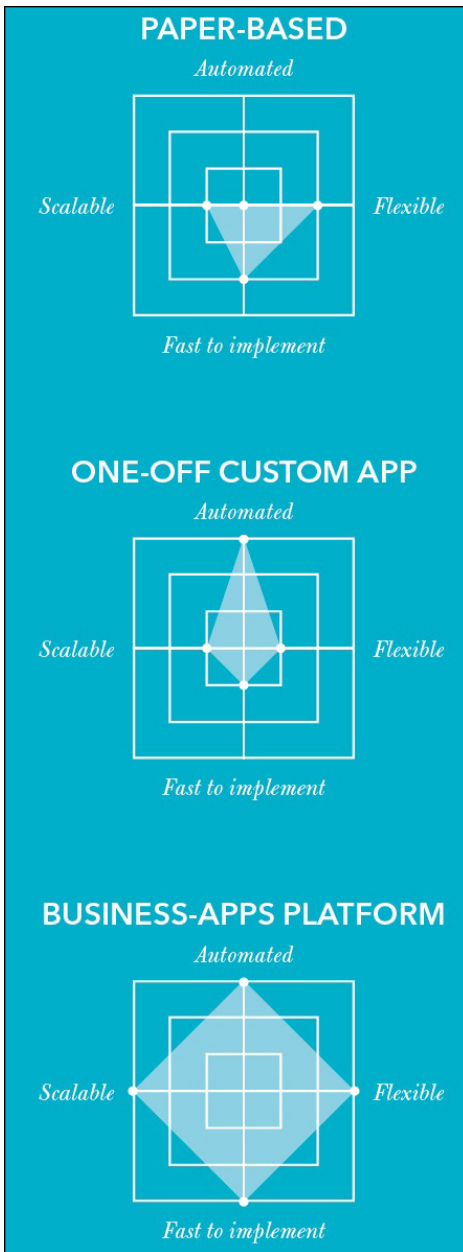
Figure 1-1: Business-workflow traits.

Dalkia automates PO process to improve efficiency and customer service

Dalkia, a division of the Veolia Environment Group, is a leading provider of energy services in Europe. In Slovakia, the company supplies heating systems and energy for commercial and domestic properties.

Dalkia issues 10,000 to 12,000 purchase orders (POs) every year, for everything from company vehicles to tiny valves for heating units. However, the company's manual processes for creating, authorizing, and managing POs were inefficient and created several challenges.

First, the process took too long. Employees had to print a form, manually fill in details of what they wanted to purchase, and physically take the document to the appropriate managers for approval. Between two and five different signatures were required on each PO form, depending on the value of the item to be purchased.

After a form had all the necessary signatures, it had to be retyped into the company's Microsoft Dynamics enterprise resource planning (ERP) system. As a result, POs frequently took a week or longer to be created, approved, and issued.

The second challenge was more troublesome. With the existing process, engineers could unknowingly create POs for parts that had been discontinued, or get a digit wrong in a part number, causing the incorrect part to be delivered. If the component was required for a specific repair or installation project at a commercial or domestic property, these errors caused costly delays and poor customer service.

Solution

Working with K2, K2 partner GRADIENT Slovakia (`www.gradientecm.com`), and other third-party suppliers, Dalkia Group in Slovakia designed and implemented a number of automated K2 workflows. Chief among these applications was a new PO management process, which was tightly integrated with Microsoft's SharePoint, Dynamics ERP, and Active Directory systems.

The first and most evident benefit that Dalkia experienced was dramatic process acceleration. Employees now enter their purchase requirements into an electronic form, which is then automatically routed to the correct managers for digital authorization. There is no need to reenter information, because all data in approved PO forms passes directly into the company's central ERP system.

"It used to take around a week for POs to be raised [issued]," said Filip Legény, IT project manager at Dalkia in Slovakia. "If everyone is at his or her desk, the approval of a PO can now be achieved in as little as 10 minutes."

The most significant benefit of the K2 workflow is the improvement in customer service. When engineers fill in PO request forms electronically, they are given a drop-down box showing approved components and products, and the correct part numbers are automatically applied. Therefore, items can be sourced more accurately, enabling customer projects to go ahead on schedule.

In addition, the company expects to save money from the use of K2 processes. The K2 solution provides purchasing managers with a clear overview of all POs issued. They can easily see which products or parts are requested most frequently and then negotiate bulk purchasing deals with suppliers. In this way, Dalkia can optimize its stock and operate more cost efficiently.

Previously, when engineers created POs for equipment, they didn't always know exactly which parts Dalkia already had in its in-house stockrooms. So they could waste time and money creating a PO for a specific heat pump when a similar heat pump (perhaps from a different supplier with a different part number) might already be available on the shelf. K2 gives engineers stock visibility and encourages them to use parts already available, rather than make one-off purchases at a higher unit cost.

"Now, it is much easier for engineers to see what items are in stock. That saves us money and enables us to deliver better services to our customers," Legény said. "Definitely, our engineers can arrive at our customer sites with the right parts more quickly."

Following the successful application of K2 in this area, Dalkia is now considering rolling out similar K2-driven processes.

"Other businesses have similar problems to us; K2 could meet their needs, too," Legény said.

Chapter 2

Building the Business Case for Process Transformation

*I*n this chapter, you discover how to leverage customers and revenue to help you reframe the business case for a business applications platform solution through a modern lens.

Business Process Transformation

A recent online survey conducted by Forrester Research found that although 33 percent of companies are implementing or using a BPM solution and an additional 30 percent are interested in using BPM, only 17 percent of companies made a formal request for BPM last year (see Figure 2-1).

