



# Ford Qwikboard User Guide

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## **1. Welcome to the Ford Qwikboard User Guide**

In this guide you will learn how to use the Ford Qwikboard, an online collaborative web application that allows multiple users from different locations to share and document ideas. By

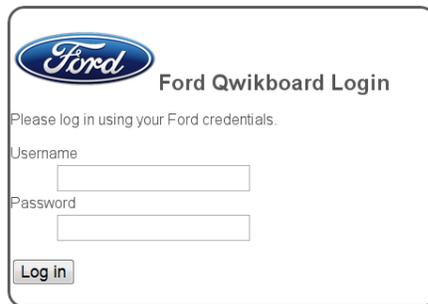
the end of this tutorial you should be able to quickly and easily create and use your own Qwikboards and ideas.

We will begin by briefly introducing you to key features and walk you through a how to create your own Qwikboard.

## **2. First Time Login**

After you open the Ford Qwikboard Web App in your favorite browser the login screen will be displayed prompting you for your user name and password. Currently your username and password is your current Ford username and password that is stored within Ford's own LDAP database.

- Please note if you would like to give a new user access to the program you must add his or her username and password to the LDAP database.
- Currently the Ford Qwikboard functions only in the latest web browsers so please be sure to update your current browsers to the latest versions.

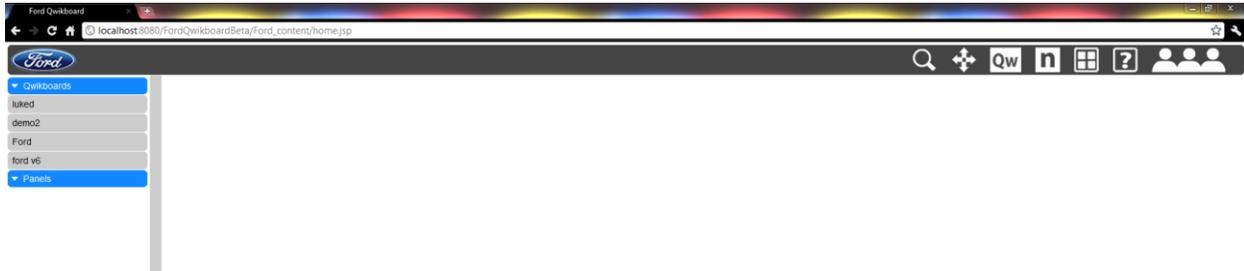


The screenshot shows a login form with the following elements:

- Ford logo (blue oval with white script)
- Title: Ford Qwikboard Login
- Instruction: Please log in using your Ford credentials.
- Username label and input field
- Password label and input field
- Log in button

## **3. Dashboard**

Once you have logged into the application you will be presented with your dashboard. There are three main areas in the application: the toolbar, left panel, and canvas area.



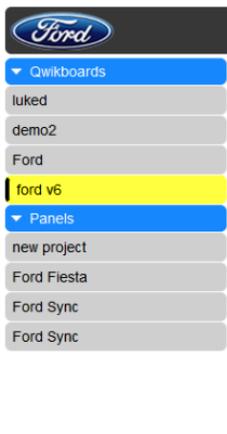
### 3.1- Canvas Area

The largest area in the application is the canvas area. The canvas area is where you place all your QwikNotes and Panels. Here you can resize, edit content, place, and move your QwikNotes around to your specification.

### 3.2 - Left Panel

The Left Panel area is a collapsible panel that houses all your Qwikboards and Panels. This area is also where you select the Qwikboard you wish to work with. The panel is collapsible so if you want more space to work with on the canvas you can simply press the grey bar and collapse the panel.

We will go into further detail later on in the tutorial.



### 3.3- Toolbar



The toolbar houses all the features that you will need to create a Qwikboard. We will go into further detail in the tutorial but here is a quick run thru.

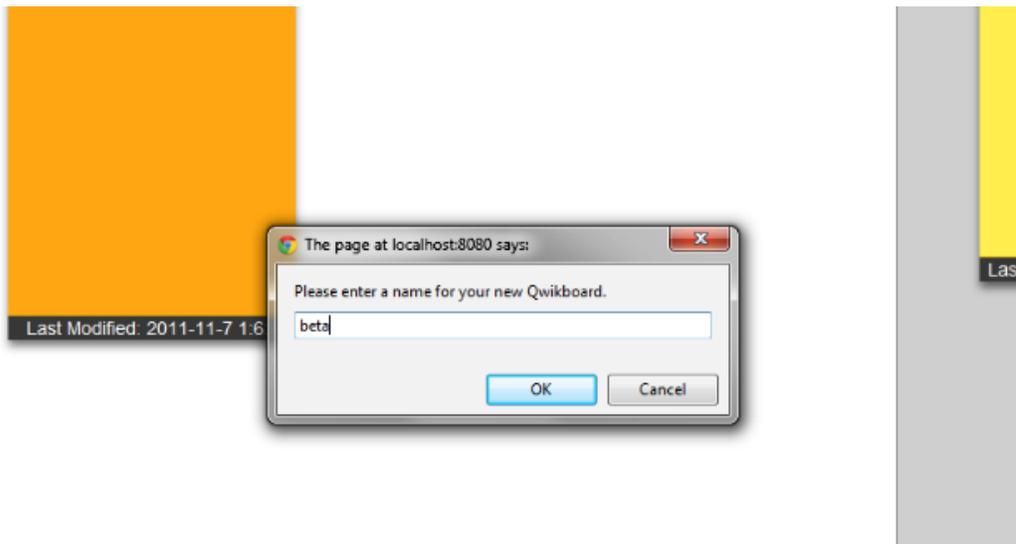
- 1) This Cross Hair button activates mobile support allowing you better control pan the canvas and move notes when you are using a mobile device such as a smart phone. 
- 2) The “Qw” button creates a new Qwikboard. 
- 3) The “N” button creates and places a new QwikNote onto the canvas. 
- 4) The Panel button creates new panel and places it onto the canvas. 
- 5) The Help button opens a quick cheat sheet on how to use this application and download option for this tutorial
- 6) The Permission button allows you to give access to your Qwikboards to other users.

