

IMAGE VALIDATION SOFTWARE ADMINISTRATION WEB PORTAL

12/28/2012

Full Project Summary:

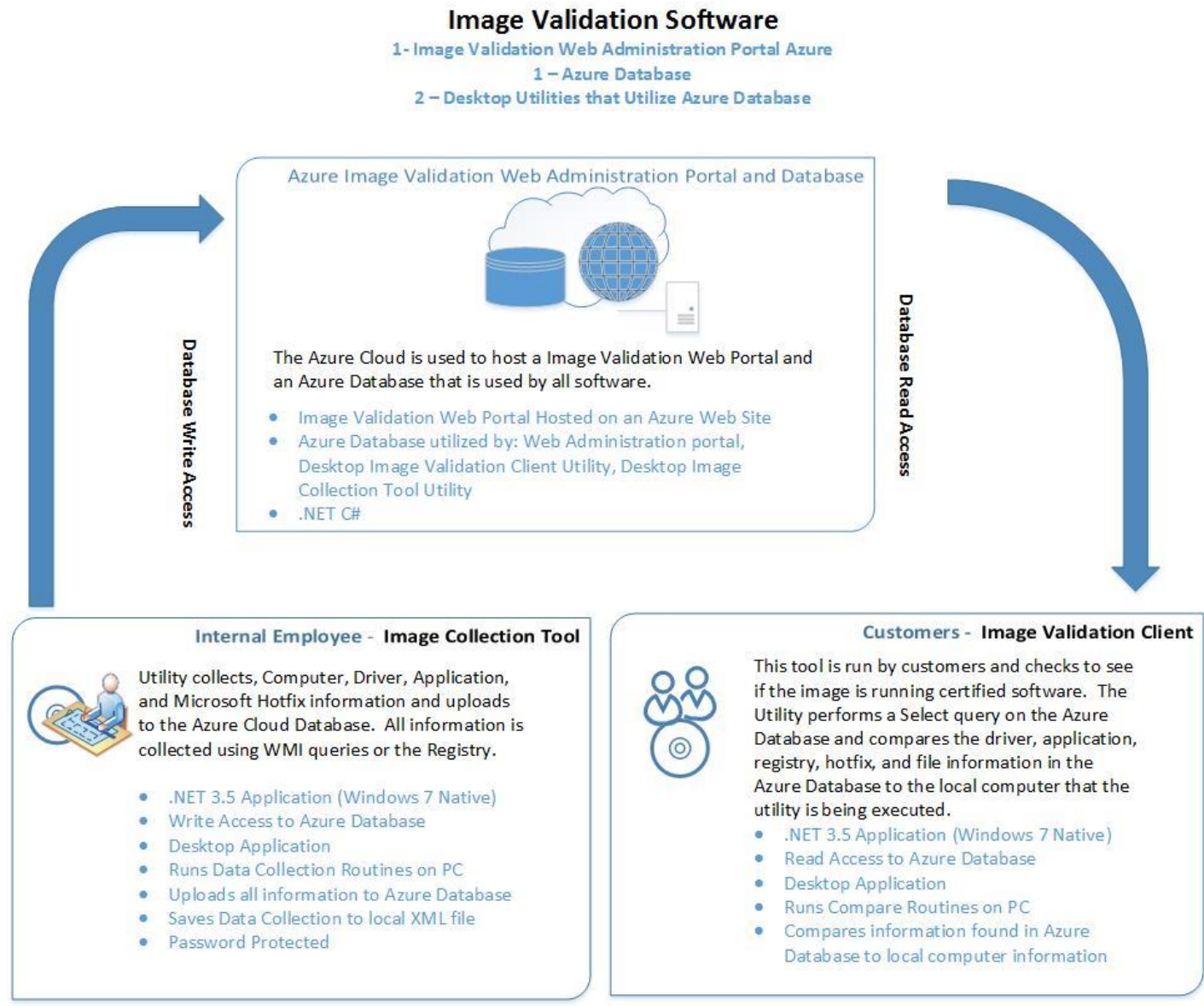


Image Validation Web Administration Portal and Database:

Azure Image Validation Web Administration Portal and Database



The Azure Cloud is used to host a Image Validation Web Portal and an Azure Database that is used by all software.

- Image Validation Web Portal Hosted on an Azure Web Site
- Azure Database utilized by: Web Administration portal, Desktop Image Validation Client Utility, Desktop Image Collection Tool Utility
- .NET C#

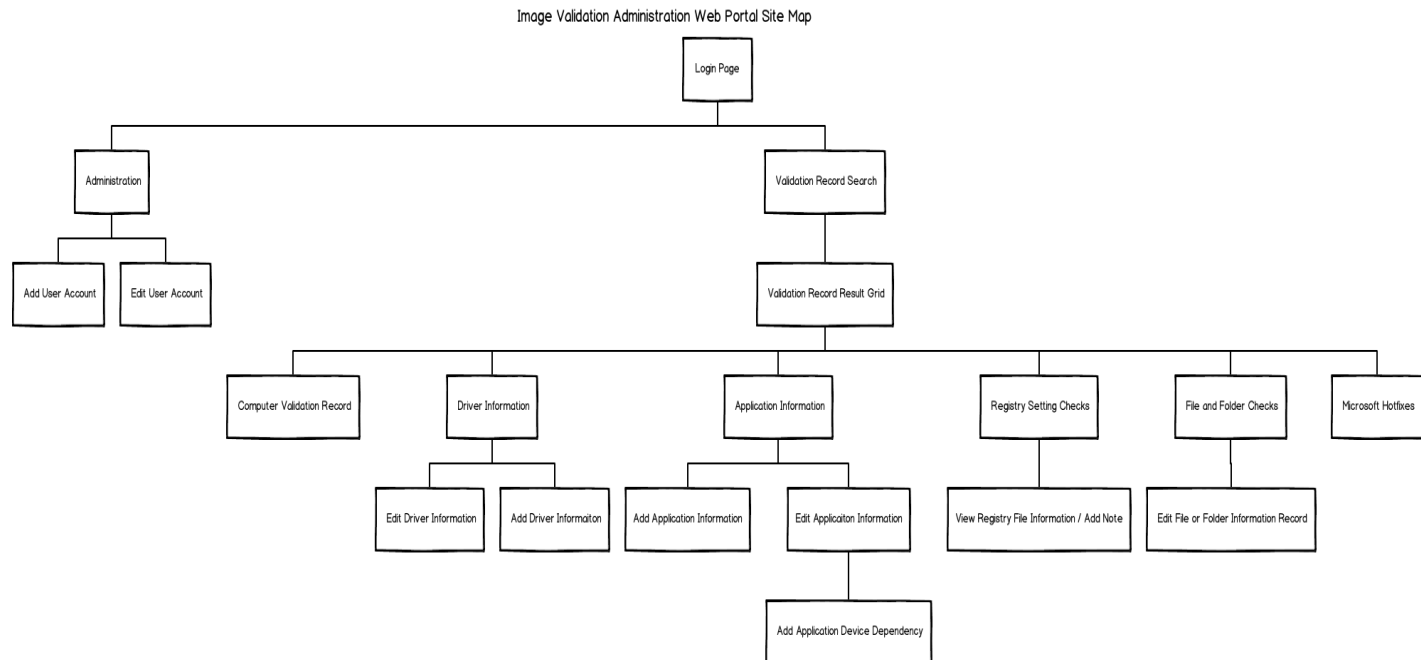
Specifications:

