Release 4.2

User Guide

Verizon

Integrated Cost Model User Guide

Table of Contents

Introduction

System Requirements

Minimum computer requirements:

- IBM-compatible PC
- Pentium™ 120 MHz microprocessor
- 16 MB RAM
- 1 GB hard drive space
- Windows 95 or NT
- CD drive

Installing ICM

To install ICM:

1. Insert the ICM CD into the CD drive.
   - The setup program may start automatically. If it does not, continue with step 2.
2. Select **Start**/**Run**.
3. Click **Browse**.
4. Browse the directories on the ICM CD to find the Disk1 directory. Then, find the file "setup.exe" in the Disk1 directory.
5. Select the file.
6. Press **Enter**.
   - Follow the instructions displayed on the screen.
   - The system displays a message when the installation is complete. If installing an additional or updated version of ICM, the installation may cause an Error 3 or Alias Error 3. The error can be avoided in one of two ways:
     - Click past the error and then edit the alias. See Changing the Alias. The alias is the path where ICM looks for the Database directory that contains the data files for a specific state.
     - Uninstall the old version of ICM and install the new one in the same directory. The error might still occur, but will have no effect.

Viewing Source Code

The source can view code for each ICM Module from the CD-ROM. It does not transfer to the hard drive during installation.

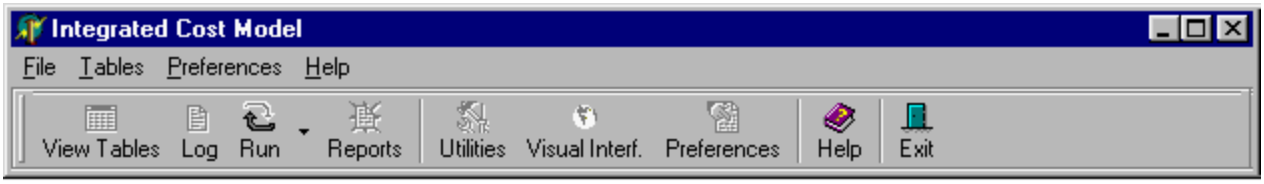
To view the source code:

1. Use the File Manager (Windows 3.1) or Explorer (Windows 95, 98, NT) to navigate through the ICM CD-ROM.
2. Go to the directory Source.

- Find the file “listing.pdf”. This file is in Portable Document Format, which is read by Acrobat Reader.
- Double click on the file to open.

Interface Overview

ICM’s Main Toolbar



This is the main toolbar and is the first thing that appears when loading ICM. The following describes each button.

View Tables: Displays ICM’s Tables window.

Log: Displays the monitor log in the Query Utility.

Run: Runs the model.

Reports Displays ICM’s Reports window for input and output reports.

Utilities Displays a menu to bring up ICM’s utilities, which include the Query Utility, Indexed Table Viewer, Pack and Reindex, Import Utility, Confidentiality Statement Assignor, and Export Mapping code.

Visual Interf: Displays the Visual Interface.

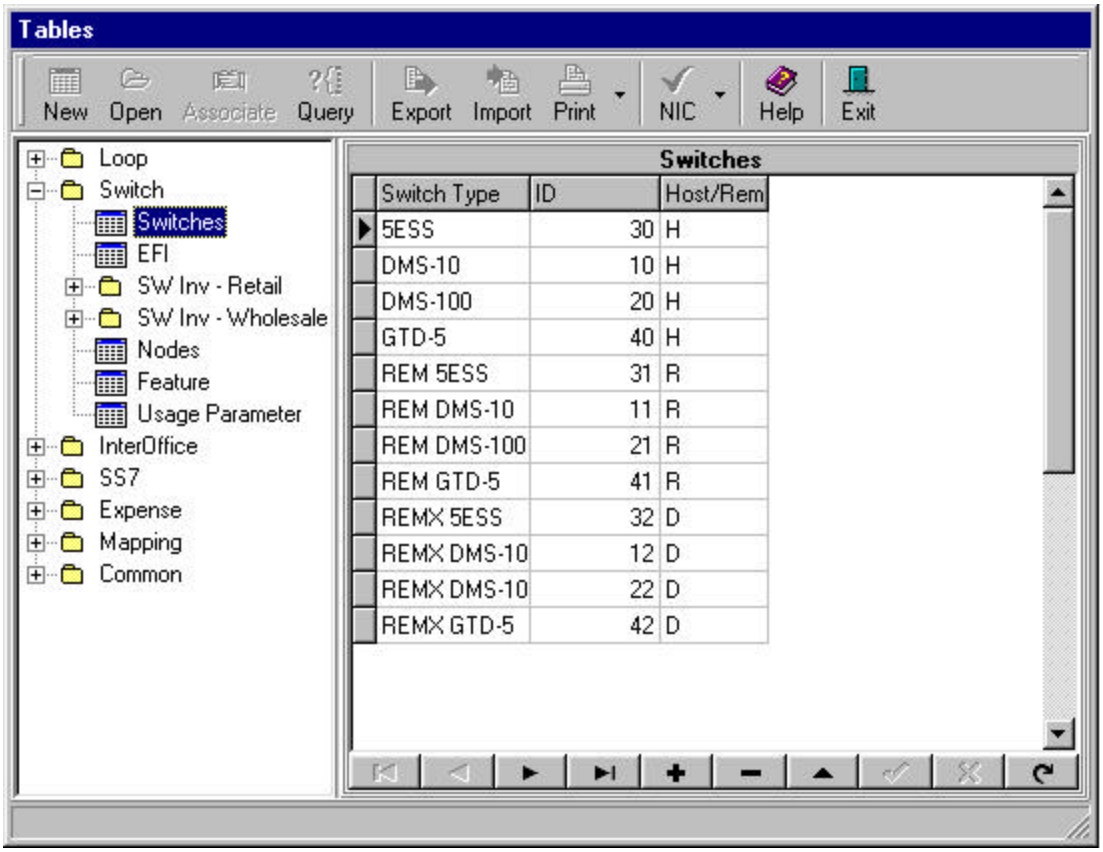
Preferences: Displays ICM’s Preferences window.

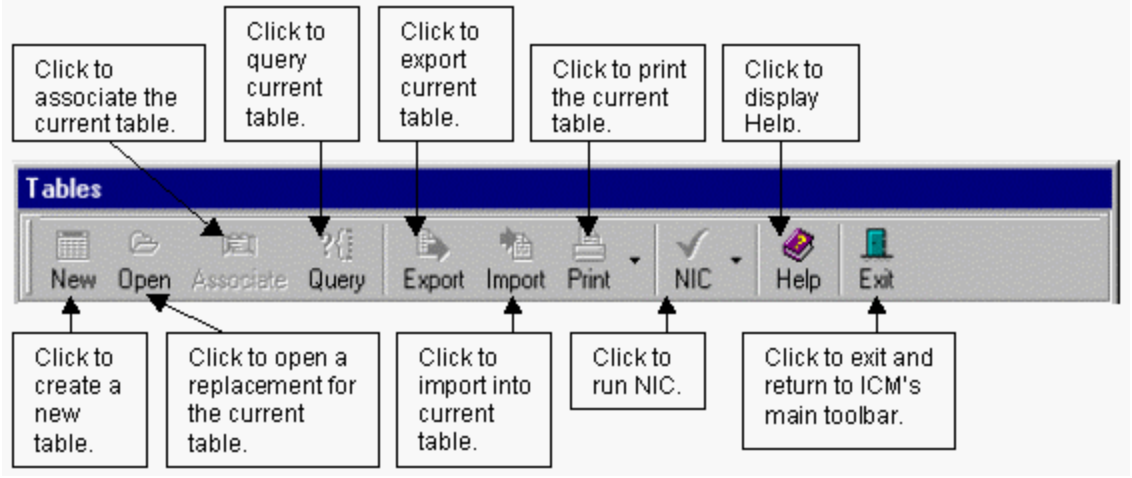
Help: Displays ICM’s help.

