Final VBA Business System Project

I SYS 520 -- Winter 2013

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I. Executive Summary

An activity tracking system in the form of an Excel 2010 macro-enabled Workbook that tracks work performed and tasks accomplished for Quality Monitoring employees of the Global Service Center of the Church of Jesus Christ of Latter-day Saints.

1. Business the System Targets

    i. Quality Monitoring (QM) Team of a Call Center operation. QM Team personnel evaluate quality of service delivered to customers calling, emailing, or chatting with Customer Service Representatives (CSR) of the LDS Church's Global Service Center (GSC).
    ii. The Call Recording / Quality Monitoring system produces statistics and performance measures of CSRs based on evaluations performed by the QM Team. However, it does not track performance of the QM Team evaluators.
    iii. QM Team personnel track their activities and various KPIs manually. These items are reported to GSC management with various manually compiled weekly, monthly, and yearly reports.

2. Reporting Mechanisms the System will Facilitate

    i. Accountability and Talent Improvement (ATI) HR employee performance measures:
        1. The ATI system tracks annual accountability objectives and talent improvement goals agreed upon by employees and management.
        2. Annual report to management measures level of completion.
        3. Monthly progress is reported to direct supervisors through the ATI system.
    ii. Weekly findings report emailed to direct supervisor:
        1. Progress towards monthly quotas of call evaluations performed
        2. An account of daily work activity
        3. Monthly activity summation on the month-ending week

3. Efficiency Improvements the System will Implement

    i. Quick and simple recording of the following daily activities:
        1. Time spent on specific work activities
        2. Tagging of Call Evaluations that are candidates for COA submissions
        3. Time spent on completion of ATI objective elements
    ii. Storage of recorded statistics and activities that will allow easy compilation and formatting of the following reports:
        1. Sending of weekly email reports
        2. ATI monthly Progress Notes
        3. Preparation of AIT annual report

4. General System Functionality and Features

    i. Excel Workbook would be opened at the beginning of a work day and remain open and available for use throughout the day
    ii. User Interface:
        1. Customized Ribbon
        2. Main User Form
        3. Configuration Sheet

II. Implemented System Functional Requirements List

1. Ribbon Customizations by adding a "QM Tracking" tab

    ii. "Tracking" group
        1. "Main Tracker" button launches Main Tracker user form
    iii. "Configuration" group
        1. "General Configuration" button simply moves to the sheet

2. Main User Form

    i. Date Textbox w/Spin Buttons
        1. Opens with current date
        2. Only can be changed with Sin Buttons
        3. Spin Buttons deactivated when the date shouldn't change
    ii. Vacation/Sick Day checkbox
        1. Boolean Check Box for tracking days off
    iii. Major Activity drop-down list
        1. Loads on start
        2. Deactivated when Evaluations are tallied
    iv. Minor Activity drop-down list
        1. Changes with Major Activity changes
        2. Deactivated when Evaluations are tallied
    v. Start Activity button
        1. Populates the Start Time Textbox
        2. Deactivated when timing an activity
        3. Used to resume after pause
    vi. Pause Activity button
        1. Pauses the timing of an activity
        2. Only active when an activity is being timed
        3. A new activity is created if a pause is resumed after threshold
    vii. Cancel Activity button
        1. Clears an activity that is being timed or is paused
        2. Deactivated when Evaluations have been tallied
        3. Warns of loss of data with a Message Box
    viii. Stop Activity button
        1. Completes an activity log when being timed or paused
        2. Deactivated when no activity is being timed
    ix. Evaluation Completed button w/Counters
        1. Only active when Major is "Evaluation" and Minor is "Perform"
        2. Increments Evaluation Count
    x. Evaluation Segment Counter w/ Spin Button
        1. Segment Count Textbox only changeable with Spin Button
        2. Spin Button cannot set the value below zero
        3. Only Active when performing evaluations
        4. Eval Count for Today (total of Evaluations from all time segments)
    xi. Review Date Range Textboxes w/ Spin Buttons
        1. Change when main date is changed
        2. Work regardless of order

               3. Can only be changed with Spin Buttons
               4. Always active
         xii.   Review List-box populated with Find button
               1. Multi-column List-box is populated with the activities in the date range when the Find button is clicked
               2. Shows Row Number, Date, Start Time, Stop Time, Major Activity, and Minor Activity

3. Worksheets

    1. Activity (stores activity items for the year)
        1. Major Activity
        2. Minor Activity
        3. Date
        4. Start Time
        5. End Time
        6. Duration
        7. Evaluation Count
        8. Sick/Vacation day

    2. General Configuration sheet
        1. List of Major Activities
        2. List of Minor Activities for each Major Activity

IV.   Difficulties and Learning

Difficulties Encountered and Subsequent Learning form overcoming these Difficulties

1. Getting Spin Buttons to work on Dates
    i. Had to use SpinUp and SpinDown Event Handlers
    ii. Formatting was difficult
    iii. Keeping track of variable data types was challenging as the date values changed between the date decimal number and the readable text string
    iv. Developed a couple of adaptable Functions to make the code manageable
        i. dateAdder – adds or subtracts date values regardless of type or format
        ii. unWeekday – removes any format of leading Day of the Week text and returns a Date/Time decimal value
2. Multi-column List-box
    i. Required use of an array
    ii. Had to discover means of populating the columns in the List-box
3. General Event Handling and Button Maintenance
    i. Getting the buttons to do the right thing
    ii. Having the form objects active or inactive, or locked or unlocked at the right times
4. Making the Code Modular, Organized, and Well-documented
    i. Keeping track of which procedures did what
    ii. Making it easy to find where something was being done
    iii. Reusing code for different purposes

II. Assistance

No assistance was provided by anyone other than Web Forums.