1. Microsoft Azure Web Site Instance
2. Utilizes Microsoft Azure Database
3. Programmed in C#
4. Implements User and Role Based Security
5. ASP.NET MVC 4 Web Application

Image Validation Administration Portal Site Map:

Full File: [WebAdministration-SiteMap.png](#)

Summary: 19 Web Pages



User and Role Based Security:

User Security:

1. Each user can be assigned one security role.
2. Password should be at least 6 characters long and contain the following
 - a. 1 Number
 - b. 1 Uppercase Letter
 - c. 1 Lowercase Letter

Role Security:

1. Client: This account is used by the Validation Client Tool and only has read permission to the Azure Database. This account is unable to log into the Web Portal
2. Validator: This account has permission to use the Image Validation Collection Tool. The Image Validation Collection Tool uploads Computer Information data to the Azure Database. This account does not have permission to log into the web portal.
3. WebUser: This account has read permission to the Web Administration portal. This account is unable to access User Administration Page.
4. PowerUser: This account has all the permission of the Validator plus it has read and update permission to the Web Administration Portal. This account is unable to perform any delete operations. Unable to access the User Administration Page.
5. Admin: This account has full permissions. It can perform any operation.

UML Database Design Diagram:

File: [UMLDiagram.jpg](#)

The UML Database Design gives a rough draft of a proposed database design for the Image Validation Software System. This can be updated / corrected based on the Developers experience in Database design (normalization), Security and MVC Development.

Main Login Page:

Page Summary:

The main login page for the Image Validation Administration Web Portal.

The image is a hand-drawn sketch of a web browser window. The title bar at the top reads "Image Validation Administrator Portal Login". Below the title bar is a navigation bar with four icons: a left arrow, a right arrow, a close button (X), and a home button (house). To the right of these icons is a text input field containing "http://" and a search button (magnifying glass). The main content area of the browser has a title "Image Validation Administrator Portal" centered at the top. Below the title, there are two labels: "Username:" and "Password:". Each label is followed by a rectangular text input field. Below these two input fields, centered, is a button labeled "Login". The browser window has a grey border and a small double-slash icon in the bottom right corner.

Page Action:

- When a user attempts a logon to the system it checks the **User** table for correct user credentials
- A successful login will update the AccountHistory Table with the UserId and Timestamp of the successful logon
- A failed login will update the FailedLogon Table with the UserID and Timestamp of the failed logon
- When a user successfully logs in it directs them to the Validation Record Search Page

Form Information:

Form Control Name	Type	Attribute
Username	TextBox	
Password	TextBox	Password
Login	Button	

Database Access:

Table	Field	Action	Evaluation
User	Userid	Select	
User	Username	Select	
User	Password	Decrypt, Select	
AccountHistory	AccountHistoryid	Insert, Auto Generate	If Login Successful
AccountHistory	Userid	Insert	If Login Successful
AccountHistory	LoginDate	Insert	If Login Successful
AccountHistory	SessionID	Insert	If Login Successful
FailedLogon	FailID	Insert, Auto Generate	If Login Failed
FailedLogon	Userid	Insert	If Login Failed
FailedLogon	DateTime	Insert	If Login Failed
Permission	PermissionID	Select	If Login Successful

Error Messages:

1. Bad Credentials

Login Failed. Please contact your Administrator for assistance.

2. Permissions

You don't have permission to access the Web Administration Portal. Please contact your administrator.

See Database UML Diagram for reference (DataTypes and Draft Design): [UMLDiagram.jpg](#)

Administration User Account Grid Page:

Page Summary:

A grid of all the user accounts for the Image Validation Software.

Image Validation Administrator Portal - Results Administration Page

Administration Computer Search

User Accounts Permissions Page 1 of 25 Previous 1 2 3 4 5 Next Records Per page 10

Username	First	Last	Email	Role	Action
briankesten	Brian	Kestenholz	brian.kestenholz@us.panasonic.com	Admin	Delete Edit
briangonzalez	Brian	Gonzalez	brian.gonzalez@us.panasonic.com	Admin	Delete Edit

Page 1 of 25 Previous 1 2 3 4 5 Next

Add User

Page Action:

- Performs a Select on User Account records and displays them on the page
- Allow user to set how many records can be displayed
- Allow user to navigate pages
- Sort options on Username, First, Last, Email, and Rights
- Add User Button to open an Add User Form Page
- Edit Link Action that allows to Edit a User
- Delete Link Action that allows you to Delete and account. All Delete Operations should have a confirmation screen.

Form Control Name	Type	Attributes
Grid	Grid	UserName, First, Last, Email, Rights, Action Columns
Add User	Button	Used to Open the Add User Page

Administration Add User Account Page:

Page Summary:

This page is used to add a new user account.

Image Validation Administrator Portal - Create User Administration Page

Administration

Computer Search

Add User Account:

Username:

Password:

Confirm Password:

First:

Last:

Email:

Role

Client

Validator

WebUser

PowerUser

Admin

Create User

1. Client: This account is used by the Validation Client Tool and only has read permission to the Azure Database. This account is unable to log into the Web Portal. Default Permission

2. Validator: This account has permission to use the Image Validation Collection Tool. The Image Validation Collection Tool uploads Computer Information data to the Azure Database. This account does not have permission to log into the web portal.