The reason for such a wide interest-to-investment gap? According to the Forrester report, executives are scrutinizing capital expenditures more closely and demanding a clear case for the "cause and effect between investment and rapid business benefits." BPM is in a gray area with a reputation for taking too long to deliver measurable results, costing too much for upfront software and skills development, and delivering ambiguous results that are hard to quantify.
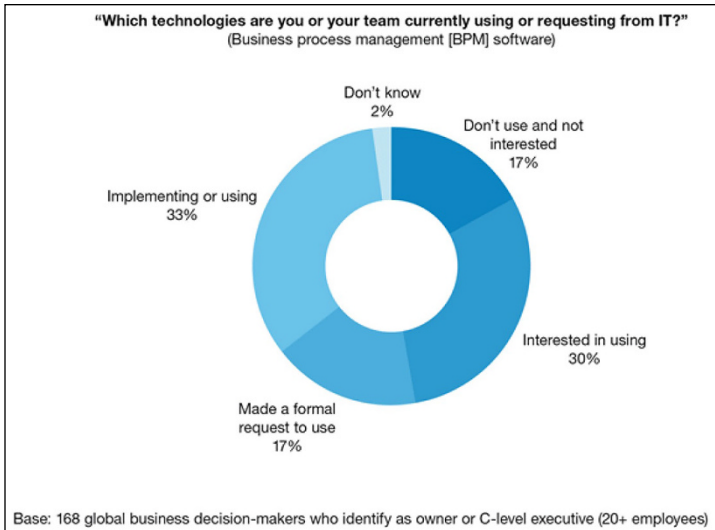
Source: Forrester's Business Technographics Global Software Survey, 2014.

Figure 2-1: Businesses using or considering a BPM solution.

So looking at business transformation with applications, workflows, and forms is a better approach for organizations looking to build a more relevant business case for executives. Solutions that meet the following requirements are well positioned to meet modern business needs:

- ✔ Speed up execution for revenue growth opportunities
- ✔ Simplify customer processes for convenience and engagement
- ✔ Use digital transformation to anchor the case for business process transformation

Speed Up Execution for Revenue Growth Opportunities

Although the business case for cost cutting and process efficiency is well documented, a more compelling case for executives today is revenue acceleration. According to Forrester, enterprise architects who have "cracked the code

for revenue-side benefits" have often focused on redesigning processes to accelerate customer acquisition and revenue. This means looking at processes that could create additional revenue opportunities, such as quote to cash, mortgage origination, underwriting, contract management, and a host of other processes. If streamlined more efficiently, these kinds of processes could not only cut costs and improve efficiency as a result of fewer risks and manual errors, but also actually net significant revenue for companies through the creation or identification of additional revenue opportunities.

> **TIP** Low-code platforms with drag-and-drop design tools are an ideal way to build these types of processes because business and technical users can use them to quickly and easily build flexible, customizable applications that speed up processes and increase revenue acceleration opportunities.

Simplify Customer Processes for Convenience and Engagement

Customer service interactions and experiences are typically only "skin deep," Forrester reports, with great visuals but lacking the touchpoints needed to complete transactions and service requests. This lack can create frustration and inconvenience for customers. Business process management systems can be great at automating the various touchpoints that are needed to provide a smooth experience for customers, but it's important to take into account the end-user experience to ensure an intuitive, streamlined experience for customers across multichannel platforms.

Another important factor to consider when choosing a business applications solution to automate customer-facing processes is agility. Customer-facing processes change as quickly as the market, and solutions that streamline these processes need to be agile enough to keep up. Many systems are built more for internal, backend processes rather than customer-facing ones. An application can take months to design, which might be adequate for an internal process, but when used for a customer-facing process, further changes to the process might be needed by the time the application is finally deployed. Unfortunately, making changes to an application

can take several more months of development time, and in the meantime, customer needs may change yet again.

Finally, mobile capabilities are also important when building and running customer-facing applications. Customers are increasingly engaging with businesses through tablets and smartphones, and they expect the companies they engage with to provide an intuitive mobile experience. Some customer transactions can be complex, creating a cumbersome experience for customers, but according to Forrester, this doesn't mean you should avoid building mobile channels for these transactions. Just make sure that the solution you use simplifies this experience for customers and makes it easier for them to connect the dots.

Use Digital Transformation to Anchor Your Business Case

For long-term impact, thinking about digitization across the entire organization is critical, from internal processes to customer-facing ones. Many internal processes support customer-facing processes and can be optimized to better support this engagement.

According to Forrester, speed is the top priority for digital businesses, and low-code platforms are the new breed of BPM platforms to deliver "rapid customer-centric innovation." The capability to rapidly deliver solutions will allow organizations to scale these apps across the entire organization.

With the right solution, business process transformation can be the differentiator that helps your organization increase revenue and provide digital operational excellence that sets you apart from your competition. Now more than ever before, companies need to view business process transformation through a lens that captures more than just the automation of core processes. The solution you choose should also have the speed, agility, and flexibility needed to adapt to your organization's and customer's unique requirements.

Chapter 3

DIY Process-Based Workflows

In This Chapter

▶ Empowering users in the digital workplace

▶ Supporting users anywhere and on any device

▶ Delivering transformative results with the business apps panacea

▶ Replacing "shadow IT" applications and processes with scalable solutions

*I*n this chapter, you explore how a "do-it-yourself" (DIY) platform can help jump-start your organization's process improvement and process excellence initiatives.

Isn't It IT's Job to Build Apps for Us?

Many organizations have traditionally viewed application development as an IT function. However, today's digital workplace (see Chapter 1) requires employers to leverage an ever-expanding base of individual technical skills throughout the organization.

The reality is that IT department resources are seriously constrained and can become bottlenecks for process improvement and process excellence initiatives. Many IT departments are locked into rigid software development life cycles that can take months to deliver even relatively simple business applications. From requirements definition to coding, testing, and maintenance, such formal processes — even those labeled

"agile" — can be too slow and inflexible to keep up with the dynamic and rapidly evolving needs of the business. Teams of developers, business analysts, and project managers add to the cost and complexity of such projects.

