

Kofax Mortgage Agility 1.0.0

Administrator's Guide



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Preface

This guide contains essential information about installing and configuring Kofax Mortgage Agility. This guide is for framework integrators who need a description of the installation and implementation procedures and requirements.

This guide assumes you have a thorough understanding of the following Kofax products:

- Kofax Capture (KC)
- Kofax Transformation Modules (KTM)
- Kofax TotalAgility (KTA)
- Altosoft Insight
- Kapow
- Kofax Analytics 1.0.0 for TotalAgility

Related Documentation

In addition to this guide, please refer to the existing documentation for these products for additional installation and configuration information.

Kofax Capture Administrator's Guide

This guide contains information about configuring Kofax Capture (KC) and Kofax Capture Network Server (KCNS).

Help for Kofax Transformation Modules

Help is available from Kofax Transformation Modules (KTM) Project Builder, Thin Client, Script Documentation, and other components. The help systems introduce KTM features and describe how to use the application. To view Help from a component, click the Help button on the application toolbar or press F1 from any application window. Help appears in a separate browser window.

Kofax Transformation Modules Developer's Guide

Kofax Transformation uses advanced recognition technologies to transform scanned images into structured information that can be passed to back-end systems for further processing. This guide contains information about installing, configuring, and customizing Kofax Transformation Modules.

Kofax TotalAgility Installation Guide

This guide describes how to install and configure Kofax TotalAgility.

Each of the documentation sources listed contains information for locating additional documentation for that product.

Training

Kofax offers both classroom and computer-based training that will help you make the most of your Kofax Mortgage Agility solution. Visit the Kofax website at <http://www.kofax.com> for complete details about the available training options and schedules.

Getting Help for Kofax Products

Kofax regularly updates the Kofax Support site with the latest information about Kofax products.

To access some resources, you must have a valid Support Agreement with an authorized Kofax Reseller/Partner or with Kofax directly.

Use the tools that Kofax provides for researching and identifying issues. For example, use the Kofax Support site to search for answers about messages, keywords, and product issues. To access the Kofax Support page, go to www.kofax.com/support.

The Kofax Support page provides:

- Product information and release news
Click a product family, select a product, and select a version number.
- Downloadable product documentation
Click a product family, select a product, and click **Documentation**.
- Access to product knowledge bases
Click **Knowledge Base**.
- Access to the Kofax Customer Portal (for eligible customers)
Click **Account Management** and log in.

To optimize your use of the portal, go to the Kofax Customer Portal login page and click the link to open the *Guide to the Kofax Support Portal*. This guide describes how to access the support site, what to do before contacting the support team, how to open a new case or view an open case, and what information to collect before opening a case.

- Access to support tools
Click **Tools** and select the tool to use.
- Information about the support commitment for Kofax products
Click **Support Details** and select **Kofax Support Commitment**.

Use these tools to find answers to questions that you have, to learn about new functionality, and to research possible solutions to current issues.

System Requirements

This section provides information about system requirements, and recommendations for installing and using Kofax Mortgage Agility. For updated information about supported operating systems and other system requirements for Mortgage Agility, visit the Support pages on the Kofax website at www.kofax.com.

Software Prerequisites

Before installing the framework, you must install the following programs on each computer where you are installing Kofax Mortgage Agility.

- Kofax TotalAgility 7.1
- Insight 4.3.1.37494
- Kapow 9.3
- KofaxAnalytics-1.0.0_For_TotalAgility

Required Database

SQL Server 2008 R2 or higher.

See the *Kofax TotalAgility Installation Guide* for additional software and hardware requirements and recommendations.

Refer to the Kofax Cross Product Compatibility Matrix for 3rd Party Software Platform Components for this product. This matrix lists the versions of third-party software platform components that are supported for use with Kofax products. Kofax is committed to ensuring that our products work with these component versions and addressing issues that arise when our products are used in conjunction with these versions. Unless otherwise specified, Kofax does not support the use of our products in conjunction with versions of software other than those listed in the Kofax Cross Product Compatibility Matrix.

Overview

Kofax Mortgage Agility focuses on customer-required documents used by banks and mortgage companies to properly evaluate mortgages. The solution demonstration scenario is that of an US Federal Housing Administration (FHA) insured loan.

This is a FHA mortgage insurance-backed mortgage loan which is provided by a FHA-approved lender. FHA insured loans are a type of federal assistance and have historically allowed lower-income Americans to borrow money for the purchase of a home that they would not otherwise be able to afford.

Within the Kofax Mortgage Agility framework, documents are received from multiple channels to support the loan application. On receipt, documents are validated and cleansed to ensure they can be employed by mortgage providers to properly evaluate and underwrite mortgages.

With Kofax Mortgage Agility you can manage the mortgage process beginning with the submission of the initial loan application. The framework and primary functionality include the following:

- Capture documents at the Point of Origination (Web, Mobile and Scan)
- Loan Process and Monitoring
- Pre-Qualification of Loans
- Debt Income Comparisons
- Analytics Reporting and Dashboards
- Integration with other applications
- Compliance with regulations

Abbreviations

1003	Uniform Residential Loan Application
KMA	Kofax Mortgage Agility
KTA	Kofax TotalAgility
KTM	Kofax Transformation Modules
LOB	Line Of Business
LOS	Loan Origination Systems
SLA	Service Level Agreement
VRS	Kofax VRS software - Virtual ReScan
WQ	Work Queue

Preparing for the Installation

Before installing Kofax Mortgage Agility, follow these instructions to prepare your computer and avoid potential problems.

Extracting the Zip File

Important Before starting the installation, log on to the computer as a user with administrator rights.

- 1 Create a folder on the root drive of the destination machine.
This location will be referred to as <Extract Location> throughout this guide.
- 2 Extract the contents of the **KofaxMortgageAgility-1.0.0 zip** file to the folder you created.

Installing Kofax Mortgage Agility

This section provides step-by-step instructions for installing Kofax Mortgage Agility. The instructions do not describe every installation screen you may see, nor do they cover every decision.

Installing the Custom Database

- 1 Manually create a database called Mortgage with default settings .
- 2 Run the following scripts against the database you created.
 - Database objects: <Extract Location>\Database\Create_Database_Objects.sql
 - Initialize data: <Extract Location>\Database\Init_Databse.sql
 - Demonstration data: <Extract Location>\Database\Init_Database_Demo_Data.sql

Note Create_Database.sql and Drop_Database_Objects.sql are provided but are not part of the installation process. Consult your DB Administrator before running.

Installing Kofax TotalAgility Components

Use the Kofax TotalAgility Designer to import each part of the Mortgage Agility framework.

Note You may see a warning message saying the processes or business rules you are importing already exist but are not imported. The processes and rules are already imported. Ignore this message.

Resources

- 1 On the TotalAgility Home page, select **Process Designer > Import Processes**.
- 2 Browse to the Resource folder, <Extract Location>\TotalAgility\Resources.
- 3 Import **MortgageResources.ZIP** ensuring to select the following check boxes:
 - **Categories**
 - **Resources**
 - **Group Resource Members**

Processes

- 1 On the TotalAgility Home page, select **Process Designer > Import Processes**.
- 2 Browse to <Extract Location>\TotalAgility\Processes.
- 3 Import **MortgageProcesses.ZIP** ensuring to select the **Categories** check box.

Note Import errors for previously existing maps can be ignored.

Forms

- 1 On the TotalAgility Home page, select **Form Designer > Import Forms**.
- 2 Browse to <Extract Location>\TotalAgility\Forms.
- 3 Import **MortgageForms.ZIP** ensuring to select the following check boxes:
 - **Header Form**
 - **Global Variables**
 - **Scan Profile**

VRS Profiles

- 1 On the TotalAgility Home window, select **System Settings > Scan/VRS Profiles**. These profiles must be configured exactly as shown below.

Driver License

- 2 Configure the Driver License profile as follows:
 - Name: **DriverLicense**
 - Description: Enter a description of this profile.
 - Paper Size: **As Scanned**
 - Orientation: **Any**
 - Duplex: **Simplex**
 - Paper Source: **Any**
 - Resolution: **500**
 - Color: **Color**
 - Image Enhancement Settings: **No**
 - TIFF Compression: **No**
 - Compression Quality: **100**
 - EVRS Settings:

```
_DeviceType_2_DoSkewCorrectionPage__DoCropCorrection__
DoScaleImageToDPI_500_DocDimSmall_2.125_DocDimLarge_3.375_LoadSetting_<Property
Name="CSKewDetect.prorate_error_sum_thr_bkg_brightness.Bool"
Value="1" Comment="DEFAULT 0"></Property>_LoadSetting_<Property
Name="CSkwCor.Do_Fast_Rotation.Bool" Value="0" Comment="DEFAULT 1"></Property>
```

Default Profile

- 3 Configure the Default profile as follows:
 - Name: **Default**
 - Description: **Default Profile - This profile must not create a binary image from the image file. It should leave documents primarily untouched.**
 - Paper Size: **Letter (8.5" x 11")**
 - Orientation: **Portrait**
 - Duplex: **Duplex**
 - Paper Source: **ADF**

- Resolution: **300**
- Color: **Color**
- Image Enhancement Settings: **No**
- TIFF Compression: **No**
- Compression Quality: **75**

Standard Profile

4 Configure the Standard VRS profile as follows:

- Name: **Standard VRS**
- Description: **Default Profile - This profile creates a binary image from the image file with standard VRS settings.**
- Paper Size: **As Scanned**
- Orientation: **Portrait**
- Duplex: **Duplex**
- Paper Source: **ADF**
- Resolution: **300**
- Color: **Black and White**
- Image Enhancement Settings: **Yes**
- Deskew: **Yes**
- Auto Crop: **Yes**
- Auto Rotate: **Yes**
- Delete Blank Page: **Yes**
- TIFF Compression: **Yes**
- Compression Quality: **75**

Social Security Card

5 Configure the Social Security Card profile as follows:

- Name: **Social Security Card**
- Description: Enter a description of this profile.
- Paper Size: **Letter (8.5" x 11")**
- Orientation: **Any**
- Duplex: **Simplex**
- Paper Source: **Any**
- Resolution: **300**
- Color: **Black and White**
- Image Enhancement Settings: **No**
- TIFF Compression: **Yes**
- Compression Quality: **75**
- EVRS Settings:

```
_DeviceType_2_LoadSetting_<Property
Name="CBinarize.Contrast_Slider_Pos.Int" Value="1"
Comment="DEFAULT 3"/>_LoadSetting_<Property
Name="CBinarize.Cleanup_Slider_Pos.Int" Value="5"
Comment="DEFAULT 3"/>_LoadSetting_</
PropertyName="CBinarize.Wei_Blue_To_Gray.Int" Value="0" Comment="DEFAULT
4"/>LoadSetting_<PropertyName="CBinarize.Wei_Gree_To_Gray.Int" Value="0"
Comment="DEFAULT 7"/>
```

```
>_LoadSetting_<PropertyName="CBinarize.Wei_Red_To_Gray.Int" Value="1"
Comment="DEFAULT 5" /
>_DoCropCorrection__DoEnhancedBinarization__Do90DegreeRotation4
```

Style Sheet

- 1 On the TotalAgility Home page, select **Form Designer > Style Sheet** .
- 2 Click Browse and select the style sheet to import: <Extract Location> TotalAgility\Forms \WorkspaceTheme.css
- 3 Click **OK** to overwrite

Navigation

You must manually add the Mortgage Agility navigation to an existing navigation.

Follow the steps below to add to the KTA Workspace navigation:

- 1 On the TotalAgility Home page, select **Form Designer > Navigation**.
- 2 In the Explorer panel, select **Navigation**.
- 3 Open the **Workspace Menu**.
- 4 Add a menu item called Mortgage, add submenu items depending on the scenarios you want to set up and link to the forms as follows:
 - Borrower Portal Logon – loan-entry-form.form
 - There is no mapping required for the initialization variable.
 - Select the **Deny Everyone Except** access permission.
 - Consume the following resources from the Mortgage resources:
 - Loan Admin Team
 - Click **Save**.
 - BankRight Login – mortgage-internal-login.form
 - Select the Deny Everyone Except access permission.
 - Consume the following resources from the Mortgage resources:
 - Loan Admin Team
 - Click **Save**.
 - Loan Administration – credit-score-administration.form
 - Select the **Deny Everyone Except** access permission.
 - Consume the following resources from the Mortgage resources:
 - Loan Admin Team
 - Click **Save**.
 - Mortgage Search – loan-search.form
 - Select the Deny Everyone Except access permission.
 - Consume the following resources from the Mortgage resources:
 - Loan Officers Team
 - Click **Save**.
 - Send Loan Invitation – mortgage-send-loan-application-invitation.form
 - Select the Deny Everyone Except access permission.

