VBA Final Project

Photography Client Tracking and Tools

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MBA 614 Sec 2

Executive Summary

Business Description

Madelyn Wayment Photography is a small photography business that provides portraits, bridals, wedding, newborn, and family photos. It has a small clientele base and markets mostly through word-of-mouth and online advertising. The business does around 50 photography sessions a year. Editing is done in-house and blogs and Smugmug (a subscription based photo sharing website) are used as online portals for clients.

Problem Statement

As a stay-at-home mother of two, my wife has less and less time to devote to her work. Consequently, she never finds the time to appropriately and accurately keep track of her clients. While there is a lot of creativity in taking and editing pictures, she also has to do a lot of repetitive tasks. Her operations are not large enough to require sophisticated software, but she does need a simple solution to automate processes and simplify keeping track of her clients.

Overview of the system built

The system uses VBA to track and communicate with photography clients. The user can import emails that are sent from the Smugmug website and load them into the system. The system allows the user to locate an exported file containing the emails, and then reads in the data to create a new record. For clients that are not routed through the website, the system allows you to add a new client through a user form that collects all the necessary information.

Once in the system, records can be both viewed and edited with a user form. The view/edit form also has tools to communicate with the web and generate emails to clients. Based on the individual record data and a text file template, the system can send out invoice emails billing the price of services and confirming the location and time of a given shoot. After images have been edited and uploaded to the website as an album, the system can also be used to generate the log in information and link that a client needs to view their photos online. Subsequently, this information can be emailed to the client using another text file template.

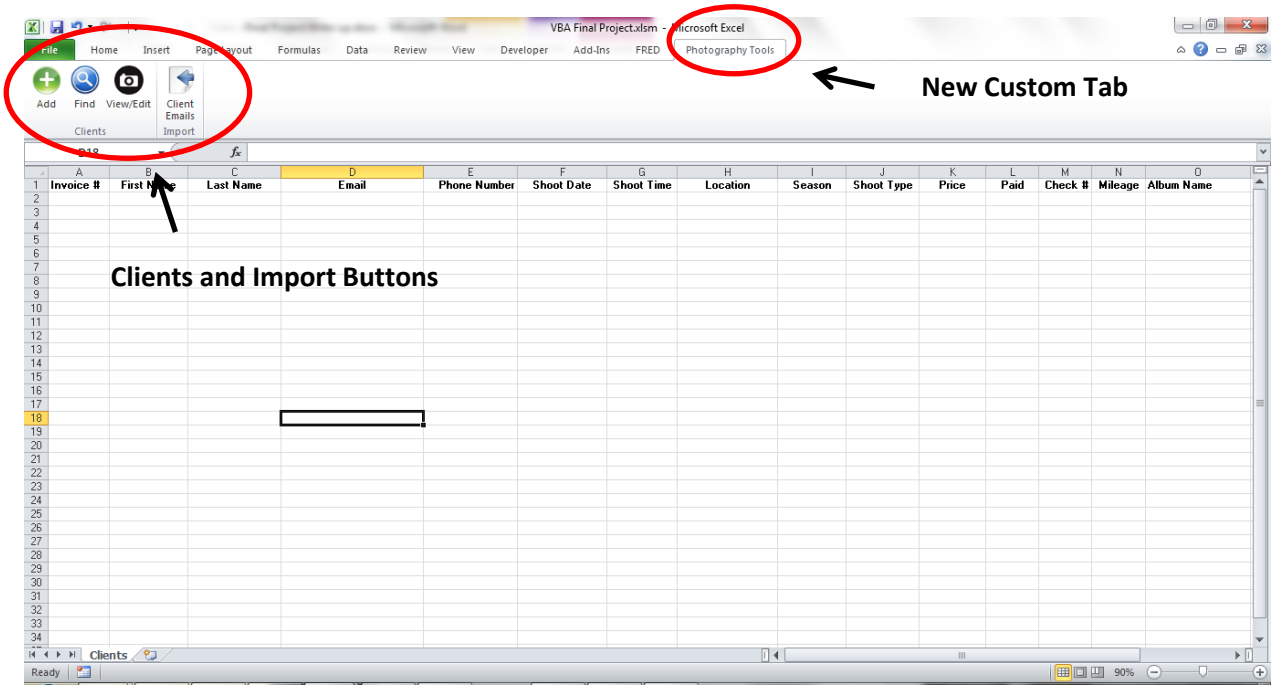
Lastly, the system has a user form that can be used to search client records. This form allows the user to quickly find a record to view or edit. It can also be used to click through records of a certain kind (type of shoot, season, or location).

