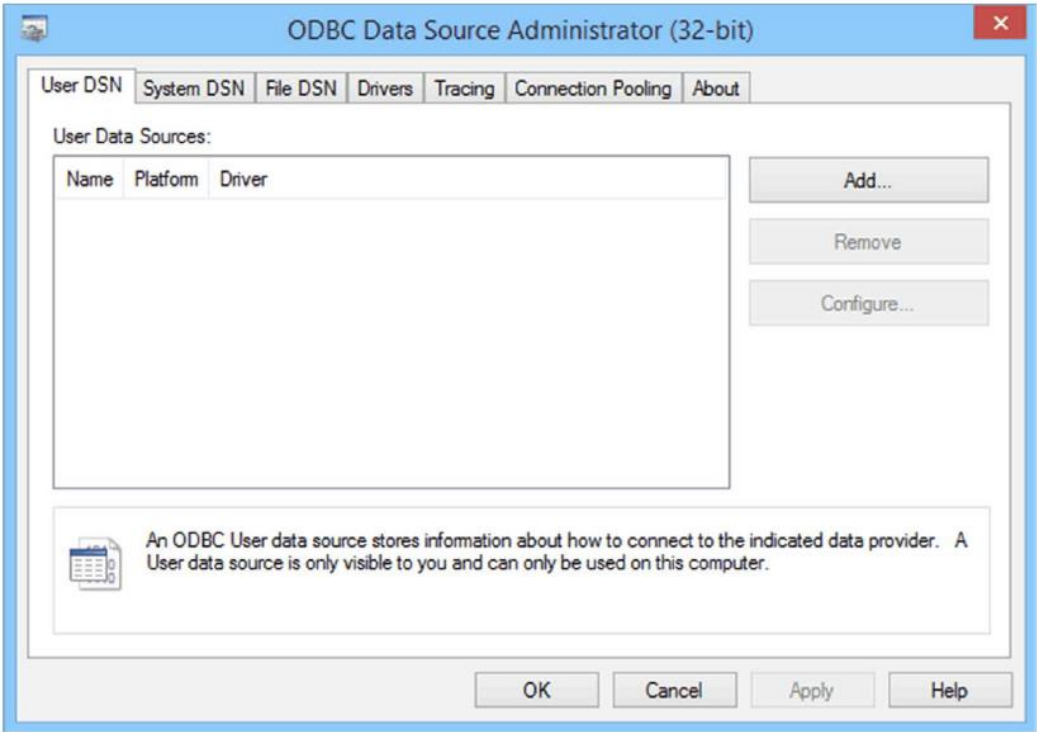
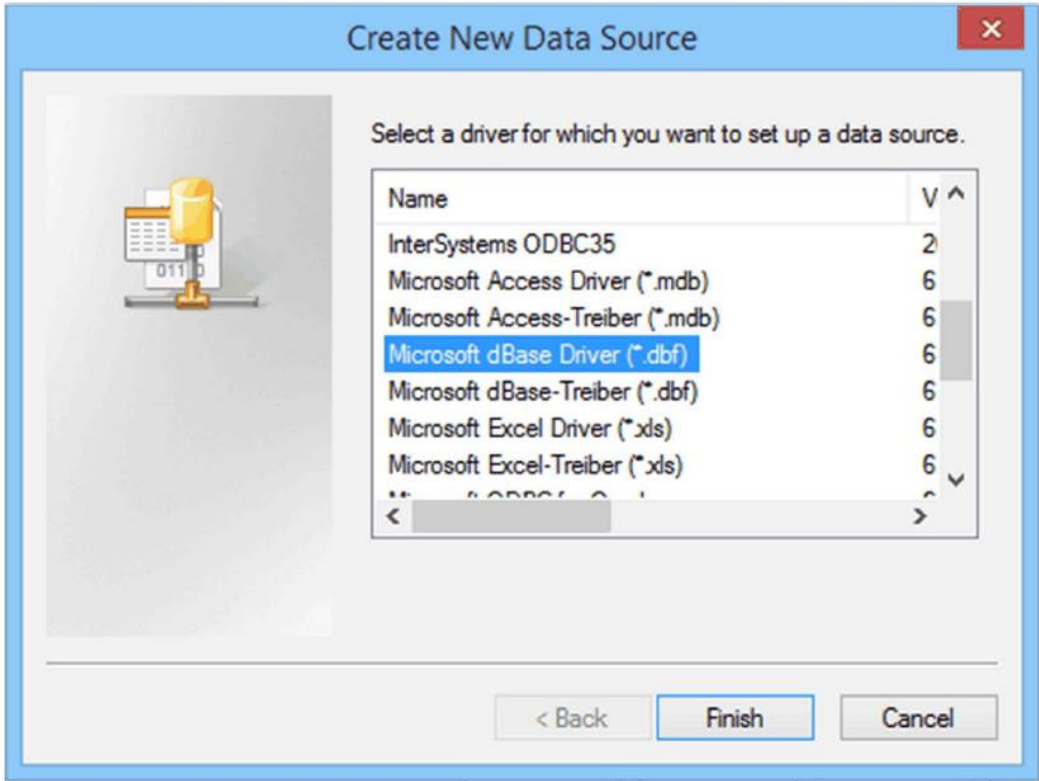