- Consume the following resources from the Mortgage resources:
 - Loan Admin Team
- Click **Save**.
- Mortgage Analytics – Mortgage Analytics.form
 - Select the Deny Everyone Except access permission.
 - Consume the following resources from the Mortgage resources:
 - Report Managers Compliance
 - Report Managers Sales
 - Click **Save**.

Site

- 1 On the TotalAgility Home page, select **Form Designer > Site**.
- 2 Enter the following site details:
 - Category: **Mortgage**
 - Name: **Mortgage**
 - Header Form: **WorkspaceHeader**
 - Horizontal Navigation: **WorkspaceMenu**
 - Vertical Navigation: leave blank
 - Default Form: leave blank
 - Theme: **TotalAgility Workspace**
- 3 Click **Save**.

Server Variables

- 1 On the TotalAgility Home page, select **Data > Server Variables**.
- 2 In the Mortgage category, edit the following variables:

DownloadApp

- Value: **http://localhost/totalagility/forms/Mortgage/download-app.form**

Used for: URL for the form containing details on how to download the mobile application.

DTI Percentage

- Value: **44**

Used for: **Used in Loan Pre-qualification form to check if borrower is eligible for a loan**

MortgateFromAddress

- Value: **admin@BankRightDummyDomain.com**

Used for: **Used as the "From" address in emails sent from the Mortgage system**

Lender Name or Lender Solution Name

- Value: **BankRight Mortgages**

Used for: **Used as lender's name to enable customizing of emails for specific lender**

Mortgage Connection

- Value: Server=localhost;Trusted_Connection=Yes;Database=Mortgage;
- Used for: Used in processes to point to your database. Edit the server name based on the kind of database and the location where your database is stored

Note Replace localhost with Server name where applicable.

- For example, Server=
localhost;Trusted_Connection=Yes;Database=Mortgage;
- For example, Server= .
\sqlexpress;Trusted_Connection=Yes;Database=Mortgage;

NotificationURLIP

- Value: http://localhost/totalagility/forms/Mortgage/loan-entry-form.form Used for:
Used in the invitation to contain the URL of the landing webpage

Server Name

- Value: the IP of the KTA installation
- Used for: Used in links in contact emails

SMS Server US

- Value: Point to your SMS provider (@SMS.Gateway)
- Used for: Used in processes that send emails to SMS gateway

TestMode

- Value: True
- Used for: Used to bypass live sending of SMS and Checking 3rd part integrations

Global Variables

- 1 On the TotalAgility Home page, select **Form Designer > Global Variables**.
- 2 In the Mortgage category, edit the following variables:

AnalyticsSite

- Value: See [Viewer](#) section of Installing Analytics for Mortgage Agility.
- Used for: Used to store the Altosoft Viewer URL to make the Mortgage Analytics visible

Limited_User_Session_ID

- Value: Set to your installation Session ID, such as
CF804840115111D48C6100104B71BD07
- Used for: Used to access server functionality when a resource is not signed in

Loan_Officer_Group_ID

- Value: **DB28F49B7AA249BBAA7315D630E3C3E1**
- Used for: Used in the in the Loan invitation email sent by the bank employee

LoanAmounts

- Value: **LoanAmount**
- Used for: Used in drop-down lists for extracting Loan Amounts from the database LookUp table

LoanPurpose

- Value: **LoanPurpose**
- Used for: Used in drop-down lists for extracting Purposes of Loan from the database LookUp table

LoanTerms

- Value: **LoanTerm**
- Used for: Used in dro-pdown lists for extracting Terms of Loan from the database LookUp table

MortgageDBCONN

- Value: **Server= <localhost>;Trusted_Connection=Yes;Database=Mortgage;**
- Used for: Used in processes to point to your database. Edit the server name based on the kind of database and the location where your database is stored.

Note Replace <localhost> with the applicable server name.

- For example,
Server= \sqlexpress;Trusted_Connection=Yes;Database=Mortgage;

MortgageWorkqueue

- Value: **http://<localhost>/totalagility/forms/GeneralWorkqueue.form**
- Used for: The redirect on the internal login form

Note Replace <localhost> with the applicable server name.

- For example,
Server= http://sqlexpress/totalagility/forms/GeneralWorkqueue.form

ResourceEmail

- Value: Leave blank.
- Used for: Used to access server functionality for sending emails when a resource is not signed in

USStates

- Value: **USState**

- Used for: Used in drop-down lists for extracting US States from the database LookUp table

System Settings for Email

- 1 On the TotalAgility Home page, select **System Settings > Settings**.
- 2 Click the **Email** tab and enter the following information:
 - Host = Your smtp server address.
 - Port Number = Your smtp server port.
 - User Credentials = As required.
- 3 Click **Save**.
- 4 Restart the TotalAgility IIS Application Pool and the TotalAgility Core Worker Service.

Capture Date Formatter

- 1 On the TotalAgility Home page, select **Data > Field Formatters**.
- 2 Edit the Default Date Formatter; select the required Ambiguous Date Formats in the required order of execution.
- 3 Click **Save**.

Installing Mobile / Tablet

Kofax Mortgage Agility is configured for web, mobile and tablet. Follow these steps to configure mobile and tablet:

- 1 Either:
 - Write an application to connect to the Kofax TotalAgility server and access the forms.
 - Use the sample application provided in the mobile SDK.
- 2 Set the URL in the mobile settings to point to the Kofax TotalAgility server.
- 3 Set up the website and allow anonymous access.

Installing Kapow Robots

To use Kapow Robots available in Kofax Mortgage Agility, you must upload the Robots in the Kapow Management Console. Before completing this step, you must install Kapow on a server.

Note You are not required to install Kapow on the same server as Kofax Mortgage Agility or the Kapow_LOS_Helper.

Uploading Robots to the Kapow Server

- 1 On the server where Kapow is installed, select **Start the Management Console**.
- 2 Open the **Management Console**.

Note Use caution when selecting the above similarly named options. Selecting the incorrect option will not cause damage, but may cause confusion.

- 3 In the Management Console Repository window, select **Types** and click **Add Types**.
- 4 Browse and select each of the following Types:
 - <Extract Location>\Kapow\theWorkNumber\Types\twnIncoming.type
 - <Extract Location>\Kapow\theWorkNumber\Types\twnIncoming.type
 - <Extract Location>\Kapow\USPS\Types\uspsIncoming.type
 - <Extract Location>\Kapow\USPS\Types\uspsOutgoing.type
- 5 In the Repository window, select **Robots** and click **Add Robots**.
- 6 Browse and select each of the following Robots:
 - <Extract Location>\Kapow\theWorkNumber\Robots\theWorkNumber.robot
 - <Extract Location>\Kapow\USPS\Robots\USPS.robot

LOS Server: Installing LOS Helper Web Service

Install the LOS Helper web service on the **same server as the LOS client**. Before you install, follow these steps to add a web site:

- 1 Use the following path to start IIS:**Start > Control Panel > System and Security > Administrative Tools > Internet Information Services (IIS) Manager**
- 2 Select **Add Web Site**.
- 3 In the Add Web Site window, enter the site name, physical path, and host name.
Example:
 - Site name: Kofax_LOS_Helper
 - Physical path: C:\inetpub\wwwroot\Kofax_LOS_Helper
 - Type: http
 - IP address: All Unassigned
 - Port: 80
 - Host name: Kofax_LOS_Helper
- 4 Select **Start Web site immediately** and click **OK**.

Note For increased security, change the binding type to https (example below). This is required if Kofax Mortgage Agility and the Kofax LOS Helper are not behind the same firewall. If you are not sure, use https. You will need to use an SSL certificate.

Example:

- Site name: Kofax_LOS_Helper
 - Physical path: c:\inetpub\wwwroot\Kofax_LOS_Helper
 - Type: https
 - IP address: All Unassigned
 - Port: 443
 - Host name: SSL Certificate: <select your SSL certificate>
- 5 In the Edit Application Pool window, set the Application Pool to use .NET Framework v4.0 (or higher) and Classic for Managed pipeline mode:
 - .NET Framework version: **.NET Framework v4.0 (or higher)**
 - Managed pipeline mode: **Classic**

Installation Prerequisites

You can install the Kofax LOS Helper web service using the Setup.exe file or by manually copying files. IIS6 Metabase Compatibility must be installed prior to installing with the Setup.exe file.

To use the Setup.exe file, you must have IIS 6 Metabase Compatibility enabled. IIS 6 Metabase Compatibility is only required for installation; you can disable IIS 6 Metabase Compatibility after installation.

Note You must reboot the system to disable IIS 6 Metabase Compatibility.

If your business process does not allow enabling of IIS 6 Metabase Compatibility, please follow the steps in the [Alternate Installation](#).

- 1 Use the following path to confirm that IIS 6 Metabase Compatibility is enabled.
Start > Control Panel > Turn Windows features on or off > Roles > Web Server (IIS)
 The status, Enabled or Not enabled, displays on the line for IIS 6 Metabase Compatibility.
- 2 To enable IIS6 Metabase Compatibility in the Server Manager window, select **Web Service (IIS)** and click **Add Role Services**.
 The Add Role Services window appears.
- 3 In Role Services, Management Tools Installed, IIS 6 Metabase Compatibility, check **IIS 6 Metabase Compatibility** and click **Next**.
- 4 Click **Install**.
 You may be required to restart the server after the installation completes.

Using the Kofax LOS Helper Installation Wizard

- 1 Run <ExtractLocation>\Code\Kofax_LOS_Helper\Kofax_LOS_Helper_Setup\Release\Setup.exe.
 The Kofax LOS Helper installation wizard appears.
- 2 Click **Next**.
- 3 Select the Site and Application Pool detail matching the website you created in [LOS Server: Installing LOS Helper Web Service](#) and click **Next**.
 The system displays confirmation details.
- 4 Click **Next**.
 You will receive the following notice:
Notice:
 If you are integrating to Encompass, after you install, copy EllieMae.Encompass.AsmResolver.dll and EllieMae.Encompass.Runtime.dll to the website's bin directory.
- 5 Click **Next**.
 The Kofax LOS Helper Information window appears.
- 6 Click **Close**.
- 7 Continue at [Completing the Installation](#).

Alternate Installation

Use these alternate installation instructions if you are unable to run Setup.exe.

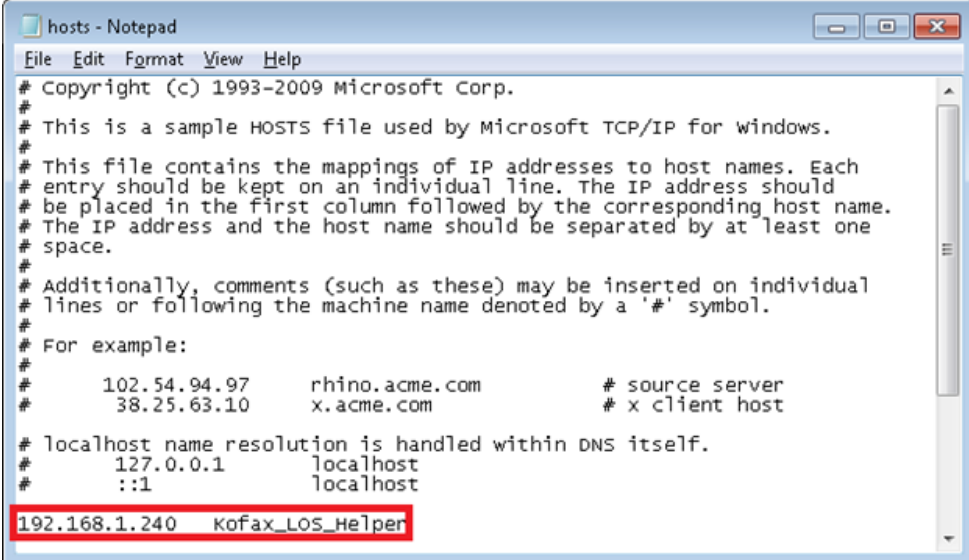
- 1 Locate the files as follows: <Extract Location> > Code > Kofax_LOS_Helper > Kofax_LOS_Helper
 - Global.asax
 - Kofax_LOS_Helper.svc
 - Web.config
 - Bin\CommonUtilities.dll
 - Bin\Kofax_LOS_Helper.dll
- 2 Copy the following files to the website directory:

Completing the Installation

- 1 Activate the URL using one of the following methods:
 - Create a DNS entry in your corporate DNS.