Implementation Documentation

Photography Tools Ribbon

When you first open the file, the user will notice a customized tab entitled “Photography Tools.” This ribbon contains four buttons broken up into two groups (Exhibit 1). Group one is the “Clients” group that contains buttons to add new client entries, find existing entries, or view/edit existing entries. The second group is “Import” that can be used to import contact information from an exported email file.

Exhibit 1: Ribbon Customization



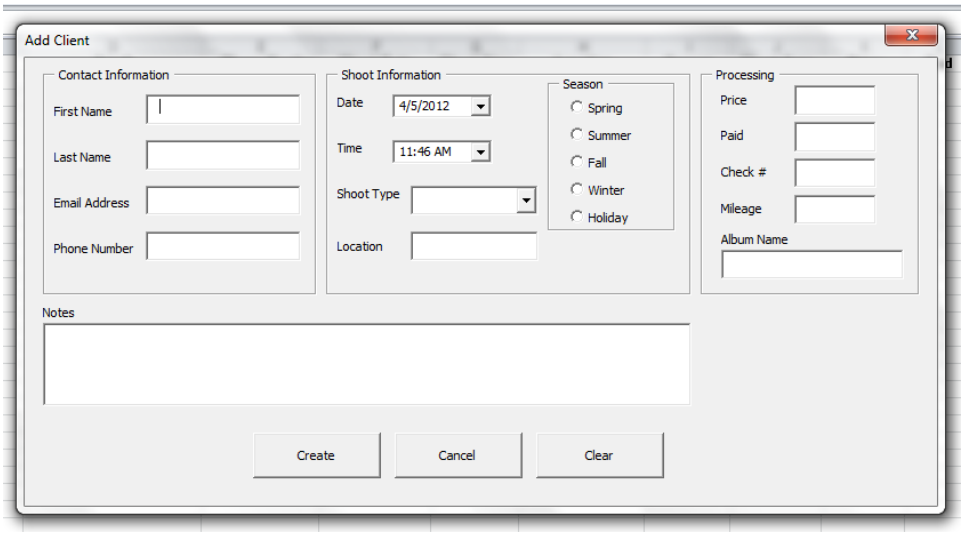
Data Fields

The user will also see that the first row of the “Clients” sheet contains the various categories of data that can be collected in this workbook. These include: Invoice number, First name, Last name, Email, Phone Number, Shoot Date, Shoot Time, Location, Season, Shoot Type, Price, Paid, Check Number Mileage, Album Name, and Notes. These fields are not meant to be populated or edited in the worksheet, but through use of the buttons explained below.

Adding a New Client

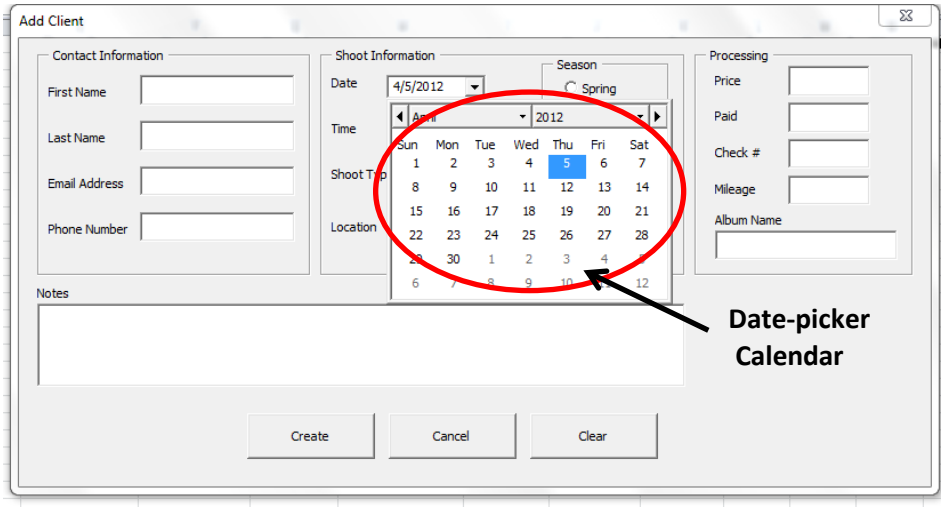
Clicking on the “Add” button in the ribbon activates the “Add Client” user form (Exhibit 2).

Exhibit 2 – Add Client Form



Here the user can enter in all the know data about the client’s contact, photography shoot, and processing information. The form primarily uses text fields, but also includes an ActiveX control to pick a date and time (Exhibit 3).