3. WebUser: This account has read permission to the Web Administration portal. This account is unable to access User Administration Page.

4. PowerUser: This account has all the permission of the Validator plus it has read and update permission to the Web Administration Portal. This account is unable to perform any delete operations. Unable to access the User Administration Page.

5. Admin: This account has full permissions. It can perform any operation.

Required Fields:

1. Username
2. Password
3. Confirm Password
4. Email

Form Control Name	Type	Attribute
Username	TextBox	Unique Check
Password	TextBox	Password
Confirm Password	TextBox	Password
First Name	TextBox	
Last Name	TextBox	
Email	TextBox	Email Regex Verification
Role	Drop Down Menu	
Create User	Button	

Database Actions

Table	Field	Action	Evaluation
-------	-------	--------	------------

User	Userid	Insert	
User	Username	Insert	Unique
User	Password	Insert	
UserPermission	PermissionID	Insert	
UserPermission	Userid	Insert	
User	First Name	Insert	Optional
User	Last Name	Insert	Optional
User	UserCreateDate	Insert	

Edit User Account Web Page:

Page Summary:

This page is used to edit a current user.

Image Validation Administrator Portal - Edit User Administration Page

Administration
Computer Search

Edit User Account:

Username:

First:

Last:

Email:

Rights

Client
Validator
WebUser
PowerUser
Admin

Change Password

Password:

Confirm Password:

Update User
Delete User

1. Client: This account is used by the Validation Client Tool and only has read permission to the Azure Database. This account is unable to log into the Web Portal
2. Validator: This account has permission to use the Image Validation Collection Tool. The Image Validation Collection Tool uploads Computer Information data to the Azure Database. This account does not have permission to log into the web portal.
3. WebUser: This account has read permission to the Web Administration portal. This account is unable to access User Administration Page.
4. PowerUser: This account has all the permission of the Validator plus it has read and update permission to the Web Administration Portal. This account is unable to perform any delete operations. Unable to access the User Administration Page.
5. Admin: This account has full permissions. It can perform any operation.

Required Fields:

1. Username
2. Password
3. Confirm Password
4. Email

Form Information

Form Control Name	Type	Attribute
Username	TextBox	Check to see if unique
Password	TextBox	Password
Confirm Password	TextBox	Password
First Name	TextBox	
Last Name	TextBox	
Email	TextBox	Email Regex Verification
Role	Drop Down Menu	
Create User	Button	
Delete User	Button	Delete Record by using userid

Database Actions

Table	Field	Action	Evaluation
User	Userid	Update	
User	Username	Update	
User	Password	Update	
UserPermission	PermissionID	Update	
UserPermission	Userid	Update	
User	First Name	Update	Optional
User	Last Name	Update	Optional
User	UserCreateDate	Update	
User	Delete Record	Delete	Delete userid record

Validation Record Search Page:

Page Summary:

This page is used to search for a Computer Validation Record. It is the main page that a user is redirected to after logging into the Web Administration Portal. The user has two choices to perform a search.

1. Quick Search - This allows the user to search by either:
 - a. Model
 - b. Product
 - c. ComputerID
 - d. Operating System

2. Browse Search - This allows the user to select a Product and Operating System and click Search.

Image Validation Administrator Portal - Computer Search Page

Validation Record Search Administration

Quick Search

search Model Product ComputerID Operating System Search

Browse Computer Validation Records

ALL Windows XP Windows XP Tablet Windows 7 x64 Windows 7 x86 Windows 8 x86 Windows 8 x64

CF31-1 CF31-2 CF31-3 CF19-1 CF19-2 CF19-3 CF19-4 CF19-5

Search

Form Control Name	Type	Attribute / Notes
Search	TextBox	
Criteria	ComboBox	Perform a quick search by searching one of the following major search criteria's: Model, Product, CompturID, Operating System
Search	Button	When button is clicked it uses the text entered and the criteria chosen to perform a search.
Product	ComboBox	Search by Computer Product
Operating System	ComboBox	

Search	Button	Performs a Browse Search based on Product ID and Operating System chosen
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Database Action

Table	Field	Action	Evaluation
Computer	Model	Select	Select * from Computer
Computer	Product	Select	Select * from Computer
Computer	ComputerID	Select	Select * from Computer
Computer	Caption	Select	Select * from Computer
Computer	OSArchitecture	Select	Select * from Computer

Quick Search Examples:

Model

Select * From Computer Where Model Like "CF-53LLLGMAM

Product

Select * From Computer Where Product Like "CF53-2"

ComputerID

Select * From Computer Where ComputerID = 1234

Operating System

Select * From Computer Where Caption Like "Windows 7" and OSArchitecture Like "x64"

Browse Search Examples

Select * From Computer Where (Caption Like "Windows 7") and (OSArchitecture Like "x64") and (Product Like "CF53-2")

Validation Search Results Grid Page:

Page Summary:

The Validation Search Results Grid Page is populated by the Data returned by the Select Query performed on the Search Page. The grid contains the ComputerID, Product, Model, Operating System (Caption & OSArchitecture), IsPrimaryProduct, and IsPrimaryModel Fields. The Grid Should be Sorted by Product, IsPrimaryProduct(True), and then finally IsPrimaryModel(True) by default.

Image Validation Administrator Portal - Computer Search Results

Validation Record Administration Validation Record Search

Search Results Page 1 of 25 Previous 1 2 3 4 5 Next Records Per page 10

ID	Product	Model	Operating System	Model Primary	Product Primary	Option
1234	CF53-2	CF-53JVUZK1M	Windows 7 x86	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Edit Delete
1235	CF53-1	CF-53AVUZK1M	Windows 7 x86	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Edit Delete
1236	CF31-1	CF-31AVUZK1M	Windows 7 x86	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Edit Delete
1237	CF53-2	CF-53JVUZK1M	Windows 7 x64	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Edit Delete
1238	CF53-1	CF-53AVUZK1M	Windows 7 x64	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Edit Delete
1239	CF31-1	CF-31AVUZK1M	Windows 7 x64	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Edit Delete

Page 1 of 25 Previous 1 2 3 4 5 Next

Form Information:

Form Control Name	Type	Attributes
Grid	Grid	ComputerID, Product, Model, Operating System, IsPrimaryModel, IsPrimaryProduct
Edit	Link	Used to open the Edit Computer Validation Record Page.
Delete	Link	Used to delete record. All Delete operations should have an Alert confirmation box to confirm deletion.