Steps to configure MMM Tools in official MMM Library offer.

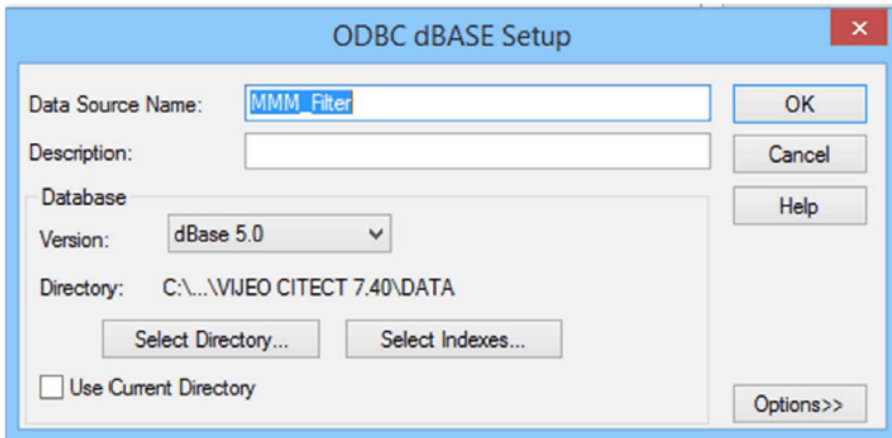
- 1. Configure the ODBC connection to the Database according to “PlantStruxure MMM Library for PES Supervision Services User Guide”

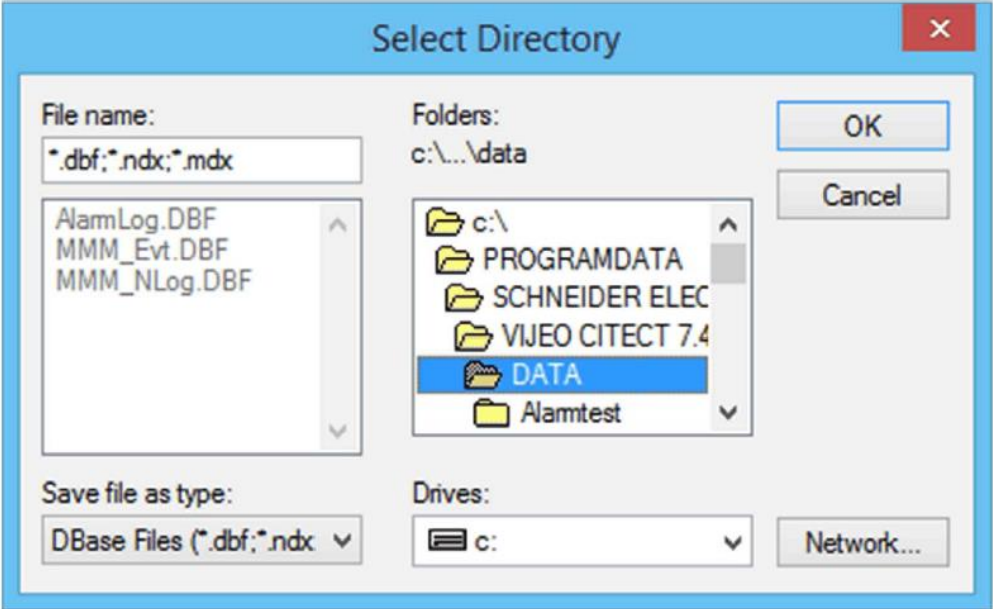
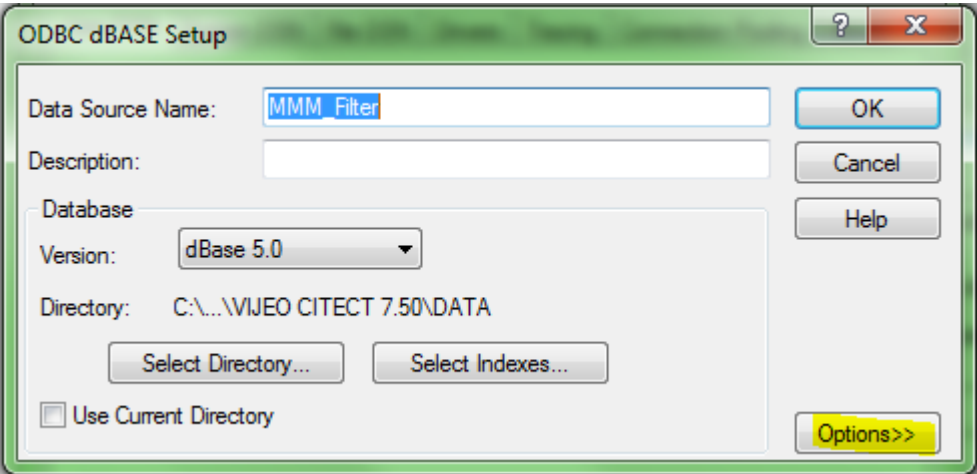
The following steps explain how to establish the connection:

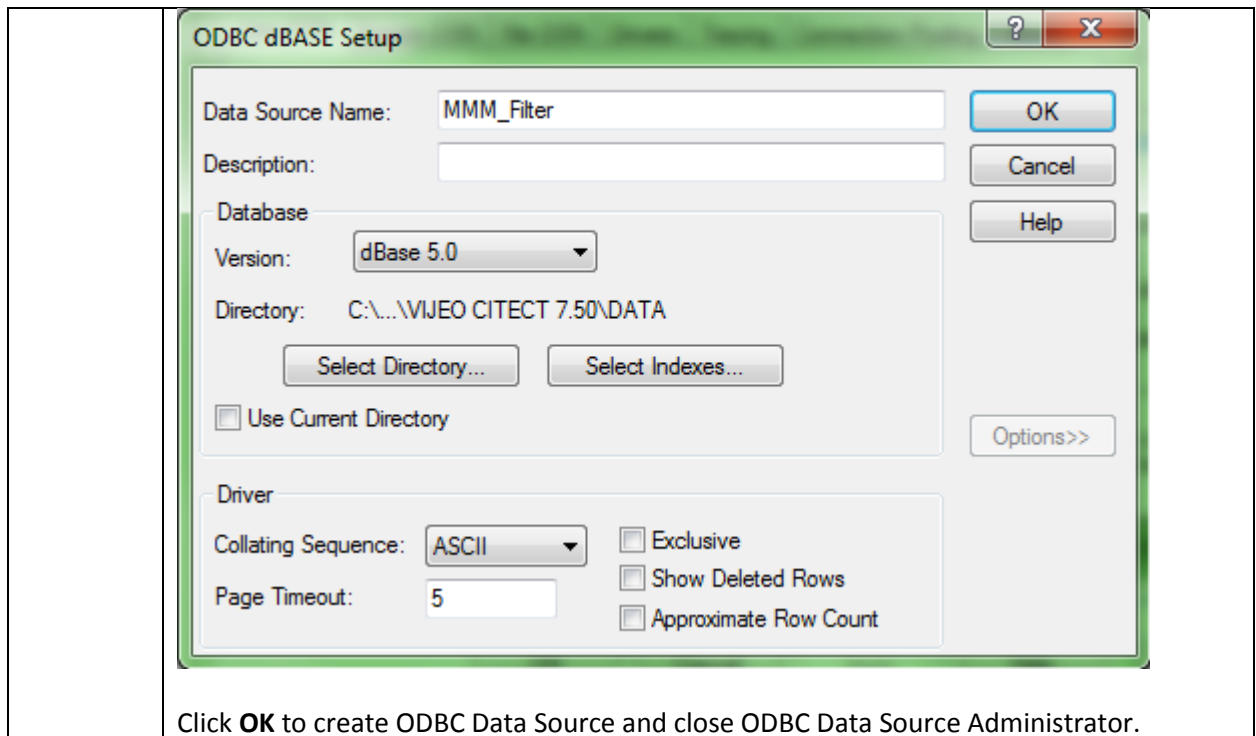
Step	Action
1	You can open the ODBC Data Source Administrator window using either of the method given below: ● Click Start → Control Panel → Administrative Tools → ODBC Data Sources → ODBC Data Source Administrator. ● Click My Computer → C:\ → Windows → SysWOW64 → odbcad32 → ODBC Data Source Administrator. Result: The ODBC Data Source Administrator window opens. 