Exhibit 3 – Date-picker Calendar

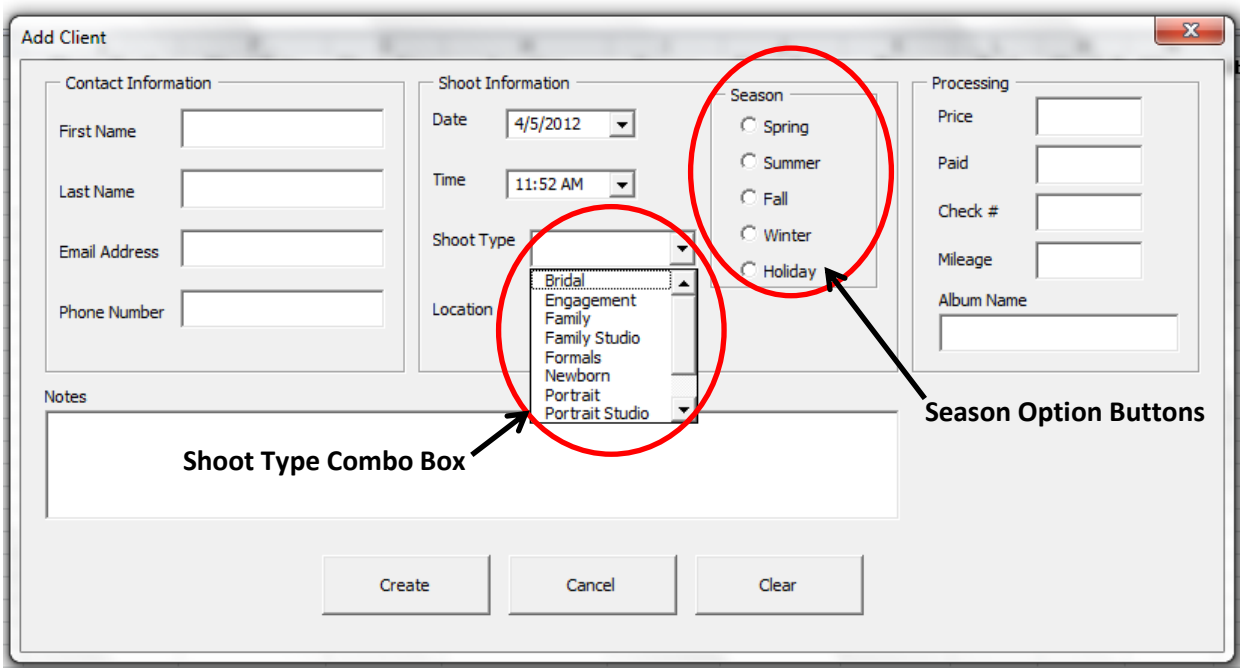


When the user clicks on the “Date” box, a “date picker” calendar appears. Clicking on the “Time” box gives the user options in 30 minute intervals to choose the shoot time.

**Note that these fields default to the current date and time when the form initializes.*

The from also contains option buttons to select a season and a combo box that gives the user a drop down list of types of shoots to select from (Exhibit 4).

Exhibit 4 - Combo Box and Option Buttons

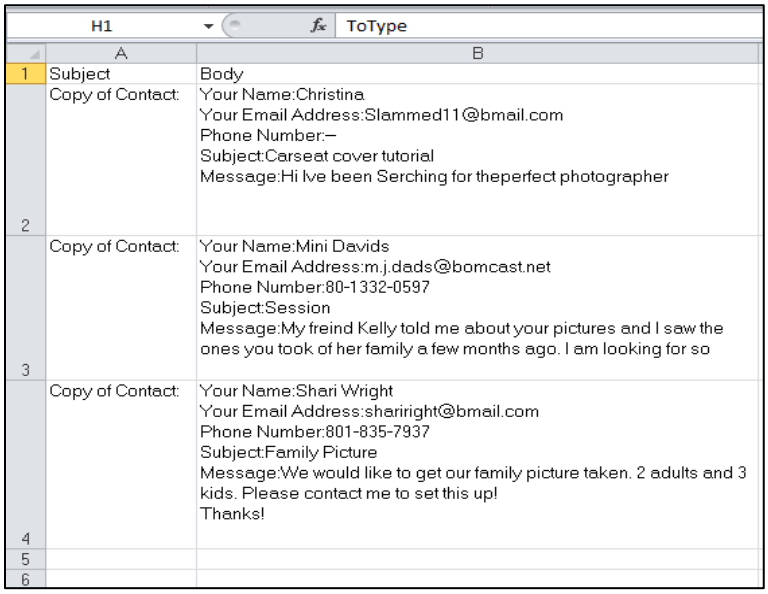


After data has been inputted, clicking on the "Create" button will save the data to the next available row in the "Clients" worksheet. This also will generate the invoice number that can be used in the future to uniquely identify the entry. The "Cancel" button closes and empties the form and the "Clear" button empties all text and selections currently in the form.

