

# InfoPath 2007, SSL and K2 Processes

### STEP BY STEP GUIDE

April 13



#### **CORPORATE HEADQUARTERS**

2615 151st Place NE Redmond Washington 98052 USA PH +1 (425) 883 4200 FAX +1 (425) 671 0411

### **EMEA HEADQUARTERS**

26 Worple Road Wimbledon London UK FAX +1 44 (0) 845 612 0911

### **APAC HEADQUARTERS**

9 Shenton Way #06-02 Singapore 068813 **PH** +1 65 6327 4110 PH +1 44 (0) 845 612 0912 FAX +1 65 6327 4120

[ WWW.K2.COM ]

The information provided relates to pre-release software products, may include features only available after installation of additional add-ins, and may be substantially modified before the commercial release. This information is provided for informational purposes only, and SourceCode Technology Holdings, Inc. makes no warranties, expressed or implied, with respect to this document or the information contained within it.

Copyright © 2011. SourceCode Technology Holdings Inc. All rights reserved. Patents pending. SourceCode and K2 are registered trademarks or trademarks of SourceCode Technology Holdings, Inc. in the United States and/or other countries. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

PAGE 2



# CONTENTS

СС	NTENTS	3
IN	FRODUCTION	4
ΕN	ABLE SSL ON THE SHAREPOINT WEB APPLICATION WEB SITE	5
>	INTERNET INFORMATION SERVICES 6 (IIS6)	5
>	INTERNET INFORMATION SERVICES 7 (IIS7)	6
С⊦	IANGE ACCESS MAPPING FOR WEB APPLICATION	8
>	SHAREPOINT 2007	8
>	SHAREPOINT 2010	9
>	CREATE INFOPATH FORMS LIBRARY	. 10
>	DESIGN THE INFOPATH FORM TEMPLATE	. 10
>	INFOPATH FORM LOCATIONS	. 11
>	BUILD AND DEPLOY THE K2 PROCESS	. 11
AD	D SIGNED INFOPATH FORM TEMPLATE TO FORMS LIBRARY	. 11
>	STEP 1: RE-SIGN THE INFOPATH FORM TEMPLATE	. 11
>	STEP 2: PUBLISH THE INFOPATH FORM TEMPLATE	. 12
>	STEP 3: UPLOAD THE INFOPATH FORM TEMPLATE FROM CENTRAL ADMINISTRATION	. 12
>	STEP 4: ACTIVATE THE INFOPATH FORM TEMPLATE IN SITE COLLECTION	. 13
>	STEP 5: ADD INFOPATH FORM TEMPLATE AS CONTENT TYPE	. 14
UP	DATE THE INFOPATH FORM TEMPLATE IN FORMS LIBRARY	. 16
W	DRKAROUND FOR API STARTED PROCESSES	. 16
>	STEP 1: GET THE SIGNED INFOPATH FORM XML	. 16
>	STEP 2: PUT INFOPATH FORM XML IN PROCESS DATA FIELD	. 17
>	STEP 3: REPLACE INFOPATH FORM XML AT RUNTIME	. 18



### **INTRODUCTION**

K2 blackpearl provides the functionality to integrate a K2 process with an InfoPath Form and use the form as the User Interface for the client events in the process. K2 uses a SharePoint Forms Library as destination (common use) for the temporary InfoPath Form (XML), which is derived from the integrated InfoPath Form Template (XSN), when the user opens the InfoPath task from the worklist. This temporary InfoPath Form is then, upon completion of the client event, "loaded" back into the corresponding process instance, and removed from the Forms Library. This functionality works out-of-the-box with no additional setup required, other than the InfoPath Integration wizard that is run in K2 Designer for Visual Studio.

**Note:** The InfoPath Form (XML) and the InfoPath Form Template (XSN) should not be confused. The InfoPath Form is just an XML document used to contain the data captured by the user. The InfoPath Form is always based on an InfoPath Form Template. The InfoPath Form Template is an XSN-based cabinet file that contains additional XML files (other than the InfoPath Form) such as the definitions of the data connections.