But what if the users who understand their own day-to-day challenges best had powerful, easy-to-use, drag-and-drop tools that enabled them to access the data and build the applications they need for themselves? A low-code business application platform can empower your users to automate and optimize workflows and forms in a fraction of the time — and at a fraction of the cost — required for traditional IT development efforts. You really can do it yourself!

Overhauling Your Workflows for the Mobile Age

Companies today are under more pressure than ever to identify process bottlenecks and inefficiencies, and eliminate them through automation. To do this, IT and business leaders typically target manual workflows and paper-based forms because they are cumbersome, time-consuming, and can't easily accommodate today's mobile workforce.

Business process applications can breathe new life into tired, manual workflows. They can streamline processes and connect disparate line-of-business (LOB) systems so that users can work smarter and perform tasks faster. And when business applications are supported on mobile devices, employees can work more efficiently wherever they go. However, it can be challenging for resource-constrained IT departments to quickly design and update apps that work with multiple platforms, such as tablets, smartphones, and email.

IT departments and users alike would benefit from business process automation that simplifies the design and rollout of apps for the mobile workforce.

Demand meets modernization

What if a wind-power technician needs access to documents while in the field but can't remotely access the company file

repository? The solution is simple: She can upload the documents to a secure enterprise cloud-based storage service and access them on her smartphone's cellular network wherever she goes.

You've probably already felt the impact of similar scenarios in your organization. According to IDG's *Enterprise Consumerization of IT in the Enterprise Study 2014:*

> ✔ Ninety percent of employees use consumer-oriented, cloud-based services, like Skype and LinkedIn, for their work.
>
> ✔ Seventy-nine percent use cloud-based file sharing and collaboration tools, such as Dropbox, Microsoft SharePoint, or Microsoft OneDrive.
>
> ✔ Forty percent of employees use their own smartphones for work.

The *bring your own apps* (BYOA) trend — an extension of the *consumerization of IT* and *bring your own device* (BYOD) — is hard evidence of what users already know: Current business processes are not fully meeting users' needs. If they were, users would not feel compelled to find their own solutions from outside sources.

More and more businesses are embracing the move to a mobile, digital work style. They need to support workers who are on the go, working online and off. Yet many IT leaders feel that productivity gains and other benefits of mobility remain out of reach because outdated manual processes hinder progress toward modernization.

Many IT directors understand the complexity involved in connecting information from critical LOB systems to mobile workers on a variety of devices with different form factors. According to 78 percent of business managers and executives in a recent *MIT Sloan Management Review* survey, achieving digital transformation will become critical to their organizations within the next two years. However, 63 percent said the pace of technology change in their organization is too slow. To automate a workflow with a custom business app, IT typically needs to devote extensive time and costly development resources to planning, coding, testing, and rollout.

Companies embracing mobility

Mobile devices may have started as a BYOD challenge for companies, but they have now found a permanent home as a productivity boost. Cloud-based storage and apps expand the limits of what users can do with a handheld device.

According to the Intel IT Center, "Employees report saving an average of 57 minutes a day using mobile devices — that's nearly an hour of productivity gained each day by simply providing a different way to work. Think of the productivity benefits you could gain by scaling this flexibility across your entire organization, ultimately reducing the cost of doing business" (`http://blog.azoft.com/mobile-business-process-automation-with-workflow-examples/`).

Empowering mobile users

Numerous workflows can be created or enhanced using mobile-centric design principles. For example:

- ✔ **Customer service employees** performing equipment maintenance or repair can access manuals from cloud-based storage, input customer information in forms, and even order parts through a back-end database, all from a tablet or smartphone.

- ✔ **Field service technicians** for utilities, city road maintenance crews, or cable companies can create workflows to dispatch service reps to jobs, based on the workers' current locations. Field workers can use mobile devices to submit maintenance requests or fill out forms indicating completed work, even when connectivity is unavailable.

- ✔ **Home health care workers,** such as visiting nurses, occupational or physical therapists, or hospice workers, can use mobile devices to securely access patient information from clinic or hospital systems. The health care providers can also submit patient vitals and other data, and even get digital signatures for approval of procedures, by using built-in DocuSign integration.

Automating workflows to increase efficiency

How can you quickly and affordably make your business mobile? Before answering that question, consider what a transformed, modernized business process might look like.

A modern business application:

✔ Automates workflows and forms, increasing productivity and reducing errors.

✔ Eliminates manual processes and costly delays.

✔ Empowers employees to work smarter and faster by providing all the information they need, in context, on any device.

Some examples of common workflows and processes that can be easily and affordably automated with a low-code business application solution include:

✔ **Account management:** Get a complete view of customer information and bring the right people, approach, and solutions together to better meet customer needs.

✔ **Customer service:** Increase service levels to customers by driving efficient communication, improving purchasing timelines and providing better issue resolution.

✔ **Product introduction:** Take new products to market faster with collaboration, tracking, compliance, and automation.

✔ **Billing:** Reduce errors, expedite revenue generation, and more efficiently manage billing through workflows that supply the right data to the right people in the billing process.

✔ **Employee Onboarding:** Ensure that new hires are productive on day one, with automated processes that move from application to benefits enrollment, equipment ordering, computer access, credit card ordering, and more.

✔ **Inventory management:** Track, report, and automate inventory management to ensure that the supply chain continues to run efficiently so that customer revenue streams flow smoothly.

The Business App Dream: Build Apps Fast, Run on Any Device, and Access Data Anywhere

Many companies have found process nirvana with custom, easy-to-use business applications that can run on any device — from a browser to a smartphone. These apps address specific LOB needs, such as the onboarding of new customers, in a way that can dramatically increase efficiency.