## 4. Let's Get Started

As a new user when you first log in you will notice that the Left Panel is empty. That is because you have not created any new Qwikboards yet. Let's rectify this.

### 4.1 -Creating a New Qwikboard

- 1) In the Toolbar locate the “Qw” button.  Simply press it. This will bring up a message prompt.
- 2) Name your Qwikboard however you want and then click ok.

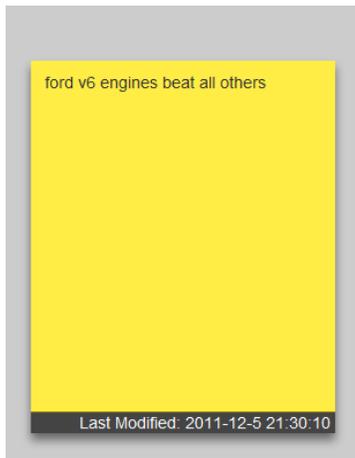


- 3) Once you do you will notice that in the Left Panel your new Qwikboard has now been added to the Qwikboards List. The List has all your current Qwikboards.
- 4) Now you are ready to start adding QwikNotes.

#### 4.2 - Adding a New QwikNote

In order to add a new QwikNote to a Qwikboard you must first select the desired Qwikboard to add that QwikNote by selecting that Qwikboard in the Left Panel.

- 1) Locate the New QwikNote button on the toolbar.  Simply press the button and double click the desired location of the note on the canvas and a note will appear on the canvas with the default size. Notice that the mouse cursor has turned into a crosshair.



#### 4.3 - Moving a QwikNote

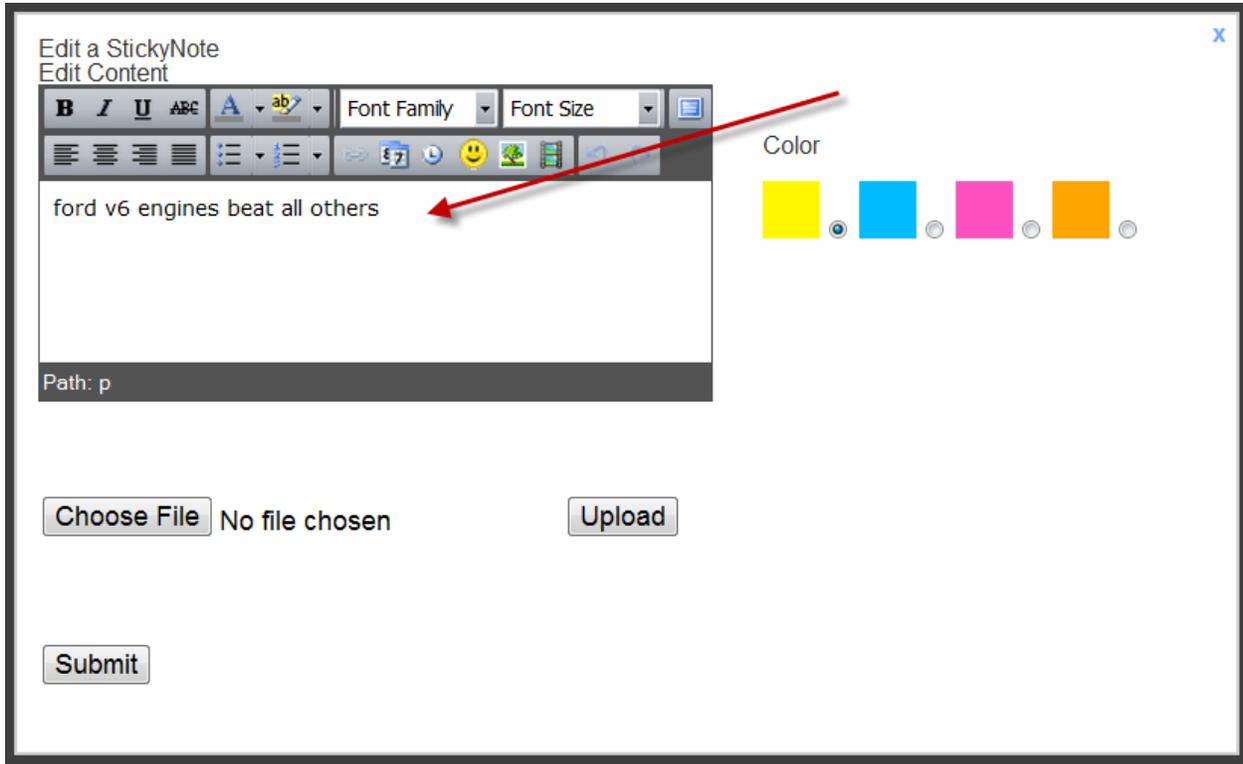
A note can be moved around the canvas by simply clicking on the desired note and while holding down the left button drag the note to your desired location and then letting go of the left mouse button.