Note This URL is only used by Kofax TotalAgility. It is adequate to only define the URL in the hosts file.

- On the Kofax Mortgage Agility server, create an entry in the hosts file.
 - 1 On the Start menu, select **Run**.
 - 2 In the Open field, enter **notepad.exe "C:\Windows\System32\drivers\etc\hosts"**. The hosts file opens in Notepad. For example:



```

hosts - Notepad
File Edit Format View Help
# Copyright (c) 1993-2009 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#       102.54.94.97       rhino.acme.com           # source server
#       38.25.63.10      x.acme.com              # x client host
#
# localhost name resolution is handled within DNS itself.
#       127.0.0.1        localhost
#       ::1             localhost
192.168.1.240 Kofax_LOS_Helper
  
```

- 3 Add an entry to the hosts file similar to the example, then save and close the file.
- 2 If you use Encompass, copy Encompass DLLs to the bin directory, such as c:\inetpub\wwwroot\Kofax_LOS_Helper\bin, but could be different.

Note If you copied the complete bin directory from the source directory, you may have copied some placeholder DLLs. These are DLLs that Kofax includes in the source to allow the Solution to compile in the absence of the official Encompass DLLs. These files are intended for clients who do not use Encompass.

These placeholder DLLs DO NOT WORK. If you use Encompass, delete the placeholder DLLs and copy the Encompass SDK DLLs.

- 3 If you use Encompass, delete the following Placeholder DLLs.
 - EllieMae.Encompass.AsmResolver.dll (~5KB)
 - EllieMae.Encompass.Runtime.dll (~5KB)
 - EllieMae.Encompass.Runtime.dll (~6KB)
- 4 If you use Encompass, in the bin folder, copy the following Encompass SDK DLLs.
 - EllieMae.Encompass.AsmResolver.dll (~310KB)
 - EncompassObjects.dll (~6KB)
 - **DO NOT COPY** to the bin directory: EncompassObjects.dll

Configuring the LOS Account

If you do not have a company-level business unit in the Mortgage database, Business Units table, use the following SQL script to create a new business unit:

```
INSERT INTO BusinessUnit (id, BranchId, Name, LOS_Helper_URL, LOS_Parameters)
VALUES
  (NEWID(), null, 'Company_Name', 'http://Kofax_LOS_Helper/Kofax_LOS_Helper.svc',
   '<LOS_Parameters>
     <LOSType>Encompass360</LOSType>
     <User>USER_NAME</User>
     <Password>YOUR_PASSWORD</Password>
     <Server>http://localhost</Server>
     <Encompass360>
       <DefaultFolder>Prequal</DefaultFolder>
     </Encompass360>
   </LOS_Parameters>')
```

where:

- **Company_Name** is the name of your company. Enter the correct value for your environment.
- **http://Kofax_LOS_Helper/Kofax_LOS_Helper.svc** is the URL to the Kofax LOS Helper web service. Enter the URL for the LOS Helper web service you created in [LOS Server: Installing LOS Helper Web Service](#).
- **USER_NAME** is the user account that the web service should use when save data to your LOS or getting data from your LOS
- **YOUR_PASSWORD** is the password for the user account.
- **http://localhost** is the URL that the web service should use to access your LOS. If the LOS is on the same server as the Kofax LOS Helper web service (which is the recommended configuration), the Server should be **http://localhost**.
- **Prequal** is the default folder in which new applications are stored. In Encompass360, loan applications are stored in Folders and may move from Folder to Folder.

Configuring Credit Bureau

Integrating with a Credit Bureau

Kofax Mortgage Agility supports integration with MISMO 2.3.1-compliant Credit Bureaus, using DataFacts.

Kofax Mortgage Agility only supports a company-level business unit. See [Integrating LOS](#) for instructions about creating company-level business unit.

To configure a credit bureau:

- 1 In the Mortgage database, CreditBureau table, create a record for the Credit Bureau. See [Creating a Credit Bureau Record](#).
- 2 Associate the Credit Bureau with a business unit. See [Associating a Credit Bureau with a Business Unit](#).

Creating a Credit Bureau Record

Use this SQL script to create a credit bureau record:

```
INSERT INTO CreditBureau(id, ProviderId, Name, Street, Street2, City, State, Zip,
    URL, CreditReportType, CreditRepositoriesToRequest, CreditScoreModel)
VALUES
    (NEWID(), 'ProviderId', 'Name', 'Street', 'Street2', 'City', 'State', 'Zip' ,
    'URL', 'CreditReportType', 'CreditRepositoriesToRequest');
```

where:

- **ProviderId** – This is provided by your Credit Bureau. It is a code for use by the Credit Bureau.
- **Name, Street, Street2, City, State, Zip** – The name and address of your Credit Bureau. It is included as part of the credit report request. The specific fields required depends on the credit bureau. For example, DataFacts only requires the name. Enter only the data points required by your credit bureau.
- **https://Credit_Bureau_URL/**– The URL to access the credit bureau. For testing, the URL may include "http://" or "https://", but for production use, the URL must start with "https://".
- **CreditReportType**– The type of credit report to request. Valid values are defined by the Mortgage Industry Standards Maintenance Organization (MISMO), and include Merge, MergePlus, and RMCR (Residential Mortgage Credit Report). The default type is Merge.
- **CreditRepositoriesToRequest**– Specify up to three letters to indicate the credit repositories to request:
 - E = Equifax
 - T = TransUnion
 - X = Experian
 - To request all three Credit Repositories, set this value to "ETX".

Associating a Credit Bureau with a Business Unit

The following SQL script updates the business unit to use the first credit bureau.

Note Kofax Mortgage Agility currently only supports one business unit. See [Configuring the LOS Account](#) for instructions.

```
UPDATE BusinessUnit
SET CreditBureauId = (SELECT TOP 1 id FROM CreditBureau),
    CreditBureauUserID = 'USER_NAME',
    CreditBureauPassword = 'YOUR_PASSWORD',
    CreditBureauCompanyID = 'BankRight',
    CreditReportType = 'Merge',
    CreditRepositoriesToRequest = 'ETX'
```

where:

- **USER_NAME** is the user name to use with the credit bureau.
- **YOUR_PASSWORD** is the password to use with the credit bureau.
- **BankRight** is the company ID assigned by the credit bureau.
- **Merge** is the credit report type desired. This value overrides the credit report type defined on the CreditBureau record.
- **ETX** is the list of credit repositories to request. This value overrides the credit bureaus to request defined on the CreditBureau record. The value "ETX" requests results from all three major credit bureaus.

This query uses the first credit bureau from the CreditBureau table. If you only have the credit bureau that you created in [Creating a Credit Bureau Record](#), this will be that credit bureau. If you have more than one credit bureau, use the id field from the CreditBureau table.

Example:

```
UPDATE BusinessUnit
SET CreditBureauId = '6C419DD8-137D-46CF-9EC7-80FC299CAFB3', CreditBureauUserID =
    'USER_NAME',
    CreditBureauPassword = 'YOUR_PASSWORD', CreditBureauCompanyID = 'BankRight',
    CreditReportType = 'Merge',
    CreditRepositoriesToRequest = 'ETX'
```

Or, more generically:

```
UPDATE BusinessUnit
SET CreditBureauId = 'ID', CreditBureauUserID = 'USER_NAME',
    CreditBureauPassword = 'YOUR_PASSWORD', CreditBureauCompanyID = 'BankRight',
    CreditReportType = 'Merge',
    CreditRepositoriesToRequest = 'ETX'
```

Integrating with the US Postal Service (USPS)

Kofax Mortgage Agility integrates with the USPS website to verify that the property address exists and to format the address.

Kofax Mortgage Agility uses the **RobotUSPS** server variable to store the name of the Kapow Robot you run to integrate with the USPS website. You can also rename the Robot as needed.

Integrating with TheWorkNumber.com

Use Kofax Mortgage Agility with TheWorkNumber.com to verify borrower employment. This is a fee-based service.

Modify the following Server Variables settings as needed for your environment:

- **Robot:** The name of the Kapow Robot that is run to integrate to the TheWorkNumber.com. You can rename the Robot here if you want to use a different Robot (rather than modifying the Kofax-provided Robot). Otherwise, do not change this value.

- **twnAnswer1 through twnAnswer6:** When you create an account in TheWorkNumber.com, you must select 6 security questions and provide a security answer for each question. Enter the answers to the 6 questions.

Note These must be exactly the same answers you entered when you created TheWorkNumber.com account. Each time you log on, TheWorkNumber.com will ask you to respond to one of these security questions.

- **twnPassword:** The password used by the Robot when it logs into TheWorkNumber.com.
- **twnQuestion1 - 6:** Enter the 6 questions you selected when you created TheWorkNumber.com account.

Note These must be exactly the same questions you selected when you created TheWorkNumber.com account.

- **twnRecentLastName** and **twnRecentReferenceNumber:** TheWorkNumber.com may request to call a user to ensure that the account has not been compromised. Alternatively, they accept a name and reference number from a recent request. Kofax Mortgage Agility automatically saves the last name and reference number here when a borrower is detected on TheWorkNumber.com so that future calls to TheWorkNumber.com can respond. This value is updated automatically. During the initial configuration, or when changing the twnUser, set a recent value to allow the Robot to respond appropriately.
- **twnUserName:** The user name used by the Robot when it logs into TheWorkNumber.com. Kofax recommends that you create an account that will be used only by Kofax Mortgage Agility .

Configuring with Kapow

A Synthetic API has the ability to use a web site from Kofax Mortgage Agility or other system as a utility. Use Kapow to create Synthetic APIs.

- In Kofax Mortgage Agility the web site is viewed as a called program.
- From the perspective of the web site, Kofax Mortgage Agility is a user.
- A Robot is a Kapow script designed to navigate the target web site to collect or update the desired information.
- Options are configured as Server Variables in the Kofax TotalAgility Designer used with Kofax Mortgage Agility.

To use Synthetic APIs, configure Kapow as follows:

- 1 Navigate to **Data > Manage/Server Variables**.

Note Server variables are shared by all Robots used in Kofax Mortgage Agility.

- 2 Set Category to **All**.
- 3 Kofax Mortgage Agility is delivered with settings for these Server Variables. Configure the variables according to your environment:
 - **RobotCluster:** Kapow uses clusters to allocate server resources so that Robots can be appropriately prioritized and impact can be controlled. See the Kapow documentation for more information. There are two default clusters defined: Production and Non-Production. Use the Production cluster for your Production copy of Kofax Mortgage Agility. Use the Non-Production clusters for Development, QA, UAT, and so forth.

- **RobotHost:** This is the name of the server that hosts Kapow.
- **RobotHostPort:** This is the IP port on which Kapow listens for requests. This 50000 by default.
- **RobotHostSSL:** Indicates if communication between Kofax Mortgage Agility and Kapow uses SSL. If both servers are behind the same firewall, this may not be necessary, however, for highest security, Kofax recommends using SSL. Configuration of SSL Certificates in Kapow is beyond the scope of this document.
- **RobotRepositoryProject:** Kapow allows segregation of Robots into "Projects" within the repository. See the Kapow documentation for more information. The "Default project" where you installed the KMA-provided scripts above. See [Uploading Robots to Kapow Server](#).
- **RobotRepositoryURL:** The URL of the server where the repository of Robots is located. This URL should include the server name (or IP address) and the port. The default port is 50080.
- **RobotRepositoryTimeout:** This is the number of milliseconds a Robot should be allowed to run before Kapow aborts the Robot. The default is 60 seconds.

