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Developers, Get Ready: 2007 Microsoft Office Is A Serious Application Platform

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EXECUTIVE SUMMARY

At the end of 2006, Microsoft plans to release the successor to Office 2003 — the first Office release overtly designed as an application platform, as well as a suite of personal and team applications. Assuming massive adoption of the new release, the 2007 Microsoft Office system (Office 2007) will be a strong alternative to custom desktop applications built using Windows Forms and a good platform for collaborative Windows desktop applications. Office 2007 will also provide an alternative for building some kinds of rich Internet applications and will compete with Ajax techniques and Adobe Flex.

TABLE OF CONTENTS

2 **2007 Microsoft Office Will Expand Microsoft's Development Platform**

3 **Office 2007's Biggest Value To Enterprise Developers: Collaboration Apps**

The Desktop Scenarios For Office 2007 Development

Office 2007 Will Also Have Value In Internet Application Development

Where Office Development Goes Next: Post-2007 Office Priorities For Developers

RECOMMENDATIONS

7 **Timing And Alignment Are Key**

WHAT IT MEANS

9 **Office 2007 Redefines The Microsoft Platform Landscape**

NOTES & RESOURCES

Forrester interviewed Microsoft product groups about their plans for Office development facilities. We also reviewed Microsoft documentation on new features and facilities for developers, starting with the Office 2003 release.

Related Research Documents

["The Rise Of Rich Internet Applications"](#)

April 10, 2006, Trends

["Why Windows Presentation Foundation Will Dominate Thick Client Development"](#)

November 23, 2005, Tech Choices

["Microsoft's Avalon To Bring Richer User Experience"](#)

June 17, 2005, Quick Take

["Microsoft Hints At The Information Workplace For Office 12"](#)

May 19, 2005, Quick Take

TARGET AUDIENCE

Application development executive

RESEARCH CATALYST

Clients selected this topic for Client Choice research.

2007 MICROSOFT OFFICE WILL EXPAND MICROSOFT'S DEVELOPMENT PLATFORM

Office 2007 is the new generation of Microsoft's most popular desktop application suite, but that's not all it is.¹ With the primary Office applications — Outlook, Word, Excel, and PowerPoint — at saturation within enterprises, Microsoft is seeking to extend the value of Office by branching into new categories of applications. Some of these new applications will be provided by Microsoft, some will be built by ISV partners, and many will be purpose-built systems or Office customizations done by enterprise developers. Microsoft's strategy to make Office an enterprise development platform has three elements:

- **Transform Office from an apps suite into a system.** Office 2007 is the third release in a multiyear road map of the Microsoft Office system.² The prospect of business applications that employ Outlook, Excel, and/or Word as their user interfaces is very exciting to developers who want to focus on business processes, transaction processing, content management, and other back-office value rather than building user interfaces. Millions of enterprise users already have and understand the major Office applications and would rather use those applications for enterprise work than new, often complex and arcane desktop or Web clients.
- **Align Office with Microsoft's platforms and Dynamics product lines.** The Office 2007 platform cleans up the diverse infrastructures used in Office 2003 and other prior versions, relying on the .NET Framework 2.0, ASP.NET, Microsoft Office SharePoint Server 2007 (formerly named SharePoint Portal Server), Windows SharePoint Services, and SQL Server 2005 for foundation and enterprise integration.³ The Dynamics suite will be built on the same foundation and will leverage Office, as well. The result: All of Microsoft's applications will have similar (and often common) customization and extension models, giving developers the ability to customize them using platform APIs (.NET Framework), Office application extensions, or user interface extensions. Microsoft Dynamics CRM 3.0 is an example of the flexibility and power that this alignment between Microsoft's application and platform products enables.⁴
- **Add Office to the Microsoft developer's toolbox.** In Forrester's experience, the majority of the Microsoft developer community works with Microsoft's base platforms and Visual Studio tools and views Office as an add-on, while a smaller community sees Office as *the* Microsoft development platform. Microsoft's goal is to make Office a first-class component of a broad "application platform" alongside .NET Framework, SQL Server, SharePoint Server, and BizTalk Server.⁵