#### 4.4 - Adding Content

A QwikNote's content is left blank by default. To add content:

- 1) Locate the Edit Button on top of the Note and click.
- 2) A pop up window will be displayed.
- 3) To add content simply begin typing in the rich text box in this window.

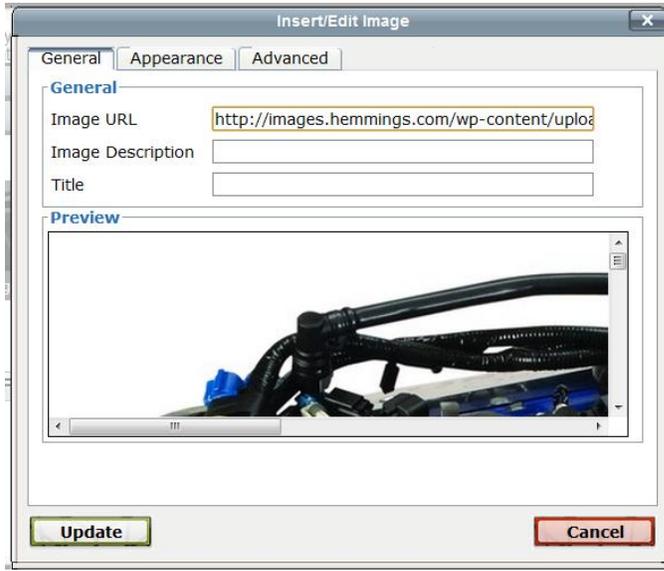
Within the rich text box you can choose your font, style, font size, orientation and more. Just like any text editor. Here you can also change the color, add file attachments, video, and pictures.



#### 4.5 - Adding Linked Picture

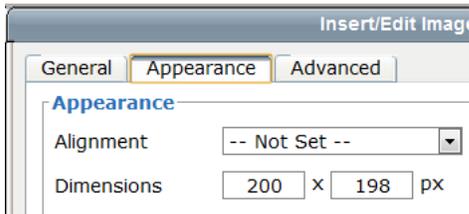


- 1) To add pictures from a web site look for the Picture Icon in the Rich Text Box.
- 2) A window will pop up and simply paste the link in the required field.



3) In order to resize click the Appearance tab and under dimensions enter your desired dimensions.

The recommended Size: 200 x 200 pixels.



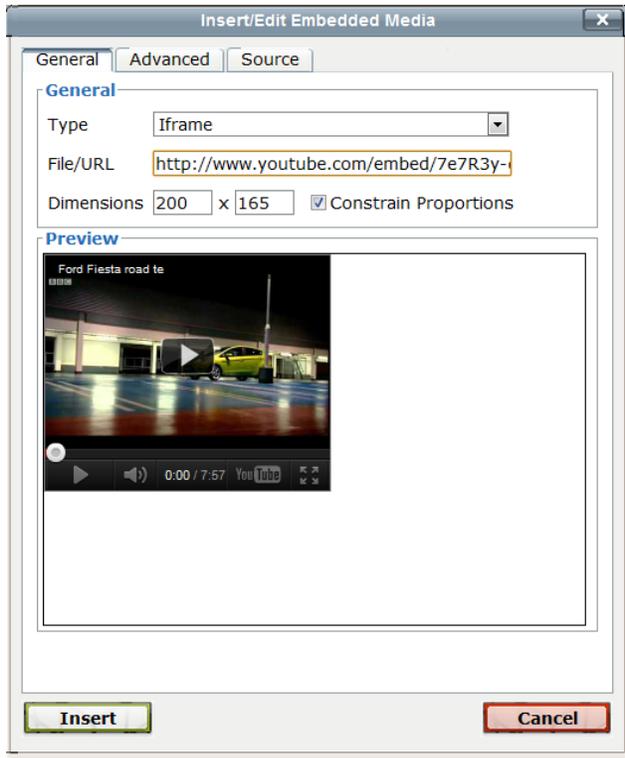
Feel free to play around with the other options to display your image.

#### 4.6 - Adding a Linked Video



1) To add a video from a web site look for the Insert Embedded Media Icon in the Rich Text Box.