The promised, transformative results include:

- ✔ Streamlined processes
- ✔ Empowered mobile workers
- ✔ Powerful insight into business trends
- ✔ Better, data-driven decision making

No doubt, organizations are always looking for ways to work smarter and faster. They need tools that allow them to quickly create system-spanning forms, and they need reliable workflows to securely deliver information to the right people at the right time.

For example, onboarding apps might need to use data from across services and systems — such as Box, customer relationship management (CRM) systems, and Microsoft SharePoint — whether on premises or in the cloud. To be effective, business apps should accommodate any system that users rely on and should not require complex coding (see Figure 3-1).

Most companies can't afford to design and maintain multiple, customized versions of every app for different form factors. Every small update would require another round of development changes, testing, and distribution.

Companies are turning to low-code, drag-and-drop software platforms and tools that support fast, responsive app design. As a result, these organizations are able to roll out new or updated apps rapidly, for all form factors.
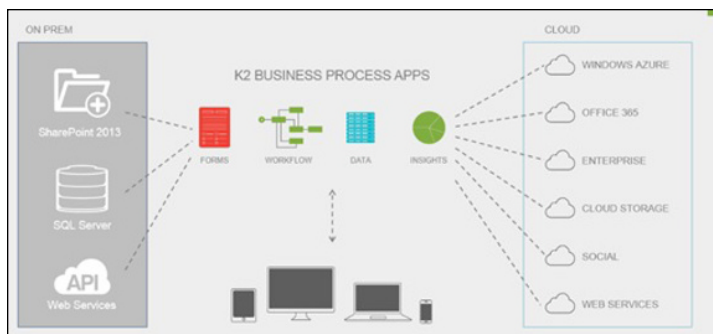
Figure 3-1: K2 business process apps connect users on any device to systems on premises and in the cloud.

Responsive design is an approach to web design that optimizes a website or web-based application for optimal viewing and navigation on any device or form factor.

Managing and reporting capabilities are in high demand as well. A good management dashboard allows managers to view and act on all tasks from a central location, while detailed out-of-the-box reporting displays how their processes are performing and helps them identify trends or efficiency gaps that can improve risk management and forecasting.

An agile business applications platform with these characteristics delivers value to end users and businesses in days or weeks, instead of months, and companies report drastic reductions in their development costs.

Future Proofing with Scalable Apps You Can Build Yourself

As organizations grow, their business applications must scale easily to support new and emerging needs. Current "shadow IT" applications and processes — which exist in organizations far too frequently — can be critical to everyday business workflows, but are unknown to, and therefore unsupported by, corporate IT departments. These applications and processes may consist of elaborate spreadsheets that have been built, maintained and "password-protected" by individual

users over the years, or cloud-based services and applications such as Box, Dropbox, and OneDrive.

Deploying a low-code workflow and forms platform empowers users in every department to replace these shadow IT applications and processes with scalable front-end applications that integrate easily with complex, disparate backend systems — that they can build themselves!

IFCO streamlines account management and automates processes

IFCO Systems is an international logistics service provider with more than 210 locations worldwide and annual revenues of more than $735 million. In the United States, IFCO provides a national network of pallet management services. With more than 125 million pallets sorted, repaired, and reissued annually, IFCO is the market leader in this industry.

IFCO was dealing with siloed information, a lack of process visibility, and a heavy administrative load.

"Our sales teams are constantly bringing on more customers and vendors, so our turnaround time for account processing needed to be fast," says Chuck Koch, Director of Information Technology, IFCO Systems NA, Inc. "However, due to rapid growth over the years, we were fighting huge inefficiencies in our processes and suffering from multiple versions of the truth when it came to account information."

When a new customer or vendor was being onboarded with the company, information was typically submitted to an account setup specialist via fax or email. The information then had to be validated and checked for completeness, which sometimes included back-and-forth communications to the account originator. After everything was validated and approved, the information then had to be entered into the company's CRM, financial, order management, and proprietary operational systems.

The manual entry in multiple systems was time consuming, resulted in mistakes, and led to inconsistent data. Finding information was sometimes a chore, because different systems may have held different data on the same customer. Inconsistencies in account information were especially troublesome if one system was updated and another was not.

The process also relied on emails and didn't have automatic workflows in place, so processes were often inconsistent and provided little visibility. Approvals and task completion could be slow because people were keeping their own work lists, and misunderstandings sometimes accompanied expectations.

Solution

IFCO's new K2-enabled IFCOLogix system streamlines the management of customer and vendor information across multiple LOB applications, and it provides consistency in data quality and auditability.

"We saw the potential for efficiency gains with a system that would automate our processes and eliminate errors and redundant tasks," Koch said. "K2 enabled us to create something precisely suited to our systems and our business requirements."

Rather than enter information in three systems, IFCO general managers and account managers can enter information in a single InfoPath form (pulled from SharePoint) and count on that data to be consistent across all the company's LOB systems.

"Now we have one point of entry, so data only has to be entered once. The workflow takes care of the rest," Koch said.

"In the first year of operation, we automated more than 9,000 new account requests and updated approval processes. By eliminating duplicate data entry, faxing, emailing forms, manual data validation, and error resolution for each instance, we have experienced a substantial time savings as well as a significant improvement in overall data quality across the enterprise. This automation makes us more effective in where we spend our time by allowing people to focus on more value-driven activities; it improves visibility and reporting; and the data

validation rules significantly reduce back-office administrative issues."

The system automatically routes documents and forms to the appropriate approvers, and upon completion of the workflow, K2 takes care of creating or updating account information in all the dependent systems. The solution provides visibility and tracking, notifications and escalations, and reporting capabilities.

"With the enhanced reporting capabilities of K2, we are able to easily identify process bottlenecks. This gives us greater visibility into our account onboarding process while providing us with necessary data for identifying potential improvements," Koch said.