Installing Analytics for Mortgage Agility

If you are using Analytics for Mortgage Agility, install the Insight software.

If you are not using Analytics for Mortgage Agility, proceed to the next section.

Before installing Mortgage Analytics ;you must install KofaxAnalytics-1.0.0_For_TotalAgility

Creating a Mortgage Project

1 Select **All Programs > Altosoft > Administration** and select **Installation Manager**.
The Installation Manager appears.

2 Enter log in information and click **OK**.

Note The default password is *password* .

3 Select **New Project**.

The New Project window appears.

4 Enter a **Project Name**, for example, Mortgage.

5 Under Destination Database Settings, select the Connection Type.

6 Enter the SQL Server Name.

Note Kofax advises to use SQL authentication to access the databases.

7 Select **Create/Initialize Databases**.

8 Enter the Metadata Database Name, for example, Mortgage_Meta.

9 Enter the Data Database Name, for example, Mortgage_Data.

10 Enter the Staging Database Name, for example, Mortgage_Staging.

11 Click **OK** .

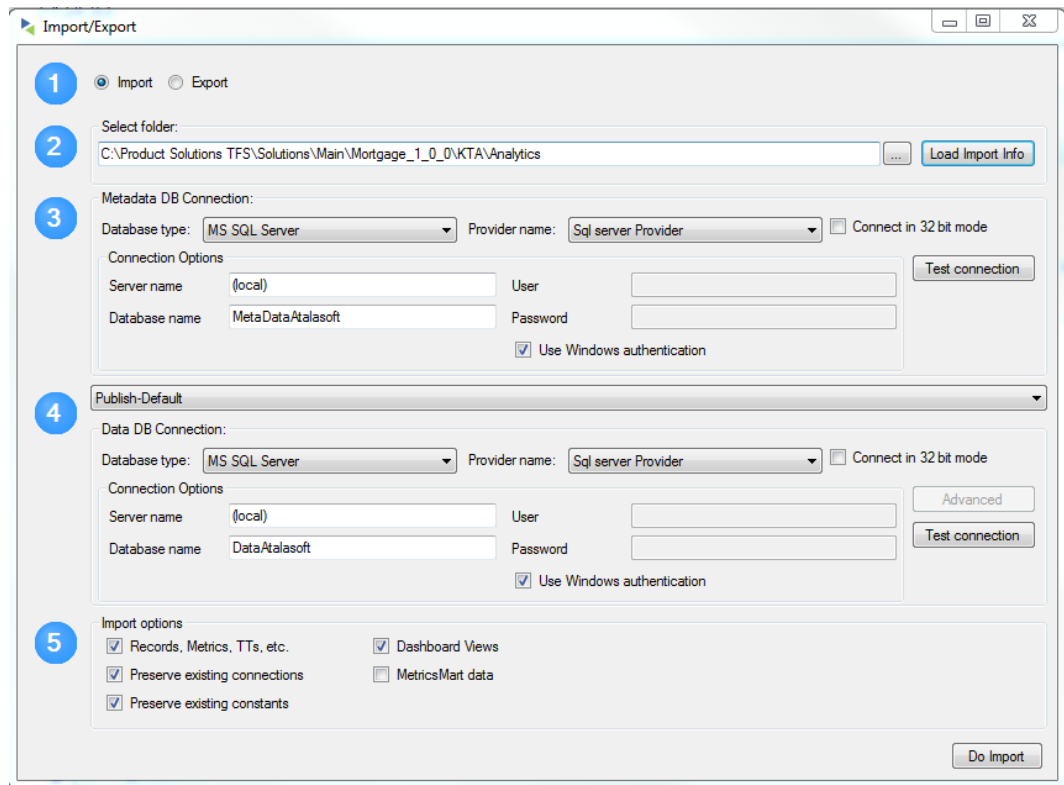
The Insight project and the databases are created.

Note If you have other Insight Projects on your system, please create new databases for this project.

Importing Data

1 Select **All Programs > Altosoft > Administration** and select **Import-Export**.

2 Open the **Import-Export** window and do the following:



- 3 Select **Import**.
- 4 In the Select Folder area, click the ellipsis. Select the **Analytics** folder in the build folder and click **Loan Import Info**.
- 5 In the Metadata DB Connection and Data DB Connection groups, enter the connection settings for the databases you have set up and click **Test Connection**.
Test Connection should succeed for both.
- 6 In the Import Options group, select the **MetricsMart Data** option.
- 7 Click **Do Import**.
Confirm that the data imported successfully.

Checking Installation Manager Setup

- 1 Select **All Programs > Altosoft > Administration > Admin**
- 2 Select the **Projects** window and confirm the User created in *Installing Kofax Analytics for TotalAgility* is a project user.
- 3 In the Roles window:
 - a Confirm the User created in installing Kofax Analytics For TotalAgility is a member of the Insight Users and Insight Admin Roles.
 - b Confirm the Insight Users and Insight Admin Roles have Access Rights to the Mortgage Project.

Checking the Kofax TotalAgility Setup

- 1 On the TotalAgility Home page, select **Process Designer > Resources**.
- 2 Add the users that you want to access the Analytics to the Insight Users and Insight Admin Roles groups you created in the Kofax Analytics for TotalAgility installation.
- 3 Open Insight Designer and the Mortgage project.
- 4 In Project Explorer, right click **Mortgage Overview** and select **Get URL**.
- 5 Copy the **Viewer URL**.
- 6 In Kofax TotalAgility Designer, select the **Form Designer > Global Variables**.
- 7 Select the **Mortgage** filter and the **Update the Analytics Site** variable. Update the Value field with the URL you previously copied.
- 8 Update the Value field with the URL you copied in step 5.

Example:

```
http://127.0.0.1/View/?  
ProjectId=c2ee0a5c-6456-4695-87c6-53ba916d359e&ViewId=0a5c899a-e996-4d2f-  
b625-6b8044c2c9ca&session_id=6DEDB24A200F4750B609721785235A0C
```


Installing on Azure

When using Kofax Mortgage Agility on Azure, no changes are required for your Kofax TotalAgility installation.

Extending Kofax Mortgage Agility

The Kofax Mortgage Agility application is fully configurable and can be extended with all the Kofax TotalAgility workflow and integration functionality to meet your business requirements.

The following instructions assume you have a thorough understanding of the following Kofax products:

- Kofax Capture (KC)
- Kofax Transformation Modules (KTM)
- Kofax TotalAgility (KTA)
- Altosoft Insight
- Kapow

Refer to the existing documentation for the other Kofax products used within the framework for additional installation and configuration help. Classroom and computer-based training is available for Kofax products. Visit the Kofax website at <http://www.kofax.com> for complete details about the available training options and schedules.

Managing Resources

You can import resources into TotalAgility using the Active Directory synchronization process in the System Category. You can copy and update this map.

Important Each resource must have an email address.

Adding Resources

You can add resources to many groups within many Kofax TotalAgility categories; this means the resource can take activities across multiple business units (TotalAgility Categories).

You can add resource groups and users in the Resource window. They must be valid Kofax TotalAgility resources.

- 1 Open the Kofax TotalAgility Designer window.
- 2 On the home page, click **Resources > Resource**
For additional information, please see the Kofax TotalAgility Designer online help.

Separation, Classification, Extraction, Formatting, and Validation

You can configure Separation, Classification, Extraction, Formatting and Validation for the Capture project to suit your documents.

A sample Capture project is included with the application and is imported along with the process.

Configure your system according to the documents you wish to capture in Transformation Designer.

Mortgage Processes

The framework provided allows the borrower to upload documents and submit the application. Once an application is submitted, the mortgage process must be extended to follow the workflow required by the customer.

Validating Form Fields

Basic validation has been added to Kofax TotalAgility forms. Configure Form Fields according to your business requirements.

Configuring the Loan Number

This is defined in the capture processes as a default string plus a server variable and is incremented for each new case. To ensure uniqueness, customize this configuration according to your business requirements: "MOR" + [Case Ref Min Value]

Setup Customer Specific Activity SLAs

The processes can be extended to setup SLAs for each manual activity. To do this, open the tasks in the process and assign SLA, lead time, and task duration.

Session ID

Caution Regenerating your Session ID in KTA Designer requires re-mapping of your Session ID APIs on the Mortgage WebCapture and Pre Qualification forms.

Electronic Signature

Some documents required by the case must be signed by the borrower. These documents are presented to the borrower in the portal and the borrower is required to type their name and date the document. This constitutes their electronic signature.

If necessary, customize this process for your company method of confirming digital signatures.

Pre Qualified CNJ

This uses the system session ID and may need to be configured on the Pre-Qual form if you change the session ID.

From KTA

- In TotalAgility, open the System Settings and click on **Settings**.
- In the General tab verify that the Session Id matches the Create New Job action on the Pre Qualification form.

Housekeeping

it is a good practice to define and set up Job Clear Down based on legal requirements for keeping old completed jobs.

Note You can extend the search functionality to include archived jobs if required.

Logout

The KTA workspace logout (Internal BankRight Logout) redirects the user to logon and therefore to the workqueue if single sign on is configured. The Portal header logout redirect the Borrower to the Landing page. Customize this as needed.

Handling Escalations (SLAs)

In Kofax TotalAgility, configurable escalations can be added to any activity or process.

- A trigger process can be used if you need to track escalations or if the customer requires a more extensive escalation process.
- A trigger activity could be created if the customer only requires a single manually activity for the escalation.

Work Type Definition Fields

Fields that are important to the Mortgage process are maintained in the work type.

- These are defined in the **Mortgage WorkType** section.
- New fields can be added as needed.
- These fields can be displayed on a custom WorkQueue, from which users take and complete activities.

Navigation / Theme / Header

The SPA is designed to be imported into an existing customer configuration or the Kofax TotalAgility workspace. Customize the Navigation, Theme, and Header.

Handling Exceptions

In Kofax TotalAgility, configurable exceptions can be handled on any process. Exceptions can be:

- Handled at process level
- Handled at server level
- Built into the process flow
- Handled manually

Configuring Form Field Validations

Use basic validation functionality included with Mortgage Agility. You can configure additional validation according to your specific business requirements.

Configuring Loan Numbers

This is set in the Capture processes to the borrowers email address and can be configured as required.

Configuring Field Extractions

When the borrower uploads documents in the loan portal, Capture jobs are automatically started once the documents are saved. The specific process that starts depends on the pre-selected document type.

First, for a submitted Document, a job for the *Capture Documents* process is started to check that the document is in good order. Not-in-good-order (NIGO) checking includes:

- Are the pages scanned in the correct order?
- Is the document of the type that the user selected?

If a document is NIGO, it is routed to an operator for Document Review.

If the document is in good order, or if the Document Review operator repaired it, a new job is created using a specific document type process:

- Capture 1003 process
- Capture Drivers License Process
- Capture SSC
- Capture W2
- Capture Paystub

These processes all include the following activities:

- 1 Image Processing Activity: Optimizes the image specific to each document type and includes binarization, deskewing, cropping, and more.
- 2 Classification Activity: Classifies the correct internal Document Type used for Extraction.
- 3 Extraction Activity: Extracts the data fields defined.

Each of these processes uses the following classification and extraction groups:

Classification Groups

- 01_1003_Loan_Application
- 03_Social_Security_Card
- 04_Drivers_License
- 05_W2
- 07_Paystubs
- 1003_Additional_Pages

Extraction Groups

- 01_1003_Loan_Application
- 03_Social_Security_Card
- 04_Drivers_License
- 05_W2
- 07_Paystubs
- 1003_Additional_Pages

Extending the Supported Document Types

You can add additional document types for use in additional Classification and Extraction groups used by other Capture processes. Include the new document types in the general Capture Documents process, similar to the existing document types.

Modifying the Capture Documents Process

A process is a logical flow of activities that must be completed in a business.

A normal process, based on a process map, runs through a set of steps that must be completed in a specific order. For example, the process of requesting a loan consists of several steps that must occur in a logical sequence: getting customer details, getting loan approval, and contacting the customer.