2) A window will pop up and simply paste the link in the required field.



3) In order to resize the video just enter your desired dimensions into the dimension field.

The recommended Size: 200 x 200 pixels.

#### 4.7 - Changing Color

Color



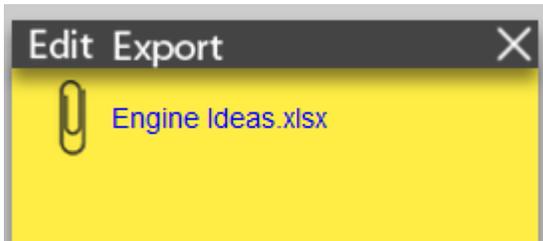
To change the QwikNote color simply select your desired color by clicking on the radio button next to the desired color.

#### 4.8 - File Attachments

Choose File No file chosen

Upload

- 1) To add file attachments simply click the browse button and navigate to your desired file.
- 2) Select your chosen file and press Ok.
- 3) A paperclip icon with the file name will appear on the note.
- 4) You and other users can download this file by simply clicking on this link.



#### 4.9- Power Point Export

Currently you can export a single QwikNote into a Power Point Slide

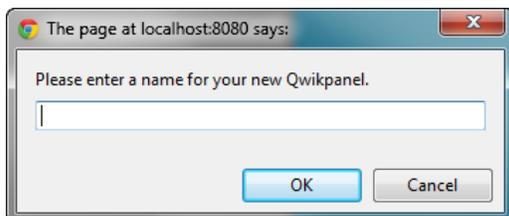
- 1) Click the Export button. The QwikNote is now saved into Power Point.
- 2) The new Power Point file will be automatically saved by your browser to your desktop.



#### 4.10 - Adding a Panel

Sticky notes maybe organized with the use of "Panels". Panels are areas used to organize sticky notes into a group visually. Panels also act as a navigation tool for the user since the Qwikboard canvas is an infinite space, users may lose their notes on the board. The Panels act as a quick jump to a location on screen to where the Panel is located even if it is off-screen.

- 1) Locate the New Panel button on the toolbar and click. 
- 2) A new window pops up and asks you to name your Panel. Enter your desired Panel Name.



- 3) You will notice now that the cursor has changed into a cross hair.

- 4) Now navigate back to the canvas to your desired location.
- 5) Press and hold the left mouse button and drag to your desired size for the Panel. Notice the rectangle that represents the Panel's current size.
- 6) Once you reach your desired size release the left mouse button and the Panel will be placed onto the Canvas and into the Panel List.



Panels can also be dragged much like a QwikNote they may also be resized.

## ***5. User Permission Levels***

Multiple users will have access to a Qwikboard at the same time. Permission levels are set by the creator of a Qwikboard. The creator than can give access to other users by selecting their desired Qwikboard and then pressing the Permissions button which will open a modal window allowing a user to grant access to other users.

Permissions will be operated at a Qwikboard level with the following:

- **Admin**
  - Able to create / read / update / delete all notes on a Qwikboard
  - Able to delete the Qwikboard as a whole.
  - Able to manage other user permissions on the Qwikboard
  - (Original Admin cannot have his permissions changed)
- **Member**
  - Able to create / read / update notes on a Qwikboard
  - Can delete own notes
- **Visitor**
  - Able to read notes on a Qwikboard, but not update

### **5.1 Editing User Permission Levels**

- 1) Select your desired Qwikboard in the Left Panel

- 2) Press the Permissions button. A new window pops up. 
- 3) Type in the username that you desire to give access to the selected Qwikboard.

## Permission Setting

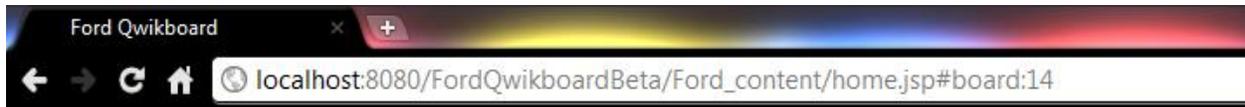
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Username	Role
<input type="text"/>	None <input type="button" value="v"/>
<input type="button" value="Submit"/>	

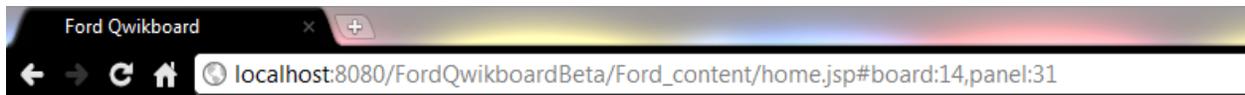
- 4) In the drop down menu select the desired Permission Level and then hit Ok. The user will now be given access to that Qwikboard based on the Permission Level you gave.

## 6. Sharing with Other Users

Users can share their boards by simply copying and pasting the link of their current board which they can send to the person they want to share with.



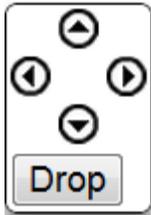
Once the receiving user has received the link they can paste in the URL to open that particular board or panel.