In the scenario where the SharePoint web application lives in a SSL enabled website, the functionality as described does not function properly, for the following reasons:

- InfoPath requires the InfoPath Form Template to be fully trusted and digitally signed (Security and Trust in Forms Options) before it will be able to communicate with external data sources. This applies to both the InfoPath Client and the Web Browser. Signing the InfoPath Form Template also signs the embedded InfoPath Form.
- Once the InfoPath Form Template is set as fully trusted, digitally signed, and set as a Forms Library's template for new documents, there is no programmatic way to get the corresponding signed InfoPath Form embedded in the InfoPath Form Template. (This InfoPath Form is used whenever a new document is created in the Forms Library.)
- Because the K2 Server cannot get a copy of the signed InfoPath Form, it saves an unsigned version of the InfoPath Form to the K2 databases.

In addition to the points mentioned above, it should also be noted that an InfoPath integrated process can be started using the following methods:

- From the SharePoint Forms Library by submitting a new InfoPath Form, and
- From the K2 API

**Note:** It is important to understand that the first method is the intended use of InfoPath integration

When a process is started using the first method, InfoPath provides the K2 Server with the signed InfoPath form, which is then loaded into the new process instance. This document describes the steps necessary to make this method work in a SSL environment.

Although the second method is available through the K2 API, this is not the recommended way to start an InfoPath integrated process, and both the InfoPath Client and the Web Browser will fail to open client events in this process instance. The reason for this is that the K2 Server obtains the InfoPath Form from the K2 databases,





which is not digitally signed. Therefore, the form cannot be opened. The signature is lost even from InfoPath Client when trying to export the XML documents embedded in the InfoPath Form Template. This document provides the reader with a solution to get around this InfoPath limitation.

### ENABLE SSL ON THE SHAREPOINT WEB APPLICATION WEB SITE

Perform the following steps on the server hosting the SharePoint web application:

### **INTERNET INFORMATION SERVICES 6 (IIS6)**

- Open IIS6 Manager
- Navigate to the website of the SharePoint web application
- Right click on the website and select Properties.
- Click on the Directory Security tab in the new window as displayed below:

SharePoint - moss.k2demo.local80 Properties	<u>?</u> ×
Web Site         Performance         ISAPI Filters         Home Directory         Docum           Directory Security         HTTP Headers         Custom Errors         ASP.N	ents   IET
Authentication and access control         Enable anonymous access and edit the authentication methods for this resource.         Edit         IP address and domain name restrictions         IP address or Internet domain names.         Edit         Edit	
Secure communications Require secure communications and enable client certificates when this resource is accessed.	
OK Cancel Apply He	elp

- Click on View Certificate...
- The certificate should be a **valid** certificate **issued to the website** and the certificate common name should be the same as the website host-header, as seen in the picture below.
- If the certificate is not valid, a valid certificate should be obtained for the website. This is not covered in this document.

# ■K2<sup>™</sup>

# WHITE PAPER: INFOPATH 2007, SSL AND K2 PROCESSES

Certificate ? 🗴
General Details Certification Path
Certificate Information
This certificate is intended for the following purpose(s): •Ensures the identity of a remote computer
Issued to: moss.k2demo.local
Issued by: K2Demo CA
Valid from 2009/04/29 to 2011/04/29
$\mathscr{P}$ You have a private key that corresponds to this certificate.
Issuer <u>S</u> tatement
ОК

# **INTERNET INFORMATION SERVICES 7 (IIS7)**

- Open IIS7 Manager
- Navigate to the website for the SharePoint web application
- Click on the website and select Bindings under Actions > Edit Site as displayed below:

💱 Internet Information Services (IIS) Manager		_ 8 ×
	haraPoint - 105 >	🖬 🖂 🔂 I 🔞 •
File View Help		
Connections	SharePoint - 105 Home	Actions Description
Start Page Start Page Start Page Application Pools □-@ Sites ⊕-@ Default Web Site ⊕-@ V2	Filter:     Piller       ASP.NET       Image: Solution of the state of the sta	Edt Permissions Edit Site Bindings Basic Settings
SharePoint - 105     SharePoint Central Administration v4     SharePoint Web Services	MET NET NET Error MET NETProfile NETRoles METTrust NETUsers Application Connection Machine Key Pages and Providers Session State SMTP E-mail Authorizati Compilation Pages Globalization Levels Settings Strings IIS	View Applications View Virtual Directories  Manage Web Site
	ASP Authentication Authonization CGI Compression Default Dectory Error Pages Faled Request Handler HTTP Redirect HTTP . PAddess ISAPI Filters Logging MIME Types Modules Oxfout Caching	Kestant     Start     Stop     Browse Web Site
	Request SS. Settings	Browse :105 (http)     Browse *:443 (https)     Advanced Settings
	Management Site Bindings ?X	Conligure Failed Request Tracing Limits
	Configuration IIS Manager Editor Permissions Http: 105 Https: 443 Remove	Deploy Second Application Import Application
	A Close	🕡 Help Online Help

PAGE 6



• Select the secure binding and click Edit.

Site Bi	Edit Site Binding				? × ? ×
Typ http	Type:	IP address: All Unassigned		Port:	
nct	Host name:				E
	SSL certificate:				
•	SAV-DOCS2010.VM	IQA.local	<u> </u>	View	
			ОК	Cancel	

• Click on the View button next to the SSL certificate. The certificate will be displayed as shown below:

ertificate	×
General Details Certification Path	1
Certificate Information	
This CA Root certificate is not trusted. To enable trust, install this certificate in the Trusted Root Certification Authorities store.	
Issued to: SAV-DOCS2010.VMQA.local	
Issued by: SAV-DOCS2010.VMQA.local	
<b>Valid from</b> 2010/12/06 to 2020/12/06 $\ref{eq: 12/06}$ You have a private key that corresponds to this certificate.	
Issuer Statement	
OK	

- The certificate should be a **valid** certificate **issued to the website** and the certificate common name should be the same as the website host-header, as seen in the picture above.
- If the certificate is not valid, a valid certificate should be obtained for the website. This is not covered in this document.

### **CHANGE ACCESS MAPPING FOR WEB APPLICATION**

If SSL is enabled on a SharePoint web application that already existed (before SSL was enabled), the access mapping will have to be changed for the SharePoint web application. Perform the following steps:

#### **SHAREPOINT 2007**

•

- Open Central Administration and navigate to the Operations tab.
- Under the Global Configurations section, click on the Alternate access mappings link, as in the picture below:



Ensure that the web application has the HTTPS prefix, as in the picture below:

Central Administration		Welcome BPUser 👻   My Site   My Links 👻   🥑
🔆 🔆 🔆 🔆	nistration	
Home Operations Ap	plication Management K2 for SharePoint	Site Actions 🔻
	Central Administration > Operations > Alternate Access Mappings > Edit Internal URLs Edit Internal URLs	
Server Farm Configuration Not Complete See <u>administrator task list</u> for more information View All Site Content	Edit Internal URL Change the zone that this URL is associated with.	URL protocol, host and port https://moss.k2demo.local/ Zone Default
Central Administration • Operations • Application Management Shared Services Administration • SharedServices1 © Recycle Bin		Delete OK Cancel





### **SHAREPOINT 2010**

- Open Central Administration.
- Under the System Settings section, click on the Configure Alternate access mappings link, as in the picture below:

Site Actions 👻 🛛 😽 Brows	Page	
SharePoint 2010	Central Administration	
Central Administration Application Management System Settings Monitoring	Application Management Manage web applications Create site collections Manage service applications Manage content databases	System Settings Manage servers in this farm Manage farm features Configure alternate access mappings
Backup and Restore Security Upgrade and Migration General Application	Monitoring Review problems and solutions check job status View Web Analytics reports	Backup and Restore Perform a backup Restore from a backup Perform a site collection backup
Settings Configuration Wizards K2 for SharePoint	Security Manage the farm administrators group Configure service accounts	Upgrade and Migration Convert farm license type Check product and patch installation status Check upgrade status
	General Application Settings Configure send to connections Configure content deployment paths and jobs Manage form templates	Configuration Wizards
	K2 for SharePoint Activate All K2 Features and K2 Configuration Settings K2 Designer for SharePoint Configuration K2 Designer for SharePoint Configuration Management Console	

• Ensure that the web application has the HTTPS prefix, as in the picture below:

Site Actions 👻 😏		System Account +
SharePoint 2010	Central Administration → Edit Internal URLs	2
Central Administration Application Management System Settings Monitoring	Edit Internal URL Change the zone that this URL is associated with.	URL protocol, host and port https://sav-docs2010:105/ Zone Default
Security		Delete OK Cancel
General Application Settings		
Configuration Wizards K2 for SharePoint		



### **CREATE INFOPATH FORMS LIBRARY**

Create a new InfoPath Forms Library in the applicable site to where the InfoPath form will be published to. Use the default settings for the site, it will be changed later. In this example, the Forms Library is called **Active Forms** as can be seen in the picture below:

BlackPearl						Welcome BPUser 🔻   My Site   My Links 👻   🔞
🎁 BlackPearl					This List: Active Forms	
Home					,	Site Actions 🔻
	BlackPearl Active	> Active For Forms	rms 5			
View All Site Content	New 🝷	Upload 🝷	Actions 🝷	Settings 🝷		View: All Documents
Documents	Туре	Name	М	odified	🧥 Modified By	🔏 Checked Out To
<ul> <li>Shared Documents</li> </ul>	To create a	new item, click	"New" or "Up	load" above.Th	nere are no items to show in this v	view of the "Active Forms" document library.
Active Forms						
<ul> <li>Archived Forms</li> </ul>						
Lists						
<ul> <li>Calendar</li> </ul>						
<ul> <li>Tasks</li> </ul>						
Discussions						
Team Discussion						
Sites						
People and Groups						
🗿 Recycle Bin						

### DESIGN THE INFOPATH FORM TEMPLATE

Create your InfoPath forms document and integrate the form with a K2 process. Ensure that the **Form Library** and **Form Client** settings have been correctly specified in the InfoPath Integration wizard in K2 Designer for Visual Studio, as in the picture below:

Edit the InfoPath Form Template		
-k <sup>2</sup>		Ì
InfoPath Form [	Deployment Location	
Specify where the form a	hould be deployed	
specity where the form s		
Publish to:	SharePoint Form Library	
Specify the location deta	ils	
SharePoint Site URL:	SharePoint Site URL	Test
Form Library:	Active Forms	Browse
	Add as library template Add as content type	
Form Client:	Web browser 👻	
		-
Specify the location where the	InfoPath form template must be published to, when the pro	ject is deployed.
1	K Back	kt <b>&gt;&gt;&gt;</b> <u>C</u> ancel



# **K2**

### **INFOPATH FORM LOCATIONS**

In addition to the InfoPath Form Templates folder that gets created in the K2 Designer for Visual Studio project, the InfoPath form should be kept in at least 1 more location. This will be the location where the InfoPath form will be manually published from. In this example, the "publish from" folder is C:\SSL Example\emj\_IP\_Form and the "publish to" folder will be the InfoPath Form Templates folder inside the K2 Designer for Visual Studio project (in this case, C:\SSL Example\K2\_Project\_SSL\K2\_Project\_SSL\InfoPath Form Templates).

### **BUILD AND DEPLOY THE K2 PROCESS**

Deploy the K2 process (with the InfoPath form) from K2 Designer for Visual Studio and ensure it is successful. Close Visual Studio.