Importing Client Emails

The system also allows you to import client contact information that has been collected via the Smugmug websites referral emails. The user must first export the emails using a mail client (in this case Microsoft Outlook) to a workbook and save the file as "emailfile.xls." Smugmug generates emails that have a standard form when exported to an excel file (Exhibit 5).

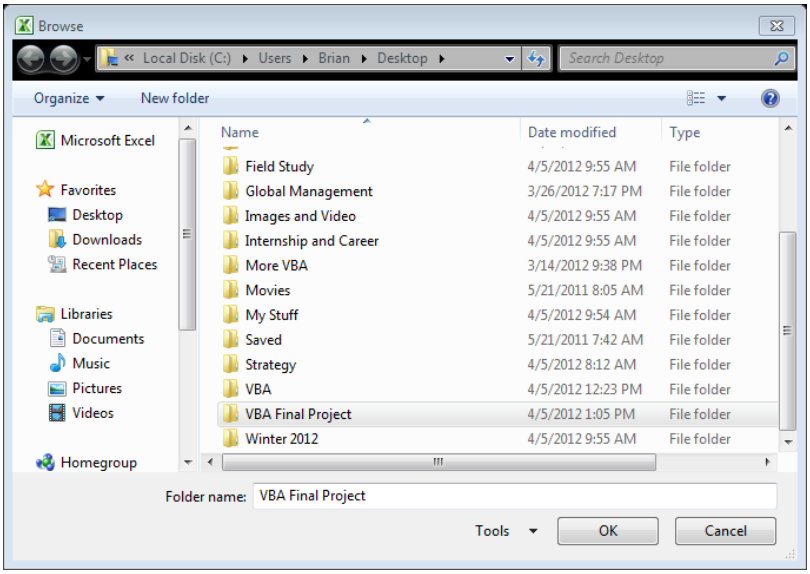
Exhibit 5 – Exported Email File



	A	B
1	Subject	Body
2	Copy of Contact:	Your Name:Christina Your Email Address:Slammed11@bmail.com Phone Number:– Subject:Carseat cover tutorial Message:Hi Ive been Serching for theperfect photographer
3	Copy of Contact:	Your Name:Mini Davids Your Email Address:m.j.dads@bomcast.net Phone Number:80-1332-0597 Subject:Session Message:My freind Kelly told me about your pictures and I saw the ones you took of her family a few months ago. I am looking for so
4	Copy of Contact:	Your Name:Shari Wright Your Email Address:shariright@bmail.com Phone Number:801-835-7937 Subject:Family Picture Message:We would like to get our family picture taken. 2 adults and 3 kids. Please contact me to set this up! Thanks!
5		
6		

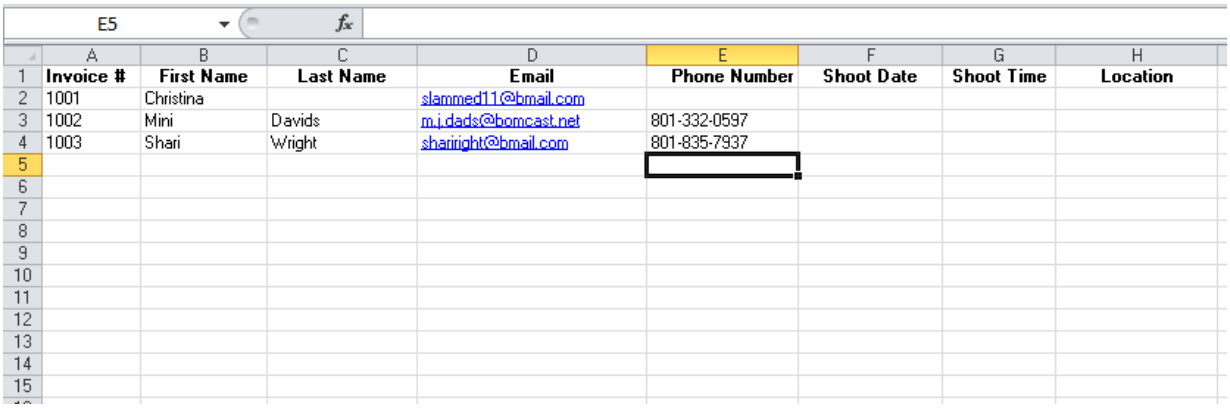
Clicking on the "Client Emails" button will allow you to select the folder where this file is located (Exhibit 6).