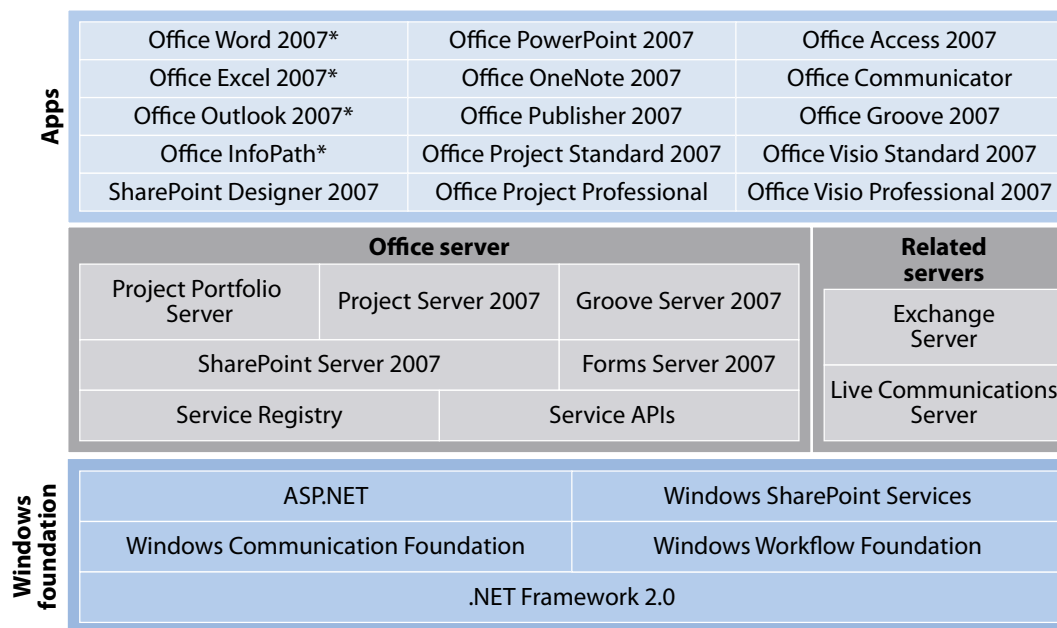
OFFICE 2007'S BIGGEST VALUE TO ENTERPRISE DEVELOPERS: COLLABORATION APPS

During 2005 and 2006, Microsoft has revealed enough details about Office 2007 and the Office system strategy for us to understand its value to enterprise developers and ISVs (see Figure 1).⁶ For the first time, the product introduces a server for Office: Microsoft Office SharePoint Server. The new server supplements the well-known application-specific servers that support Microsoft Office — Exchange, Live Communications, and more recently, Groove — but does not replace them.⁷ Think of the new Office server as a common framework and set of service interfaces for Office that Microsoft will expand during the next several years.

Office 2007 offers many major new facilities for enterprise developers (see Figure 2). It also incorporates the developer facilities introduced with Visual Studio 2005 Tools for Office, which made it possible to access Word and Excel data without loading the applications and to automatically refresh desktop data from server data sources.

The main value of Office 2007 to developers will be in creating collaboration applications using primarily Outlook, Excel, and Word as anchor points. The Office 2007 facilities will be helpful in some application scenarios but not as helpful in others.

Figure 1 Major Components Of 2007 Microsoft Office



*Key programmable Office applications

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Source: Forrester Research, Inc.

Figure 2 Major Enterprise Development Features In Office 2007

Area	Developer features	Benefits
User interface	Ribbons and galleries	Simplifies the presentation of commands to end users; customizable by developers
	Contextual application views and controls	Simplifies the presentation of commands and options to end users; customizable by developers
	New controls	<ul style="list-style-type: none"> • Gives developers greater control over Office customizations • Controls are aligned with ASP.NET and Windows Forms controls
	New Office button	Simplifies presentation of document management functions; customizable by developers
	New custom task panes	Eases development of custom task panes for integration into applications and smart documents
New file formats	XML-based file formats	<ul style="list-style-type: none"> • Eases integration of enterprise data with Office data • Allows access to an expanded range of Office-created data without having to load an associated Office application
Collaboration	Integrated Content Management Server	<ul style="list-style-type: none"> • Content life-cycle services based on Microsoft's standard Web framework (ASP.NET) built into Office 2007 • Document libraries designed to scale beyond workgroups
	Integrates and uses Windows Workflow Foundation	Human-centric business process management is built in and exposed through Microsoft's standard framework
	New content/document policy management	Developers have single console to manage access, retention, auditing, and other policies on content
	Excel services	Server-based Excel engine fosters spreadsheet sharing and improves enterprise data connectivity
	InfoPath forms services	<ul style="list-style-type: none"> • Improved InfoPath tooling • InfoPath now usable in both Windows desktop and browser scenarios • InfoPath forms managed and provisioned from server
	New search	Programmable search spanning Office and Internet
Service APIs	Web services access points for major services	<ul style="list-style-type: none"> • Eases integration and customization, compared with an API-based approach • Wide variety of XML tools can be used to create applications
Enterprise data access	New repository of Web services representing enterprise data	Developers can create reusable interfaces to enterprise data for use by Office applications