### ADD SIGNED INFOPATH FORM TEMPLATE TO FORMS LIBRARY

### STEP 1: RE-SIGN THE INFOPATH FORM TEMPLATE

During the deployment of the process, the K2 Server extracts the InfoPath Form from the InfoPath Form Template using a cabinet-extraction utility. This utility, however, removes the digital signature from the InfoPath Form Template. To put the digital signature back into the InfoPath Form Template, and InfoPath Form, perform the following steps:

- 1. Copy the InfoPath Form from the InfoPath Form Templates folder to the "publish from" folder.
- 2. Right click on the Form Template and select Design.
- 3. Navigate to Tools > Form Options... > Security and Trust.
- 4. Set the security level to Full Trust.
- 5. Check the Sign this form template box, as below.
- 6. For web enabled browsing, click on Compatibility and check the box Design a form template that can be opened in a browser or InfoPath.
- 7. Click on OK.
- 8. Do not close the InfoPath Client.



PAGE 12

Form Options	? X
Form Options Category: Browser Open and Save Offline E-Mail Attachments Property Promotion Digital Signatures Security and Trust Preview Programming Versioning Compatibility Advanced	Y         Security Level         Form template requires the following level of trust from the user:         Automatically determine security level (recommended)         Restricted (the form cannot access content outside the form)         Domain (the form can access content from the domain in which it is located)         Full Trust (the form has access to files and settings on the computer)         For a form to run with full trust in InfoPath, it must be installed or digitally signed with a certificate. To preview or debug a form with full trust, this is not necessary. Browser-enabled form templates require full trust if they contain code, and must be deployed by a server administrator.         Form Template Signature         Specify a certificate to digitally sign this form template. Signed form templates can be made fully trusted and can be automatically updated when sent as e-mail attachments.         If Sign this form template         Issued by       charlizet         Issued by       charlizet         Expiration date       4/29/2016         Select Certificate       Create Certificate         View Certificate       Create Certificate
	OK Cancel

### STEP 2: PUBLISH THE INFOPATH FORM TEMPLATE

Once the InfoPath Form Template has been re-signed, publish the Form Template to the "**publish to**" folder (InfoPath Form Templates) by performing the following steps:

- 1. With the InfoPath Client still open, click on File and then on Publish...
- 2. When asked to save the form, save it to the "**publish from**" folder and **not** the "**publish to**" folder (InfoPath Form Templates).
- 3. Choose to publish the Form Template to a SharePoint server and click Next.
- 4. Specify the URL to the SharePoint site that contains the newly created Forms Library and click Next.
- 5. Click Next again.
- A location and file name for the Form Template will have to be specified. Click on Browse and navigate to the "publish to" folder (InfoPath Form Templates), select the Form Template and choose to overwrite the existing file. Click Next.
- 7. The form will now be published to the Forms Library in SharePoint.
- 8. Close the Publishing wizard and then the InfoPath form.

### STEP 3: UPLOAD THE INFOPATH FORM TEMPLATE FROM CENTRAL ADMINISTRATION

The InfoPath Form Template that was published to the "**publish to**" folder (InfoPath Form Templates), needs to be uploaded from SharePoint Central Administration.

- 1. Open SharePoint Central Administration as a SharePoint Administrator
- 2. Navigate to Application Management and find the InfoPath Forms Services section



PAGE 13

- 3. Click on Manage Form Templates
- 4. Click on Upload form template
- 5. Click on Browse and navigate to the "**publish to**" folder (InfoPath Form Templates), select the Form Template that was published.
- 6. Click on Upload, and when the upload is finished, click on OK
- 7. The new Form Template is listed in the list of templates

