



# OUT WITH COM AND VSTO, *In with Office Add-ins*

---

by **Brian Podolsky**

THIS ARTICLE IS PUBLISHED IN  
PARTNERSHIP WITH THE ILTA TECH  
SOLUTIONS CONTENT COORDINATING TEAM

**B**uggy add-ins plague most modern law offices. There has got to be a better way! The problems are all too familiar. Outlook takes forever to load. Word crashes unexpectedly. Upon relaunch, the application either complains about a slow add-in or informs you that the add-in has been disabled altogether due to how it is loading, and you must now come up with a workaround. And this is just from the user's perspective, not to mention the struggles IT administrators go through installing these unwieldy third-party integrations, keeping them updated, and selectively disabling them in the course of troubleshooting.

Now imagine a way to enhance the functionality of Office and integrate with legal applications, but without the bulk and instability of traditional add-ins. The solution is out there.

Law firms continue, however, to put themselves through the add-in ordeal. Legal professionals need functionality that your standard Microsoft Office installation simply does not provide. Many vendors, big and small, have designed solutions to fill the gaps. These integrate directly with Word, Outlook, and Excel via add-ins (sometimes also referred to as plug-ins or extensions), delivering enhancements such as superior document comparison, detailed templates that automatically populate headings, and advanced filing capabilities.

## **Desktop Hellscape: COM and VSTO Add-ins**

To integrate with the Office applications, these third-party solutions have historically relied on two add-in models, COM (Component Object Model) and VSTO (Visual Studio Tools for Office). COM, introduced by Microsoft in 1993, is at the basis of many Microsoft Office functions, and even VSTO add-ins depend on some COM components. VSTO

add-ins are designed in Microsoft Visual Studio using C# or Visual Basic.

COM and VSTO add-ins often cause instability. If two add-ins conflict with each other, they might not coexist peaceably on a computer. Firms often stack as many as seven or eight add-ins into an application. Incompatibilities lead to crashing.

Updating and patching these kinds of add-ins, moreover, is not a simple process. Again, administrators have to worry about compatibility, carefully following an order of operations to make sure that the integrations play nicely.

COM components often rely on DLL files, which have caused such severe integration issues that programmers have coined the term “DLL Hell” to refer to the incompatibility problems that arise when two applications share a DLL file. How many times have we seen an add-in fail to function simply because a DLL became unregistered? Due to security concerns, only an administrator can successfully re-register a DLL and restore functionality.

Because they rely on the same local storage and processing power as the applications, COM and VSTO add-ins can slow down application launch times significantly. If, as frequently happens, an add-in is causing Outlook or another Office application to launch too slowly, Outlook or Word will disable it entirely.

Finally, COM and VSTO add-ins are limited to running only on Windows locally. They can't be extended to mobile devices, web browsers, or Macs.

## **A Better Alternative: Office Add-ins**

Recently we have seen the emergence of new hope; a more lightweight, easier method for integrating add-ins.

Here at Kraft Kennedy, we've come to refer to them as “Office 365 Add-ins,” though the more official—if confusing—term seems to be, “Office Add-ins,” according to the Microsoft resources currently available on the subject.

With Office 365 Add-ins, nothing need be installed locally. The web-based Office Add-ins are pushed to the Office 365 application from the Office 365 tenant. They are coded in CSS, HTML, and JavaScript, and kept in an “XML manifest file” that integrates with the web application. Administrators can deploy and distribute the add-ins centrally and easily. And because they are in Office 365, a cloud platform, they will be available everywhere immediately; on desktops, mobile devices, and in browser-versions like Outlook Web Access, an integration that legal vendors have not been able to achieve previously. The Office Add-ins are also operating system agnostic. They can run on Windows, Mac, and iOS.

No code runs on the user’s device itself or in the Office Client. The host application, such as Word, reads the add-in code and adjusts its interface accordingly. There are no DLL files. Office Add-ins do not consume local memory or CPU resources, and therefore have no impact on application load times or on performance and stability. This is a big change from COM and VSTO.