Exhibit 6 – Folder Picker



After the user selects the folder and clicks "OK" the system goes through several stages to process the data. Behind the scenes the system will copy the contents of the "emailfile" into a new worksheet in the project workbook. The "body" column of the exported emails is then parsed and copied to the "Clients" sheet as new records (Exhibit 7).

Exhibit 7 – Parsed and Imported Data



	A	B	C	D	E	F	G	H
1	**Invoice #**	**First Name**	**Last Name**	**Email**	**Phone Number**	**Shoot Date**	**Shoot Time**	**Location**
2	1001	Christina		slammed11@bmail.com				
3	1002	Mini	Davids	m.j.dads@bomcast.net	801-332-0597			
4	1003	Shari	Wright	shariright@bmail.com	801-835-7937			
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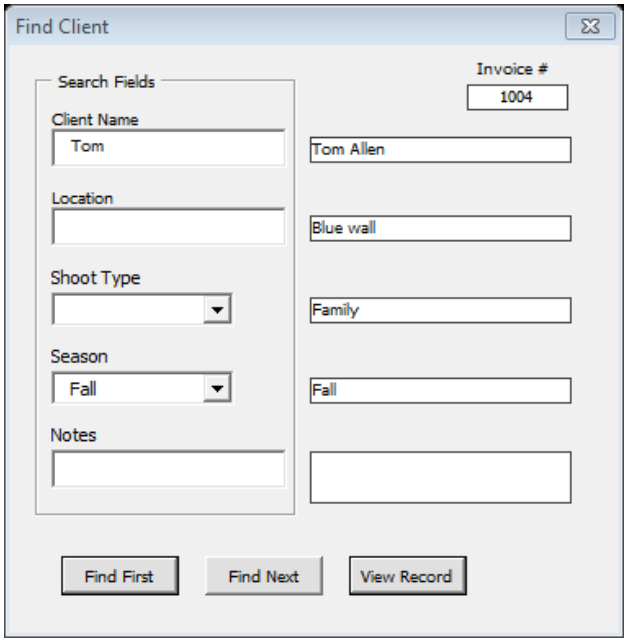
Using the "Find" Tool

After an initial record is created, the "Find" button can be used to quickly locate a specific record or to click through records of a specific type. Clicking on the "Find" button launches a user form (Exhibit 8).

Exhibit 8 – Find Client Form



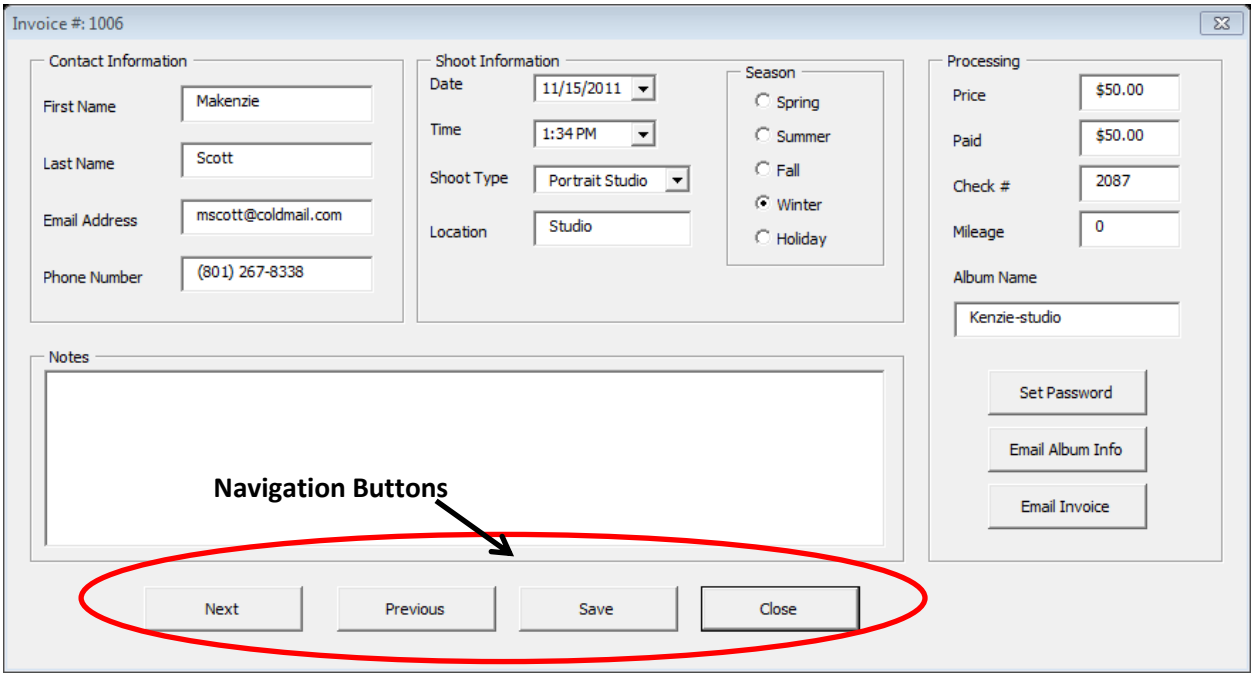
The system allows you to search by name, location, shoot type, season, or notes separately and simultaneously by clicking on the "Find First" button. If a record is located, the label fields to the right of each search field are populated.