🔆 Central Administration								
Home Operations Application Management K2 for SharePoint								
	Central Ar	dministration > Application Manageme ge Form Templates	nt > Manage Form	Templates				
	🚔 Upload form template							
	Туре	Name	Version	Modified	Category	Status	Workflow Enabled	
	1	DefaultBasicAssociationForm.xsn	1.0.1.5	4/28/2009		Ready	Yes	
List Views	1	DefaultBasicInstantiationForm.xsn	1.0.0.140	4/28/2009		Ready	Yes	
All Forms	1	DefaultBasicTaskForm.xsn	1.0.1.109	4/28/2009		Ready	Yes	
Last 20	1	K2_Template_SSL.xsn	1.0.0.35	4/29/2009		Ready	No	
By Status	1	CollectSignatures_Sign_1033.xsn	12.0.0.1	2/28/2007	Workflow	Ready	Yes	
	1	Expiration_Complete_1033.xsn	12.0.0.1	2/28/2007	Workflow	Ready	Yes	
	1	RR_OOB_WrapItUp_1033.xsn	12.0.0.1	2/28/2007	Workflow	Ready	Yes	
	1	ReviewRouting_Assoc_1033.xsn	12.0.0.1	2/28/2007	Workflow	Ready	Yes	
	1	ReviewRouting_Init_1033.xsn	12.0.0.1	2/28/2007	Workflow	Ready	Yes	
	1	ReviewRouting_Modify_1033.xsn	12.0.0.1	2/28/2007	Workflow	Ready	Yes	
	1	ReviewRouting_Review_1033.xsn	12.0.0.1	2/28/2007	Workflow	Ready	Yes	
	1	ReviewRouting_UpdateTasks_1033.xsn	12.0.0.1	2/28/2007	Workflow	Ready	Yes	
	1	Xlate_Complete_1033.xsn	12.0.0.1	2/28/2007	Workflow	Ready	Yes	

# STEP 4: ACTIVATE THE INFOPATH FORM TEMPLATE IN SITE COLLECTION

The next step is to activate the newly uploaded InfoPath Form Template as a site collection feature in the site collection that hosts the Forms Library.

- 1. Open Internet Explorer (logged in as a Site Collection Administrator) and navigate to the Site Collection hosting the Forms Library
- 2. In the Site, click on Site Actions and then on Site Settings
- 3. Under Site Collection Administration, click on Site collection features
- 4. Click on the Activate button next to the Form Template



PAGE 14

BlackPol Site	y > Site Settings > Site Features Collection Features		
	Name		Status
×	Collect Signatures Workflow Gathers signatures needed to complete a Microsoft Office document.	Deactivate	Active
1	Disposition Approval Workflow Manages document expiration and retention by allowing participants to decide whether to retain or delete expired documents.	Deactivate	Active
	K2 Administration Links Adds links to a Site Collection's Site Settings section to enable the administration of K2 features for that Site Collection.	Activate	
	K2 Default Task Form (Advanced) This content type is used by the K2 Workflow Integration Default task page (Advanced). It inherits from the out of the box workflow task.	Activate	
5.	K2 Default Task Form (Basic) This content type is used by the K2 Workflow Integration Default task page (Basic). It inherits from the out of the box workflow task.	Activate	
	K2 Web Designer Menu Item Adds a menu item to every list in a site collection in order to add or edit K2 workflow processes.	Activate	
	K2 Web Workflow Task Form This content type is used by the K2 Web Designer Workflow task page. It inherits from the out of the box workflow task.	Activate	
	K2_Template_55L Microsoft Office InfoPath Form template.	Deactivate	Active
5	Office SharePoint Server Enterprise Site Collection features Features such as the husiness data catalon forms services and Evcel Services, included in the Office SharePoint Server Enterprise License	Deactivate	Active

# STEP 5: ADD INFOPATH FORM TEMPLATE AS CONTENT TYPE

The final step is to add the Form Template as a Content Type in the SharePoint Forms Library.