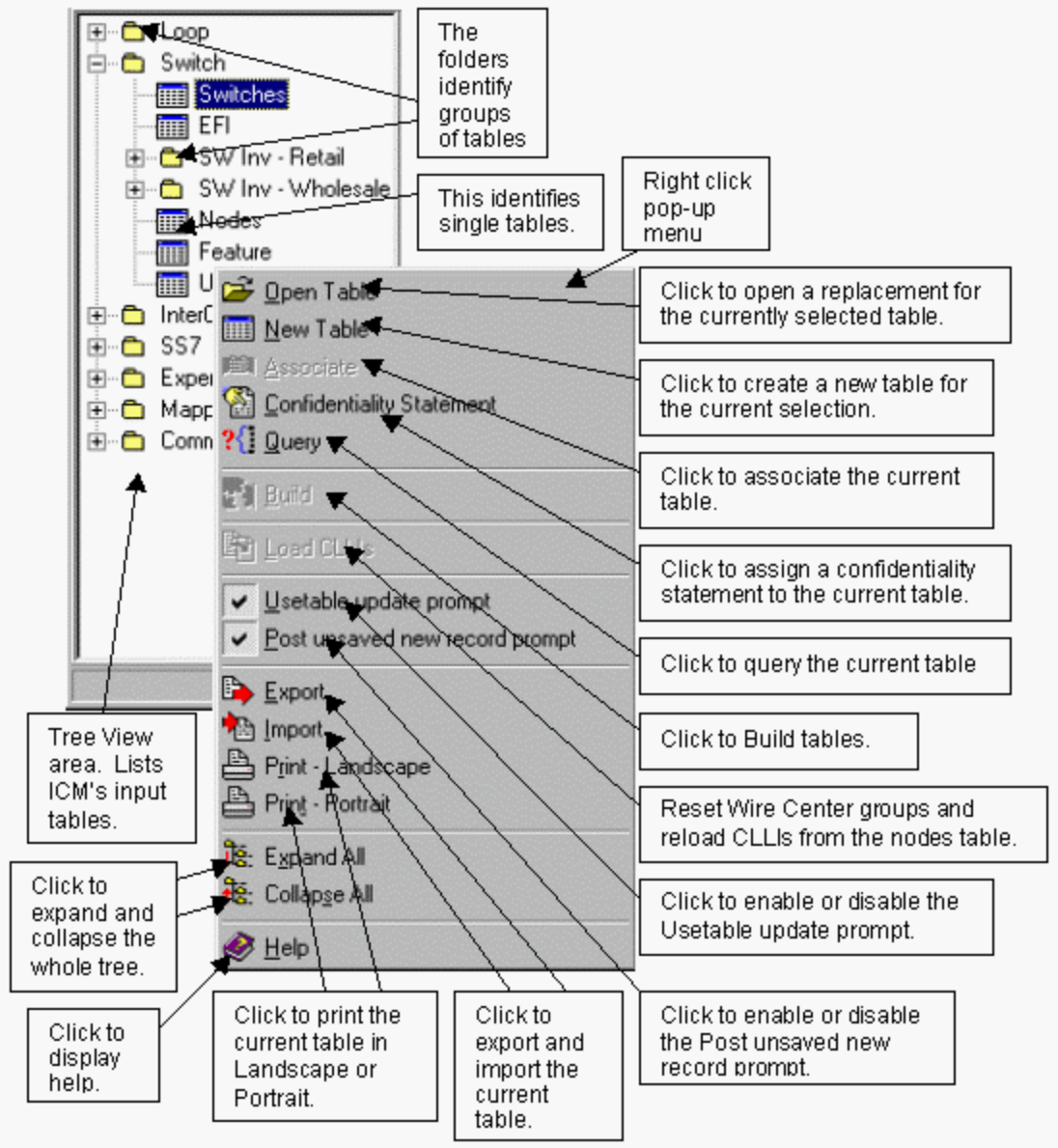
Exit: Closes ICM.

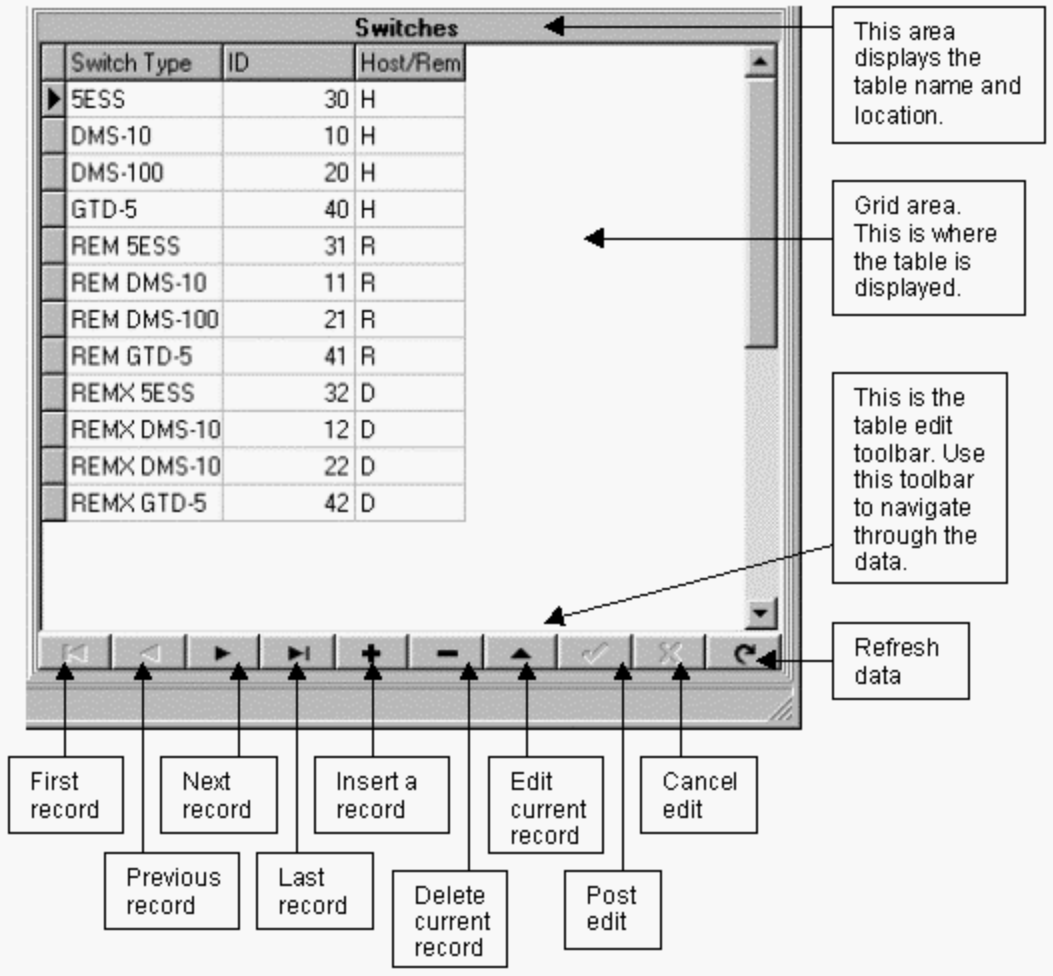
ICM Tables

The input data for each Module is available from the following window:

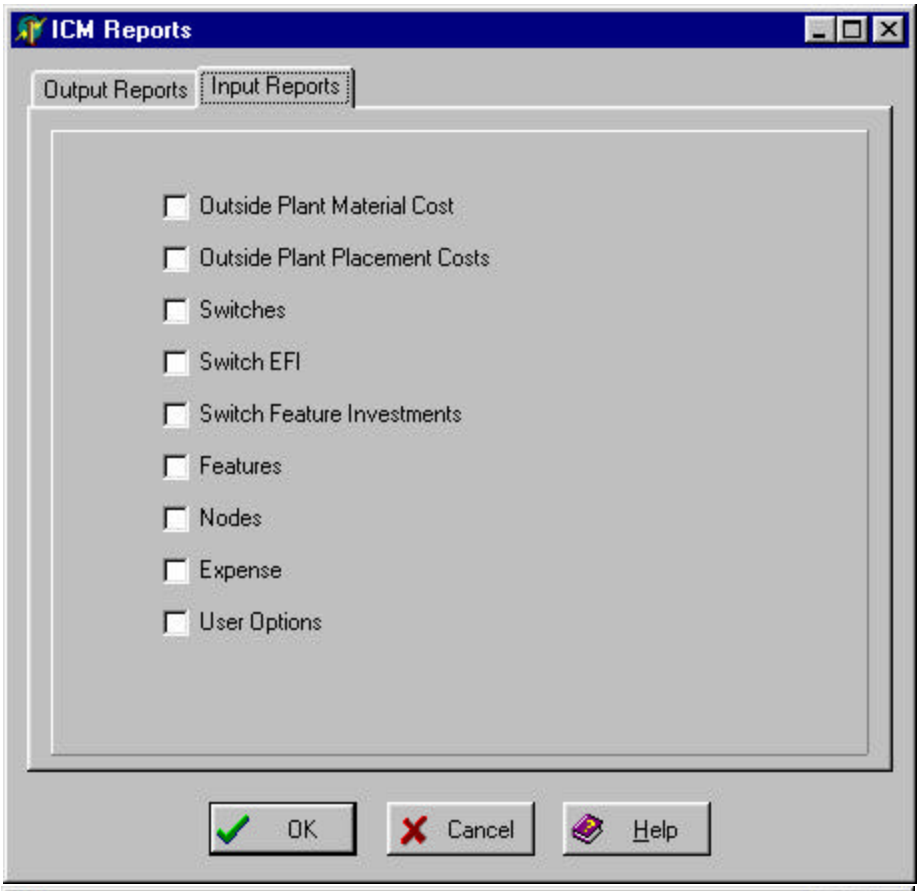




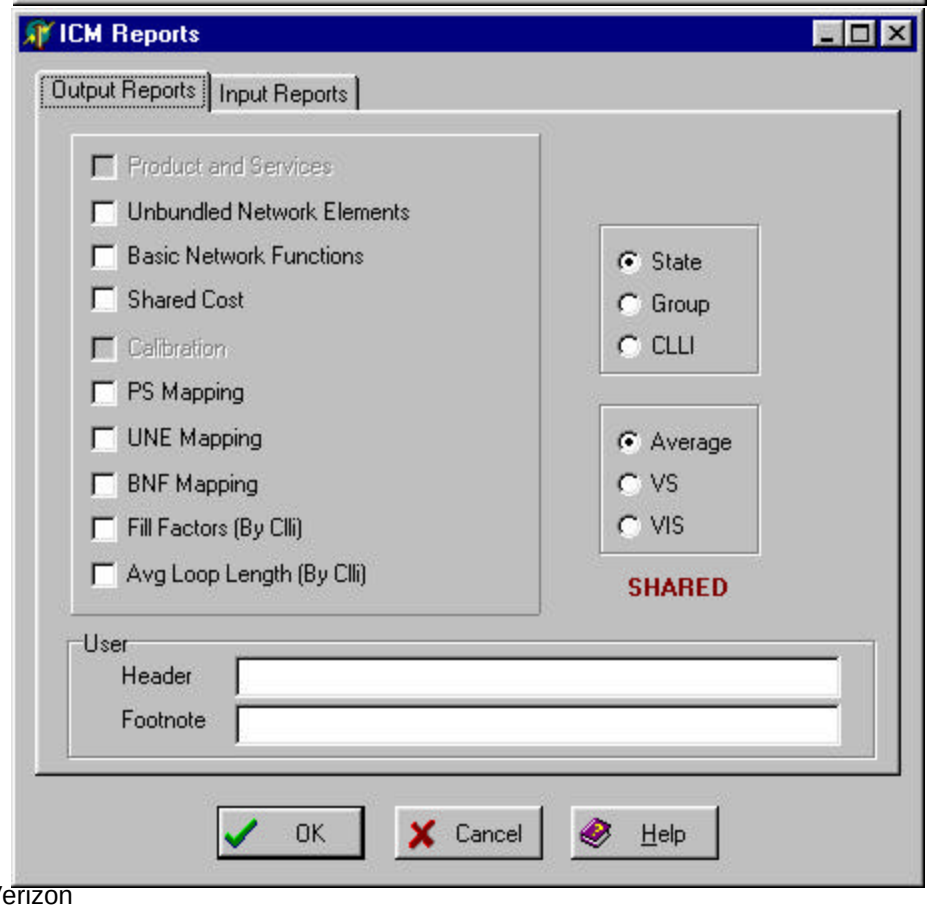

Loop
Switch
Switches
EFI
SW Inv - Retail
SW Inv - Wholesale
Nodes
Feature
Open Table
New Table
Associate
Confidentiality Statement
Query
Build
Usetable update prompt
Post unsaved new record prompt
Export
Import
Print - Landscape
Print - Portrait
Expand All
Collapse All
Help
The folders identify groups of tables
This identifies single tables.
Right click pop-up menu
Click to open a replacement for the currently selected table.
Click to create a new table for the current selection.
Click to associate the current table.
Click to assign a confidentiality statement to the current table.
Click to query the current table
Click to Build tables.
Reset Wire Center groups and reload CLLIs from the nodes table.
Click to enable or disable the Usetable update prompt.
Click to enable or disable the Post unsaved new record prompt.
Tree View area. Lists ICM's input tables.
Click to expand and collapse the whole tree.
Click to display help.
Click to print the current table in Landscape or Portrait.
Click to export and import the current table.


Switches
Switch Type
ID
Host/Rem
5ESS 30 H
DMS-10 10 H
DMS-100 20 H
GTD-5 40 H
REM 5ESS 31 R
REM DMS-10 11 R
REM DMS-100 21 R
REM GTD-5 41 R
REMX 5ESS 32 D
REMX DMS-10 12 D
REMX DMS-10 22 D
REMX GTD-5 42 D
This area displays the table name and location.
Grid area. This is where the table is displayed.
This is the table edit toolbar. Use this toolbar to navigate through the data.
Refresh data
First record
Previous record
Next record
Last record
Insert a record
Delete current record
Edit current record
Post edit
Cancel edit

ICM's Report Window



The Input page displays a list of input reports that may be generated by the user.

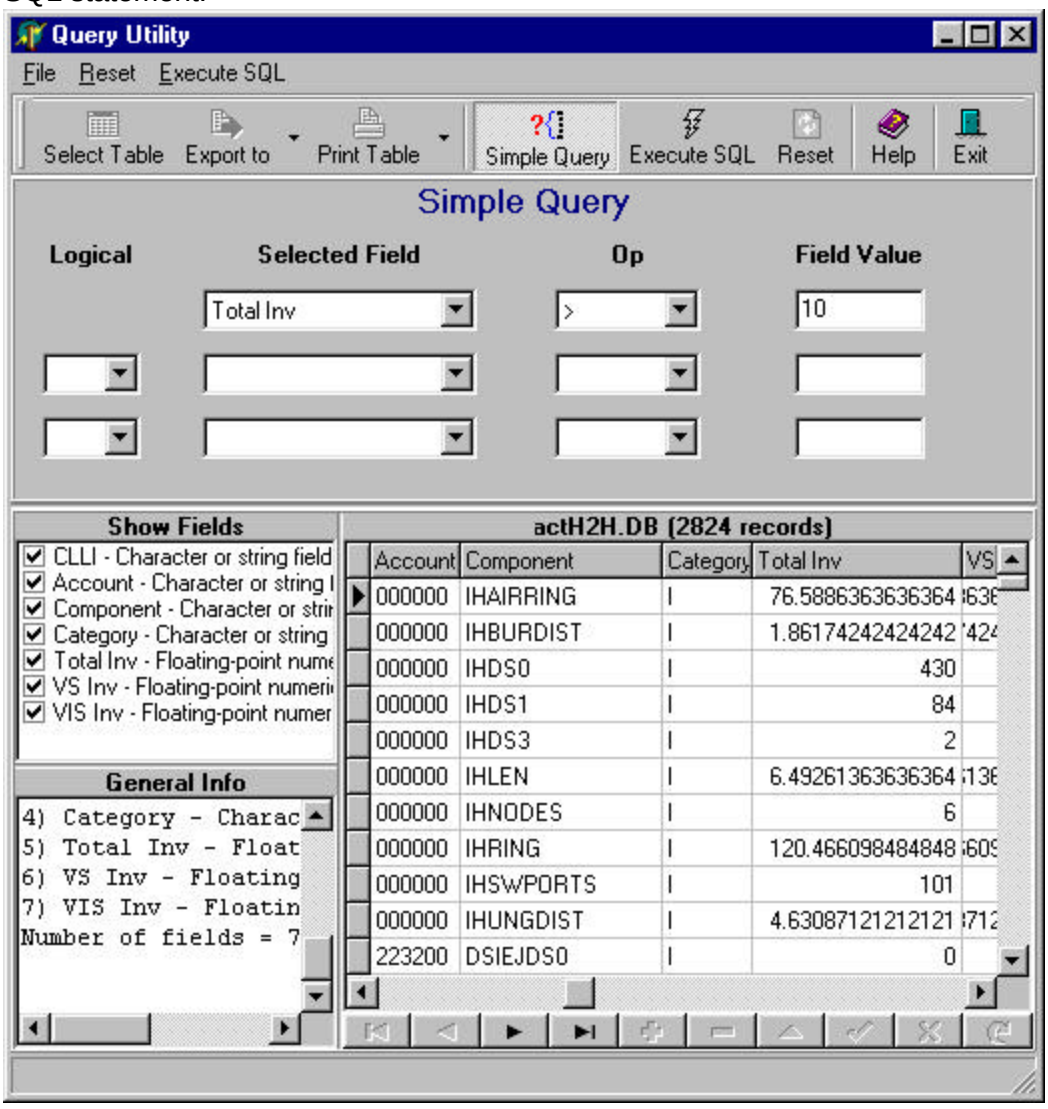


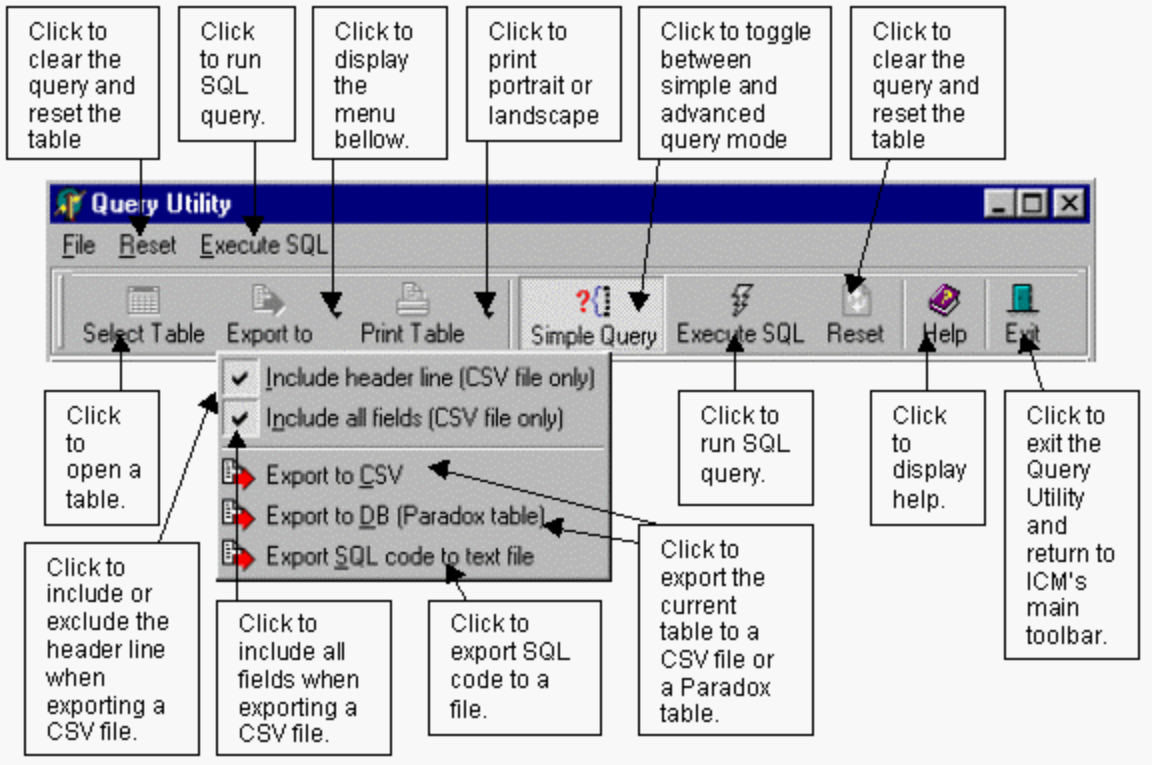
The Output page displays a list of output reports that may be generated by user defined settings.