The user can then click on the “Find Next” button to see any additional records that meet the search criteria. If no records are found the system beeps and the form title changes to “Client Not Found.” Once the user finds a client record that they want to view or edit, clicking on the “View Record” button will open the “View/Edit” form explained below.

Viewing and Editing Records

The user can view and edit records by clicking on the “View/Edit” button. This button initializes a new user form (Exhibit 9).

Exhibit 9 – View/Edit Form

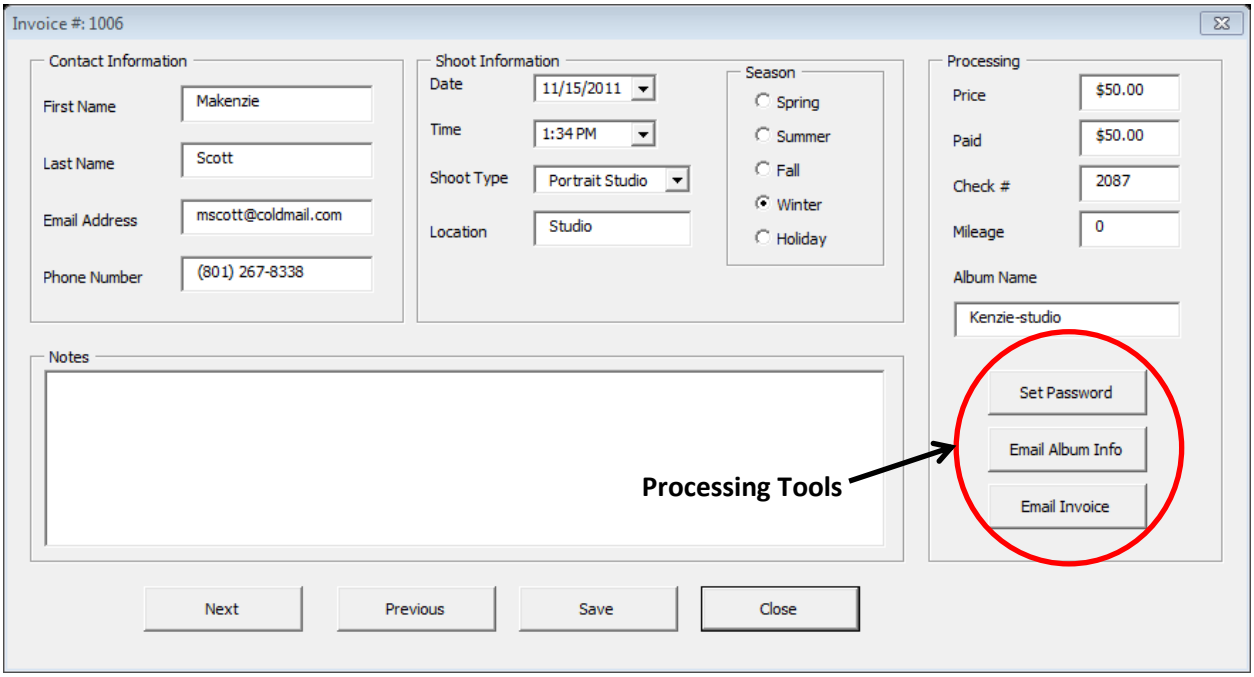


On this form the user can update and save information using the “Save” button or they can simply click through records using the “Next” and “Previous” buttons.