The account management workflow module of IFCOLogix was easy to build, Koch said, with K2's simple, intuitive tools. The solution brings together technologies the company was already using — SharePoint, Dynamics CRM, Dynamics SL — and now IFCO is using K2 to bring efficiency into other parts of the business.

"People think about processes and information in very different ways. You can have two products that do the same thing, yet they may go about it in very different ways," Koch said. "K2's process-activity-event approach is in line with how we think about processes, so the learning curve is short."

IFCO has also implemented new K2-based solutions for credit memo approvals and is working on an AP invoice approval process.

Chapter 4

A Day in the Life . . . : Exploring Department Use Cases

• •

In This Chapter

▶ Managing HR processes

▶ Optimizing Operations workflows

▶ Standardizing Purchasing procedures

▶ Driving Sales and Marketing processes

▶ Integrating Finance systems and forms

▶ Bringing IT all together

• •

*I*n this chapter, you spend a day in the life of some of your peers from different departments at Everest, Inc., a fictitious oil and gas (O&G) exploration company. After walking a mile in their shoes — or, if you prefer, reading this chapter's pages — you'll have a better understanding of how a single business applications solution can help you automate workflows and processes across departments and benefit everyone in your own organization!

Automating HR Processes and Workflows

HR processes affect all employees within an organization even before the first day, until their last — and every day in

between. These processes are often manual and time consuming, requiring multiple levels of approvals across department systems. Building automated HR applications and workflows can increase process visibility, eliminate redundancy, and reduce manual errors.

Maria is a human resources manager at Everest. Some typical workflows and processes for which Maria is responsible include:

✔ **Recruiting:** Although the HR department has a defined process, every department seems to do its own thing when it comes to recruiting new employees. Job descriptions aren't standardized and are often incomplete, outdated, or nonexistent. New opportunities aren't consistently posted internally and are often advertised on different websites. Recruiters are sometimes used without proper approval. Finally, the entire interview process is disjointed and confusing. As a result, filling a vacant position takes far too long, and job candidates are often discouraged by the process.

✔ **Employee onboarding and exit interviews:** The onboarding process for new employees is a manual, paper-based process that takes days to complete. Forms are often misplaced, office equipment and space isn't ready when the new employee arrives, and system/ network accounts never seem to have the right permissions. What does it cost your business when new hires are sitting idle because onboarding was inefficient? Also, when an employee leaves the company, HR is often left second-guessing as to whether the entire offboarding process was properly completed and whether any risk is associated with the departure.

✔ **Travel and training requests:** Travel and training request forms are paper-based and can take days to process. After approval, an entirely different paper-based process is required to process expense reimbursements and check requests.

✔ **Performance reviews:** Performance reviews are far too subjective and inconsistent. Managers often struggle to meet review deadlines and resort to copying and pasting performance "nuggets" between different reviews.

Everest's HR department has tried for years to standardize and automate its onboarding process. Maria envisions a process that tracks new employees as soon as they begin the recruiting process and ensures that they have everything they need on their first day to ensure a great start. Rather than tell IT to give a new employee the same laptop that Gavin has, new equipment requests would automatically be routed to the appropriate hiring manager for approval and then forwarded to Oleg in Purchasing for procurement. And instead of instructing IT to copy Katia's permissions on the network, an intuitive form would help the hiring manager assign the appropriate network permissions based on the new employee's actual role and then automatically create accounts and assign permissions, requiring IT to simply verify that the account is set up correctly and activate the account on the new employee's first day!

Maria asks Isaac, the IT director, to recommend a solution that will help her automate various HR processes for her department.

Building Flexible Operations Workflows

Operations workflows and processes vary greatly across industries and individual companies. Some common examples include:

- ✔ **Compliance:** Various governance controls, such as industry regulations, policies, and procedures, are often tracked in spreadsheets and monitored with logging utilities across multiple disparate line-of-business (LOB) systems.

- ✔ **Claims/case management:** Claims and case managers need a single view of a client or customer with all relevant information.

- ✔ **Contract review/renewal:** Numerous new and existing partner contracts must be regularly reviewed and negotiated by department heads and legal counsel. This review is often a manual process that results in potentially costly oversights.

> ✔ **Scheduling:** Assignments for field technicians and operations personnel often become routine and mechanical, resulting in inefficiencies that can go unnoticed for years or costly coverage gaps that are noticed immediately.

Edmund is a district manager at Everest. He is based primarily in a regional office but frequently travels to train employees, ensure compliance, and inspect operations. The weekly report from well #TX592 is a growing cause for concern because its unplanned downtime is trending upward. Hydrogen sulfide and CO_2 emissions also regularly spike above acceptable levels. Edmund decides to visit the well with its foreman to see what is going on. The following example describes Edmund's current well inspection and remediation process with an automated process:

- ✔ Edmund downloads and prints the paper forms he will need to fill out while in the field.
- ✔ Onsite, Edmund takes notes using a form and clipboard, and captures information he knows will be required in other forms.
- ✔ Edmund takes photos with a digital camera to document needed repairs.
- ✔ Edmund phones the office to start the purchase process for replacement parts.
- ✔ Edmund returns to the office to complete his paperwork and upload the photos into various systems.
- ✔ Edmund logs the compliance violations he noted and notifies management about them via email.

On his long, unproductive drive back to the office, Edmund daydreams about having a mobile app that automates and modernizes the current process and allows him to work more efficiently. Edmund's dream app would enable him to

- ✔ Open an Inspection app on his tablet and check a box to indicate that he needs to work offline. The app accesses various office systems and prepopulates relevant data into the forms he will need, storing them for offline use.
- ✔ Onsite, he fills out forms and logs compliance violations in the Inspection app on his tablet.

✔ He takes photos with his tablet to document needed repairs and automatically uploads them to the Inspection app.

✔ The Inspection app prompts him to order replacement parts. He taps Yes to initiate the purchase process within the app.