- 1. Open Internet Explorer (logged in as a Site Collection Administrator) and navigate to the Forms Library
- 2. In the Forms Library, click on Settings and then on Form Library Settings
- 3. Under General Settings, click on Advanced Settings
- 4. Set Allow management of content types to Yes
- 5. For web enabled browsing, set Opening browser-enabled documents to Open as a Web page
- 6. Click on OK
- 7. Scroll down to the section Content Types
- 8. Click on Add from existing site content types
- 9. Under Available Site Content Types, select the Form Template and click Add
- 10. Click OK



BlackPearl > Active Forms > Settings > Add Content Types Add Content Types: Active Forms	
Use this page to add new content types to this list.	
select <b>Content Types</b> Select from the list of available site content types to add them to this list.	Select site content types from: All Groups Available Site Content Types: Content types to add: Allow any content type * Basic Page Document Dublin Core Columns Link to a Document Master Page Picture Report Web Part Page C Bescription: None Group: Microsoft Office InfoPath
	OK Cancel

11. Click on Change new button order and default content type and change the Form Template's position from top to 1

BlackPearl > Active Forms > Settings > Change New Button Order Change New Button Order and Default Content Type					
Use this page to set the default content type and to control the order and visibility of content types on the new button.					
Content Type Order Content types not marked as visible will not appear on the new button. Note: The first content type will be the default content type.	Visible V	Content Type Form K2_Template_SSL	Position from Top		
			OK Cancel		

12. The Form Template with the digital signature is now set as the template of the Forms Library and will be used to create new InfoPath Forms

Content Types				
This document library is configured to allow multiple content types. Use content types to specify the information you want to display about an item, in addition to its policies, workflows, or other behavior. The following content types are currently available in this library:				
Content Type	Visible on New Button	Default Content Type		
K2_Template_SSL	✓	✓		
Form	✓			
Add from existing site content types     Change new button order and default content type				



PAGE 16

### UPDATE THE INFOPATH FORM TEMPLATE IN FORMS LIBRARY

To update the Form Template in a SharePoint Forms Library requires the following steps:

- 1. Open Internet Explorer (logged in as a Site Collection Administrator) and navigate to the Forms Library
- 2. In the Forms Library, click on Settings and then on Form Library Settings
- 3. Scroll down to the section Content Types
- 4. Click on the name of the Form Template
- 5. In the new screen under settings, click on Delete this content type and then on OK
- 6. Navigate back to the Forms Library
- 7. In the Forms Library, click on Site Actions and then on Site Settings
- 8. Under Site Collection Administration, click on Site collection features
- 9. Click on the Deactivate button next to the Form Template
- 10. Open SharePoint Central Administration as a SharePoint Administrator
- 11. Navigate to Application Management and find the InfoPath Forms Services section
- 12. Click on Manage Form Templates
- 13. Hover the mouse cursor over the Form Template name. A dropdown will appear
- 14. In the dropdown select Remove Form
- 15. In the new screen click on the Remove button
- 16. The Form Template is now completely removed from SharePoint
- 17. Do the updates to the Form Template
- 18. When finished, repeat steps 1 to 5 in previous section

### WORKAROUND FOR API STARTED PROCESSES

This section describes the workaround for InfoPath integrated processes that was started using the K2 API or IPC Event Wizard. Please note that, before starting these steps, the digital signed Form Template must be added as a content type in the SharePoint Forms Library, as described in a previous section.

### STEP 1: GET THE SIGNED INFOPATH FORM XML

As explained earlier, K2 saves the InfoPath Form as an XML field in the process definition, which is then used when the process is started through the K2 API. The workaround is to get the signed InfoPath Form from the Forms Library, and then save it to a string process data field. This data field value will then be used to overwrite the unsigned value of the XML field with the signed string value in the data field.

- 1. Open Internet Explorer and navigate to the Forms Library.
- 2. Click on New and select the Forms Template. (A default view can be created for this step. The default view MUST contain some text (at the minimum) or it is discarded by InfoPath.