## 7. Mobile Support

For mobile support, in order for a user to navigate, move and edit notes the user can press the Mobile Button which is located within the toolbar. Once it is pressed the mobile navigation buttons are displayed allowing the user to move a note by selecting the desired note and pressing the desired direction to move a note.

- 1) Press Mobile button  .
- 2) Navigation Menu Pops Up.



- 3) Then Select your desired note and click the direction you wish to move it. Then click drop to place new position
- 4) To pan the Canvas click on a blank area on the canvas and then click the direction you wish to move. Then click drop to update current Canvas position.

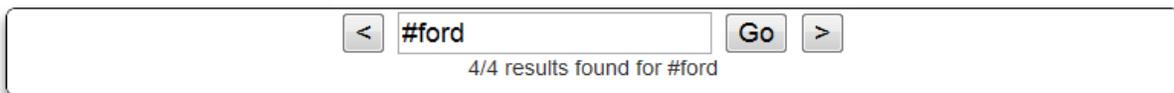
## 8. Hash Tags

The Qwikboard supports the use of hash tags '#' by simply writing that hash tag and saving it as part of the note content.

- 1) Hash tags can then be searched per Qwikboard by clicking the search tool located in the toolbar.



- 2) Once clicked a popup toolbar appears at the bottom of the screen.
- 3) You simply enter the desired hash tag in input field and press 'Go.'

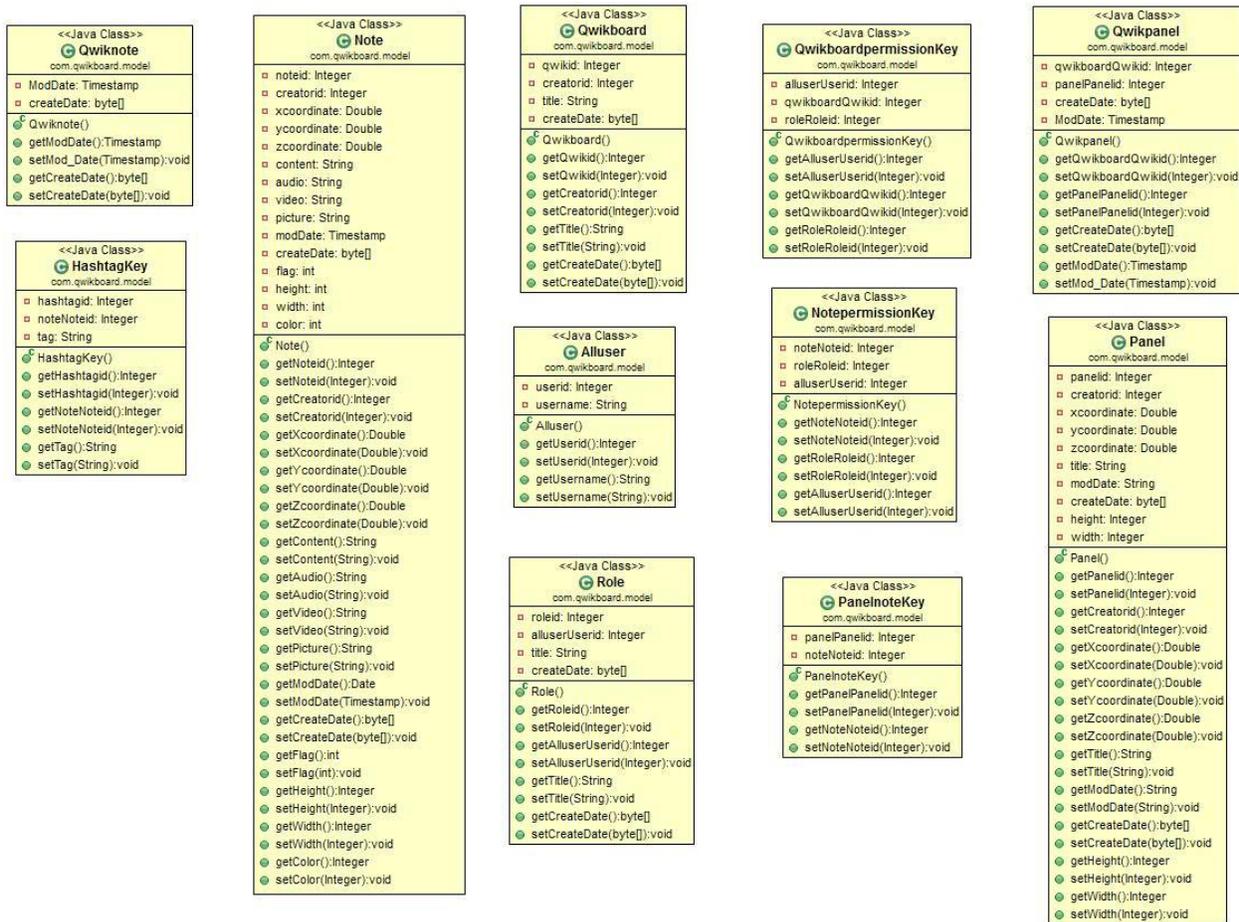


The number of times that hash tag appears in the current Qwikboard is displayed and you can navigate forward or backward to the next or previous appearance of that hash tag by clicking the Left or Right Arrow buttons.