Before designing a process map, familiarize yourself with the different elements of the Process Designing Interface.

- 1 On the Home page, click **Process Designer > Process**.

The System creates a new map with some default properties.

Note the following:

- By default the Modeling bar is open, and the Process model is selected.
- The default properties of the map appear under Properties.
- The Start node appears on the canvas; the Start node has a satellite to add an activity, decision, annotation, attachment, and End node.

- 2 Complete the following:

- 1 Add an activity.
- 2 Add a decision (optional).
- 3 Add an annotation (optional).
- 4 Add an attachment (optional).
- 5 Add an end node.
- 6 Configure the properties of the process.
- 7 Save and release the map.

- 3 Optionally, add pools, lanes and collaboration activities to your process map.

- 4 To link two activities, select one activity node and drag it to the other activity.

Note As you drag between activities and nodes a blue line appears indicating the connection.

- 5 To display the map without pools, under Properties, click **Off** for Pools.

Creating New Classification and Extraction Groups

You can add additional document types for use in additional Classification and Extraction groups used by other Capture processes. Include the new document types in the general Capture Documents process, similar to the existing document types.

Define a Classification Group

A classification group is a group of extraction groups. You can define a classification group and classify documents accordingly.

You can include a single extraction group in many classification groups.

Add an Extraction Group

An extraction group includes one or more document types. Use document types to classify and process documents.

Add New Document Types to an Extraction Group

The properties of a document type belong to the following categories:

- General
- Validation
- Field Validation
- PDF Generation

When you create a new document type, keep in mind that a child document type inherits from the parent.

Define Field Formatting and Validation

You can define formatting and validation on a field.

To extract these additional fields, open the Extraction group in the Transformation Designer and create locators to extract the desired data. Assign the locator result to the new field.

This requires knowledge of setting up Transformation projects for Extraction Groups.

Please refer to the Transformation Designer documentation for instructions. Also refer to *Kofax TotalAgility Help* for information about creating New Classification and Extraction Groups.

Using Kofax Mortgage Agility

Starting a Loan Application

Borrowers can register with the mortgage lender and authorize a credit review.

Note Loan applications can also be entered as follows by the loan officer, or uploaded via 1003 form data.

- 1 Enter the following details:
 - Firstname
 - Lastname
 - Email
 - Social Security Number (SSN)
 - Address
- 2 Check **Pull Credit Authorization**.

Note The user cannot submit a loan application with without authorizing a credit review.

- 3 Click **Register**.
 - A Mortgage case is created.
 - A password is emailed to the Borrower.
 - The credit data is added to the Borrower Profile.

The Borrower is directed to the bank's landing page where they can perform the following tasks:

- Navigate to the pre-qualification calculator to calculate payments
- Login to an existing application
- Start a different loan registration request

Registering with a Lender

After registering for an loan application, borrowers receive a loan application invitation email invitation from the lending institution.

The email contains the following detail:

- Loan application link
- Link to webpage with details to download the Mobile App
- Name of the Loan Officer who sent the invitation

Click the email link to start the application process. The Register window appears.

Pre-Qualifying a Loan

The Borrower can perform the following tasks:

- Enter pre-qualification data and calculate payments to see if they are likely to qualify for a loan based on minimum credit and maximum DTI % set by the lender.
- View bank branch contact information
- Register for an application

1 Enter the following details:

- Firstname
- Lastname
- Email
- Purchase price
- Requested loan amount
- Requested loan term
- Gross Monthly Income
- Monthly Expenses
- Estimated Credit Score
- Additional Payment

2 Click **Calculate**.

The calculation results appear.

- Principal and Interest
- Proposed Monthly Payment
- Debt to Income percentage

If the Initial Calculations indicate the borrower does not meet the minimum requirements, they are directed to consult with a loan representative. If the borrower qualifies, they are directed to upload the required loan application documents.

Adding Required Documents

The borrower can upload documents required in the loan application. The data extracted from these documents pre-populates the application profile.

Use links to locate valid documents. You can also upload data from a mobile device or tablet computer.

1 On the **Loan Application-Documents** screen, select each of the documents required and click **Upload**.

Data is extracted from the documents and validated.

2 Click **Scan** to scan a Social Security Card, or navigate to a folder where you saved an image of your Social Security Card.

3 Click **Save**.

The document uploads for processing.

4 Scan or upload W2 forms.

- 5 Scan or upload Paystubs.
- 6 Scan or upload Driver License.
- 7 Click **Next**.
The documents upload to the system and the Load Information window appears.

Entering Loan Information

Note You can click **Documents** to return to the previous window and upload additional documents.

- 1 Enter the following Types and Terms for the loan request.
 - a Amount Applied For:
 - b Purchase Price:
 - c Downpayment
 - d Downpayment %:
 - e Desired Loan Type:
 - f Desire Loan Amortization:
 - g Loan Term:
- 2 Enter the purpose of the loan and property information.
 - a Purpose of Loan:
 - b Subject Property Occupancy:
 - c No of Units:
- 3 Refinance

Note This section will only appear if Refinance is selected.

 - a Purpose of refinance:
 - b Year acquired:
 - c Original Cost:
- 4 Click **Next**.
The data is saved to the Borrower Profile.

Entering Personal Information and Employer Status

Note If you have uploaded required documents, this window is pre-populated with information extracted from those documents.

You can:

- Click **Documents** to upload additional documents
- Enter the required information.
- Enter the required co-borrower information.

- Click **Back** to return to Type, Terms and Purpose.

1 Enter the following personal information:

a Name:

Note This information is pre-populated if a Social Security Card is processed.

b alternative name:

c DoB:

d Marital Status:

e Years in School:

f No of Dependents:

g Age of Dependents:

h Present Address 1:

i Present Address 2:

j City:

k State:

l Zip:

2 Enter the following employer status:

Note The information pre-populates if a W2 has been processed.

a Select an employer from the table.

b Click current employer and click **Update**.

3 Click **Next**.

The data is saved to the Borrower Profile.

Assets, Declarations and Government Monitoring

This window is pre-populated with information extracted from the documents uploaded earlier in this workshop.

The borrower can

- Click the Documents button to go back and upload documents
- Enter the required information
- Enter the required co-borrower information
- Click **Back** to return to Personal Information, Employer Status
- Click **Submit** to submit the application

In this workshop, the Borrower will enter the answers required for a borrower only such as assets, declarations, and government monitoring.

1 Enter the following asset information:

a Total Liquid Assets: **\$70000**

b Real Estate owned: <enter an address>

- c Click **Add**.
 - 2 Declarations
 - a Outstanding Judgements: **No**
 - b Bankruptcy: **No**
 - c Property Foreclosed: **No**
 - d Party to a lawsuit: **No**
 - e Obligated on Foreclosed loan: **No**
 - f Delinquent or default: **No**
 - g Alimony: **No**
 - h Downpayment Borrowed: **No**
 - i Co-maker or endorser: **No**
 - j Are you a US Citizen: **Yes**
 - k Permanent Resident alien: **No**
 - l Primary residence: **Yes**
 - m Ownership Interest: **Yes**
- In this workshop, keep the default information.

- 3 Government Monitoring
 - a Ethnicity: American Indian or Alaska native: Check

- 4 Click **Complete**.
An event is raised to the mortgage case and the data is saved to the Borrower Profile.

Processing Loan Documents

- 1 The Document Review Team logs on to the internal system to process the loan application.
The **WorkQueue** appears.

Note If the Borrower uploaded a document and the system classification differs from the expected document type, the Document Review team will confirm the classification
- 2 In the WorkQueue, select **Document Review**.
- 3 Complete the classification task.
The WorkQueue appears. The WorkQueue contains a validation task for all uploaded documents that failed validation.
- 4 Review and confirm the Extraction data to complete the validation tasks for the following:
 - Social Security Card
 - W2
 - Paystub
 - Driver License

If a task is not validated, a message appears.

- 5** On the Loan Application window, click **Submit**.

When all uploaded documents have been processed, the mortgage case is alerted and progresses.

Configuring Mobile or Tablet

Kofax Mortgage Agility is configured for web, mobile devices, and tablets. The forms provided for each platform provide similar functionality and follow the same processes. These forms and processes can be configured and extended as required.

Configuring Analytics

Data Sources

Mortgage Agility uses the following Data Sources and Tables:

- Data Source - Kofax TotalAgility database (TotalAgility)
 - Table - dbo.JOB
 - Table - dbo.LIVE_WORK_QUEUE_DEFINITION
 - Table - dbo.JOB_HISTORY
- Data Source - Mortgage custom database (Mortgage)
 - Table - dbo.GovernmentMonitoring

Records

Government Monitoring

The following database table is used:

- dbo.GovernmentMonitoring

The following fields will be brought back into the record:

- BorrowerID - dbo.GovernmentMonitoring.BorrowerID
- Date Submitted - dbo.GovernmentMonitoring.DateSubmitted
- Ethnicity - dbo.GovernmentMonitoring.Ethnicity
- Gender - dbo.GovernmentMonitoring.Gender
- Loan Officer - dbo.GovernmentMonitoring.LoanOfficer
- Month - custom field
- Race - dbo.GovernmentMonitoring.Race
- US State - dbo.GovernmentMonitoring.USState
- Year - custom field

For the custom fields mentioned above, the following rules have been put in place:

- Month: Month = GET_MONTH(DateSubmitted)
- Year: Year = GET_YEAR(DateSubmitted)
- There are no filters applied to this record.

HDMA Reporting

The following database tables are used:

- dbo.JOB
- dbo.LIVE_WORK_QUEUE_DEFINITION
- dbo.JOB_HISTORY

The following fields will be brought back into the record:

- Application Date - dbo.JOB.CREATION_TIME
- Borrower Name - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD2VALUE

- Dwelling Occupancy - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD7VALUE
- Income - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD9VALUE
- Income - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD9VALUE
- Loan Amount - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD4VALUE
- Loan Number - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD3VALUE
- Loan Officer - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD11VALUE
- Loan Purpose - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD5VALUE
- Loan Type - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD6VALUE
- Mortgage Type - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD10VALUE
- Property State - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD12VALUE
- Units - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD8VALUE

Apply the following filter to this record:

- PROCESS_NAME = "Mortgage Loan Application" AND (JOB_STATUS == 1 OR JOB_STATUS == 0)

Loan Officer Performance

The following database tables are used:

- dbo.JOB
- dbo.LIVE_WORK_QUEUE_DEFINITION

The following fields will be brought back into the record:

- Application Date - dbo.JOB.CREATION_TIME
- Borrower Name - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD2VALUE
- Branch - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD15VALUE
- Loan Amount - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD4VALUE
- Loan Number - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD3VALUE
- Loan Officer - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD11VALUE
- Loan Purpose - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD5VALUE
- Month - custom field
- Product - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD6VALUE
- Property State - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD12VALUE
- Quarter - custom field
- Region - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD14VALUE
- Underwriter - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD13VALUE
- Underwriter - dbo.LIVE_WORK_QUEUE_DEFINITION.FIELD13VALUE
- Week - custom field
- Year - custom field

The following database tables are used:

- Month:

```
Month = GET_MONTH(CREATION_TIME)
```

- Quarter:

```
Quarter = CASE WHEN 1 <= Month <= 3 THEN "Quarter 1"
              WHEN 4 <= Month <= 6 THEN "Quarter 2"
              WHEN 7 <= Month <= 9 THEN "Quarter 3"
```

```

    WHEN 10 <= Month <=12 THEN "Quarter 4"
Week: Week = DATEPART(wk, CREATION_TIME)
Year: Year = GET_YEAR(CREATION_TIME)

```

The following filters are applied to this record.

- Dbo.JOB - This filter will be applied so that only Mortgage Loan Application cases are displayed.
- PROCESS_NAME = "Mortgage Loan Application"

Metrics

Gov Monitoring

- Type: Pre-Processed Metric on Record
- Base on: Government Monitoring Record.
- Record field Date Submitted
- Definition: COUNT() for all records Government Monitoring

Gov Monitoring OnDemand

- Type: On-Demand Metric
- Source Tables: Root Record - Government Monitoring
- Fields used:
 - Date Time - Date Submitted
 - Ethnicity - Ethnicity
 - Gender - Gender
 - Loan Officer - Loan Officer
 - Month - Month
 - Race - Race
 - US State - US State
 - Value - __Count
 - Weight - custom
 - Year - Year

Apply the following filters to this record.