The Desktop Scenarios For Office 2007 Development

Office 2007 will provide developers with an alternative to Windows Forms for creating desktop applications. The major development scenarios are:

- **Customized Office applications are a “no-brainer.”** Developers can extend and customize the new controls, ribbons, and galleries used in Office 2007’s user interface with XML files. However, they cannot yet associate Office 2007 controls, ribbons, and galleries with custom controls like ActiveX that will constrain the scope of possible customizations and extensions.
- **Office front ends for enterprise applications will be easier to build.** The combination of a new custom task pane and a repository for services representing enterprise data will ease the development of Office front ends for enterprise data. Office 2007 supports the same smart document features introduced with Office 2003, but it makes custom task panes easier to develop and integrate with Outlook and other applications. The primary limitation: These applications will not be portable across operating systems because they require not only the Office front ends but also the new Office server.
- **Windows collaborative applications based on documents are a primary target.** The combination of human workflow features, document life-cycle management, InfoPath forms, and policy governance features provided in Office SharePoint Server is a promising foundation for collaborative applications using Office documents. However, these applications will not be portable across many operating systems and will not be as comprehensive or robust as those enabled by EMC, FileNet, and IBM, the leading enterprise content management vendors. In the past, SharePoint has suffered from scalability limitations, and it remains to be seen how well the new release will scale. Also, Microsoft lacks extensive document management experience, customer validation, and reference cases in areas such as long-term document retention and content reporting or analytics.⁸
- **Web developers can now use Content Management Server (CMS) integrated with Office.** Web developers will have easier access to Office applications, as well as Microsoft’s Content Management Server, SharePoint Portal Server, and ASP.NET for their applications. Before Office 2007, the Office applications, Content Management Server, SharePoint Portal Server, and ASP.NET were not well integrated and were not combined in a single package.

On May 2, 2006, Microsoft and SAP announced Duet, a special solution for integrating Outlook with data managed by SAP. Duet, formerly known by the project name Mendocino, is a special case of Office integration.⁹ The product supports additional Office scenarios, integrating selected timekeeping, budgeting, scheduling, purchasing, recruiting, sales management, and travel information managed by mySAP ERP 2004 or mySAP ERP 2005 with Outlook and Exchange, but not yet Excel and Word. Duet is available as special middleware and client software from both Microsoft and SAP.

Office 2007 Will Also Have Value In Internet Application Development

Office 2007 will join the parade of options for building richer, more interactive applications using the Internet. Among these is a new class of systems called rich internet applications (RIAs). RIAs are defined as:

*Internet-based applications with high interactivity (such as tooltips, local field validation, and controls), responsiveness (such as incremental refreshes, rather than page refreshes, and data prefetching), and rich use of graphics to represent information and functions.*¹⁰

Office 2007 is based on ASP.NET, Microsoft's platform for Internet applications, and thus should be considered a potential foundation for RIAs and other Internet applications. While developers can use either ASP.NET or Microsoft's nascent Atlas framework to build these applications, Office 2007 provides value in three major Internet application scenarios:¹¹

- **Word and Excel documents can replace browsers as Internet clients.** In this scenario, users employ either Word or Excel instead of browsers to access data managed on the server. Office 2007's caching architecture supports automatic refresh of data managed on servers, and host controls allow incremental refresh of documents.¹² Developers can hook data services representing enterprise data to these interfaces and provide user guidance using task panes. Like any other Office document, these Word and Excel files can be included in business processes flows and can be managed using CMS. Developers can also tailor Word and Excel documents using Windows Forms controls.
- **InfoPath can provide electronic forms in Office.** Office 2007 includes a server to manage InfoPath forms, and it makes InfoPath available within Office (not just Internet Explorer). Thus, InfoPath is now a complete electronic forms option for developers. They can use either scripts or managed code and the .NET framework to add business logic to InfoPath forms, but they can only add Windows Forms controls to InfoPath forms after wrapping them as ActiveX controls.
- **ASP.NET can serve Word and Excel documents, in addition to HTML pages.** Developers can use ASP.NET and other server-side application frameworks to manipulate data that is included as "islands" within Word and Excel documents. ASP.NET can then serve up those documents for viewing, using Word or Excel on the desktop. The data in those documents can then be kept up to date using Office's caching architecture, which supports both online and offline scenarios.