## 9. Administrator/Developer Manual

### 9.1 Class Diagram

Here is a brief overview of how our Classes interact.

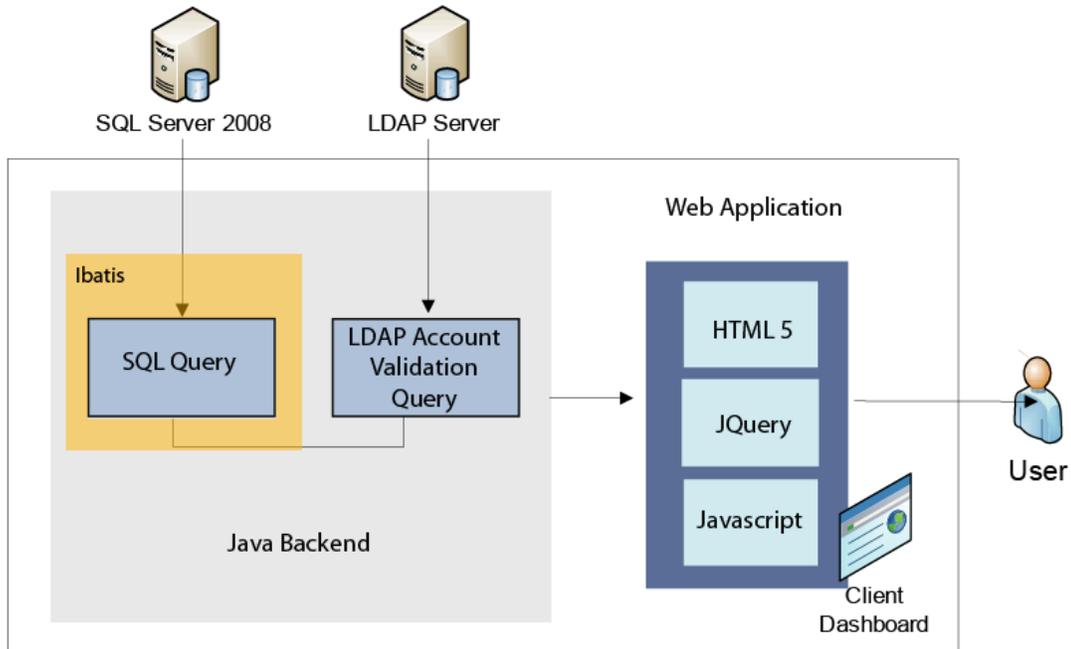


### 9.2 System Architecture

Overall the Ford Qwikboard Project follows the traditional architecture associated with Web Site Development with a client facing frontend and database driven backend which is fairly simple.

The client side is written in HTML 5, JavaScript, and jQuery. There are two backend databases with different purposes, one for saving Qwikboard content (MS SQLServer 2008 R2) and one for user authentication (LDAP). The client and server side (databases) communicate with each other thru AJAX

calls written in Java. While the MS SQLServer is mapped with myBatis which we will go into further detail.



### 9.3 Client Side Front End & User Interface

The entirety of the client side consists of two files:

- Login.jsp: User Login Page
- Home.jsp : Primary Interface for the web application

Both are primarily written in HTML 5, JavaScript, and jQuery. For future features and functionality Home.jsp is where you would want to add additional code. Home.jsp is where all Qwikboards, Sticky Notes, and Panels are created, rendered by the Web Browser, and stored into the database. And it is also where we handle user interaction in the form of button clicks, mouse events and drag and drops.

It is also where the Toolbar, Qwikboard List Panel, and Canvas area are rendered for the User Interface.

### 9.4 LDAP (Lightweight Directory Access Protocol)

The primary use of the LDAP server is to simulate Ford's own LDAP implementation to handle user authentication into the website. Since this is meant to be based off of Ford's existing schema there is no need to add or delete users in the Ford Qwikboard Application itself.

The primary reason being that the application simply queries the LDAP from the Login.jsp to make sure what the user inputted into the Login fields is a valid user. And since this application is only meant only for current Ford employees that already exist in Ford's LDAP database there is no need to add or delete users in the web application since that should be handled by whoever is in charge of the current employee directory.