Step	Action
2	In the ODBC Data Source Administrator window, click Add. Result: The Create New Data Source window opens. 

Note: Ensure correct dBase Driver is selected.

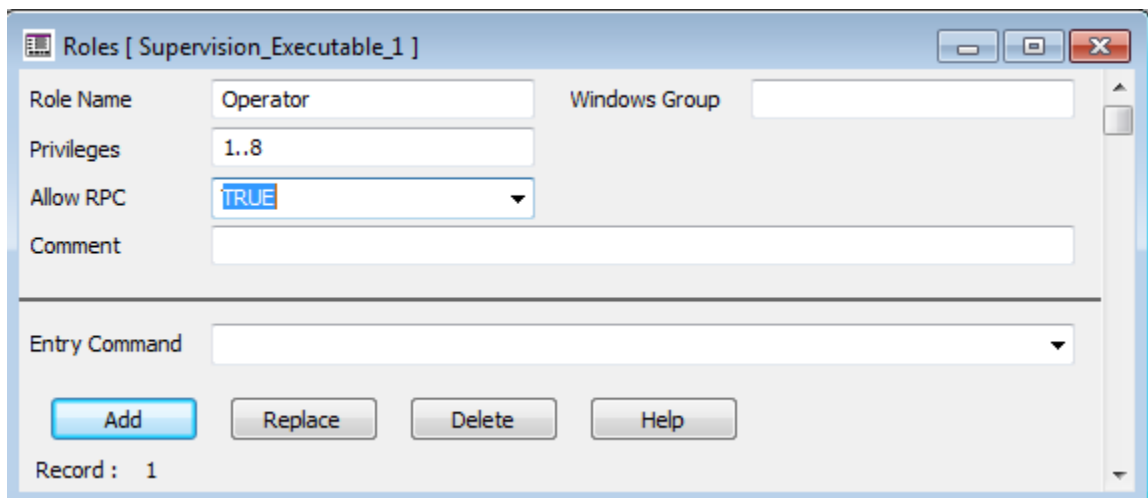
3	Select Microsoft dBASE Driver and click Finish. Result: The ODBC dBASE Setup window opens. 
4	Enter the name as MMM_Filter in Data Source Name field and select Version as dBASE 5.0.

Step	Action
5	Uncheck Use Current Directory and click Select Directory. Result: The Select Directory window opens. 
6	Select the path of the data folder of Vijeo Citect 7.40 (local system or networked). For example: <i>C:\ProgramData\Schneider Electric\Vijeo Citect 7.40\Data</i> NOTE: If the folder Program Data or Documents and Settings is hidden, it is necessary to make it visible.
7	Click OK to finish the process.
8	In ODBC setup window select Option Button and uncheck "Show Deleted Rows" checkbox. 