✔ While Edmund is on his way home, his tablet uses his carrier's cellular network to synchronize the Inspection app with his office systems.

✔ The Inspection app alerts management about the compliance violations and starts an automated workflow to purchase needed replacement parts.

One day, Edmund shares his dream with Isaac, Everest's IT director.

Smart process applications

Smart process applications are a new generation of applications used to support highly variable, people-intensive business activities that may be subject to frequent change. In a recent Association for Information and Image Management (AIIM) online survey, information professionals were asked to weigh in on the applicability of smart process applications, the experience of using them, the drivers for improved case management, and the feature sets required of modern case management. Here's what the surveyed professionals said:

✔ Fifty-eight percent say case handling systems are important to customer experience management.

✔ Sixty-seven percent say case handling systems are important to legal and regulatory compliance.

✔ Fifty-one percent say at least half of their processes are not straightforward or predictable.

✔ Forty-four percent say their #1 pain point is customers' expectations for speed of response.

✔ Flexible workflows are the most important feature for modern case management systems.

✔ Eighty percent want automated classification, recognition, and routing of inbound content.

✔ Fifty percent say it is essential to be able to interact with workflows and add comments.

The top three benefits of smart process applications, according to users, are faster, more consistent customer response, faster end-to-end process times, and flexibility.

Managing Your Supply Chain with Smart Purchasing Apps

Oleg is the Purchasing manager at Everest. As is true of many other purchasing managers, Oleg must deal with daily challenges that could be alleviated by streamlined purchasing processes, faster approvals, and easier access to critical information that would enable better purchasing decisions. For example, Oleg would like to automate the following purchasing processes at Everest:

- ✔ **Spend management:** Bring together real-time information on spend analysis, sourcing, procurement, receiving, payments, and account management to track and manage spend across the entire organization.

- ✔ **Vendor contract and performance management:** Enable collaboration, tracking, and management of vendor contracts by centralizing information in a vendor management system, and use workflows to automate the vendor contract life cycle and ensure that contracts are signed and renewed on time. Establish and monitor performance metrics to ensure vendor performance and compliance with established standards.

- ✔ **Requisition processing:** Provide buyers with the tools they need to make better purchasing decisions, follow policies, and streamline requisition processes for verification and approval.

- ✔ **Inventory management:** Provide real-time views of available inventory and automatically prompt managers to re-order critical parts and supplies at an established minimum threshold.

Oleg shares her ideas with Maria over lunch one afternoon. Maria encourages Oleg to talk to Isaac.

Leading the Way to Greater Revenue for Sales and Marketing

Sales and marketing departments are driven by rapidly developing opportunities that require agility and responsiveness to meet the needs of an ever-demanding client base.

Sally in Sales works closely with Mark in Marketing. They interact with clients and potential clients at different points in the sales funnel, but must address similar workflow challenges together, including:

✔ **Campaign and deal management:** Various marketing campaigns, including advertising and email marketing, must be managed and analyzed for effectiveness. Similarly, sales promotions and deals must be actively managed to maximize sales revenues.

✔ **Request for proposals and quotations (RFP/RFQ):** Manually creating RFPs and RFQs is time consuming and error prone, which can lead to missed opportunities and costly mistakes. Far too often, RFP responses are copied and pasted from old RFP templates, and inevitably an old client name or some other piece of irrelevant and possibly sensitive information end up in the new RFP response.

✔ **Lead flow processing:** Hot, warm, and cold leads require different touchpoints and must be properly handed off between marketing and sales teams.

✔ **Client onboarding:** Similar to onboarding new employees (discussed earlier in this chapter), onboarding new clients must be an efficient, customer-centric process that can be completed quickly and easily.

Take a closer look at the sales process. Currently, each new opportunity requires Sally to

✔ Collect business cards or take notes on paper when she is meeting potential new clients because she doesn't have access to Salesforce Sales Cloud, her customer relationship management (CRM) system, when she is out of the office

✔ Turn her notes and business cards over to her assistant when she returns to the office, and then wait for the new customer data to be entered into Salesforce

✔ Log in to Microsoft SharePoint or a cloud-based storage service, like Box, on a laptop to locate, download, and print or email product marketing materials to the prospect

✔ Determine product availability from a back-end SAP database

✔ Generate a quote from Salesforce and obtain manager approval of the quote

✔ Obtain a customer signature for a purchase order

✔ Scan the signed purchase order and associate the digital version with the customer's Salesforce record

✔ Confirm and generate the order for shipment from various suppliers around the globe

Frustrated by this slow and cumbersome process, Sally asks her IT director, Isaac, whether a way exists to automate part or all of this workflow so that she can use her smartphone to enter data and kick off the sales process when she is out of the office. The new app would enable Sally and her teammates to access data from multiple LOB systems, such as Salesforce and an SAP product database, on a single form. She could even access forms when she's offline in a remote area or while traveling. The data she enters would automatically sync with the company's systems of record as soon as her device reconnects. Sally could also enter customer data once and kick off an automated workflow to check inventory, generate a quote, get approval, and create a purchase order.

Modernizing Your Financial Processes

Within the finance department, organizations face more pressure than ever to identify gaps in their financial framework in order to better manage budgets and costs. Enterprise systems help, but they are built to handle large-scale processes and aren't flexible enough to handle exceptions or more granular

processes without customization. It can also be difficult and cumbersome to leverage the data in enterprise systems for performance tracking and analysis.

Bill is the controller in the finance department of a firm that struggles with the following financial operations:

✔ **Budgeting:** Financial information is often scattered across disparate LOB systems, including "one-off" spreadsheets, that make it challenging for managers to get a complete picture of the information they need to make well-informed budget recommendations and decisions.

✔ **Expense claims management:** Expense claims and credit card reimbursements are error-prone processes that require employees to manually complete paper-based forms, attach receipts, and route them to approving managers every month. The finance department must then manually enter the data from these paper-based forms into the system of record before issuing checks to employees.