Database Fields Information:

The Validation Client Tool needs a way of determining which record is an approved OEM record that should be used to validate a client image. The Administration Portal allows Computer Validation records to be marked as IsPrimaryModel and IsPrimaryProduct. The system will first check to see if an exact Model match exists in the database that is marked as an IsPrimaryModel (true). If it returns a

record result it will use that record to perform image validation. If that query doesn't return a result it will then search if the Product exists with the IsPrimaryProduct (true).

Example:

A client runs the Validation Client Tool on a Computer with the following information:

Model: CF-53JVUZK1M

Product: CF53-2

1. Step 1: The Image Client Validation Tool will search to see if a Computer Validation Record exists with the exact Model and with the IsPrimaryModel bit set to True.
 - a. Select * From Computer Where Model Like "CF-53JVUZK1M" AND IsPrimaryModel = "1"
 - b. If this returns a result it will use the record returned
 - c. If it fails it will go to Step 2
2. Step 2: The Image Client Validation Tool will search to see if the Product exists with the IsPrimaryProduct set to True.
 - a. Select * From Computer Where Product Like "CF53-2" AND IsPrimaryProduct= "1"
 - b. If this returns a result it will use the record returned

IsPrimaryProduct: Bit Data Type. (1=True, 0=False) Only one Computer Validation Record can be marked as a Primary Product that has the same:

1. Caption (Operating System Name)
2. OSArchitecture
3. Product

The primary product record will be used as the approved OEM record to compare when the Image Validation Client Software is run by a client/customer. Non primary records can be stored but will not be used for validation by the Client Tool.

IsPrimaryModel: Bit Data Type (1=True, 0=False) . Only one Computer Validation Record can be marked as a Primary Model that has the same:

1. Caption (Operating System Name)
2. OSArchitecture
3. Model

The primary Model record will be used as the approved OEM record to compare when the Image Validation Client Software is run by a client/customer. Non primary records can be stored but will not be used for validation by the Client Tool.

Database Access:

Table	Field	Action	Evaluation
Computer	Model	Select	
Computer	Product	Select	
Computer	ComputerID	Select	
Computer	Caption	Select	

Computer	OSArchitecture	Select	
Computer	IsPrimaryProduct	Select	
Computer	IsPrimaryModel		

Computer Information Validation Record Page:

Page Summary:

This page gives all the information about a specific Computer Validation Record including; Computer Hardware Information and the Operating System. The only updatable options on the page are the Model, Product, IsPrimaryModel, and IsPrimaryProduct Fields.

Image Validation Administrator Portal - Results Administration Page

Validation Record Administration Validation Record Search

Validation Record ID: 123456

Computer Information

Model: CF-53JVUZK1M Product: CF53-2 Manufacturer: Panasonic Corporation Serial: 2GTYA12196

☒ Primary Model Record ☐ Primary Product Record

Operating System Information

Caption: Microsoft Windows 7 Enterprise OSProductSuite: 256

CSDVersion: Service Pack 1 OSType: 18

InstallDate: 7/11/2012 23:01 ServicePackMajorVersion: 1

MUILanguages: en-US ServicePackMinorVersion: 0

BuildNumber: 7601 SystemDirectory: C:\Windows\system32

OSArchitecture: 32-bit SystemDrive: C:

OSLanguage: 1033 Version: 6.1.7601

WindowsDirectory: C:\Windows

Update Validation Record Delete Validation Record: 123456

Form Information:

Form Control Name	Type	Attribute
ComputerID	TextBox	Not Updatable – Grayed Out
Model	TextBox	Updateable
Product	TextBox	Updateable
Serial	Label	
Manufacturer	Label	

IsPrimaryModel	CheckBox	Updateable – Only one computer record with the same OS, Architecture and Model can be Primary
IsPrimaryProduct	CheckBox	Updateable – Only one computer record with the same OS, Architecture and Product can be marked Primary
BuildNumber:	Label	
Caption:	Label	
CSDVersion:	Label	
InstallDate:	Label	
MUILanguages:	Label	
OSArchitecture:	Label	
OSLanguage:	Label	
OSProductSuite:	Label	
OSType:	Label	
ServicePackMajorVersion:	Label	
ServicePackMinorVersion:	Label	
SystemDirectory:	Label	
SystemDrive:	Label	
Version:	Label	
WindowsDirectory:	Label	

Database Access Information:

Table	Field	Action	Evaluation
Computer	ComputerID	Select	
Computer	Model	Select or Update	Update if Update Validation Record is clicked
Computer	Product	Select or Update	Update if Update Validation Record is clicked
Computer	Serial	Select	
Computer	Manufacturer	Select	
Computer	IsPrimaryModel	Select or Update	Update if Update Validation Record is clicked
Computer	IsPrimaryProduct	Select or Update	Update if Update Validation Record is clicked
Computer	BuildNumber:	Select	
Computer	Caption:	Select	
Computer	CSDVersion:	Select	
Computer	InstallDate:	Select	

Computer	MUILanguages:	Select	
Computer	OSArchitecture:	Select	
Computer	OSLanguage:	Select	
Computer	OSProductSuite:	Select	
Computer	OSType:	Select	
Computer	ServicePackMajorVersion:	Select	
Computer	ServicePackMinorVersion:	Select	
Computer	SystemDirectory:	Select	
Computer	SystemDrive:	Select	
Computer	Version:	Select	
Computer	WindowsDirectory:	Select	
Computer	Delete Record	Delete	Delete Record if Delete Validation Record Button is clicked

Driver Information Validation Record Page:

Page Summary:

This page displays a Grid of information of all Device Drivers associated with a specific Computer Validation Record.