- Date Submitted >= DATEADD(mm, -6, <ToDate>) AND Date Submitted < <ToDate>
- Translation Table - Month Name
- Item ID Name
 - 1 January
 - 2 February
 - 3 March
 - 4 April
 - 5 May
 - 6 June
 - 7 July
 - 8 August
 - 9 September
 - 10 October
 - 11 November
 - 12 December

Loan Count

- Type: Pre-Processed Metric on Record
- Base on: Loan Officer Performance.
- Record field: Application Date
- Definition: COUNT() for all records Loan Officer Performance

Configuring a Custom Database

You can customize your database according to your business process. The standard database schema is shown below. It is important to make a backup copy of you database prior to customization.

[dbo].[BusinessUnit]

This table contains information about a company, or a branch within a company, for pulling credit.

```
KEY [id] [uniqueidentifier] NOT NULL,
[ParentId] [uniqueidentifier] NULL,
[BranchId] [nvarchar](50) NULL,
[Name] [nvarchar](100) NULL,
[Street] [nvarchar](100) NULL,
[Street2] [nvarchar](100) NULL,
[City] [nvarchar](100) NULL,
[State] [nvarchar](2) NULL,
[Zip] [nvarchar](10) NULL,
[Contact] [nvarchar](100) NULL,
[CreditBureauId] [uniqueidentifier] NULL,
[CreditBureauUserID] [nvarchar](100) NULL,
[CreditBureauPassword] [nvarchar](100) NULL,
[CreditBureauCompanyID] [nvarchar](100) NULL,
[CreditReportType] [nvarchar](10) NULL,
[CreditRepositoriesToRequest] [nvarchar](3) NULL,
[CreditScoreModel] [nvarchar](100) NULL,
[CreditScoreSelectionLogic] [nvarchar](10) NULL,
[Comment] [ntext] NULL,
[LastUpdated] [datetime] NULL,
[LastUpdatedBy] [nvarchar](100) NULL,
```

[dbo].[CreditBureau]

This table contains information about credit bureaus used to pull credit records.

```
KEY [id] [uniqueidentifier] NOT NULL,
[ProviderId] [nvarchar](50) NULL,
[Name] [nvarchar](100) NULL,
[Street] [nvarchar](100) NULL,
[Street2] [nvarchar](100) NULL,
[City] [nvarchar](100) NULL,
[State] [nvarchar](2) NULL,
[Zip] [nvarchar](10) NULL,
[URL] [nvarchar](max) NULL,
[CreditReportType] [nvarchar](10) NULL,
[CreditRepositoriesToRequest] [nvarchar](3) NULL,
[CreditScoreModel] [nvarchar](100) NULL,
[CreditScoreSelectionLogic] [nvarchar](10) NULL,
[Comment] [ntext] NULL,
[LastUpdated] [datetime] NULL,
[LastUpdatedBy] [nvarchar](100) NULL,
```

[dbo].[CreditReport]

This table contains Audit of Credit reports received.

```
KEY [CreditRequestId] [uniqueidentifier] NOT NULL,
[CaseReference] [nvarchar](50) NOT NULL,
[Report] [xml] NOT NULL,
[Response] [datetime] NOT NULL,
```

[dbo].[Dictionary_Currency]

This table is used in capture project and to define a list of valid currency codes.

```
KEY [CurrencyID] [nvarchar](50) NOT NULL,
  [CurrencyName] [nvarchar](3) NOT NULL,
  [CurrencyActive] [bit] NOT NULL,
  [Description] [nvarchar](max) NOT NULL
```

[dbo].[CreditRequest]

This table contains a history of credit report requests.

```
KEY [id] [uniqueidentifier] NOT NULL,
  [CaseReference] [nvarchar](50) NOT NULL,
  [BusinessUnitId] [uniqueidentifier] NULL,
  [Requested] [datetime] NOT NULL,
  [RequestedBy] [nvarchar](100) NOT NULL,
  [Request] [xml] NOT NULL,
  [Response] [datetime] NULL,
  [CreditReportReferenceNumber] [nvarchar](100) NULL,
  [ErrorMessage] [nvarchar](max) NULL,
```

[dbo].[CreditScoreMatrix]

This table is used to hold the credit score matrix definition. Entries from the administration screen are written displayed on the Pre Qualification screen.

```
KEY [CreditID] [int] IDENTITY(1,1) NOT NULL,
  [CreditRate] [nvarchar](20) NOT NULL,
  [MinValue] [smallint] NULL,
  [MaxValue] [smallint] NULL,
  [InterestRate] [decimal](6, 2) NULL,
```

[dbo].[DataSourcePriority]

This table is used to define the priority order of document data fields. This information is used in validation to determine whether data extracted matches the data already received.

```
KEY [FieldID] [nvarchar](max) NOT NULL,
  [Field] [nvarchar](50) NOT NULL,
  [DataSource] [nvarchar](50) NOT NULL,
  [Rank] [int] NOT NULL
```

[dbo].[DocumentClassification]

This table tells the process what fragment to call in order to process each scanned and extracted document.

```
[ExtractionGroup] [nvarchar](50) NULL,
  [CaseFragment] [nvarchar](50) NULL,
KEY [FragmentID] [nvarchar](50) NOT NULL
```

[dbo].[DocumentReceived]

This table contains an Audit of Documents received from the borrower. This data is displayed on the Upload documents screen and in the Borrower Summary.

```
KEY [InstanceID] [nvarchar](50) NOT NULL,
  [CaseReference] [nvarchar](50) NULL,
  [DocumentType] [nvarchar](50) NOT NULL,
  [Status] [nvarchar](50) NULL,
  [DateReceived] [datetime] NOT NULL
```

[dbo].[DocumentRequired]

This table contains a list of documents required by the Mortgage case. This data is used on the Upload documents screen so the borrower can manually classify the images they upload.

```
KEY [DocumentID] [nvarchar](50) NOT NULL,
  [DocumentType] [nvarchar](50) NOT NULL,
  [Required] [bit] NULL,
  [DocumentClassification] [nvarchar](max) NULL,
  [Formname] [nvarchar](50) NULL,
```


[dbo].[KLOSCodeMap]

This table contains translations of codes or values in the borrower profile to the equivalent code or value in the LOS.

```
KEY [TargetSystem] [nvarchar](100) NOT NULL,
KEY [CodeTable] [nvarchar](100) NOT NULL,
KEY [KTAMValue] [nvarchar](100) NOT NULL,
[TargetValue] [nvarchar](100) NULL,
[Active] [bit] NULL,
[KofaxProvided] [bit] NULL,
[Comment] [nvarchar](max) NULL,
[LastUpdated] [datetime] NULL,
[LastUpdatedBy] [nvarchar](100) NULL,
```

[dbo].[KLOSFieldMaps]

This table contains maps for equivalent fields between the borrower profile and the LOS.

```
KEY [id] [uniqueidentifier] NOT NULL,
[FieldGroup] [nvarchar](100) NOT NULL,
[KTAMXpath] [nvarchar](max) NULL,
[TargetSystem] [nvarchar](100) NOT NULL,
[TargetFieldGroup] [nvarchar](100) NULL,
[TargetField] [nvarchar](100) NOT NULL,
[TargetSequence] [int] NOT NULL CONSTRAINT [DF_KLOSFieldMap_TargetSequence] DEFAULT
((10000)),
[CodeTable] [nvarchar](100) NULL,
[Active] [bit] NULL,
[KofaxProvided] [bit] NULL,
[Comment] [nvarchar](max) NULL,
[LastUpdated] [datetime] NULL,
[LastUpdatedBy] [nvarchar](100) NULL,
```

[dbo].[LoanApplication]

This table holds the Borrower profile data.

```
KEY [CaseReference] [nvarchar](50) NOT NULL,
[Data] [xml] NULL,
[Extracts] [xml] NULL
```

[dbo].[LookUp]

This table is used to hold text and values for all dropdown lists on the form.

```
KEY [LookUp] [nvarchar](50) NOT NULL,
KEY [ListDescription] [nvarchar](50) NOT NULL,
[ListValue] [nvarchar](50) NULL,
[SortOrder] [smallint] NULL,
```

[dbo].[DocumentSections]

This table is used to control the screens in the mobile and tablet forms.

```
KEY [DocumentSection] [nchar](50),
[Form] [nchar](50) NULL,
[Status] [nchar](50) NULL,
KEY [CaseRef] [nchar](30),
KEY [SortOrder] [int],
[device] [nchar](10) NULL,
[Complete] [bit] NULL,
KEY [Borrower] [nvarchar](20)
```

[dbo].[TestBorrower]

This table is used to build demonstration data mortgage jobs to populate Analytics.

```
[BorrowerID] [bigint] IDENTITY(1,1) NOT NULL,
[FirstName] [nvarchar](50) NULL,
[LastName] [nvarchar](50) NULL,
[AddressStreet] [nvarchar](50) NULL,
[AddressCity] [nvarchar](50) NULL,
[AddressState] [nvarchar](50) NULL,
```

Configuring a Custom Database

```
[AddressZip] [nvarchar](50) NULL,  
[Email] [nvarchar](150) NULL,  
[Telephone] [nvarchar](50) NULL,  
[SSN] [nvarchar](50) NULL,
```

Functional Walkthrough

No images have been provided as the image required contain sensitive information and as such the demonstrator must obtain images they wish to demonstrate with. Image quality must be high (300dpi)

This guide includes a walkthrough and workshops to help you become familiar with the features of the system. This walkthrough shows an example of a mortgage process to manage both the internal and external tasks that influence how to extend your installation for your business requirements. The walkthrough is not intended for use as your production system.

Workshops provide scenario-based functional walkthroughs of the framework. They do not walk through all functionality but are a good way to improve your understanding of the framework.

The Kofax Mortgage Agility transforms the traditional paper-based mortgage process by actively engaging borrowers, eliminating manual and error-prone steps, and integrating directly with your loan-origination systems and third-party services.

Resources and Passwords

The functional walkthrough uses the following resources and roles:

- The password for all internal resources is “password”.
- The system will email a random 8-digit number password for the borrower resources you create.

To edit resources using the designer:

- 1 In Kofax TotalAgility, open **Resources** and click **Manage Resources**.
- 2 Edit resources as required.

External Resources (Borrowers)

External resources are the users, or Borrowers, who register for a mortgage application.

A Borrower can only have one Mortgage application open at a time. If you are performing a functional walkthrough more than once, use Job Clear Down to clear the data between each session.

Clearing Down Data

- 1 In Kofax TotalAgility Designer, select **System Setting**.
- 2 To clear all jobs, Select **Job Clear Down** and click **OK**.

Deleting External Resources

- 1 Log on to the Kofax TotalAgility Workspace.
- 2 On the Administration menu, select **Manage Resources**.
- 3 In the Resources window, filter by **Category = All** and **Type = ExternalResource**.
- 4 Select a resource and click **Delete**.

Internal Resources

TotalAgility Group	Name	Username	Password
Loan Officers	Jayce Rakes	jrakes@BankRightDummyDomain.com	password
	Katy Hanley	khanley@BankRightDummyDomain.com	password
Document Review Team	Detta Beck	dbeck@BankRightDummyDomain.com	password
	Drew Ericson	dericson@BankRightDummyDomain.com	password
Loan Admin Team	Elliott Brams	ebrams@BankRightDummyDomain.com	password
	Holly Nelson	hnelson@BankRightDummyDomain.com	password
Report Managers Compliance	Davin Rey	drey@BankRightDummyDomain.com	password
	Dawn Scott	dscott@BankRightDummyDomain.com	password
Report Managers Sales	Alexa Ward	award@BankRightDummyDomain.com	password
	Rica Edward	redward@BankRightDummyDomain.com	password

Borrower Logon URL

Borrower resources can log on using the following URL:

<http://localhost/totalagility/forms/Mortgage/loan-entry-form.form>

Note Replace localhost with the machine name or IP address as necessary.