✔ **Internal auditing:** Audit teams often struggle to gain visibility into key business processes. Audit trails, if they exist at all, are often incomplete and spread across disparate systems. Creating reports is a time-consuming and arduous process.

✔ **Invoice processing:** Invoices are received by different departments and managers via email and regular mail every month. The invoices must then be manually reconciled, coded, and approved. With different terms being used for practically every invoice, payment is often delayed or late, which incurs additional fees and sometimes strains vendor relationships.

Bill is looking for a solution that will enable employees to easily manage their monthly expense reports and receipts and also enables the finance department to automatically reconcile the monthly expense reports with data in the on-premises back-end enterprise resource planning (ERP) system, cloud-based ADP payroll system, and paper-based travel requests and authorizations that are maintained by Maria in HR. Bill goes to Isaac, his IT director, for help.

Getting "IT" Done

In addition to the various requests from Maria in HR, Edmund in Operations, Oleg in Purchasing, Sally in Sales, and Bill in Finance, Isaac, the IT director at Everest, has a few projects of his own:

- ✔ **Help desk ticketing system:** The help desk currently receives service requests from users via phone and email. Without a ticketing system, the help desk is unable to prioritize issues and meet internal service level agreements (SLAs).

- ✔ **Change management database:** The Change Advisory Board (CAB) meets on a regular basis, but change requests and approvals are communicated via email and manually entered into a stand-alone Microsoft Access database.

- ✔ **Document management:** Everest's online storage requirements are growing rapidly due to duplicate files stored across multiple disparate systems throughout the organization.

- ✔ **IT service catalog:** The IT department needs to do a better job of communicating the wide array of services that it provides to the organization, and streamline the request process with a self-service portal.

- ✔ **Project management:** Everest uses Microsoft SharePoint, but project managers must manually enter status updates from various team members in Microsoft Project because most LOB managers don't know how to use Project and don't have the time.

Isaac realizes that with Everest's current software tools and IT resources, it will take months to deliver any *one* of these projects, and it would likely take years to undertake the entire project portfolio!

Undaunted, Isaac looks for another approach to tackling the various process and workflow challenges that Everest's department heads are facing. He realizes that he doesn't have to invest in a major coding effort if he can automate workflows and forms from a business process automation platform.

With K2, Isaac can solve all these business problems by creating mobile-ready forms and automated workflows — with minimal coding. K2's integration framework makes it easy for users to interact with multiple siloed business systems in a single interface, while data remains secure in its system of record. Reusable app components allow for quick modification of apps as platforms and business needs change, without needing an extensive development and test effort.

Isaac's team begins by rolling out a new service catalog and help desk ticketing system. IT works closely with HR, Purchasing, and Finance to integrate key processes such as onboarding/offboarding, requisition, and inventory processing and delivers the new application in weeks instead of months. Because K2 uses a responsive design, IT can build an app once and it will automatically conform to any device, including tablets and smartphones.

If Isaac had relied on internal or contract development teams to develop apps from scratch, the time, effort, and resulting costs would have significantly reduced or eliminated any possible return on investment. In addition, every time the needs of the business changed or a business group needed a modified app or workflow, Isaac would have had to initiate another time-consuming development effort.

By designing apps with the K2 platform, Isaac was able to roll out business apps quickly, with little or no code. Isaac took advantage of reusable components to rapidly create new apps for other departments, leveraging the experience that he, Maria, and Oleg gained while building their initial pilot app, without redesigning from scratch (see Figure 4-1).
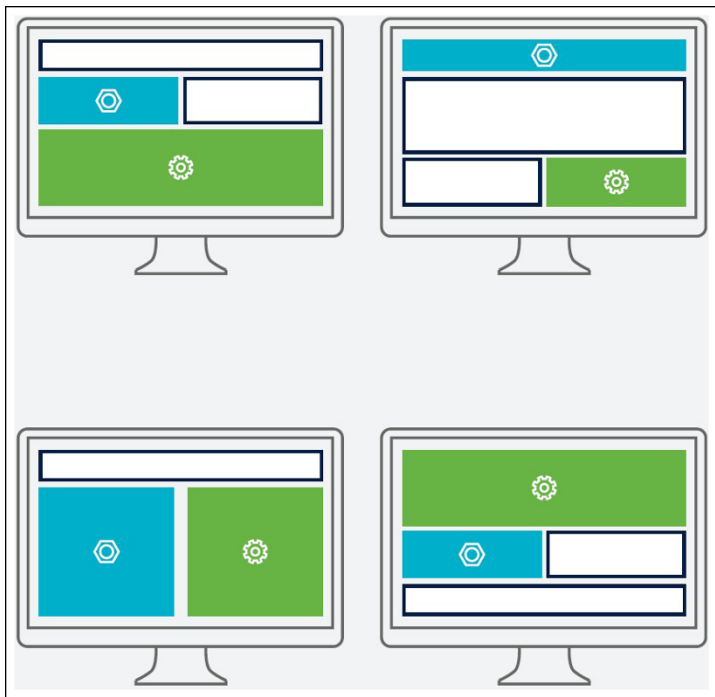
Figure 4-1: Reuse components as building blocks for new apps.

K2 partner MII streamlines internal processes

PT Mitra Integrasi Informatika (MII), a subsidiary of Metrodata Group, is a leading IT service provider in Indonesia. MII focuses on IT system and network integration, business application implementation, IT consultancy, and IT managed services. MII's main focus is on corporate businesses reaching across verticals — financial services, telecommunication, manufacturing, retail and distribution, earth resources, and utilities and government.

MII had a number of key processes that were paper based, inefficient, and prone to delays or errors:

✔ **Sales profile process:** For reviewing sales profiles, including product or services details; approval line goes up to division managers and directors. MII was looking for greater visibility into this process and tighter controls over the workflow and involved approval lines. It is a complex

process with many steps and possible scenarios.