Where Office Development Goes Next: Post-2007 Office Priorities For Developers

Office will continue to evolve as a development platform. By 2010, Microsoft will have delivered a comprehensive Office system development environment and platform, as well as business applications based on it, including but not limited to Microsoft Dynamics. There are several highlights of this future, as suggested by Microsoft's current actions:

- **The roles of Office, Atlas, and Live will be clarified.** Microsoft has begun to align Office with its mainstream .NET platform and has made initial Live offerings available, but it has not yet integrated those with its mainline development platforms. Indeed, Live as a development platform is in an early stage of development. At its MIX conference during March 2006, Microsoft began describing Atlas as its next-generation platform for Internet applications. But the relationships of Atlas to the .NET Framework, ASP.NET, Office, and Live are not yet clear.
- **Business Scorecard Manager (BSM) points to a new kind of application.** BSM is a business intelligence application that is less comprehensive than Microsoft's traditional Office applications, but it drills deeply into the functions it provides. Microsoft has many similar opportunities to expand the number of similar applications based on the Office platform.
- **Duet points to expanded Office integration facilities.** Microsoft's interest in common middleware to support Office (not just Outlook) integration with all enterprise data (not just data managed in mySAP) will drive the company to create a generic solution. Microsoft has indicated its intent to create such a generalized solution, but it has not yet disclosed details. Forrester expects this work to expand the data access and data integration facilities in the Office server included in Office 2007.
- **Exchange, Groove, IM, VoIP, SIP, and WPF will be integrated in the future.** The biggest gap in RIA function is that Office 2007 will not use the new Windows Presentation Foundation (WPF) and thus will not incorporate rich graphics features.¹³ Subsequent Office releases will bring Microsoft's three collaboration servers under the Office server umbrella, along with Windows' integrated support for voice over IP (VoIP) and session initiation protocol (SIP). Eventually, Office will embrace WPF. Fully realized, the Office platform will give developers a broad framework and customizable applications rooted in Windows Server, SQL Server, BizTalk Server, SharePoint, and Portal Server, which are the foundational elements of the Microsoft application platform.¹⁴

RECOMMENDATIONS

TIMING AND ALIGNMENT ARE KEY

Microsoft will roll out the new Office system during the next several years, beginning with Office 2007. With each release, you should document the new development features and calibrate them against your requirements, weighing the fit of the features, portability, and scalability.

- **Recalibrate your Windows Forms development.** There is an immediate question raised by the new Office development features: When will Office provide a better UI foundation than Windows Forms development? Microsoft has eliminated the need to load Word and Excel to access data managed by those applications, a key barrier to Office development in the

past. Windows Forms controls can also be used to customize Word and Excel documents. Finally, InfoPath is a strong option now for electronic forms for both Windows desktops and browsers.

- **Evaluate Office 2007 for collaboration applications.** Some collaboration applications require scalability and experience that Microsoft can't yet demonstrably provide — but not all. Office 2007 seems well suited to team applications and for moderate- to large-scale document management applications.
- **For portable, rich Internet applications, consider Ajax, Adobe Flex, or IBM Workplace.** Microsoft Office 2007 will be more open than any prior release, but it is still a Windows-only product that requires Microsoft middleware. Organizations that want a portable foundation for their rich Internet applications will have to consider technologies designed for that set of requirements. The various RIA options known as Ajax and Adobe Flex are the most popular options today. IBM Workplace is far less widely used, but it remains an option.
- **For Web-delivered controls, Office 2007 will be overkill.** A developer would not use Office 2007 to build an application like Google Earth. Such applications use custom user interfaces and a compact set of controls that extend a browser. Office 2007, with its comparatively large footprint on the client, adds no value in these scenarios. In Microsoft's portfolio, ASP.NET and the emerging Atlas platform are the best options to build these applications. Developers should also consider the various Ajax options for these applications.
- **Rich media user interfaces will wait for WPF and XAML support.** Office 2007 does not employ either Microsoft's Windows Presentation Foundation (once known as Avalon) or its XAML application metadata format. Developers who want to use these Microsoft innovations for 3-D, vector-graphics user interfaces (UIs) must work outside of Office 2007 through the early-access programs for these technologies and, when Windows Longhorn is released during 2007, with the APIs provided with that operating system. Developers with immediate requirements for media-class UI technology should consider Adobe Flex.
- **Enterprise applications that require rich data integration will need third-party support.** The service repository included with Office 2007 will provide basic features for defining enterprise data for integration with Office applications. It will also be a first release of critical infrastructure and thus will be risky for large-scale use. Vendors such as Above All Software and Software AG provide more proven service-oriented alternatives for large-scale and complex data integration.

WHAT IT MEANS

OFFICE 2007 REDEFINES THE MICROSOFT PLATFORM LANDSCAPE

With Office 2007, Microsoft begins to dramatically expand its development platforms by including Office, as well as its Windows servers. Office 2007 supports an important, though limited, range of application scenarios, and there is much more coming during the next several years. These new facilities give developers more options to customize and configure, rather than custom-build the user interfaces for their Windows applications.