NetDocuments recently released a version of its email filing add-in ndMail called “ndMail for Office 365.” In the past, you would have had to install a COM add-in via MSI to extend this filing functionality to Outlook. With ndMail for Office 365, you don’t have to install anything on the workstation. Once you deploy it to your central Office 365 tenant, users will be able to file to NetDocuments via Outlook, Outlook Web Access, and in mobile systems like iOS (via the Outlook for iOS app). Now, if you highlight an email in your iPhone, you can go to the Actions menu and file it right to NetDocuments using ndMail, with all of its

predictive filing functionality provided to you from the cloud. It’s not exactly the same as the older COM add-in, but then again, this is only the first iteration of the new delivery model. The company’s goal in the next twelve to eighteen months is to move more of their more traditional COM add-ins to this model.

A few of the big-name vendors now offer Office 365 Add-ins. Both Clio Practice Management and LawToolBox offer these new add-ins. If they do not, they probably soon will, as more customers embrace the Office 365 model and start demanding integration with Office in web browsers and on mobile devices.

### **What Else to Consider About Office Add-ins**

Office Add-ins bring new flexibility to Office 365. Possibilities for extended functionality now seem limitless. But are there drawbacks?

The new add-ins, such as ndMail for Office 365, depend on cloud-based data and applications. Does this mean you have to be in the cloud to benefit from the new

add-ins? The short answer is “yes.” You have to, at least, not be averse to the SaaS model.

The cons of the new add-ins are the same ones that apply to cloud-based technology in general. Functionality depends on internet connectivity and access to the firm’s network. There are questions about offline functionality (which applies to all of Microsoft 365). Spotty Wi-Fi may cause difficulty integrating with locally installed resources. Contemporary technology, however, such as DirectAccess, VPN (Windows 10 AutoVPN in particular), widespread Wi-Fi, and 5G, should drastically mitigate these concerns.

*"No code runs on the user's device itself or in the Office Client."*

While developers generally welcome the chance to shed the old COM and VSTO add-ins, some say that VSTO allows a much quicker turnaround. Also, Microsoft currently offers more customization options for vendors using COM and VSTO, though this balance is sure to tip as Office add-ins become more common.

## DIY Office Add-ins

Developers who work in-house at firms are free to make their own Office Add-ins. Microsoft provides the resources online. The apps can be developed in Yeoman generator and managed in Visual Studio Code or another editor. To deploy an add-in firm-wide, programmers can insert their code into the central management platform of Office 365 or publish it to a SharePoint app catalog. If you want the add-in to be available publicly, you can publish it to AppSource.

## The Future of Legal Add-ins

Those who are fed up with the travails of legal-specific application add-ins may ask whether it's possible to get away from them entirely. Unless and until Microsoft acquires legal applications and makes them a standard part of Office, shortcomings will exist that need to be filled by third-party vendors.

But the new web-based model of add-ins means there is no need to give up on extended Office functionality for the legal industry just yet. Office Add-ins seem poised to revitalize integrations and restore our faith in them. **ILTA**



**Brian Podolsky** leads the Enterprise Content Management (ECM) Practice Group at Kraft Kennedy. He has extensive experience implementing and supporting Microsoft Office, NetDocuments, iManage, OpenText eDOCS, and Worldox document management systems, as well as third-party integrated add-ons. He also drives research on the latest ECM technologies including email management, enterprise collaboration and search, and provides guidance and best practice standards to clients implementing ECM solutions.

# GETTING A SEAT AT THE TABLE

The late, great Shirley Chisholm said “If they don't give you a seat at the table, bring a folding chair.” It is with this in mind that ILTA Publications takes aim at boardroom tables everywhere and asks: What seat would you pull up to the table?

Today, we sit down with **Nicola Shaver**, Managing Director of Innovation and Knowledge at Paul Hastings. She speaks with Beth Anne Stuebe, Director of Publications and Press, and talks about her chair, who else is at the table, why tech is important, and so much more.



LISTEN TO PODCAST

