



**RESULTS ORIENTED**

## **Contact and Project Database**

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All others, please send an email to [contact@resultsoriented.ca](mailto:contact@resultsoriented.ca)

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## The Contact Database

### *Assumptions*

#### **You are in need of managing your life and work.**

- You have family birthdays
- You have appointments
- Your family, friends and colleagues have them too!
- You need to extract and manage the interaction with different groups of people.
  - Eg: Neighbourhood club.
  - Eg: Professional association
- You want to see what the cash flow is, so that you can manage your accounts.
- You want to see what you have been doing in the last week, or so.
- You want to see what you, your family, your team, have to do in the next week or so.
- The number of people who will enter data is one or two, and in the same location(s) as you.
- You want this information to be secure. So, you don't want to have this information on the Internet in someone else's "care". Nor should you be accessing this information via the Internet.
- You've looked at the standard sample with msAccess and it is too simple.
- You've looked at standard Vendor offerings and they are too expensive and too complex
- You want to tailor the solution as your needs change.
- You don't want to pay someone for making the changes.
- You don't want to wait for the changes.
- You are comfortable with Access or similar products.
  - Even if you have only spreadsheet experience, that should be enough.

### **You are prepared to invest the time.**

- Someone has to enter all the data to get started.
  - However, this can be done gradually, as the needs arise. Everybody does not have to go into the database on the first day.
- Someone has to keep the information up to date.
  - Entering information into a diary is good practice. Engineers are used to this. As a junior engineer, I kept a diary. Many years later, I discarded the first 3 diaries because there were so many blank pages! The moral? Be prepared for your record-keeping to be spotty at first. It does take time. It will get better, if you keep trying to make it better.
  - Major hint: Enter the updates AS SOON AS YOU CAN.
    - Waiting till later only means that you will
      - forget
      - find the volume of updates too daunting
  - Helps if you use Copy (Ctrl\_C) and Paste (Ctrl\_P)
    - for a field
    - for a record
    - for a group of records

### **The Benefits.**

- Actually being able to manage your life and your work.
  - Imagine never forgetting an important anniversary or date!
  - Imagine being able to see how work could intrude into your family life, with time to make changes!

NOTE: Any time-management guru will tell you, that to manage your life, you need to set goals, identify the steps to achieve those goals, and track your work to achieving those goals. This database is a way to help you do that.

## ***Before you use this.....***

### **Glossary**

- DATABASE – all of the structure (tables, forms, etc) and the data.
- FORM – used to organize data into a format where you can view, add and update.
- MACRO – a way of bundling a series of queries, forms and reports to achieve a desired result.
- MODULES – not used here.
- msAccess – Microsoft Access database software
- PAGES – not used here.
- QUERY – a set of instructions to view, add or change data in the tables. Usually created and updated in a visual format. Can be viewed in SQL. And for some complex queries, has be viewed in SQL.
- REPORT – used to show data in a format suitable for printing.
- SQL – Structured Query Language, a standard way of accessing, adding or adjusting data and tables. Used in most databases around the world.
- SUB-FORM – used where you need to connect two pieces of information. For example: there is an address sub-form because a contact can have multiple addresses. This way you can scroll through the addresses without leaving that particular contact.
- TABLE – holds data, basically a spreadsheet where you can set default values.

### **Always have a Copy**

- You will need to keep a backup. That's easy via the Copy function of your computer.
  - Keep a copy on your USB key (encrypted is best)
  - Keep several copies on your hard-drive.
    - Daily is best.
    - At least one every week
  - Keep a copy of your hard-drive data, on DVDs, or an external hard drive.
- HINT: Give the database copy a date/time stamp
  - ie: **ContactsAndProjects\_yyyymmdd\_hhmm.mdb**
    - where yyyymmdd = date
      - yyyy = 4-digit year
      - mm = 2-digit month
      - dd = 2-digit day of the month. (USE leading zeros)
    - hhmm = time of copy
      - hh = 2-digit hour (24hr clock)
      - mm = 2-digit minute (USE leading zeros)

Makes it easy to find the most recent version. Or a specific version from, say 3 months ago.