Processing Clients

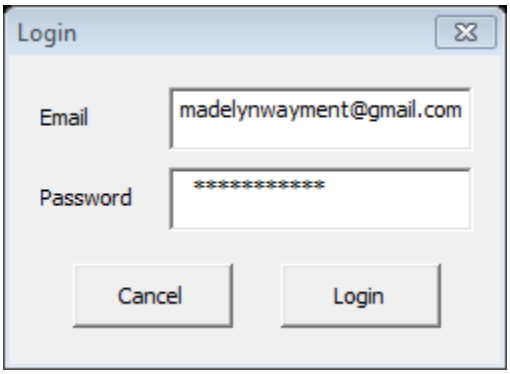
The “View/Edit” form also has several buttons that allow the user to communicate with the Smugmug website and send out emails (Exhibit 10).

Exhibit 10 – Processing Tools



The "Set Password" button is used to generate a password that clients need to view their album on the Smugmug website. Once clicked, the "Login" form initializes (Exhibit 11), where credentials can be entered to sign in as the administrator for the website.

Exhibit 11 – Login Form

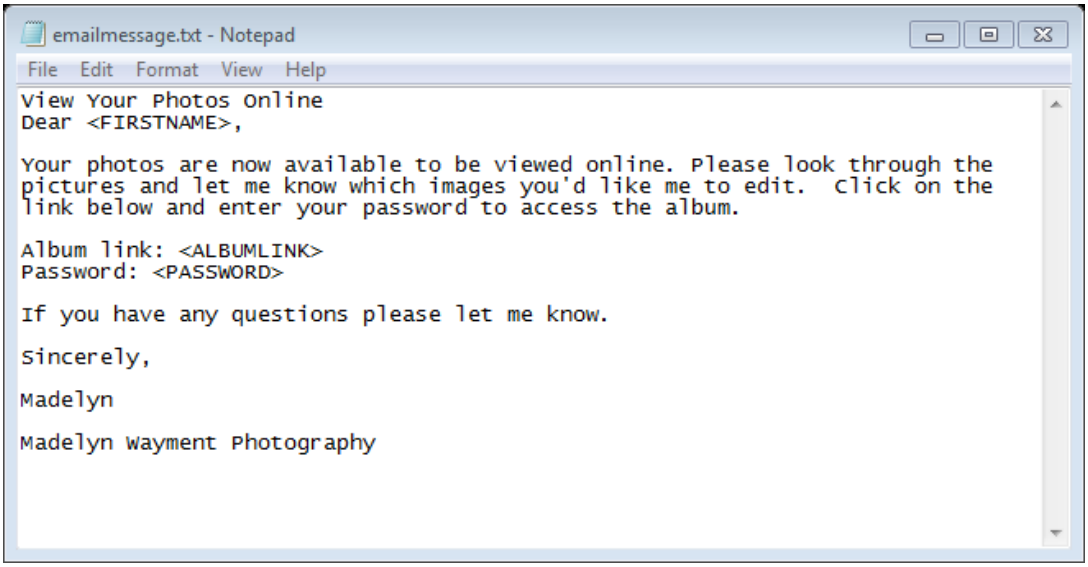


The system then uses Internet Explorer to contact the website and create a password for the album of the client currently being viewed. The password defaults to the client's last name.

After the password has been set, the "Email Album Info" button will send an email based on a text file template (Exhibit 12). Clicking on the button brings up the same "Login" form above, allowing the user to specify what email account they want to use to send the message. The

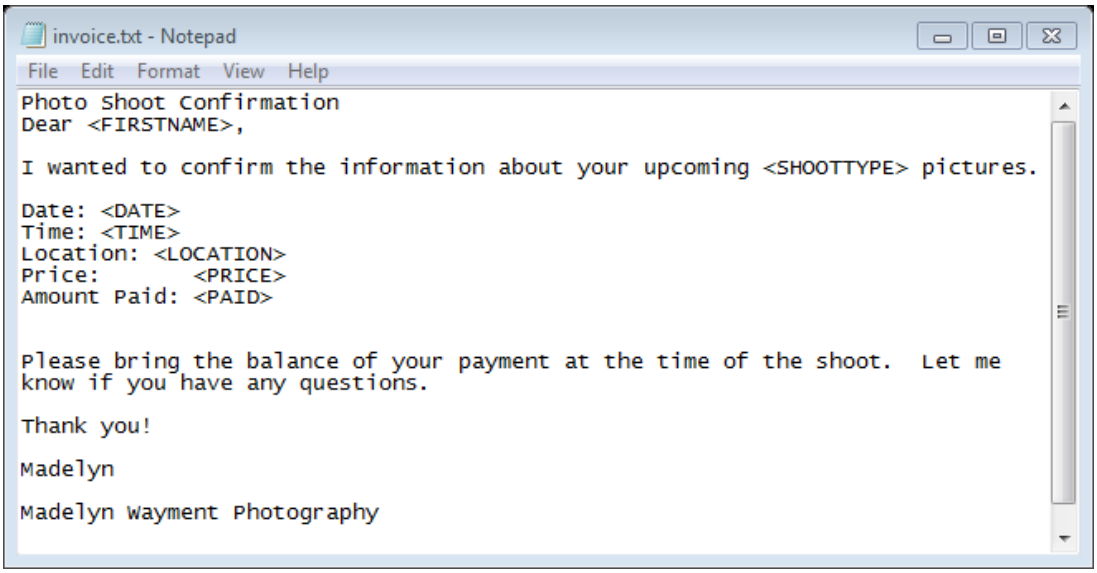
email includes the link to the client's online album and the newly generated password to access the album.