Image Validation Administrator Portal - Results Administration Page

http://

Validation Record Administration Validation Record Search

Computer Information

Driver Information

Application Information

Registry Setting Checks

File and Folder Checks

Hotfixes

Validation Record ID 123456

Driver Information

Driver Name^	Version	Required	Action
Intel WIFI Adapter	15.1	<input checked="" type="checkbox"/>	Edit
Intel NIC Adapter	12.1	<input checked="" type="checkbox"/>	Edit
ATI Video Adapter	12.1	<input checked="" type="checkbox"/>	Edit
SoundMax Audio	9.1	<input checked="" type="checkbox"/>	Edit
TPM Driver	1.1	<input type="checkbox"/>	Edit

Add Driver

Form Information

Form Control Name	Type	Attributes
Grid	Grid	Driver Name, Version, Required, Edit Link
Add Driver	Button	Used to open Add Driver Information Validation Page

Database Access Information:

Example:

Select * from Driver Where INNER JOIN ComputerID

ON Driver.ComputerID = Computer.ComputerID

Table	Field	Action	Evaluation
Computer	CompatID:	Select	
Driver	Description:	Select	
Driver	DeviceClass:	Select	
Driver	DeviceID:	Select	

Driver	DeviceName:	Select	Show on Grid (Device Name)
Driver	DriverDate:	Select	
Driver	DriverProviderName:	Select	
Driver	DriverVersion:	Select	Show on Grid (Version)
Driver	FriendlyName:	Select	
Driver	HardWareID:	Select	
Driver	InfName:	Select	
Driver	IsSigned:	Select	
Driver	Manufacturer:	Select	
Driver	Name:	Select	
Driver	PDO:	Select	
Driver	Signer:	Select	
Driver	httpurl	Select	
Driver	IsRequired	Select / Update	Show on the Grid. When checkbox is checked (true) or unchecked (false) it should automatically change database value
Driver	CompatID:	Select	
Driver	Description:	Select	
Driver	DeviceClass:	Select	
Driver	DeviceID:	Select	
Driver	DeviceName:	Select	

Add Driver Information Validation Page:

Page Summary:

This page is used to add a driver that has not been automatically populated by the Image Validation Collection Tool. This page will be used if a certain device was not integrated in the device when the Collection Tool was run. It will allow device information to be manually added.

Image Validation Administrator Portal - Results Administration Page

http://

Validation Record Administration Validation Record Search

Computer Information
Driver Information
Application Information
Registry Setting Checks
File and Folder Checks
Hotfixes

Validation Record ID 123456

Driver Information

Add Driver Admin Page
This page is used to add a device that was not populated by the collection tool.

CompatID: FriendlyName:

Description: HardWareID:

DeviceClass: InfName:

DeviceID: IsSigned:

DeviceName: Manufacturer:

DriverDate: Name:

DriverProviderName: PDO:

DriverVersion: Signer:

Download URL: ☐ Is Required

Add Driver

Form Information:

Label	Item	Form Component	Required
Computerid	Validation Record ID	Label	True
CompatID:	CompatID:	Textbox	False
Description:	Description:	Textbox	True
DeviceClass:	DeviceClass:	Textbox	True
DeviceID:	DeviceID:	Textbox	False
DeviceName:	DeviceName:	Textbox	False
DriverDate:	DriverDate:	Textbox	False
DriverProviderName:	DriverProviderName:	Textbox	True
DriverVersion:	DriverVersion:	Textbox	False
FriendlyName:	FriendlyName:	Textbox	False
HardWareID:	HardWareID:	Textbox	True
InfName:	InfName:	Textbox	False
IsSigned:	IsSigned:	Textbox	False
Manufacturer:	Manufacturer:	Textbox	False

Name:	Name:	Textbox	False
PDO:	PDO:	Textbox	False
Signer:	Signer:	Textbox	False
Download Link	Download Link	Textbox	False
IsRequired	IsRequired	CheckBox	False
Add Driver	Add Driver	Button	False

Database Information (Yellow is Required)

Table	Item	Database Access	Required
Computer	Computerid	Select	True
Driver	CompatID:	Insert	True
Driver	Description:	Insert	True
Driver	DeviceClass:	Insert	True
Driver	DeviceID:	Insert	False
Driver	DeviceName:	Insert	False
Driver	DriverDate:	Insert	False
Driver	DriverProviderName:	Insert	True
Driver	DriverVersion:	Insert	False
Driver	FriendlyName:	Insert	False
Driver	HardWareID:	Insert	True
Driver	InfName:	Insert	False
Driver	IsSigned:	Insert	False
Driver	Manufacturer:	Insert	False
Driver	Name:	Insert	False
Driver	PDO:	Insert	False
Driver	Signer:	Insert	False
Driver	httpurl	Insert	False
Driver	IsRequired	Insert	False

Edit Driver Information Validation Page:

Page Summary:

This page allows you to edit driver information.

Image Validation Administrator Portal - Results Administration Page

http://

Validation Record Administration Validation Record Search

Computer Information
Driver Information
Application Information
Registry Setting Checks
File and Folder Checks
Hotfixes

Validation Record ID 123456

Driver Information
Edit Driver Admin Page

CompatID: USB\Class_03SubClass_01Prot_ FriendlyName:

Description: Hotkey Driver for Panasonic PC HardWareID: ACPI\VEN_MAT&DEV_0019

DeviceClass: SYSTEM InfName: oem12.inf

DeviceID: ACPI\MAT0019\2DABA3FF1 IsSigned: True

DeviceName: Hotkey Driver for Panasonic PC Manufacturer: Panasonic

DriverDate: 4/12/2012 Name:

DriverProviderName: Panasonic PDO: \Device\0000002b

DriverVersion: 11.2.1100.0 Signer: Microsoft Windows Hardware

Download URL: http://www.panasonic.com/toughbo ☒ Is Required

Update Driver

Form Information:

Label	Item	Form Component	Required
Computerid	Validation Record ID	Label	True
CompatID:	CompatID:	Textbox	False
Description:	Description:	Textbox	True
DeviceClass:	DeviceClass:	Textbox	True
DeviceID:	DeviceID:	Textbox	False
DeviceName:	DeviceName:	Textbox	False
DriverDate:	DriverDate:	Textbox	False
DriverProviderName:	DriverProviderName:	Textbox	True
DriverVersion:	DriverVersion:	Textbox	False
FriendlyName:	FriendlyName:	Textbox	False
HardWareID:	HardWareID:	Textbox	True
InfName:	InfName:	Textbox	False
IsSigned:	IsSigned:	Textbox	False