### **Need to update in two or more locations at the same time?**

- msAccess has a Replication feature (see under Tools) that “auto-magically” keeps two or more versions synchronized.
- My recommendation is try and avoid using Replication if at all possible.
  - Carry your database around with you. And make a back up copy every day. Or after any major update.
- There are issues with replication:
  - database size can increase 800% (that’s right, eightfold) if you opt for replication
  - the 10-digit table keys created by msAccess makes it harder to type in the key when you are looking for a specific entry.
  - you can only make changes in the Design Master, which may not be the database copy that you have.
    - NOTE: msAccess allows you to convert a replica into the master. But then you have to discard the other Master when you get to it, etc.... can be complicated
  - whenever you create a new object, be it a table, query, form, report or macro, once you have it working you have go through an extra step to identify that this is for replication. Miss this last part, and the new, say, report stays in the Design Master. Never makes it to the replica.
  - converting back from a replicated database to a normal database is not simple, and takes hours!

## Main Form

This is what appears when the database is opened. The bold text shows the buttons that are most useful.

In the real database, pause the mouse over each button for a hint of how this works.

## Default Values.

- Modify these to your requirements.
  - You will find that Louis Lagunna is the default value (ID=132) for all contact entries, under the “Who To Do” field
    - Just overwrite all of Louis’ details with yours
    - OR
    - If you are comfortable with msAccess you can go into the DESIGN view for the Contact\_tbl and reset the default value.
- Certain key Dates have been entered. These have been entered as
  - Anniversary – for those events that happen on the same day of the same month, every year. These will display every year, at the appropriate time.
  - ToDo – for those events who’s date varies from year to year. These will need their dates resetting for the following years. Typically they are based on the lunar calendar, hence the dates moving.

## What Does Each Field Do?

The DESIGN view of each table shows the comments allowed against each field in a table. It can be useful to read those. Just do not save any changes, unless you mean it.

## Every Table has a Query.

- That way there is control over the data that is passed on.
- The main reason is to make use of the “Delete” field on the tables. Setting this flag to ‘Yes’ means the data will drop out of the queries and reports. But if you realize that you need to see the data again, all you have to do is reset the flag.

## Identifying Groups

- Use the Group field to identify professions, family, friend.....
  - then use the FILTER function to filter records by the Group field
- The msAccess filter function is really flexible. You can use FILTER on any of the fields.
  - The filter icons are on the toolbar
    - one to allow you to set / view the criteria
    - one to actually filter the data

This is one of the most useful features in msAccess.

## Removing the Entries that came with this Database.

- You can type over the information.
- Use the logical delete flags. Changing the values from NO to YES means that those records will no longer show up on forms, reports and queries:
  - NAME
    - Look to the top right of a form, and you will find a field called "Del?"
  - CONTACT
    - Look to the far right of the record and you will find a field called "Delete"
  - ADDRESS
    - This works slightly differently, because addresses change so often. Instead of a delete flag, there is a field called "Old".
      - The default value is NO.
      - Set the "Old" field to YES, and it will not show in forms or reports, except those looking for historical information
    - Because there can be multiple valid addresses at any one time, such as multiple Work locations as well as Home and Cottage, the reports need to know which one to select. This is the purpose for the "Print Me" flag.
      - Set the "Print Me" flag to YES for only the ONE address that you want to appear on reports
- To really delete an entry, following these steps in this order will ensure that you delete all of the records, and only the records that you wish to. And you will not leave any "orphan" records behind:
  - delete each Address record for the contact you wish to remove
  - delete every Contact record for the contact you wish to remove
  - delete the Name record for the contact you wish to remove



## Contact Types

The database comes with the following Types:

- **Blank** = the DEFAULT value placed into a contact record. This is for recording things that happened
  - Shows only in the “what happened” reports
    - Eg: Made a donation for this database :)
- **ToDo** = something to be done
  - Shows only once within the “window of opportunity” for the “to be done” reports
  - Removed from the “to be done” reports when the “Done Date” is entered, and shows up in the “what happened” reports
- **Money** = cash flow
  - Enter these records for the financial organization that this applies to
  - Shows under the CASH FLOW query, via the Main Form.
    - shows just what is coming up in the next three months, and any past-due items
    - entering the “Done Date” as the date the monies went through the account, means that it will not show in the query.
- **Anniversary** = enter Wedding, Religious holiday, etc in the comment area
  - Shows EVERY YEAR within the “window of opportunity” for the “to be done” reports
  - Does not appear in the “what happened” reports, as there can be so many of these, that they will mask the other events
- **Birthday** = enter name of the person
  - Shows EVERY YEAR within the “window of opportunity” for the “to be done” reports
  - Does not appear in the “what happened” reports for the same reasons as Anniversaries.

NOTE: This is not a definitive list. You can add more to the ContactType\_tbl BUT you will have to change the queries to act appropriately with the new Type.

## Printing reports

- Recommendation: ALWAYS leave the printer, report and msAccess settings within Page Setup for the default paper size. In Canada, where this database was developed, the paper is set to Letter size. Those using A4 may need to make adjustments.
- Set margins via the main menu, TOOLS / OPTIONS / GENERAL to these settings, as the default for the reports
  - go to FILE, PAGE SETUP
    - Top = 0.5”
    - Bottom = 0.3”
    - Left = 0.5”
    - Right = 0.5”
- If you have a problem with Page Setup
  - Try changing the Page Setup under an individual Report Design view.
  - If Page Setup still keeps changing, it may be the printer.
    - check which printer is assigned (usually the default, but that can be changed), and go into Properties to see what the setup is. Ensure the printer defaults to Letter and Portrait.
      - FYI: msAccess has a tendency to pickup the settings from the default printer, no matter what you setup when you create the report.
- If a report is blank, or you see the text “#ERR” don’t panic.
  - There may be no data that meets the report criteria, so no records for the report.
    - Enter some “dummy” records to satisfy yourself that the report is working correctly.
      - Use the logical delete (Yes/No) field on each table to remove the records, once the report is working. You may want to reactivate them in the future when making other report changes.

## **Sending reports**

To send an msAccess report you will need to EXPORT as RTF, (Rich Text Format). This is readable by most people on most computers, no matter the type. (Excuse the pun).

Because the msAccess reports do not translate 100% into RTF here are some hints:

- NEVER use footers.
  - The spacing of each page will be slightly different in RTF and you will spend hours correcting this.
  - Much simpler to display the information you need as part of the Header.
    - This is the way all of the reports in this database were designed.
- LINES, BOXES and SHADING do not exist in RTF.
  - So that pretty report in msAccess will appear somewhat differently in RTF.
    - Nothing to do but create 2 types of reports
      - simple format for those you will send electronically (and need to export into RTF)
      - pretty ones that you will look at, or print.

## Entering Who Does/Did What

Helps to be consistent and enter the information appropriately.

There are these situations

- contacts associated with a person
- contacts created by/for that person, associated with someone else
- person working on a project

The first is very simple. Enter the name of the person into the database, and then record events and contacts for that person.

For example, if Oliver Bocinni (#1069 in the dB) and Louis Lagunna (#132). have to visit RevenueCanada (#1073), then you would make two entries, one for Bocinni, and one for Lagunna, under RevenueCanada. Simple.

The second case raises an issue, best shown by an example.

Suppose Bocinni calls Lagunna. Where do you record the contact? The call could be recorded under Bocinni's entry as a call to Lagunna. Alternately the call could be recorded under Lagunna as a call from Bocinni.