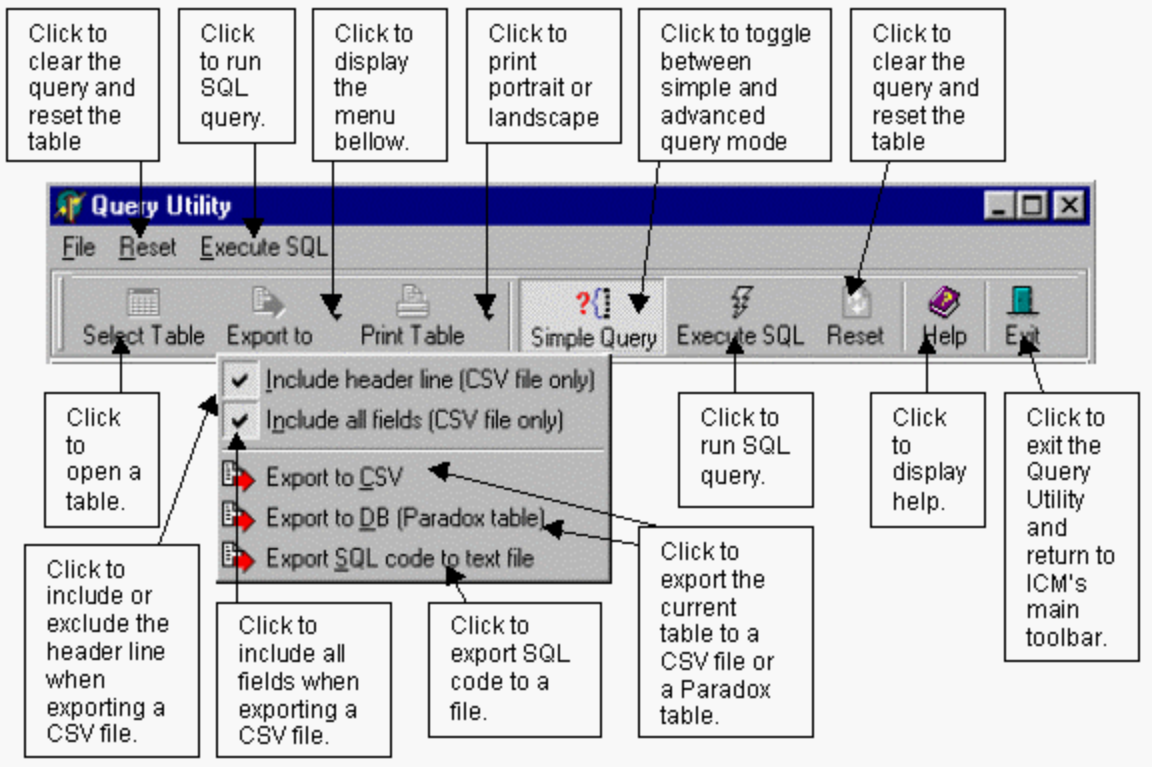
ICM's Utilities

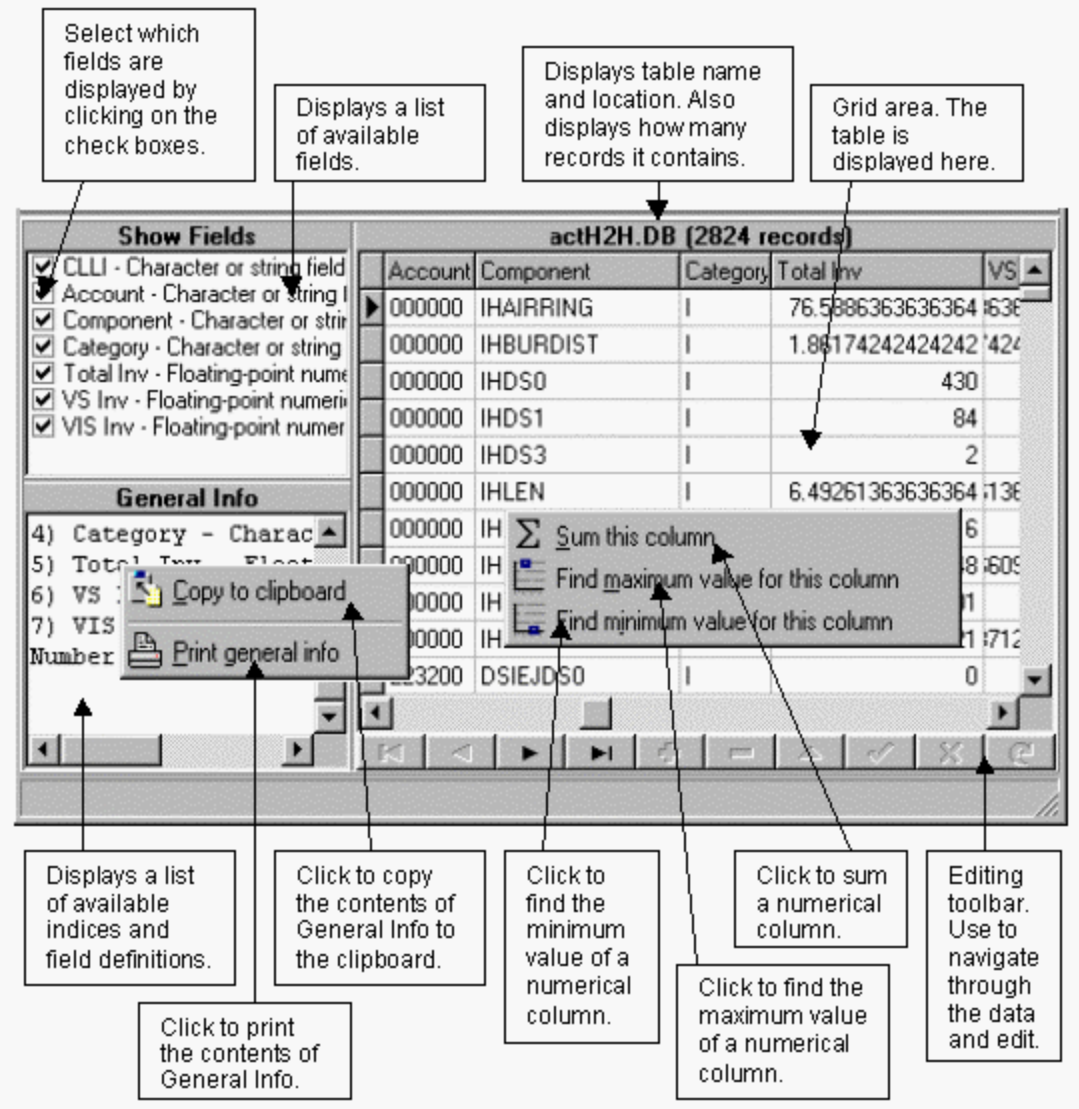
Query Utility

Any ICM table can be viewed and queried in this utility by using the simple query or doing an SQL statement.



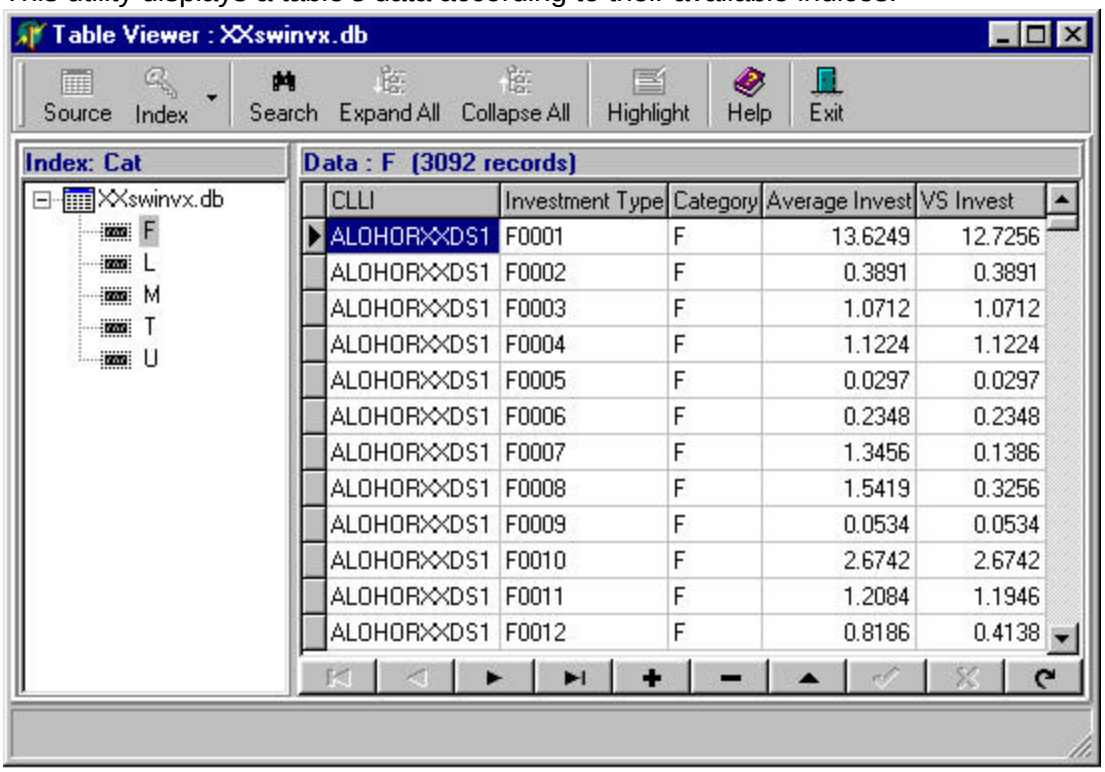

Click to clear the query and reset the table
Click to run SQL query.
Click to display the menu bellow.
Click to print portrait or landscape
Click to toggle between simple and advanced query mode
Click to clear the query and reset the table
Query Utility
File Reset Execute SQL
Select Table
Export to
Print Table
Simple Query
Execute SQL
Reset
Help
Exit
Include header line (CSV file only)
Include all fields (CSV file only)
Export to CSV
Export to DB (Paradox table)
Export SQL code to text file
Click to open a table.
Click to run SQL query.
Click to display help.
Click to exit the Query Utility and return to ICM's main toolbar.
Click to include or exclude the header line when exporting a CSV file.
Click to include all fields when exporting a CSV file.
Click to export SQL code to a file.
Click to export the current table to a CSV file or a Paradox table.