Microsoft Office 2007 will not have a big impact on the market for portable rich Internet applications, particularly those that made Ajax popular. For those applications, developers must look either to Microsoft's base platforms and live with limited portability or go with alternatives from other vendors.

ENDNOTES

- ¹ Microsoft's primary goal with Office 2007 is to fuel upgrade purchasing with easier to use yet more powerful and better-integrated desktop applications.
- ² Microsoft began the evolution of Office from application suite to platform with Office 2003, which laid the foundation for expanded programmability with internal XML data representation and storage, finer granularity of objects, and smart documents features. Visual Studio Tools for Office, released during 2005, added a new runtime and tools that improved integration of custom development using InfoPath, Word, and Excel with the .NET Framework and Windows Forms controls, and it opened up access to selected Word and Excel data without having to load those applications. Office 2007 continues this evolution.
- ³ Office 2003 employs three different underlying databases. 2007 Microsoft Office will employ SQL Server as a common database.
- ⁴ Microsoft's Office and Server and Tools product groups have probably never been better aligned than they are now, but Forrester has observed persistent gaps in organization, product strategy, and pricing between the two organizations. Microsoft has more organizational integration ahead.
- ⁵ Microsoft included Office within the "application platform" marketing concept it launched during November 2005. See <http://www.microsoft.com/windowsserversystem/applicationplatform/launch2005/default.aspx>.
- ⁶ Microsoft's publications for developers about Office 2007 are limited. As of April 2006, Microsoft had posted brief descriptions of the release's components and a high-level developer's guide to the new look and feel. See <http://www.microsoft.com/office/preview/developer/highlights.aspx?showIntro=n>.
- ⁷ Exchange, Live Communications, and Groove servers exist outside the purview of the Office system in the Office 2007 release.

- ⁸ Forrester evaluated 11 enterprise content management suite vendors across 53 criteria and found that EMC and IBM lead this market. Microsoft Window's SharePoint Services and Microsoft Content Management Server offer basic document management and Web content management, respectively. Together with a strong IT infrastructure focus, this helped make Microsoft a Contender in our evaluation. Office 2007 plans to improve upon Microsoft's current document management and Web content management limitations, with investments in greater enterprise content life-cycle support that will introduce greater document management support and new records management capabilities. See the October 7, 2005, Tech Choices "[The Forrester Wave™: Enterprise Content Management Suites, Q3 2005](#)," and see the May 19, 2005, Quick Take "[Microsoft Hints At The Information Workplace For Office 12](#)."
- ⁹ The Mendocino project was the result of Microsoft's most important development partnership since it created MS-DOS and OS/2 with IBM, and it will change the dynamics of the software industry. See the May 6, 2005, Quick Take "[Mendocino: SAP Ties Up With Microsoft](#)."
- ¹⁰ RIAs aim to hit the sweet spot for many enterprise applications, providing the interactivity, productivity, and user control of rich clients and the low cost of browsers. These applications are closely associated with Ajax and Adobe Flex. See the April 10, 2006, Trends "[The Rise of Rich Internet Applications](#)."
- ¹¹ Atlas is Microsoft's Ajax-style framework. See <http://atlas.asp.net/Default.aspx?tabid=47>.
- ¹² Microsoft provides three host controls for Word (Bookmark, XMLNode, and XMLNodes) and four for Excel (NamedRange, XMLMappedRange, ListObject, and Chart).
- ¹³ WPF will provide greater productivity and flexibility through an XML-based definition of user interfaces (XAML), coupled with rationalized infrastructure that will eliminate the need to ever drop into obscure Win32 APIs to program advanced user-interface behavior. See the June 17, 2005, Quick Take "[Microsoft's Avalon To Bring Richer User Experience](#)." XAML (eXtensible Application Markup Language) will have a big impact by enabling an explosion of new development tools, easy exchange of user interface artifacts, and role-specific tools. See the November 23, 2005, Tech Choices "[Why Windows Presentation Foundation Will Dominate Thick Client Development](#)."
- ¹⁴ Microsoft's application platform includes Windows Server, SQL Server, BizTalk Server, SharePoint Portal Server, Office, the Dynamics line of business applications, Visual Studio, and the Systems Center management tools. Windows Server (and the desktop editions) implement the .NET Framework and key application frameworks: Windows Communications Foundation (formerly known as Indigo), Windows Workflow Foundation, and Windows Presentation Foundation (formerly known as Avalon).

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