The recommended approach is to record the call, under Lagunna's entry as a call by Bocinni. Logically and intuitively this works best.

The third case involves projects and so you can skip this, if you are not using the project section.

Go to the project section to see details.

Which brings me onto the **LIST button**. You will find this under the NAME field on the Name forms.

This is useful if you want a reminder of that this person has done, with whom, and for whom. Just click on the button, and a spreadsheet will appear, listing the who, what and when.

Please note, that is not as simple as it seems. A person will have contacts with others.

Those contacts may be recorded under their name, or the contact's name.

Rest assured, the LIST button will find and collate all entries for whoever you are looking at. The queries use the Key off the name form to sort through the data.

And, if the person has project tasks, open or completed, these will be included too.

A great way to get an overview for that person

One final note, the buttons act slightly differently according to which form is used

- Active form – lists all for the past year, and any open ToDo's or project tasks
- Name form - lists all entries, be they old, new, open or closed

## **FAQs**

### **Cannot see some items on a report, or in a query, that you just entered?**

- With msAccess
  - When you enter data, nothing is saved until you move onto the next record.
    - So move onto the next record and rerun the report or query.
- If you still do not see data that you expect:-
  - Check the underlying tables to ensure the data is there
  - There can be queries running on top of other queries, inspect each query, as data can be filtered.
  - Joins of two record sets may cause data to be dropped. Check each one separately to improve your understanding of the process.

### **Items on a report, or in a query, not quite in Date/Time sequence?**

Dates can be tricky, in msAccess:

- Date and Time are stored as separate fields in this database, to better control sorting. Date when entered manually is stored in Medium format (dd-mmm-yy).
- The "now()" function will auto-populate a table field with today's date, in Long format (mm-dd-yyyy hh-mm-ss). The time will be saved, even if you specify Medium format (dd-mmm-yy).
- With different dates formats (dd-mmm-yy) and (mm-dd-yyyy hh-mm-ss), the sort will be incorrect
- One fix is to use the "=Date()" function for populating dates. This will auto-populate the date in Medium format (dd-mmm-yy)
- Another fix is to adjust the final query feeding a report. The Medium date format is applied as a property in the query, removing the ( ...hh-mm-ss) component. Now all dates will be of the (dd-mmm-yy) and the report sorting will work correctly.
- A final fix is to locate all dates that are in the tables in Long format, and re-enter the dates manually. Manually entered dates are always in Medium format. The quickest way to find Long format dates is to ensure the table displays in Long format.