Su <u>b</u> mit		Powered by: 2. InfoPath Forms Services
This is the default view. Submitted By	bouser	
Submit		

- 3. When the InfoPath Client or Web Browser opens the empty document, submit it immediately
- 4. Open K2 Workspace as one of the destination users of the first client event in the process



PAGE 1

- 5. Open the InfoPath task in the user's worklist and close it immediately after it has finished loading.
- 6. This will force the K2 Server to upload the signed InfoPath Form (obtained from step 2) to the Forms Library.
- 7. Open Internet Explorer and navigate to the Forms Library again.
- 8. There should be a new InfoPath Form.
- 9. Hover the mouse cursor over the InfoPath Form until a dropdown appears.
- 10. In the dropdown, select Edit in Microsoft InfoPath to open the InfoPath Form in InfoPath Client

IlackPearl				This List	: Active Forms	P Fite Actions
	BlackPearl > Active Forms Active Forms					SIC ACOUS
View All Site Content	New   Upload   Actions   Settings					View: All Documents
Documents	Type Name			Modified	🧥 Modified By	🧥 Checked Out To
<ul> <li>Shared Documents</li> </ul>	Simple_Process - Approve or Decline - Task for K2DEMO_BPUser - 7_23 NEW		•	4/30/2009 10:10 AM	BPUser	
Active Forms			View Properties	1		
Archived Forms			Edit Properties			
Lists		43	Manage Permissions			
<ul> <li>Calendar</li> </ul>		-	Edit in Microsoft Office InfoPath			
<ul> <li>Tasks</li> </ul>		-	Edit in Browser			
Discussions		×	Delete			
<ul> <li>Team Discussion</li> </ul>			Send To			
Sites		Da	Check Out			
People and Groups			Alert Me			
🕘 Recycle Bin				]		

11. Once it is open, click on File and then Save As... and save the InfoPath Form as a XML file.

### STEP 2: PUT INFOPATH FORM XML IN PROCESS DATA FIELD

The next step is to put the InfoPath Form XML obtained in the previous step, into a process data field.

- 1. Open your process definition in K2 Designer for Visual Studio.
- 2. Create a process data field of type string (in this example, it's called prTemplateXML).
- 3. Open the XML file saved in the previous section in Notepad and copy the XML text.
- 4. Paste the XML text in the string process data field as the initial value.



K2 Object Browser	Edit Data Field	$\boxtimes$
K2 Object Browser     4 ×       Ptycess/Activity Data     •       Image: Constraint of the second	Edit Data Field         Name:       prTemplateXML         Data Type:       String         Category:       None         Initial Value: xml version="1.0"? mso-infoPathSolution name="urn:schemas-microsoft-com:office infopath:K2-Template-SSL:myXSD-2009-04-28123-37-02"</td solution/version="1.0.0.30" PI/version="1.0.0.0" href="https://moss.k2demo.local/         Metadata:	4
	Description: ☐ Hidden ♥ Keep Log ♥ On Demand ♥ Keep Audit QK <u>C</u> at	ncel

### STEP 3: REPLACE INFOPATH FORM XML AT RUNTIME

The final step is to replace the InfoPath Form XML obtained from the K2 database with the XML in the process data field. This can only be done at runtime, so a Server Code event need to be created to overwrite the value of the K2 generated XML field **before** the first client event.

- 1. Open your process definition in K2 Designer for Visual Studio
- 2. Place a Server Code event just before the first InfoPath Client event.





- 3. Right click on the Server Code event and select View Code > Event Item from the context menu
- 4. Add the code below to the event to overwrite the InfoPath Form XML

```
try
{
    K2.ProcessInstance.XmlFields["K2TemplateSSL"].Value =
    K2.ProcessInstance.DataFields["prTemplateXML"].Value.ToString();
}
catch (Exception ex)
{
    K2.ProcessInstance.DataFields["prError"].Value =
    (object)("Exception in Update XML: " + ex.Message);
}
```

In the code sample above:

- a. There is a process data field of type string called prError to contain exception messages
- b. K2TemplateSSL is the XML field created by the InfoPath Integration wizard
- c. prTemplateXML is the process data field of type string created in the previous section
- 5. Now compile and deploy the process definition and it should function properly if it was started from the K2 API