Manufacturer:	Manufacturer:	Textbox	False
Name:	Name:	Textbox	False
PDO:	PDO:	Textbox	False
Signer:	Signer:	Textbox	False
Download Link	Download Link	Textbox	False
IsRequired	IsRequired	CheckBox	False
Update Driver	Update Driver	Button	True

Database Information (Yellow is Required)

Table	Item	Database Access	Required
Computerid	Validation Record ID	Label	True
Driver	CompatID:	Update	True
Driver	Description:	Update	True
Driver	DeviceClass:	Update	True
Driver	DeviceID:	Update	False
Driver	DeviceName:	Update	False
Driver	DriverDate:	Update	False
Driver	DriverProviderName:	Update	True
Driver	DriverVersion:	Update	False
Driver	FriendlyName:	Update	False
Driver	HardWareID:	Update	True
Driver	InfName:	Update	False
Driver	IsSigned:	Update	False
Driver	Manufacturer:	Update	False
Driver	Name:	Update	False
Driver	PDO:	Update	False
Driver	Signer:	Update	False
Driver	httpurl	Update	False
Driver	IsRequired	Update	False

Application Information Validation Record Page:

Page Summary:

This page is a grid that lists all the applications associated with a specific Validation Record.

Image Validation Administrator Portal - Results Administration Page

Validation Record Administration Validation Record Search

Validation Record ID 123456

Computer Information
Driver Information
Application Information
Registry Setting Checks
File and Folder Checks
Hotfixes

Application Name^	Version	Required	Action
Hotkey Appendix	13.1	<input checked="" type="checkbox"/>	Delete Edit
Hotkey Settings	12.1	<input checked="" type="checkbox"/>	Delete Edit
Loupe Utility	12.1	<input checked="" type="checkbox"/>	Delete Edit
PC Information Viewer	9.1	<input checked="" type="checkbox"/>	Delete Edit
Battery Calibration	12.1	<input checked="" type="checkbox"/>	Delete Edit
PC Common	9.1	<input checked="" type="checkbox"/>	Delete Edit

Add Application

Required:
Custom Boolean option. All applications by default should be set to require. However admin should be able to uncheck if Application is not required.

Application Information:
When you click Edit it should have the following information available from the Following Registry Key:
x64 Registry Key
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Uninstall
x86 Registry Key
HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Uninstall

Information in Edit Page if available in Registry. (Check XLSX file if information should be editable or just readable)
DisplayName, DisplayVersion, Publisher, VersionMinor, VersionMajor, Version, HelpLink, HelpTelephone, InstallDate, InstallLocation, InstallSource, URLInfoAbout, URLUpdateInfo, Comments, AuthorizedCDFPrefix, Contact, EstimatedSize, Language, ModifyPath, Readme, UninstallString, SettingsIdentifier

Database Access Information:

Table	Database Field	Access	Notes
Computer	ComputerId	Select	
Application	DisplayName	Select	Shown on Grid
Application	DisplayVersion	Select	Shown on Grid
Application	Publisher	Select	
Application	VersionMinor	Select	
Application	VersionMajor	Select	
Application	Version	Select	
Application	HelpLink	Select	
Application	HelpTelephone	Select	
Application	InstallDate	Select	
Application	InstallLocation	Select	
Application	InstallSource	Select	
Application	URLInfoAbout	Select	
Application	URLUpdateInfo	Select	

Application	Comments	Select	
Application	AuthorizedCDFPrefix	Select	
Application	Contact	Select	
Application	EstimatedSize	Select	
Application	Language	Select	
Application	ModifyPath	Select	
Application	Readme	Select	
Application	UninstallString	Select	
Application	SettingsIdentifier	Select	
Application	IsRequired	Select/Update	Shown on Grid. This field should be automatically able to change the status of the database when checked (true) or unchecked (false)
Application	Download Link	Select	

Add Application Information Record Validation Page:

Image Validation Administrator Portal - Results Administration Page

http://

Validation Record Administration Validation Record Search

Computer Information
Driver Information
Application Information
Registry Setting Checks
File and Folder Checks
Hotfixes

Validation Record ID 123456

Application Information

Add Application Page: Use this page to add an application that wasn't populated using the collection tool.

DisplayName
 DisplayVersion
 Publisher
 VersionMinor
 VersionMajor
 Version
 HelpLink
 HelpTelephone
 Readme
 UninstallString
 SettingsIdentifier
 Download Link

InstallDate
 InstallLocation
 InstallSource
 URLInfoAbout
 URLUpdateInfo
 Comments
 AuthorizedCDFPrefix
 Contact
 EstimatedSize
 Language
 ModifyPath

☐ Is Required

Add Application

Form Information:

Control	Database Field	Notes
TextBox	ComputerId	Grayed out Not Editable
TextBox	DisplayName	
TextBox	DisplayVersion	
TextBox	Publisher	
TextBox	VersionMinor	
TextBox	VersionMajor	
TextBox	Version	
TextBox	HelpLink	
TextBox	HelpTelephone	
TextBox	InstallDate	
TextBox	InstallLocation	
TextBox	InstallSource	
TextBox	URLInfoAbout	
TextBox	URLUpdateInfo	

TextBox	Comments	
TextBox	AuthorizedCDFPrefix	
TextBox	Contact	
TextBox	EstimatedSize	
TextBox	Language	
TextBox	ModifyPath	
TextBox	Readme	
TextBox	UninstallString	
TextBox	SettingsIdentifier	
CheckBox	IsRequired	
TextBox	Download Link	
Button	Add Application	

Database Access Information:

Table	Database Field	Access	Notes
Computer	ComputerId	Select	
Application	DisplayName	Insert	
Application	DisplayVersion	Insert	
Application	Publisher	Insert	
Application	VersionMinor	Insert	
Application	VersionMajor	Insert	
Application	Version	Insert	
Application	HelpLink	Insert	
Application	HelpTelephone	Insert	
Application	InstallDate	Insert	
Application	InstallLocation	Insert	
Application	InstallSource	Insert	
Application	URLInfoAbout	Insert	
Application	URLUpdateInfo	Insert	
Application	Comments	Insert	
Application	AuthorizedCDFPrefix	Insert	
Application	Contact	Insert	
Application	EstimatedSize	Insert	
Application	Language	Insert	
Application	ModifyPath	Insert	
Application	Readme	Insert	
Application	UninstallString	Insert	
Application	SettingsIdentifier	Insert	
Application	IsRequired	Insert	
Application	Download Link	Insert	

Edit Application Information Validation Record Page:

Page Summary:

This page allows the Application information to be updated.