## So you want to make changes?

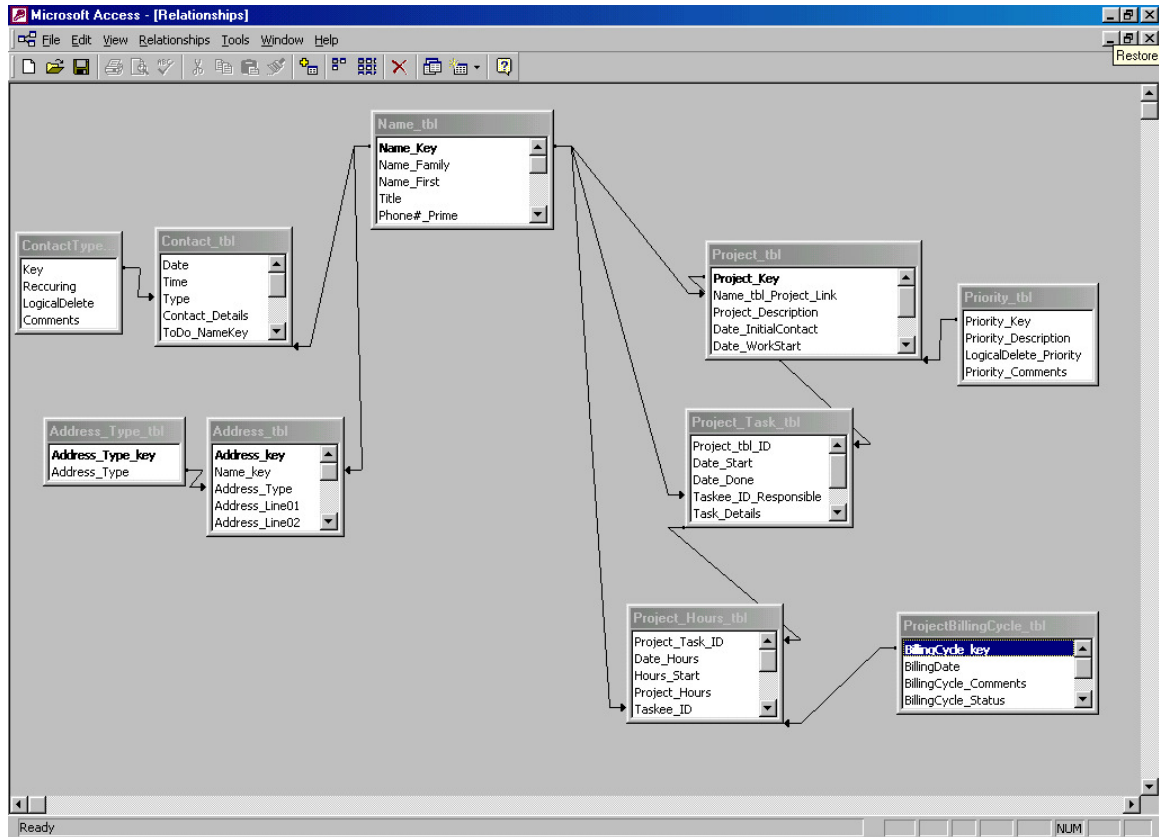
- The paradigm used here is that reports and forms all pull data from queries. The queries enable the underlying tables to have old data that you may want to refer to, but usually do not want to see.
- Macros and forms use the FILTER features. If you are not comfortable with that, get to it! It's a handy feature.
- msAccess is missing the NOT\_EQUAL command (in the 2000 version that I used to create this). So when checking for names without a valid address, you need to
  - create a list of names WITH a valid address (say NamesAndValidAddresses)
  - create a list of names (say AllTheNames)
  - join the two, looking for entries in AllTheNames that do not appear in NamesAndValidAddresses (ie: where that Key is Null)
- Sometime the DESIGN view for queries is not enough, and native SQL has to be used. If you have not used SQL before, just take a browse through the simpler queries, and click on the SQL view. It is straightforward.
  - Example: The UNION feature is useful when you need to merge data from two different sources. However the Design View in Access cannot handle the Union function, so you have to go into native SQL
- Sometimes you will want to switch from a form view to the spreadsheet view. You don't have to, just that sometimes it is useful. However, remember that if you are using a complex form (with sub-forms) you will end up with duplicate entries from the top-level form. Plus the number of columns will be across multiple screens.
- No programming involved. Everything is built through forms, queries, reports and macros. Easier to see, understand and change.
- Hence nothing under the Pages, or Modules categories.

## When you make changes

- msAccess tries to help when you rename an item, by propagating the new name into everything that uses that item. This renaming will take effect ONLY when that item is opened or run.
  - eg: if you change Address\_qry to zzz\_Address\_qry then the new-zzz name will appear in ProjectsANDTasksANDHoursANDAddress\_qry and it works as before.
  - IMPLICATION: If you made a change and did not see that change propagated, check the Queries to see if they are using the “zzz\_” query.
- problems with deleting an item.
  - eg: if you delete Address\_qry then the query will disappear from ProjectsANDTasksANDHoursANDAddress\_qry
  - IMPLICATION: If you delete an item, then you will loose that item and all the fields from the higher order queries, forms and reports when you OPEN or RUN the form or report. So be really careful when deleting.
- Good Practice
  - Copy the whole database before making changes.
    - Make the changes in the new version
  - Rename an item using the “zzz\_” prefix, then go into Design View and save the item back under it's original name. This is the easiest and safest way to create a copy.
    - This gives you a way to revert back to the working version, without loosing all of the other changes in the database.
    - This acts as a safety, should you miss making the corresponding changes in another query, or a form or a report.