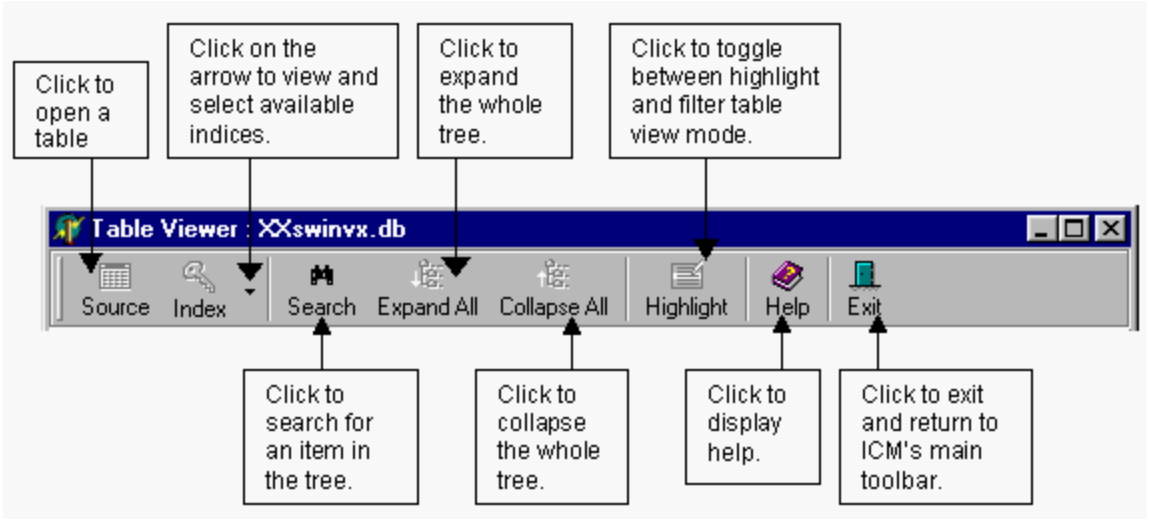

Click to clear the query and reset the table
Click to run SQL query.
Click to display the menu bellow.
Click to print portrait or landscape
Click to toggle between simple and advanced query mode
Click to clear the query and reset the table
Query Utility
File Reset Execute SQL
Select Table
Export to
Print Table
Simple Query
Execute SQL
Reset
Help
Exit
Include header line (CSV file only)
Include all fields (CSV file only)
Export to CSV
Export to DB (Paradox table)
Export SQL code to text file
Click to open a table.
Click to run SQL query.
Click to display help.
Click to exit the Query Utility and return to ICM's main toolbar.
Click to include or exclude the header line when exporting a CSV file.
Click to include all fields when exporting a CSV file.
Click to export SQL code to a file.
Click to export the current table to a CSV file or a Paradox table.

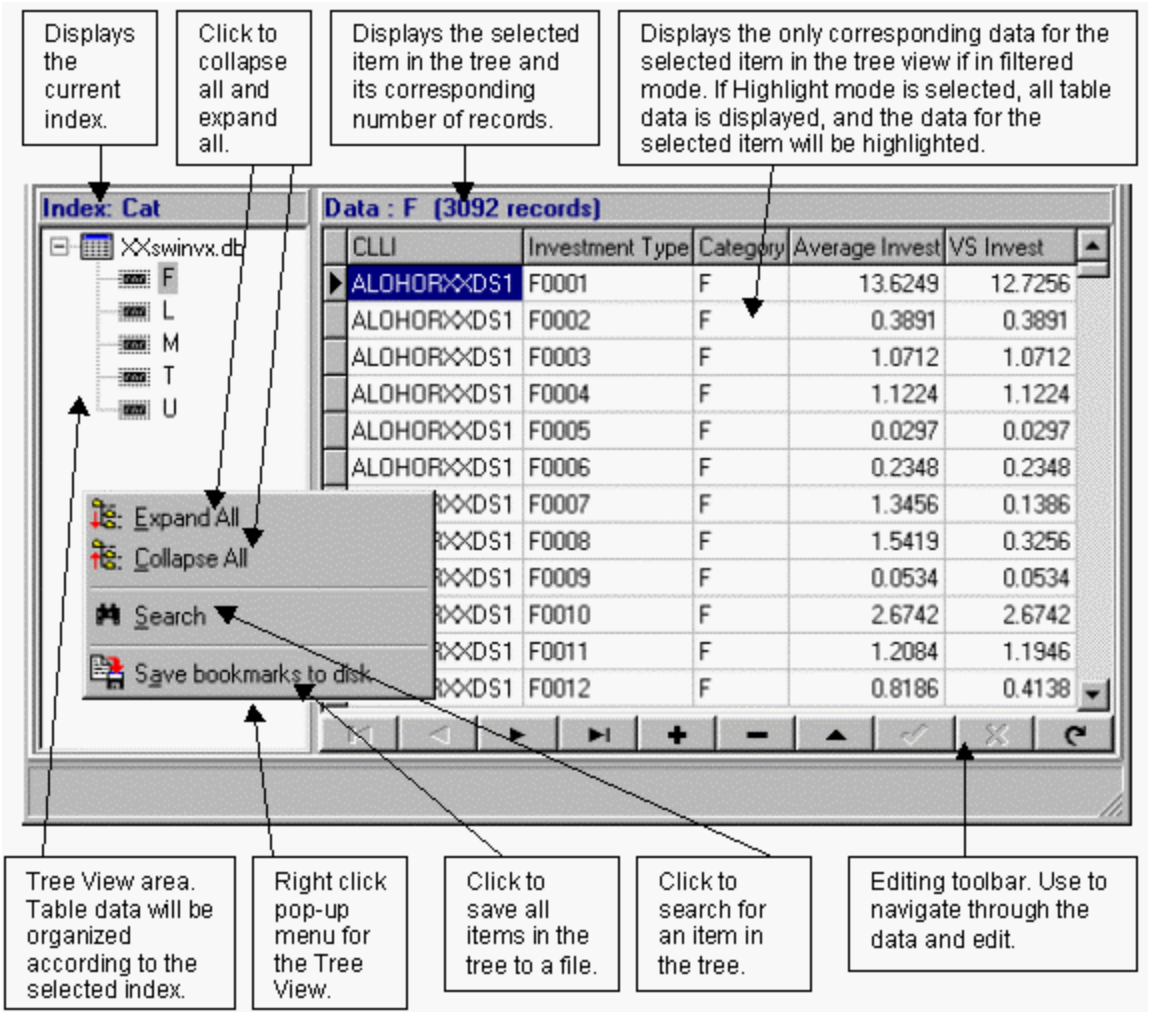

Select which fields are displayed by clicking on the check boxes.
Displays a list of available fields.
Displays table name and location. Also displays how many records it contains.
Grid area. The table is displayed here.
Show Fields
CLLI - Character or string field
Account - Character or string
Component - Character or strir
Category - Character or string
Total Inv - Floating-point nume
VS Inv - Floating-point numeri
VIS Inv - Floating-point numer
General Info
4) Category - Charac
Number
actH2H.DB (2824 records)
Account
Component
Category
Total Inv
VS
000000 IHAIRRING I 76.5886363636364
000000 IHBURDIST I 1.86174242424242
000000 IHDS0 I 430
000000 IHDS1 I 84
000000 IHDS3 I 2
000000 IHLEN I 6.49261363636364
Copy to clipboard
Print general info
Sum this column
Find maximum value for this column
Find minimum value for this column
Displays a list of available indices and field definitions.
Click to print the contents of General Info.
Click to copy the contents of General Info to the clipboard.
Click to find the minimum value of a numerical column.
Click to find the maximum value of a numerical column.
Click to sum a numerical column.
Editing toolbar. Use to navigate through the data and edit.

Indexed Table Viewer

This utility displays a table's data according to their available indices.