The screenshot displays a web application interface titled "Image Validation Administrator Portal - Results Administration Page". The interface includes a navigation bar with tabs for "Validation Record", "Administration", and "Validation Record Search". On the left, a sidebar lists various information categories: "Computer Information", "Driver Information", "Application Information", "Registry Setting Checks", "File and Folder Checks", and "Hotfixes". The main content area is titled "Edit Application Page" and shows the "Application Information" for a specific "Validation Record ID" of 123456. The form contains several input fields for application details, including "DisplayName" (set to "Display Selector"), "DisplayVersion" (set to "1.0.1200.0"), "Publisher", "VersionMinor", "VersionMajor", "Version", "HelpLink", "HelpTelephone", "Readme", "UninstallString", "SettingsIdentifier", "Download Link", "InstallDate", "InstallLocation", "InstallSource", "URLInfoAbout", "URLUpdateInfo", "Comments", "AuthorizedCDFPrefix", "Contact", "EstimatedSize", "Language", and "ModifyPath". There is also a checkbox labeled "Is Required". At the bottom of the form, there are two buttons: "Update Application" and "Add Device Dependency".

Control	Database Field	Notes
Validation Record ID	ValidationRecordID	123456
Application Information	ApplicationInformation	
DisplayName	DisplayName	Display Selector
DisplayVersion	DisplayVersion	1.0.1200.0
Publisher	Publisher	
VersionMinor	VersionMinor	
VersionMajor	VersionMajor	
Version	Version	
HelpLink	HelpLink	
HelpTelephone	HelpTelephone	
Readme	Readme	
UninstallString	UninstallString	
SettingsIdentifier	SettingsIdentifier	
Download Link	Download Link	
InstallDate	InstallDate	
InstallLocation	InstallLocation	
InstallSource	InstallSource	
URLInfoAbout	URLInfoAbout	
URLUpdateInfo	URLUpdateInfo	
Comments	Comments	
AuthorizedCDFPrefix	AuthorizedCDFPrefix	
Contact	Contact	
EstimatedSize	EstimatedSize	
Language	Language	
ModifyPath	ModifyPath	
Is Required	Is Required	

Form Information:

Control	Database Field	Notes
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TextBox	ComputerId	Grayed out Not Editable
TextBox	DisplayName	Required
TextBox	DisplayVersion	Required
TextBox	Publisher	
TextBox	VersionMinor	
TextBox	VersionMajor	
TextBox	Version	
TextBox	HelpLink	
TextBox	HelpTelephone	
TextBox	InstallDate	
TextBox	InstallLocation	
TextBox	InstallSource	
TextBox	URLInfoAbout	
TextBox	URLUpdateInfo	
TextBox	Comments	
TextBox	AuthorizedCDFPrefix	
TextBox	Contact	
TextBox	EstimatedSize	
TextBox	Language	
TextBox	ModifyPath	
TextBox	Readme	
TextBox	UninstallString	
TextBox	SettingsIdentifier	
CheckBox	IsRequired	
TextBox	Download Link	
Button	Update Application	
Button	Add Device Dependency	

Database Access Information:

Table	Database Field	Access	Notes
Computer	ComputerId	Select	Required
Application	DisplayName	Update	Required
Application	DisplayVersion	Update	Required
Application	Publisher	Update	
Application	VersionMinor	Update	
Application	VersionMajor	Update	
Application	Version	Update	
Application	HelpLink	Update	
Application	HelpTelephone	Update	

Application	InstallDate	Update	
Application	InstallLocation	Update	
Application	InstallSource	Update	
Application	URLInfoAbout	Update	
Application	URLUpdateInfo	Update	
Application	Comments	Update	
Application	AuthorizedCDFPrefix	Update	
Application	Contact	Update	
Application	EstimatedSize	Update	
Application	Language	Update	
Application	ModifyPath	Update	
Application	Readme	Update	
Application	UninstallString	Update	
Application	SettingsIdentifier	Update	
Application	IsRequired	Update	
Application	Download Link	Update	

Add Device Driver Application Dependency Page:

Page Summary:

Many applications require a certain driver to be installed on the device before it will work. This page allows you to add a device driver dependency to an application.

Image Validation Administrator Portal - Results Administration Page

Validation Record Administration Validation Record Search

Computer Information
Driver Information
Application Information
Registry Setting Checks
File and Folder Checks
Hotfixes

Validation Record ID 123456

Application Information

Add a Device Dependency on an Application
Some applications require that a certain device be in the computer. Use this page to associate an application with a device.

Note: A device driver record must already be in the system in order to associate it with an application. Add the device first if it is not already added. Click the Add Device Driver Button below

Application Name: Hotkey Appendix Application:

Driver Name^	Hardware ID	Add Dependency
Intel WIFI Adapter	ACPI\VEN_MAT&DEV_0019	<input type="checkbox"/>
Intel NIC Adapter	ACPI\VEN_MAT&DEV_0019	<input type="checkbox"/>
ATI Video Adapter	ACPI\VEN_MAT&DEV_0019	<input type="checkbox"/>
SoundMax Audio	ACPI\VEN_MAT&DEV_0019	<input checked="" type="checkbox"/>
TPM Driver	ACPI\VEN_MAT&DEV_0019	<input type="checkbox"/>

Add Device Driver Add Device Dependency

Form Information:

Display a Grid with all the Device Drivers for a Specific Validation Record. On the Grid the Driver Name (DeviceName), HardwareID, and a CheckBox will be displayed that allows you to choose the device as a Dependency and after click Add Device Dependency it will associate that device to the Application.

Database Information:

Table	Field	Action	Evaluation
Application	ApplicationID	Select	
ApplicationDriverDependency	ApplicationID	Insert	
Driver	DriverID	Select	
ApplicationDriverDependency	DriverID	Insert	

Registry Setting Checks Validation Record Page:

Page Summary:

This page allows the user to upload a Registry file (.REG). It will parse the registry file and store it within the database. Unlike the other Validation pages the Registry page is manually uploaded by the user.