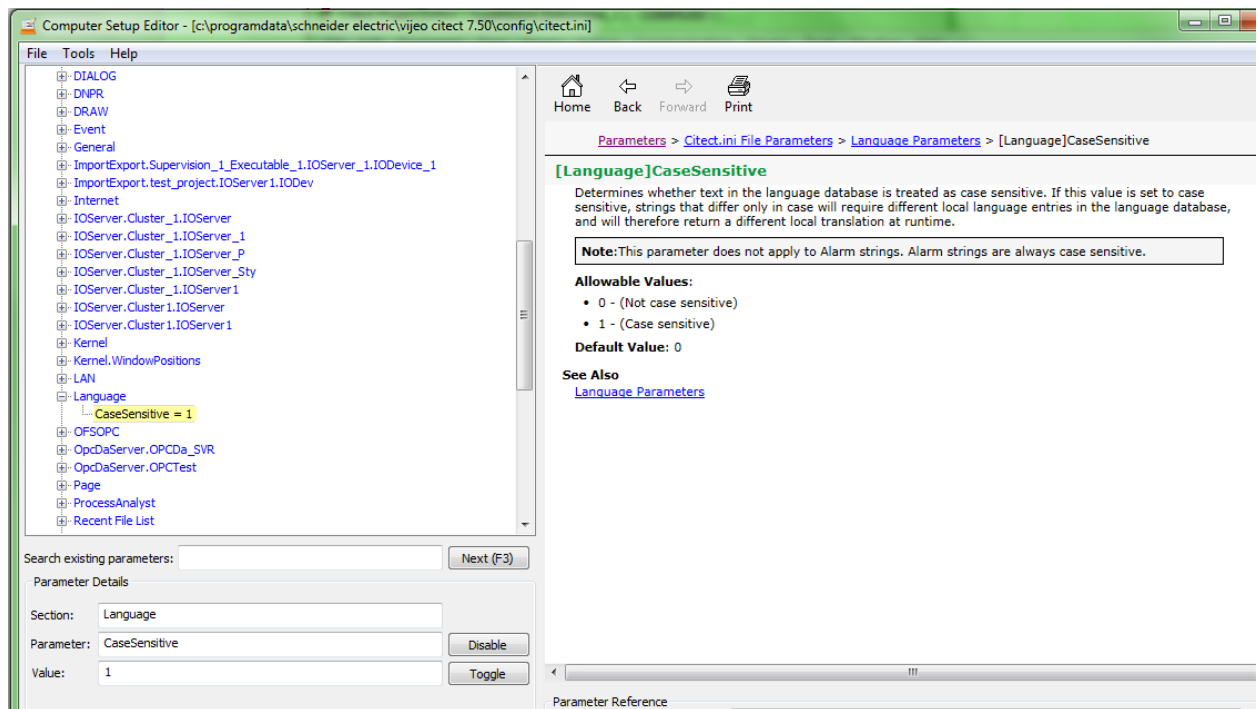
Note: in Steps 6, Select the data folder path according to Vijeo Citect Version installed.

2. Set **Allow_RPC** to "**TRUE**" in Role for the Citect user to log entries for MMM Tools in Supervision Refinement.



This is done to allow Data Transfer between Citect Process (when Citect is running as Multi-Process Mode) else entries will not be logged.

3. In Vijeo Citect, where runtime will be running, Set Language Parameter in Citect INI as **[Language]CaseSensitive = 1** to get valid results for the Comparators set in cicode. According to which the entries are logged and retrieved in runtime.



4. Ensure only one Cluster is configured throughout Supervision Projects (Main and Includes). Cicodes written for MMM Tools are not designed to work for Multi-Clustered Project.
5. There are two Labels "IOserverPName" (Default value " and "IOserverSName" are created in "MMM_Include1p1" include project. These Labels are used to identify the Citect Runtime Machine where IO Servers are running by using the comparison of Running IOserver process in the machine with the name defined in the Label, if it does not match, cicode does not put any entry in DBF.

Default value for these label as "IOserver_1" for IOserverPName and "IOserver_2" as IOserverSName, ensure to create Name of IOserver for Supervision Project as "IOserver_1" for Primary IOserver and "IOserver_2" for standby IOserver.

You can also change the Label in "MMM_Include1p1" include project and use the IOserver name of your choice but **we strongly recommend not to modify the default Include Project.**

6. Use attached "MMM_Include1p1" as Include Project for PES Supervision Project. (Till PES V4.3 SP1 for "PlantStruxure MMM Library for PES 2017")
Older version of Include or any modification made in the includes may produce unexpected result. This attached version is official MMM Library Include and on top of that updated for following fixes:
 - a) Fix introduces for logging entries in any default language not only in default English.
Introduced in MMM Library 2017 Release.

- b) Fix for missed entries on Operator Notes table and Blank Entries Note User Field. Introduced in PlantStruxure MMM Library for PES 2017 Hotfix RTM_46321.
- c) Fix for the issue MMM_Tools Operator Events and Bypass List is only available for one day.