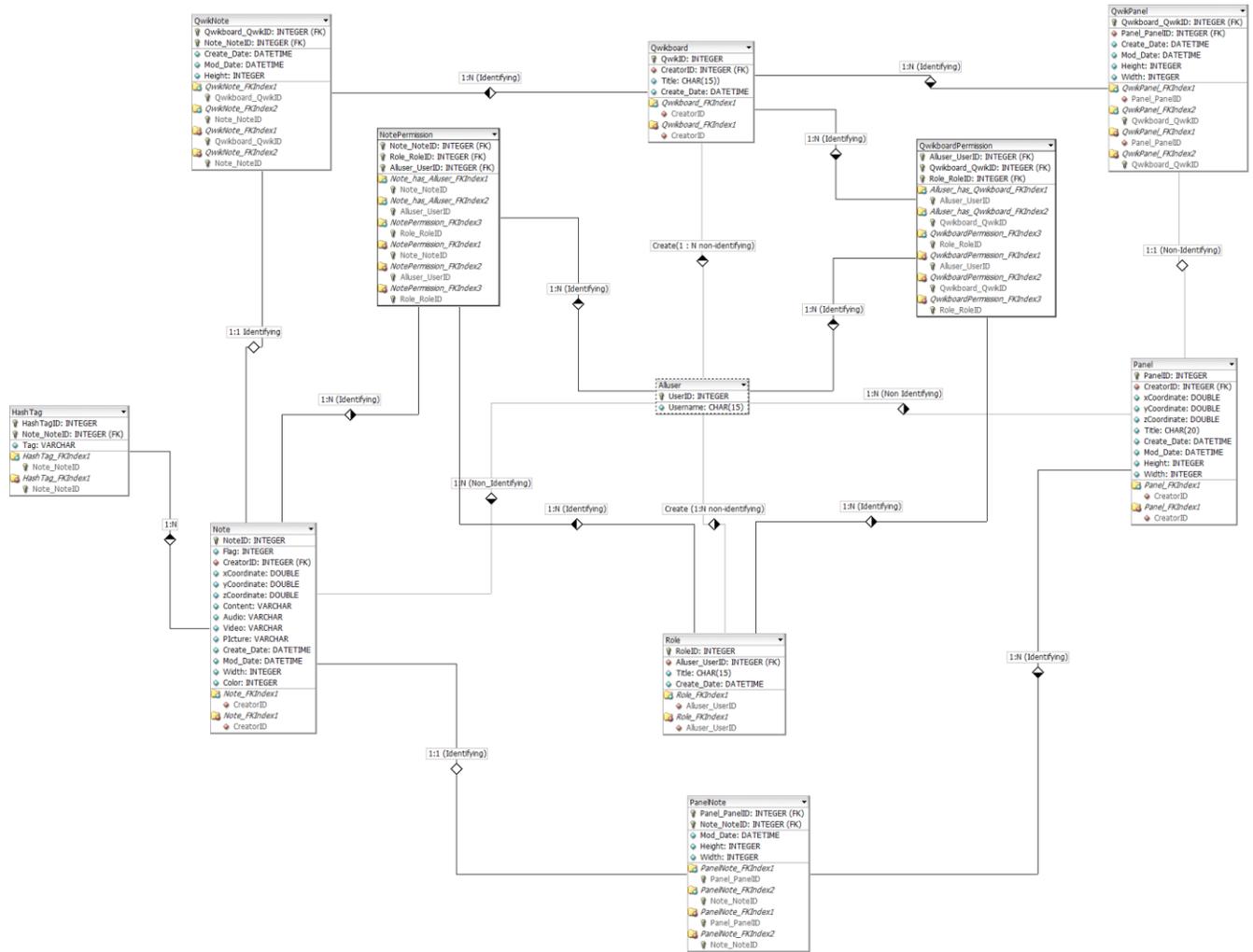
If you wish to learn more about LDAP you can visit <http://www.openldap.org/>.

### ***9.5 MS SQLServer 2008 R2***

The MS SQL Server database is used to store Qwikboards and Sticky Notes and their content. The reason MS SQL Server 2008 was chosen was because this is the preferred database of choice for Ford.

To create and maintain this database please refer to Microsoft's MSDN website (<http://www.microsoft.com/sqlserver/en/us/default.aspx>) where they have great documentation on how to use MS SQL Server 2008 to create and maintain your own database.

On the next page is the current database schema implemented for the Ford Qwikboard Project.