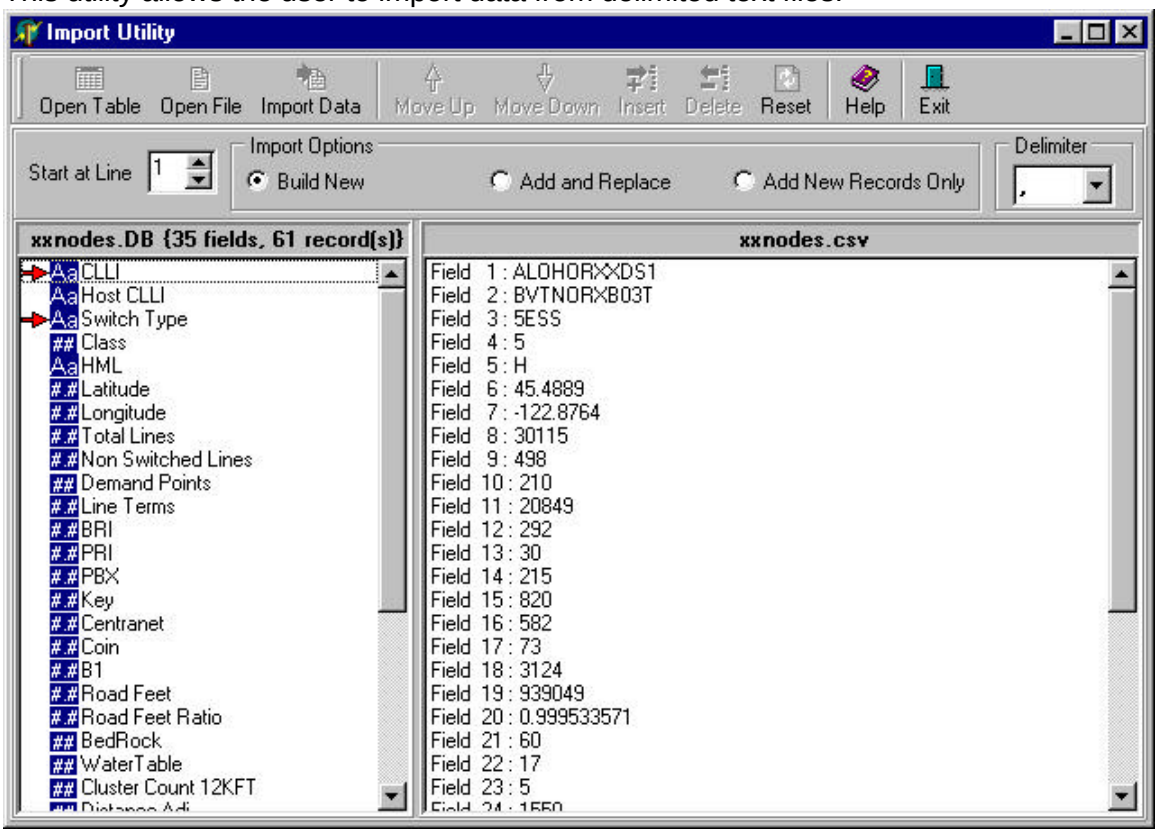


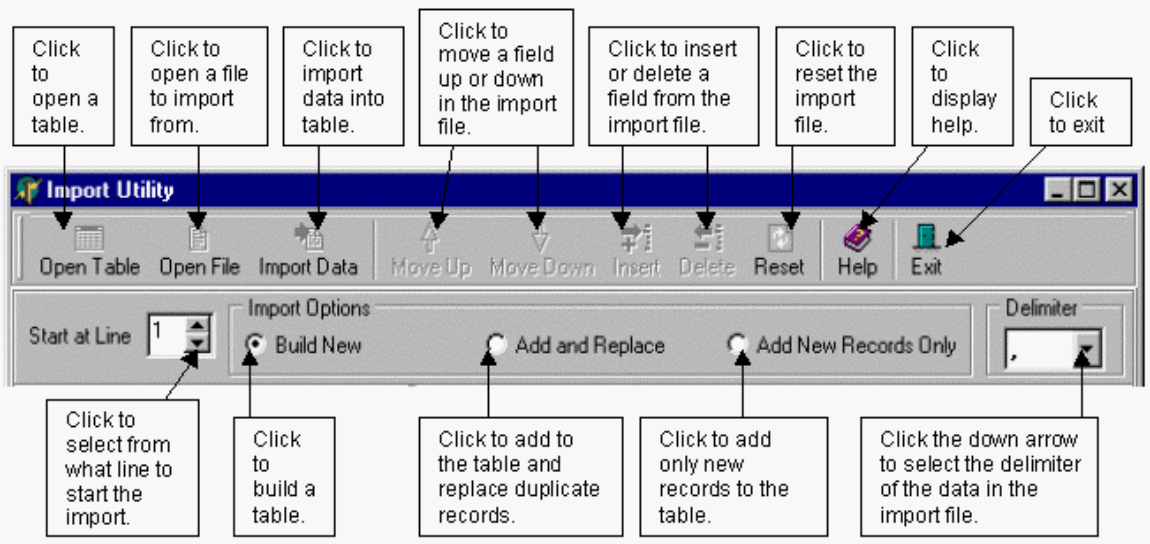


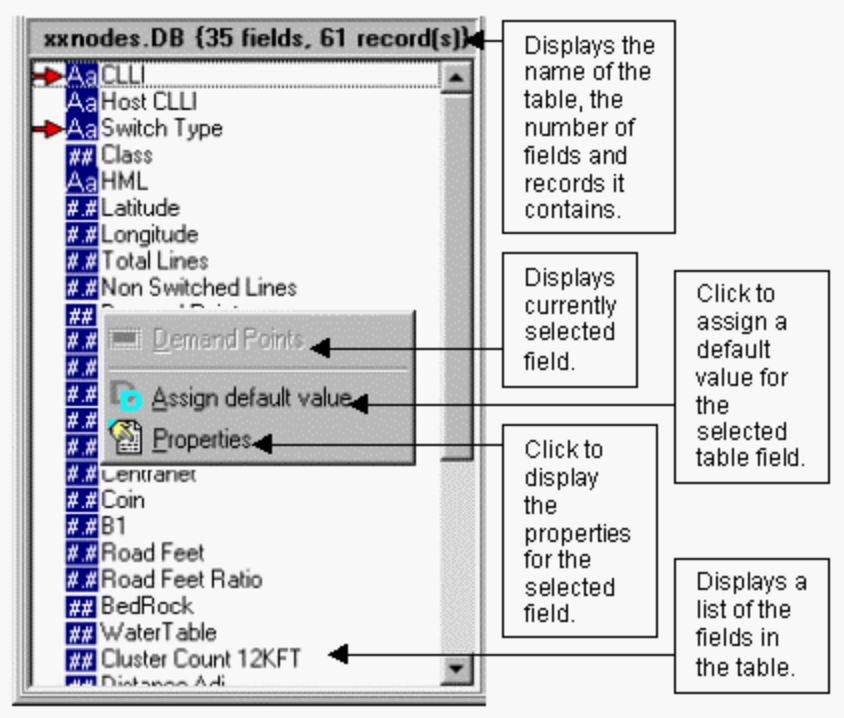

Displays the current index.
Click to collapse all and expand all.
Displays the selected item in the tree and its corresponding number of records.
Displays the only corresponding data for the selected item in the tree view if in filtered mode. If Highlight mode is selected, all table data is displayed, and the data for the selected item will be highlighted.
Index: Cat
XXswinvx.db
F
L
M
T
U
Data : F (3092 records)
CLLI
Investment Type
Category
Average Invest
VS Invest
ALOHORXXDS1 F0001 F 13.6249 12.7256
ALOHORXXDS1 F0002 F 0.3891 0.3891
ALOHORXXDS1 F0003 F 1.0712 1.0712
ALOHORXXDS1 F0004 F 1.1224 1.1224
ALOHORXXDS1 F0005 F 0.0297 0.0297
ALOHORXXDS1 F0006 F 0.2348 0.2348
F0007 F 1.3456 0.1386
F0008 F 1.5419 0.3256
F0009 F 0.0534 0.0534
F0010 F 2.6742 2.6742
F0011 F 1.2084 1.1946
F0012 F 0.8186 0.4138
Expand All
Collapse All
Search
Save bookmarks to disk
Tree View area. Table data will be organized according to the selected index.
Right click pop-up menu for the Tree View.
Click to save all items in the tree to a file.
Click to search for an item in the tree.
Editing toolbar. Use to navigate through the data and edit.

Import Utility

This utility allows the user to import data from delimited text files.