The other pages besides File and Hotfixes are automatically populated using the Collection Tool. The existing registry files that have been uploaded are presented in Grid and allows the following actions: Delete, Edit

Image Validation Administrator Portal - Results Administration Page

Validation Record Administration Validation Record Search

Computer Information
Driver Information
Application Information
Registry Setting Checks
File and Folder Checks
Hotfixes

Validation Record ID: 123456

Registry File Check Utility
Select a Registry File (.REG) to add registry settings that should be checked for in the image.

File ID	Registry File Name	Action
34513	WWAN.reg	Delete Edit
34526	Tablet.reg	Delete Edit
35261	Touchscreen.reg	Delete Edit

File ID:
When a Registry File is imported each key imported is associated with that File ID (Registry File). All registry settings associated with a file have the same File ID. One file note can be associated with

File Note (Registry File Note):
When a Registry File is imported the table is given a Registry File Group ID. All registry settings associated with a file have the same Group ID. One note can be associated with a registry file. When

Form Information:

File Upload Dialog: Allows a registry File (.Reg) to be uploaded. The Code will then parse the file and store the information in the database (Tables: Registry, RegistryGrouping, RegistryGroup).

Database Information:

See UML Diagram: [UMLDiagram.jpg](#)

Edit Registry Settings Checks Validation Record Page:

Page Summary:

Allows the User to add a note to a registry file or to delete the record. This page doesn't allow the user to edit specific settings. If that was necessary the user can delete the record and upload a new REG file.

Image Validation Administrator Portal - Results Administration Page

Validation Record Administration Validation Record Search

Computer Information
Driver Information
Application Information
Registry Setting Checks
File and Folder Checks
Hotfixes

Validation Record ID: 123456

Registry Setting Checks

View Registry File Information: File ID: 34513

Registry Key	Value	Value Data	Type
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows	DisplayName	1112	DWORD
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows	Name	1112	DWORD
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows	DisplayVersion	1112	DWORD
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows	UninstallString	1112	DWORD
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows	InstallDirectory	1112	DWORD

Add Note or Instructions to Registry File

B I U

Add Note / Instructions Delete Registry

Form Information:

Note Text area with RTF that allows instructions to be added to the Registry File.

Database Information:

See UML Diagram: [UMLDiagram.jpg](#)

File and Folder Checks Validation Record Page:

Page Summary:

This page allows the user to add files and folders that should be checked when the Validation Tool is run. The user can add certain files and folders that should exist in the image.

Image Validation Administrator Portal - Results Administration Page

Validation Record Administration Validation Record Search

Computer Information
Driver Information
Application Information
Registry Setting Checks
File and Folder Checks
Hotfixes

Validation Record ID: 123456

File and Folder Checks

Add File or Folder

Browse and Select: Browse

or

Manually Enter Info:

Note / Instructions

B **I** **U**

Add File or Folder

File and Folders	Note	Type	Action
C:\Windows\Panasonic		Folder	Delete Edit
C:\Program Files\Panasonic\MCA		Folder	Delete Edit
C:\Program Files\Panasonic\MCA\mca.dll		File	Delete Edit

This window allows the Administrator to set Files and Folders that should be verified that exists in the image. The Administrator can either select the folder or file and it add it to the database. When the Validation Client is run it will check that these files and folders exists in the image.

Form Information:

The page gives the user two options to add a Folder or File.

Option 1: Browse to the folder or file.

Option 2: Just manually enter the path to the file or folder

Note: It allows the user to add a note or instructions regarding the file/folder settings.

Grid:

A grid is available to see files and folders that have been added and it gives the user the option to Edit or Delete the records.

Database Information:

See UML Diagram: [UMLDiagram.jpg](#)

Edit File and Folder Validation Checks Page:

Page Summary:

This page allows you to Edit File and Folder Information:

Image Validation Administrator Portal - Results Administration Page

Validation Record Administration Validation Record Search

Computer Information
Driver Information
Application Information
Registry Setting Checks
File and Folder Checks
Hotfixes

Validation Record ID 123456

File on Folder Checks

Edit File and Folder Check

Edit File or Folder

Browse and Select File Browse Dialog

or

Manually Enter Info Add File

Note / Instructions

B Z U **style**

You need to download the NewMisc driver to and import the reg file

Current Folder or File:

Form Information:

The page gives the user two options to update a Folder or File validation record.

Option 1: Browse to the folder or file.

Option 2: Just manually enter the path to the file or folder

Note: It allows the user to add/update a note or instructions regarding the file/folder setting.

Database Information:

See UML Diagram: [UMLDiagram.jpg](#)

Hotfixes Validation Record Page:

Page Summary:

This page lists all the Microsoft Hotfixes that are stored in a Validation Record.

The screenshot shows a web application interface for the 'Image Validation Administrator Portal - Results Administration Page'. The browser address bar shows 'http://'. The page has three tabs: 'Validation Record', 'Administration', and 'Validation Record Search'. The 'Validation Record' tab is active. On the left, there is a sidebar with a list of categories: 'Computer Information', 'Driver Information', 'Application Information', 'Registry Setting Checks', 'File and Folder Checks', and 'Hotfixes'. The 'Hotfixes' category is selected. The main content area displays 'Validation Record ID 123456' and a section titled 'Microsoft Hotfixes'. Below this title is a table with the following data:

Microsoft Hotfixes^	Required	Action▼
KB111112	<input checked="" type="checkbox"/>	Delete
KB111111	<input checked="" type="checkbox"/>	Delete
KB111113	<input checked="" type="checkbox"/>	Delete
KB111114	<input checked="" type="checkbox"/>	Delete
KB111116	<input type="checkbox"/>	Delete

Below the table is an 'Update Hotfixes' button. A yellow sticky note is attached to the bottom right of the page with the text: 'All Hotfixes by default when imported will be marked as Required. On this page the Administrator should have the ability to uncheck the Hotfix'.

Database Information:

See UML Diagram: [UMLDiagram.jpg](#)

Delete Operation Screen:

Summary: All Delete Operations should display an Alert Box before allowing a Delete.

Alert

Are you sure your want to
perform a Delete Operation

No

Yes