Exhibit 12 – Email Album Info Text File



Lastly, the "Email Invoice" button sends an email by the same process that uses a separate text file template (Exhibit 13). This email gives the client information about their scheduled shoot and what they are being billed for the service.

Exhibit 13 – Email Invoice Text File



**The system is currently set to send emails for gmail accounts only.*

Learning and Assistance

Discussion of Learning and Conceptual Difficulties Encountered

This project really gave me an opportunity to dive into many of the concepts learned in class. The areas where I learned the most were in creating user forms and controlling IE with VBA. There are a lot of nuances with user forms that go beyond the basics taught in class. For example, I learned how to control the tab indices and how to set formats when a user exits a field (for phone numbers or dollar amounts). I also got to see the basics of how other controls can be used, in this case date and time tools. In controlling IE, I was able to learn how to recognize the necessary buttons and fields in html to move through websites.

Some of the difficulties I encountered were in importing data from a Gmail account. I originally wanted to be able to automatically create new client records as referral emails were received. However, I was unable to find any way to work with gmail emails without using a mail client like Outlook. I eventually settled on using Outlook to export these email to a file that could be used to create the client records in a batch. I imagine that VBA could have been used to automate this export, but the user I was designing this project for does not use any mail client so I did not further develop this process.

I also encountered difficulties in error handling both within the system and by the user. I spent a lot of time trying to avoid bad data being saved (phone numbers being the wrong length or incorrect dates and times being hard keyed in), but I was not able to totally avoid this problem. For example, the ActiveX date and time control defaults to the current date and time which will never be correct. I tried to override this but only found complex solutions that were over my head. I built in errors for sending emails, creating records without enough information, or processing clients without the necessary data. However, I know that there are still many parts of the system that need improved error handling, particularly in controlling IE. Another issue that I did not get around to addressing is that the code is specifically tied to the current set up of the “Clients” sheet. Inserting or rearranging columns will break the system.

Some other tools that were considered for the project were creating new Google calendar events when a photography session was scheduled, automating the uploading of edited images to the Smugmug website, and generating an invoice document to be attached to the invoice email. The first two options were abandoned because while integrating these features would centralize more client activities in one place, they would do so in a less user friendly way (duplicating the abilities of existing tools). The last modifcation could have been added but I never received the necessary template and moved on for the sake of finishing the project in the given time frame.

Assistance

The system was built independently but relies heavily on several tools or modules presented during the course. The ribbon was created using the "RibbonWizard" tool. The "modGmail" module presented in class was copied into the system and modified to handle the email processes. The system also uses the class module "agent" to work with Internet Explorer. There is one block of code that was a straight duplication copied from an online source. It is a function called "GetValue" that retrieves a value from a closed workbook (Exhibit 14). It is used to bring the exported email data into the system so it can be parsed and added to the client sheet.

Exhibit 14 – "GetValue" Function

```
Private Function GetValue(path, file, sheet, ref)
'This is a function I found online to retrieve data from a closed workbook
'   Retrieves a value from a closed workbook
    Dim arg As String
'   Make sure the file exists
    If Right(path, 1) <> "\" Then path = path & "\"
    If Dir(path & file) = "" Then
        GetValue = "File Not Found"
        Exit Function
    End If
'   Create the argument

    arg = "'" & path & "[" & file & "]" & sheet & "'!" & _
      Range(ref).Address(, , xlR1C1)

'   Execute an XLM macro
    GetValue = ExecuteExcel4Macro(arg)

End Function
```