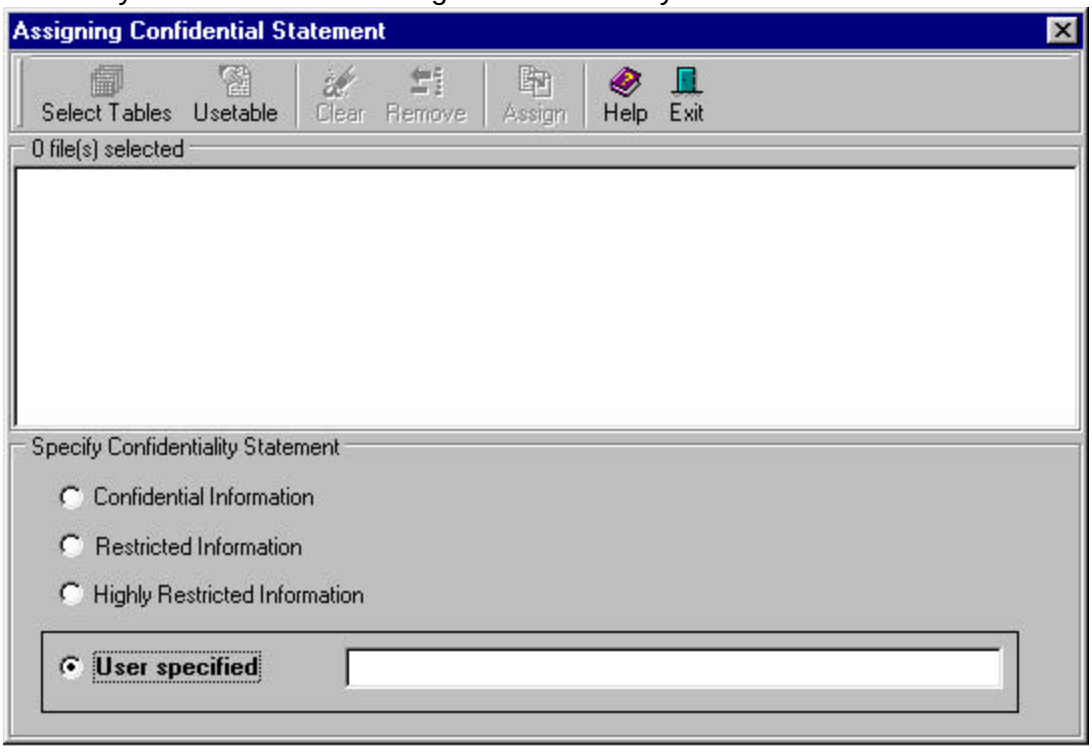


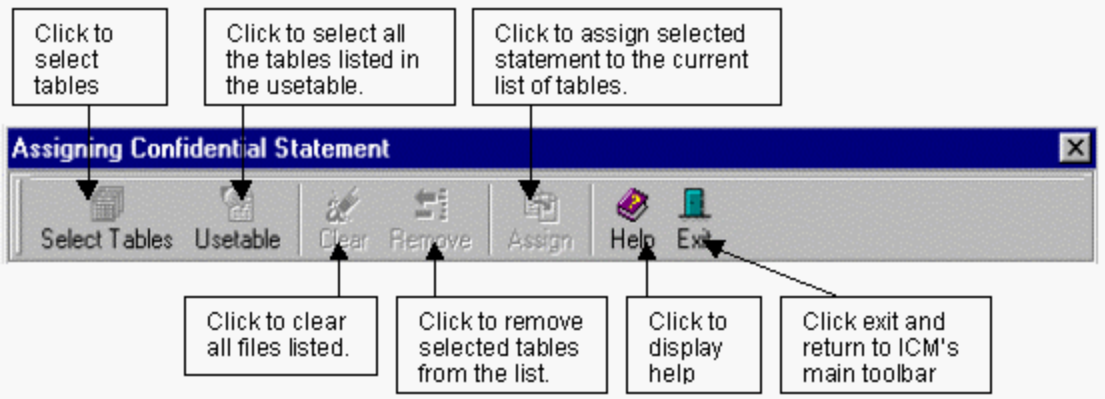


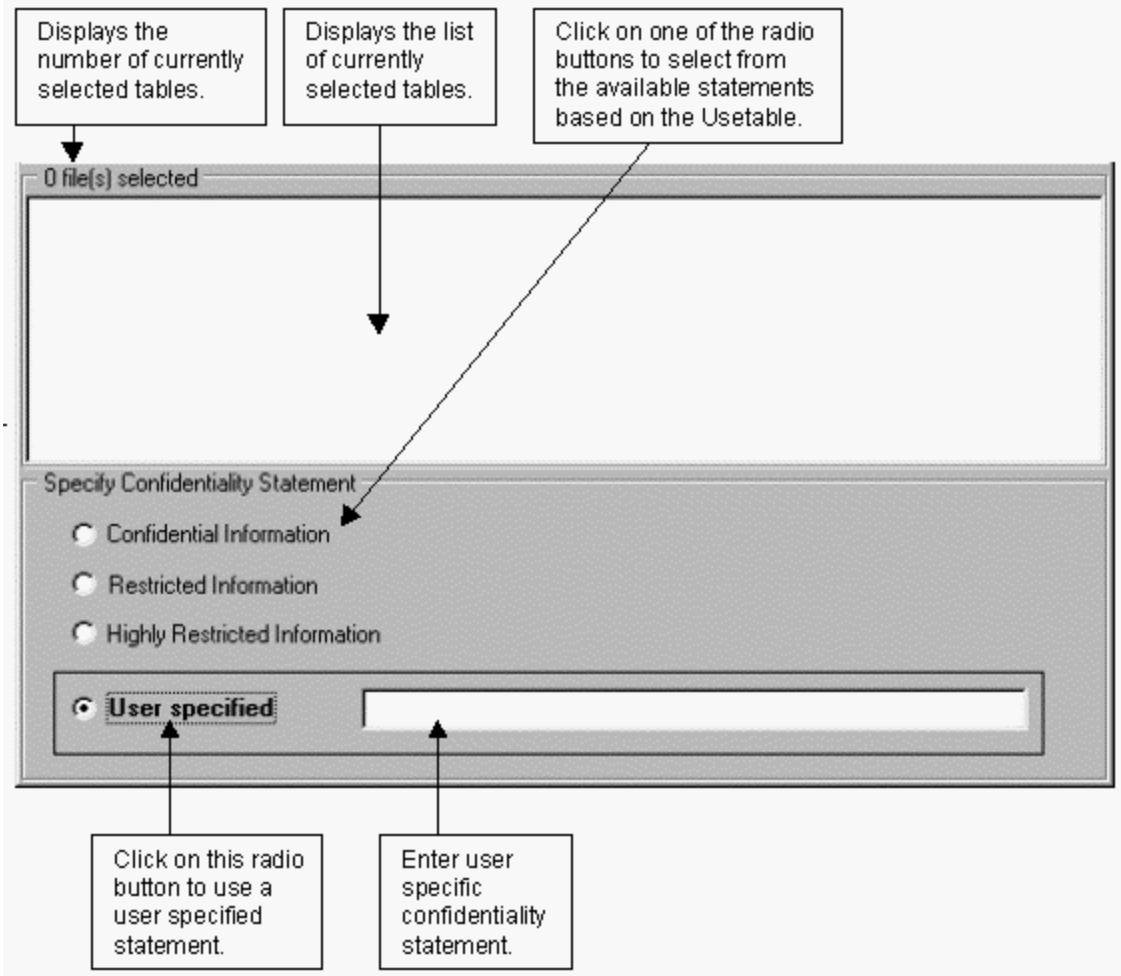


Confidentiality Assignor

This utility allows the user to assign a confidentiality statement to ICM's tables.



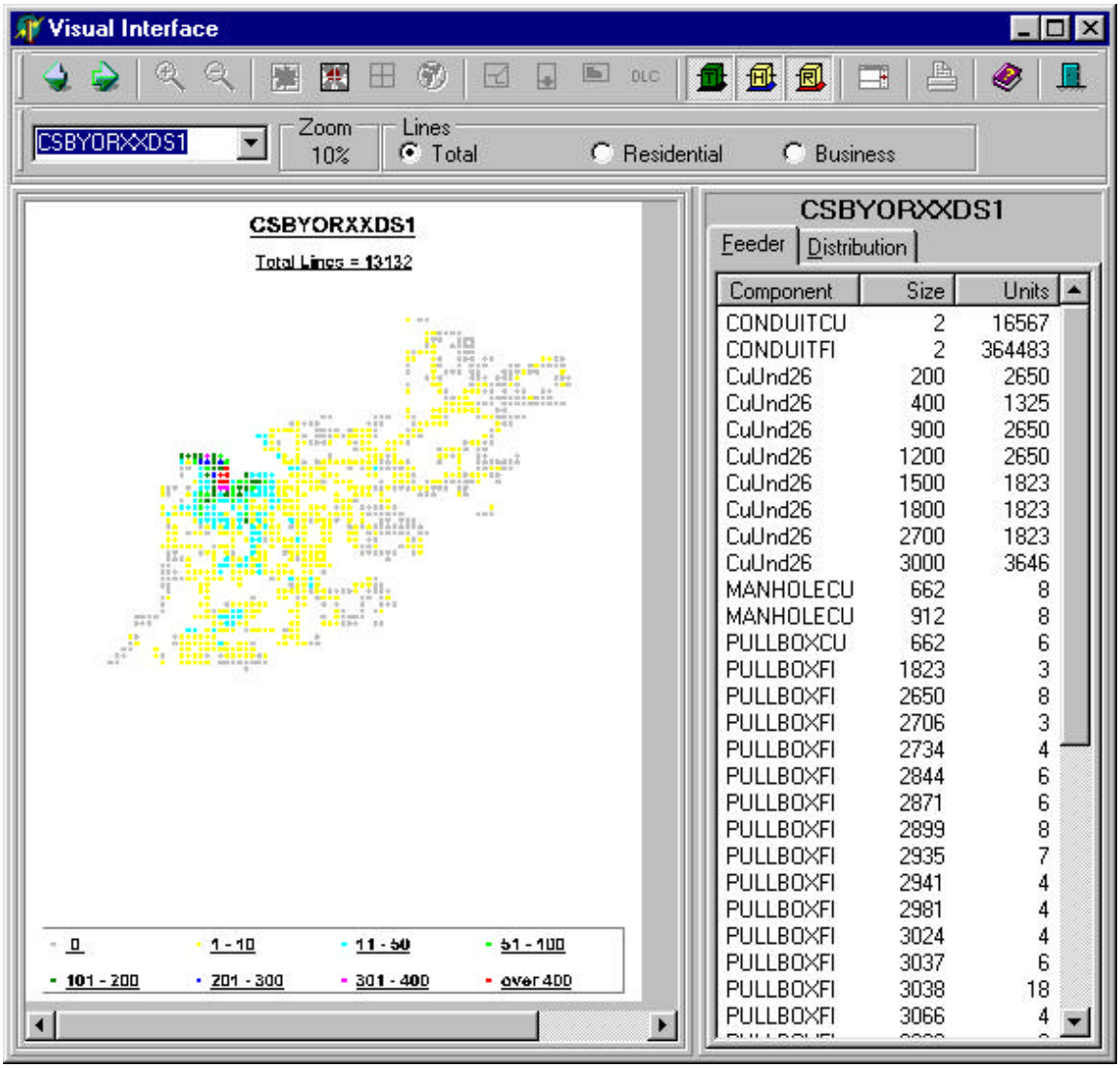

Click to select tables
Click to select all the tables listed in the usetable.
Click to assign selected statement to the current list of tables.
Assigning Confidential Statement
Select Tables
Usetable
Clear
Remove
Assign
Help
Exit
Click to clear all files listed.
Click to remove selected tables from the list.
Click to display help
Click exit and return to ICM's main toolbar