How to add to supervision Include:

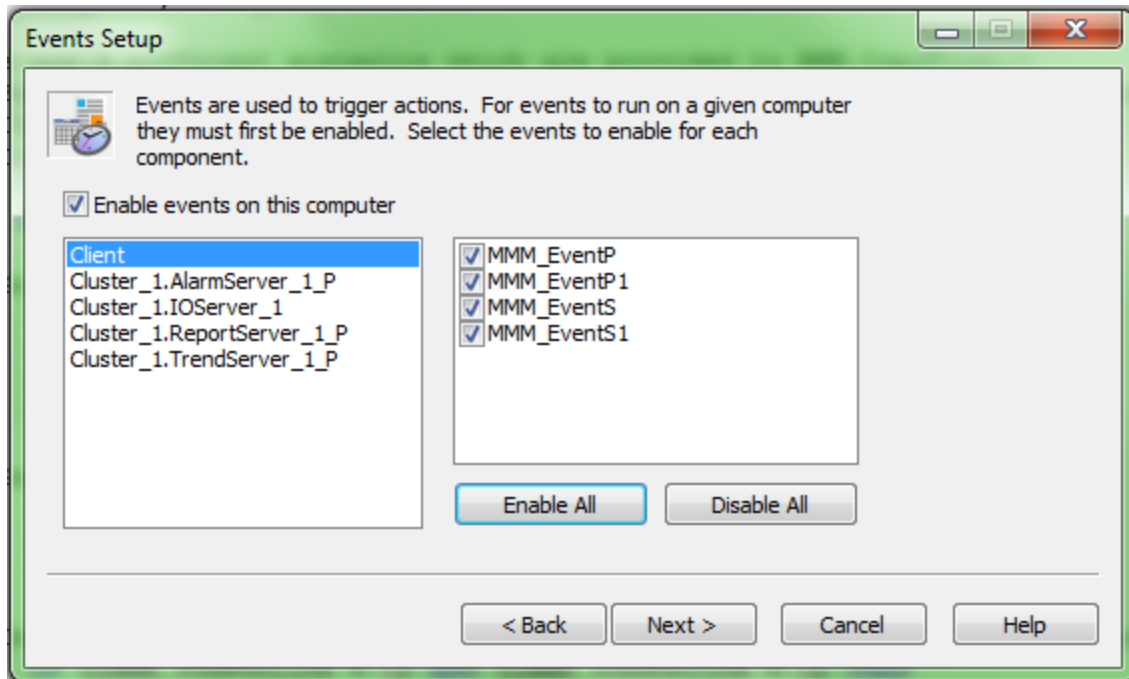
- Open PES Project Editor.
- Right click on Supervision Project and select **Include Projects**. Included Project List will appear.
- Select MMM_Include1p1, if it is already added as Include and click on “Remove” Button.
- After Successful removal, copy the MMM_Include1p1 attached in this document to the PC where Engineering Client is running and Select Add Button on Include Projects window.
- Browse the path for new Include and click Open to add new MMM_Include1p1 project as Include Project.

7. **Configuration on MMM Tools for Primary and Standby (Redundant) Supervision Server (Citect) configuration:** To setup the MMM Tools for Primary and Standby Operation Server you need to first setup the configuration as mentioned above as apart from Project Configuration, all other configurations are Computer Specific.

In Primary and Standby Configuration, since Database are Managed Locally in both the Server Machine, there was a mechanism introduced in MMM_Tools to sync the Database at every 2 seconds so that both the server is having most updated Database to Manage the failover events.

To setup this configuration, restore the Project in both Primary and Standby Operation Server and first setup the Citect Server Redundancy and ensure it is working as per configuration. Run Computer Setup Wizard in Citect and in Event Setup window, activate MMM_Events for Client Process in both Primary and Standby IO Server PC.

Example As shown below.



Note: To get the Database Synchronization working properly, ensure that both Citect Primary and Standby server PC is having same date time or in sync with common Time source.

8. **Setup MMM_Tools in Citect Client only Machine:** Since database for MMM_Tools are designed to Log and retrieve data from Citect IOServer Machines (Primary or Standby IO Server), there is no local Database available on Citect Client Machine.

And in this case to see data in any of the Citect Client Machine follow the steps below:

- a) Map either Primary or Standby Citect Data path where MMM Tools database is located (as configured in step1) to a network Drive in Client PC. Preferably map Primary Server PC as it will be online most of the time.
- b) Create DSN in Client Machine same as mentioned in Step1 but in Select Directory, browse the network path that is mapped in previous step.

Now Client PC should also display data in MMM_Tools window in runtime which will be in sync with Primary and Standby IOServer data.

9. First startup of Citect Runtime after above configuration, create some entries in Runtime like Bypass at least one interlocks and make one entry for Operator Notes. This will push one entry in the record and Database file will be created. After that you can normally log and see the entries in MMM Tools in Runtime.