## Contact Database - Main Section

### For those who want a Data Model



#### NOTE:

The actual database does not have relationships defined between the tables. This makes it simpler when making changes.

From the model you can see

- everything requires a name.
- for each name there will be contacts: discussions, things you promise to do; birthdays to remember, etc.....
- for each name there will be different addresses: home, work, cottage and cell-phone. And as people move, you don't have to delete the old address, just flag it as old

The right-hand side pertains to the projects. Which is a nice lead to the next page.....



## Projects

### Assumptions:

1. You have read, understood and feel comfortable with the previous section
2. You need a way to track project Milestones and give a ToDo list.
  - The Contacts ToDo list will not give you the required overview of where a piece of work is
3. You need to setup multiple projects for multiple clients. Therefore you need to
  - create tasks
  - identify billable and non-billable hours, within different billing cycles
  - review and report on projects
  - create a detailed report of ALL the work done, both billable and non-billable to support your invoicing.
4. You are active in volunteering: with the Scouts; with the neighbourhood committee; night classes; etc, and need to build mini-projects for this part of your life too.
5. You need to see where your projects and your life intersect.
6. This will not replace a project management tool, such as msProject for a large project. But will act effectively for small projects, with multiple components.

### Glossary

- BILLING-CYCLE – a way of dividing up the work on a project into manageable chunks. Especially important if you are to invoice a Client.
- PROJECTS – can be assigned to any “Client”, that is if their name is in the database.
- TASK – major piece of work on the project. Each one is owned by somebody, so you need to make sure they are listed in the database.
- TASK-DETAILS – used to set specific tasks, and record the time for work done. These are allocated to specific people.
  - For those people to appear in the drop-down, their name needs to be in the database, and the “RO?” flag needs to be set to YES.

## **Entering Who Does/Did What**

A project is for a client whose name must be in the database. This is the person, or group for whom this project needs to be done. And they must have a valid, printable address setup in this database.

Any person in the database can be assigned a task. This is the person responsible for ensuring the task is completed

For example: Setup a task for each meeting, hike, event, etc....

However the hours (detailed tasks) are setup so that only someone defined as a "company person" will appear in the list. This is to help reduce the length of the list of people that appear in the drop-down.

You can enter any key value for any person to be assigned a task detail. However, this short list makes things easy.

For example: Enter each detail necessary to make a meeting successful. When you have setup one meeting, you can copy these details to the next task. However, you do need to be careful. See FAQs:)

You can adjust the details as necessary from meeting to meeting. In effect, this becomes your knowledge transfer process. You can improve each meeting with lessons learned from the previous one:)

Options available:

You can setup a project for a specific year. Close it down at the end of the year. And open a new project for the new year.

Or, if that project or task is repeated, you can use the billing cycle to remove the past work hours from the Open view. Using billing cycles to control project tasks that are visible is useful, for say, maintenance work. This is typically ongoing, year after year. You would enter the project hours under the billing cycle that applies to the year.

Please turn to the next page to see how information is entered.