- **Project approval process:** For budget, expenses, and noncustomer-related internal projects. A major upgrade was necessary to accommodate shifts in the business and new technology requirements.

- **Sales order checklist process:** Review and approval for sales orders to be released; to start after the sales profile process was complete. The sales order process lacked proper controls and sufficient visibility. Managers at MII needed to have access to information about which orders were posted, where they were posted, who had approved what, when the approvals were made, and so on. MII also sought greater user mobility and didn't want to be bound by paper signature requirements.

- **HR award process:** An HR-related workflow for rewarding employee performance. MII sought automation for this process, which was inconsistent, often confusing, and driven through back-and-forth emails.

Solution

Using K2, MII streamlined the processes in the preceding list and is realizing its efficiency goals — more control and better visibility in its sales profile process; an updated and compliant project approval process; thorough control over its sales order checklist process; and consistency and automation in its HR award process.

"Having all these processes automated by K2 led to significant improvements in terms of visibility and reliability on top of cost and time savings," said Eko Heryanto, president director of MII.

"In addition, our management team is now able to better assess the profitability and the risks behind every project that we undertake."

With the implementation of these K2-based solutions, teams across departments have access to clearer workflow information and can track the status of their processes in real-time — with the K2 API and out-of-the-box tools and reports. This allows MII to make better decisions and provides insight into where bottlenecks are cropping up.

K2 empowers MII with simple tools and features, enabling the company to build sophisticated solutions involving many people. Then when the business needs shift, MII has the capability to seamlessly modify these solutions rather than start over.

Process consistency is another benefit MII has realized by automating its processes. In the sales order checklist process, for example, standard reports are used and viewed by involved personnel in sales, sales administration, and management teams. Rules and policies ensure that the processes move along the proper path, and there is never any confusion about what the next step should be.

MII is currently planning to work on new, additional K2-based solutions for general administration and HR-related purposes at Metrodata.

Chapter 5

Ten Key Components to Transform Business Processes

*I*n this chapter, you learn about ten important evaluation criteria to consider when choosing a business process application solution for your organization.

Tools to Empower All Users

Intuitive visual tools that empower all users, even those with few or no technical skills, to create business workflow- and form-based solutions will ensure that end-user requirements are always met.

Time to Market

The velocity of a business must be supported by a solution that can be established, but easily modified, to support the rapidly evolving needs of the business. Look for a solution that includes capabilities like reusable and easy-to-modify components.

Flexible Integration Options

To maximize value, it's important to find a business process automation solution that will integrate seamlessly with your existing systems so that your users can access all the information they need without requiring lots of technical knowledge to access other systems of record, such as Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) applications.

Provide Data Security

The solution should integrate with external LOB data in a way that is secure, such as by providing a conduit to where the data is stored rather than storing the data directly in an application. Ideally, applications that you build will adopt the security parameters of the underlying systems of record so that data adheres to the company security measures already in place. Data security is one of the most important issues to think about when considering any new technology. Ensuring that your business process automation technologies will keep your data secure before buying can save a lot of headaches further down the road.

Information at the Point of Need

The solution must give users a way to easily access information anytime, anywhere, and from any device, so they can access critical information and tasks even when they're on the go.

Standards for Building, Integrating, and Proliferating

The solution should be scalable in a way that allows standardization across departments and regions. It should also be agile and flexible enough to allow processes across the business to be automated in a short amount of time and updated just as easily.

Balance between Power and Simplicity

A solution doesn't need to be massive to be successful, but it should be able to handle a wide variety of process-workflow patterns and complex event handling and rules. It should also be able to manage data across disparate sources.

Mobility without Additional Code

With a much more mobile workforce, it's critical to find a solution that easily enables mobile access without a lot of additional development work. Look for a solution that fully supports mobility, without writing more code.

Enable Process Improvement

Automating a poorly designed manual process won't fix existing process problems, but finding a solution that gives you insight into bottlenecks and other process pitfalls and inefficiencies will. Choose a business process automation solution that provides metrics and reporting dashboards that you can use to look for opportunities to improve all your processes.

Measurable Results

The platform should be able to provide real process improvement that can be measured. The platform should be able to actually measure how instances are performing in terms of cycle time, data expectations, and consistent use, enabling companies to make objective judgment calls and decisions with regard to change.

The K2 platform meets all these requirements. The K2 platform can not only provide the business process improvements that organizations need, but it can also provide businesses with a continuous innovation capability that allows them to easily change processes in the future. The K2 platform has a set of easy drag-and-drop tools that companies can use to build low-code, scalable applications composed of workflows and forms that automate business processes and easily integrate with industry-leading IT systems. The K2 platform allows process management to become what it should be — an integral part of knowledge capture, process improvement, compliance management, and business agility.

**Build and Run Business Applications
for Your Entire Organization**

LEARN MORE AT K2.COM

Make your applications keep pace with your business!

Businesses need agility and flexibility in order to stay competitive in today's fast-paced marketplace. Applications that take months to develop might be out of date by the time they're ready. But by using automated workflows across multiple departments, you can put the power of the digital workplace to work in your business, increasing the flow of vital information. This book gives you the lowdown on how to:

- *Increase efficiency — move beyond manual, paper-based workflows and forms*

- *Leverage your team — build applications using technologies your employees likely already understand*

- *Avoid bottlenecks — empower users without having to wait on your overburdened IT department*

- *Enhance mobility — support users anywhere and on any device*

Lawrence Miller has worked in information technology in various industries for more than 25 years. He has written more than 75 other *For Dummies* books on numerous technology topics.

WILEY END USER LICENSE AGREEMENT

Go to www.wiley.com/go/eula to access Wiley's ebook EULA.