Internal Resources Logon URL

This functional walkthrough uses BankRight internal resources. Internal resources log on using the following URL:

<http://localhost/totalagility/forms/Mortgage/mortgage-login-form.form>

Note Replace localhost with the machine name or IP address as necessary

The workshop scenarios use BankRight internal resources to perform the following tasks:

- 1 Configure the Mortgage system
- 2 Send a Loan invitation
- 3 Validate documents received
- 4 Check the Mortgage Analytics

Two Borrowers interact with the Mortgage App as follows:

- Borrower 1 will
 - 1 Do Pre-Qualification
 - 2 Register for an application
 - 3 Upload documents (Social Security Card, W2, Pay stubs, and Driver License)
 - 4 Enter remaining questions
 - 5 Submit the application
- Borrower 2 will
 - 1 Log on
 - 2 Upload a completed 1003 document
 - 3 Submit the application

Setup Demonstration Data

The steps required to create jobs and populate the database with records so that the Analytics charts contain sufficient data are as follows.

Note This job can create 1000's of records and will send emails to the dummy email addresses. Please configure these processes and data as required and confirm with your system administrator before running:

- 1 Open Kofax Mortgage Agility Workspace.
- 2 On the Navigation list, select **Jobs**.
- 3 On the Sub Menu, click **Create**.
- 4 In the Category list, select **Mortgage**.
- 5 In the Process list, select **CreateMultipleMaps**.
- 6 In Initialization Data section, change counter to the number of records you wish to populate with.

Note The default is 100.

- 7 Click **Create**.

Workshop 1: Loan Application Processing

Loan Administration

Logging On as a Member of the Admin Team

The bank wants to configure the settings that affect the pre-qualification calculation.

You will log on to the BankRight system as an Admin Team member.

- 1 On the Internal Logon window, in the Logon field, enter **ebrams@BankRightDummyDomain.com**.
- 2 In the password field, enter **password**.
The **WorkQueue** appears.

Entering Credit Detail

- 1 On the Mortgage Navigation, select **Loan Administration**.
- 2 Change the Back End DTI % to **44.000%** and click **Save**.
This information is used to calculate payments.
- 3 Select the **Good Credit Rate** row in the table and change the Min Value to **661**.
- 4 Click **Update**.
- 5 Select the **Average Credit Rate** band in the table and update the Max Value to **660**.
- 6 Click **Update**.

Note The Credit Bands appear in the Estimated Credit Score list on the Pre-Qualification window.

Emailing the Borrower

In this task, the Loan Officer sends a loan application invitation by email to Borrower 1.

- 1 On the BankRight Internal log on window, logon as a Loan Officer (**khanley@BankRightDummyDomain.com**)
- 2 On the WorkQueue window, select **Loan Invitation**.
- 3 Select **Email** and enter the Name and Email address of Borrower 1.
- 4 Click **Send Invitation**.
The Loan Officer is returned to the previous screen (WorkQueue).

Sending a Loan Application Invitation SMS

In this task, the loan officer sends a loan application using their Short Message Service (SMS).

- 1 On the navigation, select **Loan Invitation**.
- 2 On the list, select **SMS** and enter the SMS Number and Name.
- 3 Click **Send Invitation**.

Borrower Detail

Starting the Application Process

The Borrower receives the BankRight Mortgages: Loan Application Invitation email, which contains the following information:

- Loan application link
 - Link to the webpage with details to download the Mobile App
 - Name of the Loan Officer who sent the invitation
- 1 Click **Download App** to view the Download App webpage.
 - 2 Close the Download App web page.
In this scenario, the Borrower begins the loan application.
 - 3 Click the **email link**, which opens the registration window.

Borrower Registration and Pull Credit

- 1 Enter the following details:
 - Firstname: **Jesus**
 - Lastname: **Lopez**
 - Email: your email
 - SSN: **604-82-3943**
 - Address: **6388 E 55TH STREET, OAKLAND, CA, 94601**

- 2 Enable **Pull Credit Authorization**.

Note The user cannot submit a loan application without authorizing a credit review.

- 3 Click **Register**.
 - This creates a Mortgage case.
 - A password is emailed to the Borrower.
 - Credit is pulled and added to the Borrower Profile.

Landing Screen

The Borrower is directed to the BankRight Mortgage Landing page, <http://localhost/totalagility/forms/Mortgage/loan-entry-form.form>.

The Borrower can perform the following tasks:

- Navigate to the pre-qualification calculator to calculate payments
- Register and apply for a loan
- Log in to an existing application

The following scenario calculates payments.

Pre-Qualification Calculation: Does Not Qualify

After discussing the loan with the Loan Officer, the Borrower updates the calculation.

The Borrower can perform the following tasks:

- Enter Prequal data and calculate payments to see if they are likely to qualify for a loan based on minimum credit and maximum DTI % set by the lender.
- View bank branch contact information.
- Register for an application.

- 1 Enter the following details:
 - Firstname: **Jesus**
 - Lastname: **Lopez**
 - Email: your email
 - Purchase price: **\$350000**
 - Requested loan amount: **\$300000**
 - Requested loan term: **30 Years**
 - Gross Monthly Income: **\$5000**
 - Monthly Expenses: **\$500**

- Estimated Credit Score: **Excellent**
- Additional Payment: **\$500**

Note Hover over the information icon to view additional help information.

2 Click Calculate.

The calculation results appear:

- Principal & Interest: \$1432.25
- Proposed Monthly Payment: \$1932.25
- Debt to Income: 8.645%

The Initial Calculations indicate that you (the Borrower) do not meet the Minimum Requirements. Please contact Lender Representative for further information.

Consult Loan Representative

The Borrower can view the contact information for the bank branch and call or email the branch to talk to a loan officer.

- The Borrower receives the following message: “You do not meeting Minimum Requirements.”
- The Borrower phones their branch and discusses their loan with the Branch Loan Officer.
- The Borrower can proceed with the application if the Loan Officer can resolve the credit or DTI issue.

Pre-Qualification Calculation: Qualifies

After discussing the loan with the Loan Officer, the Borrower updates the calculation as follows:

1 Update the Income: **\$6000**.

2 Click Calculate.

The calculation result appears.

- Principal and Interest:
- Proposed Monthly Payment:
- Debt to Income:

Note Hover over the information icon to view additional help.

The Initial Calculations indicate that you (the Borrower) meet the Minimum Requirements.

Borrower Logon and Check Credit Date

The Borrower begins the application process.

1 On the toolbar, click **Home**.

The BankRight Mortgage Landing page appears.

2 Enter the email address registered and password from the **BankRight Mortgages: Password** email.

This redirects the Borrower to the Loan Application-Documents window.

If the Borrower has logged in and the pulled credit report is over 90 days old, the credit will be re-pulled.

Adding Documents

The Borrower can upload documents required in the loan application. The data extracted from these documents pre-populates their application profile and increases the speed of their application processing. Useful Links are available to help the Borrower get valid documents. Borrowers can also upload from mobile and tablet devices. In this workshop, you will use webcapture.

- 1 On the **Loan Application-Documents** window, select and upload each of the required documents (documents are sent for extraction and validation).
- 2 Click the folder icon and import a color SSN image.
 - a or click **Scan** to scan a Social Security Card.
 - b Click **Save**.

It is important to select the Document type for every document you upload. You must also press save after selecting a document type and uploading the document.

- 3 Select a W2 image for this borrower.
- 4 Select a Paystub image for this borrower.
- 5 Select a Driver License image or this borrower.
- 6 Click **Next**.

The documents are uploaded to the system and the Load Information window appears.

Entering Loan Information

Next, the Borrower enters the remaining loan information.

Note You can click **Documents** to return to the previous window and upload additional documents.

Type, Terms and Purpose

- 1 Click the **I have a completed 1003** button to upload a 1003.
- 2 Enter the Types and Terms for your loan request:
 - a Amount Applied For: **\$300000**
 - b Purchase Price: **\$350000**
 - c Downpayment \$: **\$50000**
 - d Downpayment %: **Calculated**
 - e Desired Loan Type: **Conventional**
 - f Desire Loan Amortization: **Fixed Rate**
 - g Loan Term: **30 years**
- 3 Enter the Property information and Purpose:
 - a Purpose of Loan: **Purchase**
 - b Subject Property Occupancy: **Primary Residence**

- c** No of Units: **1**
- 4** Skip the Refinance information.
 - Note** This section only appears if refinancing is selected.
 - a** Purpose of refinance: Won't fill in refinancing section
 - b** Year acquired: Will not fill in refinancing section
 - c** Original Cost: Will not fill in refinancing section
- 5** Click **Next**.

The data is saved to the Borrower Profile.

Personal Information and Employer Status

This window is pre-populated with information extracted from the documents uploaded earlier in this workshop.

The Borrower can

- Click **Documents** to go back and upload additional documents
 - Answer the required questions
 - Answer the required questions for a co-borrower
 - Click **Back** to return to Type, Terms and Purpose
- 1** Click **Is there a Co-borrower?** to show co-borrower sections.
 - 2** Click **Is there a Co-borrower?** again to hide co-borrower sections.

In this workshop, the Borrower will enter the answers required, such as Personal Information and Employer Status.
 - 3** Enter the following personal information:
 - a** Name:

This information is pre-populated if a Social Security Card is processed.
 - b** alternative name: <leave blank>
 - c** DoB: 04/28/1961
 - d** Marital Status: **Unmarried**
 - e** Years in School: **12**
 - f** Age of Dependents: <leave blank>
 - g** Present Address 1: 6388 E 55TH STREET
 - h** City: Oakland
 - i** State: CA
 - j** Zip: 94601
 - 4** Enter the following employer status:

The information is pre-populated if a W2 was processed.

 - a** Select an employer from the table.
 - b** Click **current employer** and click **Update**.
 - 5** Click **Next**.

The data is saved to the Borrower Profile.

Entering Assets, Declarations and Government Monitoring

This window is pre-populated with information extracted from the documents uploaded earlier in this workshop.

The borrower can:

- Click the Documents button to go back and upload documents
- Enter the required information
- Enter the required co-borrower information
- Click **Back** to return to Personal Information or Employer Status.
- Click **Submit** to submit the application.

1 Enter the following asset information:

- a** Real Estate owned: <enter an address>
- b** Click **Add**.

2 Declarations

- a** Outstanding Judgements: No
- b** Bankruptcy: No
- c** Property Foreclosed: No
- d** Party to a lawsuit: No
- e** Obligated on Foreclosed loan: No
- f** Delinquent or default: No
- g** Alimony: No
- h** Downpayment Borrowed: No
- i** Co-maker or endorser: No
- j** Are you a US Citizen: Yes
- k** Permanent Resident alien: No
- l** Primary residence: Yes
- m** Ownership Interest: Yes

In this workshop you will keep the default information.

3 Government Monitoring

- a** Ethnicity: Hispanic: Check
- b** Sex: Female

Borrower Summary

After submitting the application, the Borrower is directed to the loan summary page showing details of uploaded documents and application information.

Processing Loan Documents

Logging On: Review Team

A member of the BankRight review team performs document management of the loan application.

- 1 On the BankRight internal Login window, log on as a Document Review Team member.
dbeck@BankRightDummyDomain.com.
- 2 In the password field, enter **password**.
The **WorkQueue** appears.

Classification

Note If the Borrower uploaded a document and the system classification is different, the Document Review team will confirm the classification

- 1 In the WorkQueue, select **Document Review**.
In this workshop, the W2 was incorrectly classified as a Paystub.
- 2 Select **W2** and complete the task.
The WorkQueue appears.

Validation

The WorkQueue contains a validation task for all uploaded documents that failed validation.

Social Security Card

- 1 In the WorkQueue, take the **SSC Validation** task.
Classification correctly identified this document as a Social Security Card.
- 2 Review the **Extraction Data**.
- 3 Initiate Validation.
- 4 Select or enter the correct data and confirm the fields.
- 5 Complete the **Social Security Card Validation** task.
- 6 Data is saved to the **Borrower Profile**.
Once the document is fully processed, the case is notified.

W2

- 1 In the WorkQueue, take the **W2 Validation** task.
Classification was corrected in the previous scenario.

Note Extraction has taken place.

- 2 Review and confirm the **Extraction Data**.
- 3 In the State field, enter **ZZ**.
The Invalid State error message appears.
- 4 In the ZIP field, enter 6 digits.