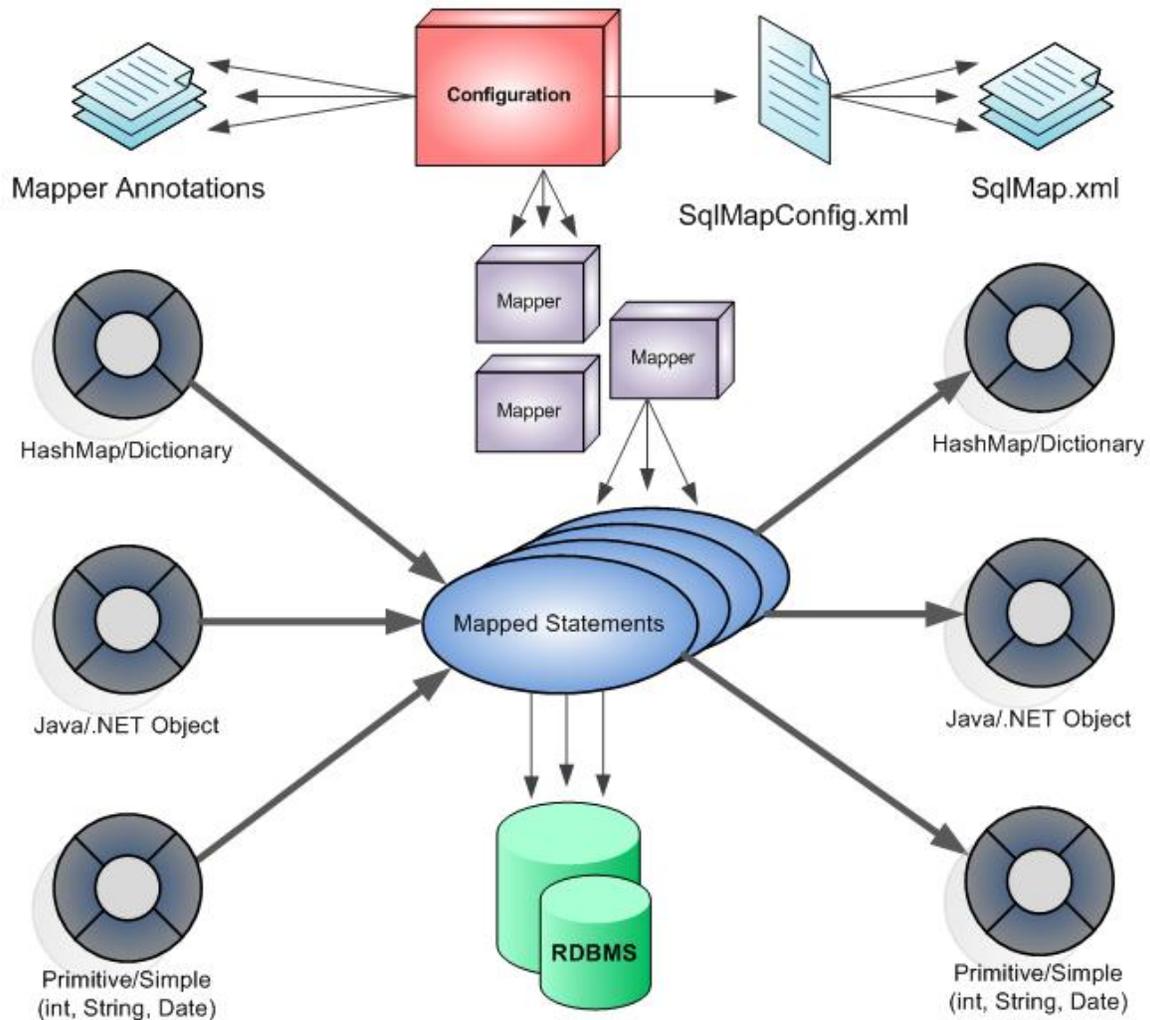


## 9.6 myBatis Framework

In order to communicate with the MS SQL Server database the Ford Qwikboard Project implemented myBatis, an open source database mapper. Here is a better description from myBatis’s website (<http://www.mybatis.org/>):

“The MyBatis data mapper framework makes it easier to use a relational database with object-oriented applications. MyBatis couples objects with stored procedures or SQL statements using a XML descriptor. Simplicity is the biggest advantage of the MyBatis data mapper over object relational mapping tools.

To use the MyBatis data mapper, you rely on your own objects, XML, and SQL. There is little to learn that you don't already know. With the MyBatis Data Mapper, you have the full power of both SQL and stored procedures at your fingertips.”



The great thing about myBatis is that it takes the data tables that make up a database and auto generates MS SQL Server scripts to insert, delete, or update each data table. Also myBatis functions as a MVC framework generating the required object classes.

If you would like to add or modify functionality concerning the database in the source code under Java Resources / src myBatis generates the following packages:

- **com.qwikboard.dao** : this is where the getters and setters are created for the different Class Objects
- **com.qwikboard.model** : this is where the Class Objects are located  
ex. Panel.Java
- **com.qwikboard.xml** : this is where the scripts to insert, delete, or update each data table is located.

- **MapperConfig.xml** : essentially acts as an interface file for all the classes that myBatis generates.

Due to the complexity of myBatis which out strips the scope of this document, if you would like to learn more please visit <http://www.mybatis.org/>.

### *9.7 AJAX: Communicating between Client Side and Server Side*

The primary way the client side communicates with the server side is thru AJAX calls. For example when a user clicks the New Note button it calls the QwikNote Class in Home.jsp which then renders the note in a web browser.

At the same time within the Note Class there is a function which redirects to AddNote.jsp passing in the current Note Id, Current Board Id, and position to it. From there AddNote.jsp passes and retrieves those parameters and passes it into a scriptlet which then is used to insert that Note into the correct data table within the database.

Also during this time toolbar.js handles parameter passing between Home.jsp and AddNote.jsp. In essence this is how communication happens between the client side and server side in the project.

The implementation of the code depends on the desired behavior of a feature. For example you would want to pass a Note's position if you want to handle updating a QwikNotes position or for adding QwikNote Content you would pass its content along with the its QwikNote Id and Qwikboard Id to the Ajax call.

If you want to modify or for example add a new data table to the database you would handle communication from the client side and server side for that data table in a similar way.

All AJAX files are located in the AJAX folder in the source code.