### Setting Up a Project:

- Create a Billing Cycle
  - All projects need an end-date. This is the Billing Date.
    - If you do not have one, or the project is multi-year, then set to your year-end.
  - Billing Cycles are tied to your invoice cycle.
    - This can be monthly, quarterly, annually or by project.
      - Recommend never to exceed your year-end. That's a long time to lend money to your Clients.
  - You will have multiple Billing Cycles
    - They should follow the usual sequence, as per the BillingCycleStatus\_tbl
  
- Open the project form and
  - Select your Client record
  - Add a Project Description - short and descriptive
  - Usually there will be a preamble before the real work starts. This is why there is a date for the Initial Contact.
  - When the work starts, enter the Work Start date.
- If this stays blank for a long time after the Initial Contact then you need to follow-up, or close this project down.
  - When all of the Tasks for this project are complete, enter the Work End date.
  - There is also
    - a logical delete flag if necessary
    - automatically generated project key
  
- Create a project Task
  - Every project is comprised of Tasks that need to be done. Here you can describe and assign a task to a person. Again keep this description short but to the point.
  
- Create a set of Task Details
  - Project tasks usually require work to be done by multiple people. Here you enter the record of work done by each person. In effect, this functions as a contact record for the project task.
  - You can enter the work done, just by filling in the start date, date done, start time and how many hours were spent.
  - You can set the billable flag to yes or leave blank as non-billable
  - Identifying work TO BE DONE, is simply a matter of entering the target date and leaving the HOURS blank (or zero)
    - When the work is done, just complete the DATE DONE field, and ensure the start time is accurate.

## **FAQs**

### **Can Allocate Projects and Tasks to Everyone, but NOT the Hours?**

- Set Name\_tbl.CompanyResource-Flag to 'Yes' for those whom you wish to see in the Project, on the drop-down where details and hours are assigned. This should be a subset of those names listed in the database. You will have hundreds of names in the database, but only a few will be working on projects.

### **Copied Project Hours and they disappeared?**

- The key linking the hours to the task is part of the copy process.
  - When you executed the paste, the key did not change. But the records stay where they were, UNTIL you moved to another project.
  - Changing the focus means msAccess reviews the links between records, and your keys mean, the records have to go back.
- FIX: Update the task key in the Details record after the paste and BEFORE you move onto another project!
  - Why is the Task key visible in the form?
    - It is a handy way of moving Details between Tasks.

### **Cannot find a Task?**

Use the 'All Projects All Tasks', button.

This will give a list of every task for each project. Much easier to scan and search through this.

Usually the task has been closed, or is under a different project number to the one you think it is.

### **Billing Reports are showing blank?**

Check the Project Billing Cycle Status.

- Billing reports will only show items that are in the correct status. That is those task details that are in a Billing Cycle whose status is '10'=Preparing Invoice.
- So do keep the Task Details in the correct Billing Cycle.
  - '0' = work in progress
  - '10' = need to include these in the next invoice
  - '30' = these have been invoiced
  - '50' = received payment for this billing cycle
  - '70' = payment entered into bank account for this billing cycle

## Change Log

Date <sup>1</sup>	Description of Change
2020Mar06	<ul style="list-style-type: none"><li>• Addition of a conversion table from-Minutes-to-Decimals in main project sub-form. This aids time-duration entry, as msAccess requires duration in hour-multiples/decimals.</li><li>• Applied all the Date-Fixes to report sortings.</li><li>• Past Activity reports have the day/date at the beginning of each section. Activities are still in descending time sequence.</li><li>• Minor cleanups/enhancements of reports</li></ul>
2019Dec12	<ul style="list-style-type: none"><li>• Addition of a LIST button to the Name forms.</li><li>• Adjustment to the project descriptions.</li></ul>
2013Aug02	<ul style="list-style-type: none"><li>• Completion date added to the PROJECT HOURS table, so can track the planned, and actual completion dates.</li></ul>
2007Nov15	<ul style="list-style-type: none"><li>• Past Activity reports added: Past Month; Past 90 days; and, Past Year.</li><li>• Added guidelines on how to make entries.</li></ul>
2007Jul18	<ul style="list-style-type: none"><li>• Original</li></ul>

\*\*\* End of ReadMe Document \*\*\*

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<sup>1</sup> Most recent change is on top