A zip length error appears.

- 5 Enter values for the mandatory fields.
- 6 To see Validation error messages:
 - a Name: Change the name to see the error message.
 - b SSN: Change the name to see the error message.
 - c Address: Because this is the first uploaded document with an address. No data check validation takes place.
 - d Employer: Because this is the first uploaded document with an address, no data check validation takes place.
- 7 Select or enter the correct data and confirm the fields.
- 8 Complete the **W2 Validation** task.
- 9 Data is saved to the **Borrower Profile**.
Monthly income is calculated and updated to the Borrower Profile.

Note Once the document is fully processed, the case is notified.

Paystub

- 1 In the WorkQueue, take the **Paystub Validation** task.
Classification has correctly identified this document as a Paystub.
- Note** Extraction has taken place.
- 2 Review and confirm the **Extraction Data**.
 - 3 In the State field, enter **ZZ**.
The Invalid State error message appears.
 - 4 In the ZIP field, enter 6 digits.
A zip length error appears.
 - 5 Enter values for the mandatory fields.
 - 6 To see Validation error messages:
 - a Name: Change the name to see the error message.
 - b SSN: Change the name to see the error message.
 - c Address: Because this is the first uploaded document with an address. No data check validation takes place.
 - d Employer: Because this is the first uploaded document with an address, no data check validation takes place.
 - 7 Select or enter the correct data and confirm the fields.
 - 8 Complete the **Paystub Validation** task.
 - 9 Data is saved to the **Borrower Profile**.
Monthly income is calculated and updated to the Borrower Profile.

Note Once the document is fully processed, the case is notified.

Driver License

- 1 In the WorkQueue, take the **Driver License Validation** task.
Classification has correctly identified this document as a Driver License.

Note Extraction has taken place.

- 2 Review and confirm the **Extraction Data**.
- 3 In the State field, enter **ZZ**.
The Invalid State error message appears.
- 4 In the ZIP field, enter 6 digits.
A zip length error appears.
- 5 Enter values for the mandatory fields.
- 6 To see Validation error messages:
 - a Name: Change the name to see the error message.
 - b SSN: Change the name to see the error message.
 - c Address: Because this is the first uploaded document with an address. No data check validation takes place.
 - d Employer: Because this is the first uploaded document with an address, no data check validation takes place.
- 7 Select or enter the correct data and confirm the fields.
- 8 Complete the **Driver License Validation** task.
- 9 Data is saved to the **Borrower Profile**.
Monthly income is calculated and updated to the Borrower Profile.

Note Once the document is fully processed, the case is notified.

Mortgage Case

On the Loan Application window, click **Submit**.

- The mortgage case is alerted and waits for any documents that have been uploaded for processing.
- When all uploaded documents are processed, the mortgage case is alerted and progresses.

Address Check (USPS)

The Property Address is checked with the United States Postal Service (USPS) and updated to the Borrower Profile.

Note View this data after it is inserted in LOS.

Workshop 2: Loan Officer Assisted Application

In this workshop, a Borrower browses to the BankRight Mortgage Landing page looking for a mortgage.

<http://localhost/totalagility/forms/Mortgage/loan-entry-form.form>

The Borrower can

- Calculate payments using pre-qualification calculator
- Register and apply for a loan
- Login to an existing application

Click **Apply for a Loan** to begin the application process.

Starting the Loan Application Process

- 1 Enter the following details in the loan application window.
 - a Firstname: **Bryce**
 - b Lastname: **Kinse**
 - c Email: <Demonstration email address> such as **borrower2@dummy.com**
 - d SSN: **564-28-4539**
 - e Address: 7503 70th Ave NW, Mercer Island, WA 98040
- 2 Select the **Pull Credit Authorization** check box.

Note Borrowers cannot submit an application without this authorization.

- 3 Click **Register**.
The system creates a Mortgage case and emails the borrower a password.
Credit is pulled and added to the Borrower Profile.

Loan Officer Search and Summary

The loan officer can complete an application for a Borrower if required or view the loan summary from the search screen.

- 1 On the BankRight Internal Login window, log on as **khanley@BankRightDummyDomain.com**.
The Loan Officer's WorkQueue appears.
- 2 Select **Loan Search**.
- 3 Enter the Borrower Name: **Kinse**
- 4 Search for the Borrower or enter the Borrower Name. In this workshop, enter **Kinse**.
- 5 In the results table, select the returned record.
If the loan application was submitted, the Loan officer is directed to the Summary page. In this workshop, the Borrower has not submitted the loan application. Therefore, the loan officer is directed to the Documents page to upload documents for the Borrower.

Loan Officer Completes the Loan Application

- 1 Click **Next** to complete the Loan Application questions.
 - a Complete screen 1
 - b Complete screen 2
 - c Complete screen 3

Note The Loan Officer must select the Pull Credit Authorization check box where the Borrower authorized the loan officer to pull credit.

- 2 Complete this workshop following tasks described in Workshop 1.

Workshop 3: 1003 Application

In this workshop, the Borrower has already completed a 1003 application and does not want to fill in any data or upload loan documents. The Borrower logs on and uploads the 1003 form.

<http://localhost/totalagility/forms/Mortgage/loan-entry-form.form>

The Borrower can

- Calculate payments using pre-qualification calculator
- Register and apply for a loan
- Login to an existing application

Click **Apply for a Loan** to begin the application process.

Starting the Loan Application Process

- 1 Enter the following details in the loan application window.
 - a Firstname: **Jim**
 - b Lastname: **Davies**
 - c Email: **<borrower2@dummy.com>**
 - d SSN: **307-29-1263**
 - e Address: **4115 S BARTON PL, Chandler, AZ 85224**

- 2 Select the **Pull Credit Authorization** check box.

Note Borrowers cannot submit an application without this authorization.

- 3 Click **Register**.

The system creates a Mortgage case and emails a password to the Borrower. Credit is pulled and added to the Borrower Profile.

Updating Borrower Password

In this workshop, you will update the password in the BankRight Workspace.

- 1 On the BankRight Internal Login Form, log on as the following Admin Team member:
ebrams@BankRightDummyDomain.com.
- 2 Select **Administration > Manage Resources.**
- 3 Select the borrower resource ID and change the password to **12345678**
(email address <borrower3@dummy.com>).

Borrower Logon

After registering, the Borrower is redirected to the landing page and can log on.

- 1 Log on as **borrower3@dummy.com.**
- 2 Enter the password: **12345678.**

Documents: Upload No Documents

In this workshop, the Borrower does not want to upload loan documents. You will not upload documents at this time.

On the Loan Application-Documents window, click **Next**

Loan Information: Add No Answers

The Borrower chooses to answer no remaining questions.

On the Loan Information window, click **I Have A Completed Loan Application.**

Uploading Completed 1003 Form

Both 1003 Legal and 1003 Letter formats are supported for EllieMae (Encompass). In this scenario, the Borrower completed a 1003 in Legal format, printed it out and scanned it with pages in the incorrect order. This demonstrates NIGO 1003 documents being corrected.

- 1 To upload the 1003 document image, click the folder icon and select an image that has pg 2 and pg 3 in the incorrect order.
- 2 Click **Save** to upload the document for processing.
An event is raised to the mortgage case and the 1003 is sent to extraction.
- 3 Review the status and the date received update.
- 4 Click **Submit.**
The Borrower can login and review the summary window.

Processing Borrower 3 Documents

Logging On: Review Team

A member of the BankRight review team performs document management of the loan application.

On the BankRight internal Login window, logon as a Document Review Team member.
dbeck@BankRightDummyDomain.com
The **WorkQueue** appears.

1003 NIGO Pages in Incorrect Order

If the Borrower uploaded a 1003 document with pages in the incorrect order, the Document Review team must re-order the pages.

- 1 In the WorkQueue, select the **Classification** task.
- 2 In the thumbnail panel, drag page 3 to correct the position in the document.
- 3 Select the correct classification and complete the task.

1003 Validation

- 1 In the WorkQueue, select the **1003 Validation** task.

Note Classification has correctly identified the document as a 1003.
Extraction has taken place.

- 2 Review the **Extraction Data**.
Note that Validation has not occurred.
- 3 Confirm the data extracted from Pages 1-3.
 - a In the State field, enter **ZZ**.
The Invalid State error message appears.
 - b In the ZIP field, enter 6 digits.
A zip length error appears.
 - c Enter values for the mandatory fields.
- 4 Review the extracted data in the table on Page 1-3 and, and on Page 4, Assets/Liabilities.
- 5 Review the extracted in the table on Page 1-3 and, and on Page 4, Employers.
- 6 Review the extracted in the table on Page 1-3 and, and on Page 4, Property Owned.
- 7 Review the extracted in the table on Page 1-3 and, and on Page 4, Prior Addresses.
- 8 To see Validation error messages:
As validation runs, you can view the validation rules.
Validation includes the following:
 - Name
 - DoB
 - SSN
 - Property Address

- Addresses
 - Employers
- 9 Select or enter the correct data and confirm the fields.
 - 10 Complete the **1003 Validation** task.
Data is saved to the **Borrower Profile**.
Once the document is fully processed, the case is notified.

Borrower 3: Mortgage Case

- The mortgage case is alerted and waits for any documents that have been uploaded for processing.
- When all uploaded documents are processed, the mortgage case is alerted and progresses.

Employment Check

Each employer in the Borrower profile is checked against the list of employers returned from worknumber.com.

When an employer is matched and verified, the employer record on the Borrower profile is marked as current or prior. Start date, time with employer, and position are also updated.

The Co-Borrower employers are also checked.

Address Check (USPS)

The extracted Property Address is checked with the United States Postal Service (USPS) and is written to the Borrower Profile.

Note View this data after it is inserted in LOS.

Workshop 4: Analytics

Create Demonstration Data

t_createdemodata

To fill the charts with data either create jobs and progress them as required or create the demo job that will populate the charts. This demo job will read the demo records in the database and create and progress mortgage cases to populate the charts

- 1 From the TotalAgility Workspace, select **Jobs**, then click **Create Job**.
- 2 Create the **CreateMultipleMaps** job.

Report Manager Logon

A BankRight manager wants to log on and check Mortgage Analytics.

- 1 On the BankRight internal Login window, log on as a Report Manager Compliance member.
drey@BankRightDummyDomain.com

The **WorkQueue** appears.

- 2 In the navigation panel, select **Analytics**.

Loan Officer Performance

View the Monthly Report window to see a bar chart with the number of loans (vertical) and US State (horizontal) and a default to the current year. Filter on the year, quarter, month and week. Drill down from the weekly filter for a particular loan processor to see a text-based report that displays the basic loan details.

- 1 Select a Year from the filter.
- 2 Select a Quarter from the filter.
- 3 Select a Month from the filter.
- 4 Select a Week from the filter.
- 5 Select a column from the Chart to view the textual report.

Government and Monitoring

To ensure compliance with Regulation B (ECOA), Regulation C, and Home Mortgage Disclosure Act (HMDA), view the percentage of applications at various stages in the mortgage process. You can review split by gender, ethnicity, and race to monitor and identify trends or possible areas or instances of discriminatory lending patterns or non-compliance.

- 1 Select a State from the filter.
- 2 Select a Loan Officer from the filter.
Hover over an item to review details.

Home Mortgage Disclosure Act (HMDA)

The Home Mortgage Disclosure Act report contains data about each application submitted to Underwriting. Use this report to ensure that the bank is compliant with HDMA requirements.

- 1 Select the **Date From** filter and select the previous two months.
The HMDA report defaults to the previous month.
- 2 To open the HMDA report in Microsoft Excel, click **Export to Excel** and select the following options:
 - a Current page and top drill down.
 - b Unformatted XML file, readable by Excel.

Glossary

Activity

An activity in Kofax TotalAgility is a design time node that describes a single step of a business process.

Business Rule

A business rule is used to assert business structure or to control or influence the behavior of the business.

Job

A runtime instance of a Kofax TotalAgility process

Process

A process design for a business process which contains activities, resources, SLA and other business specific properties.

Task

A runtime instance of an activity.

Work Queue

A prioritized list of pending user tasks.