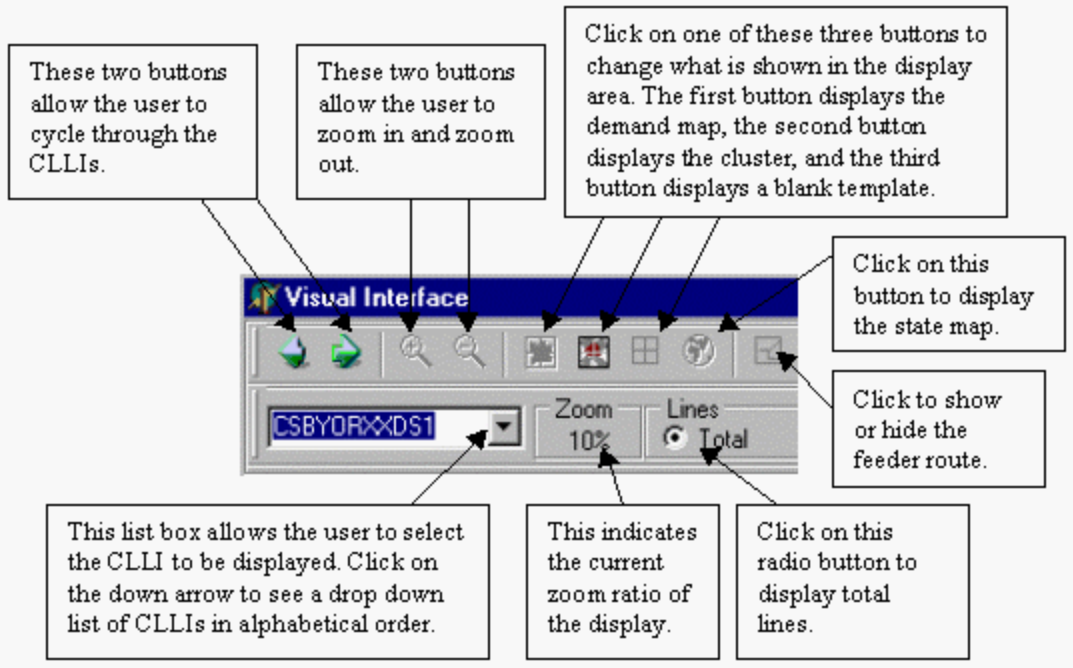

Displays the number of currently selected tables.
Displays the list of currently selected tables.
Click on one of the radio buttons to select from the available statements based on the Usetable.
0 file(s) selected
Specify Confidentiality Statement
Confidential Information
Restricted Information
Highly Restricted Information
User specified
Click on this radio button to use a user specified statement.
Enter user specific confidentiality statement.

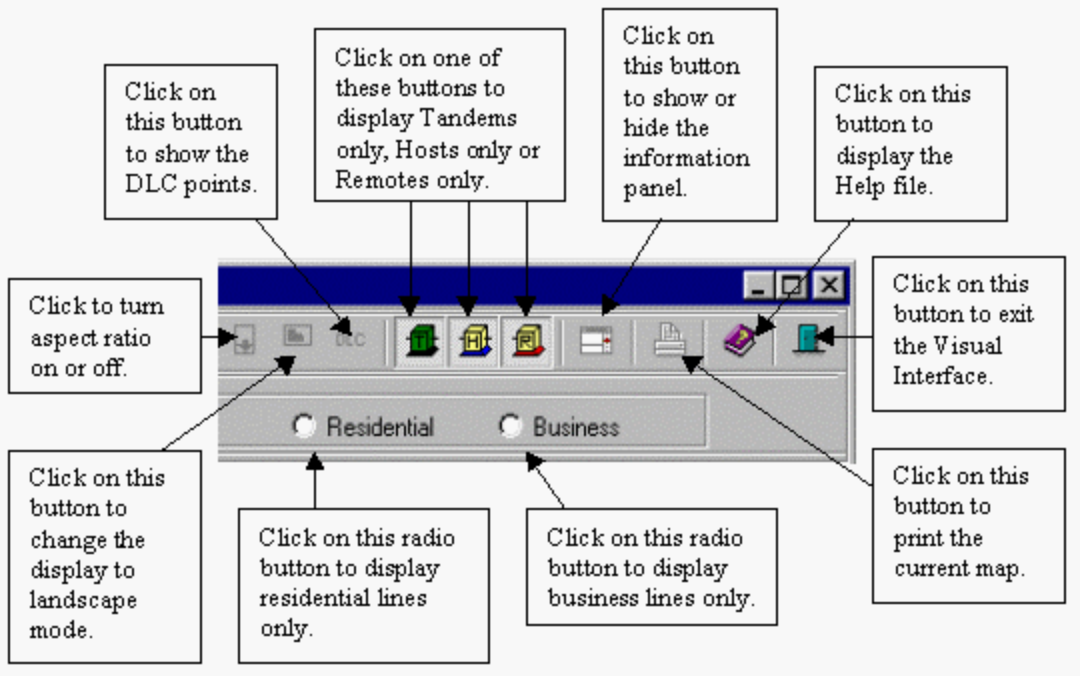
Visual Interface

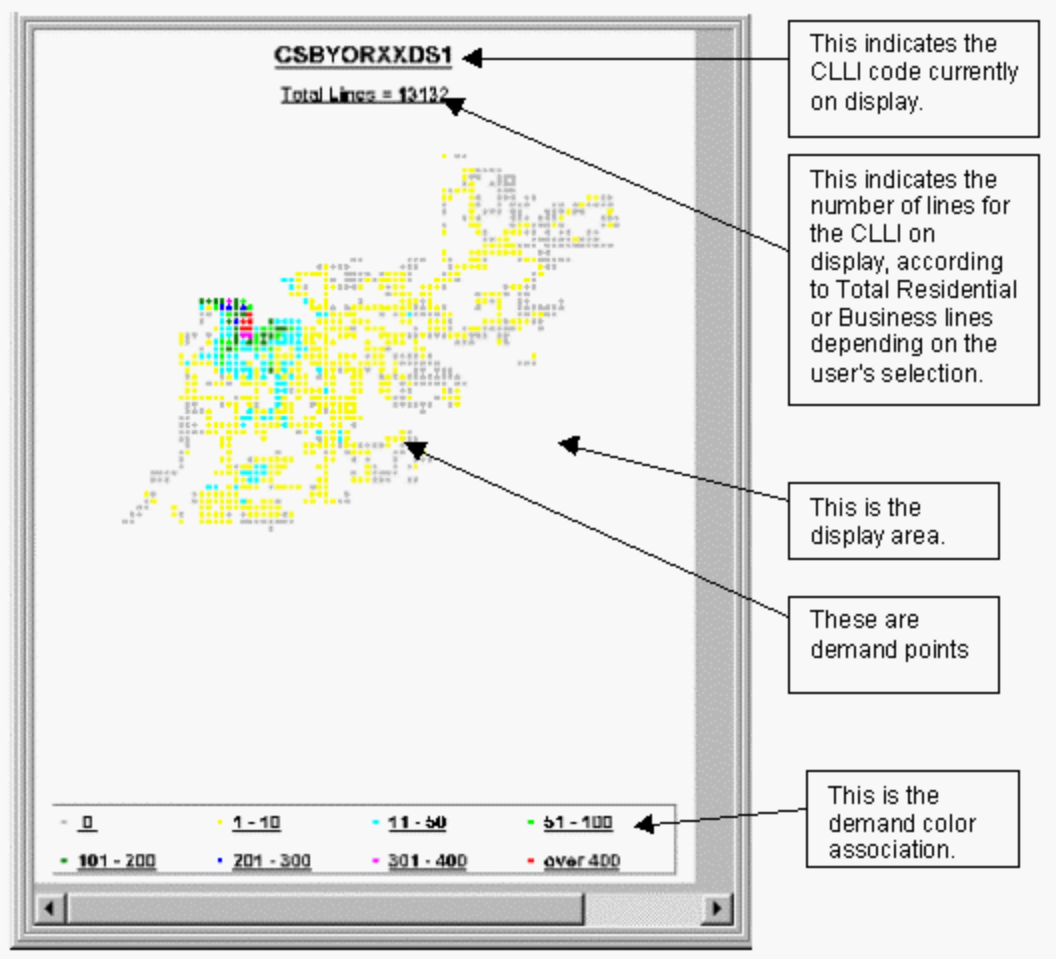
The Visual Interface allows you to view the following types of data:

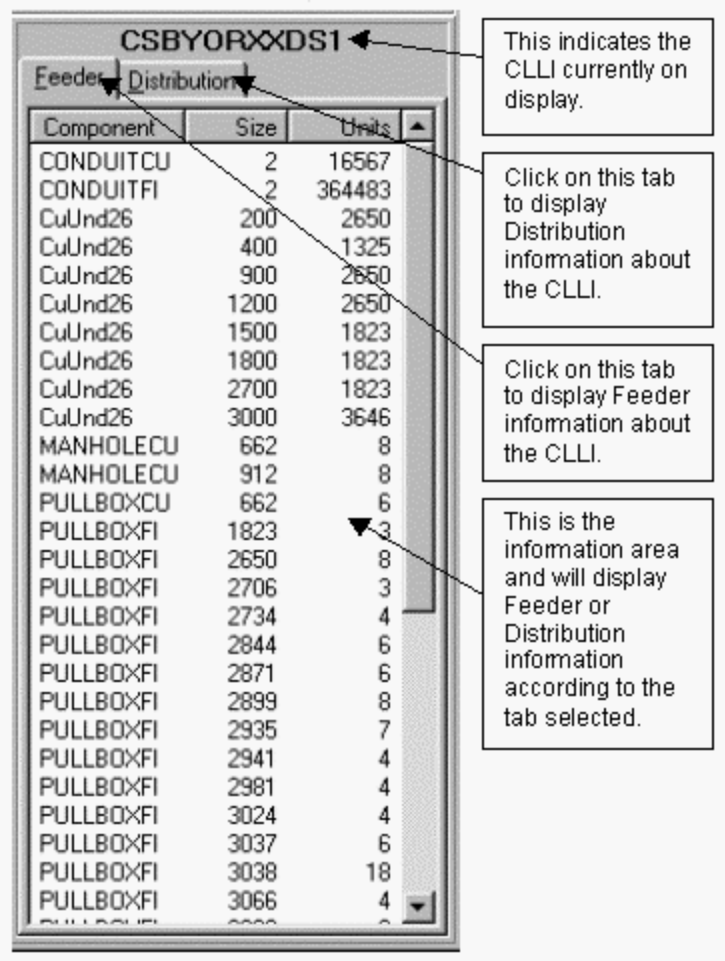
- Switch information including switch type, number of lines, and number of trunks.
- Switch investment by component.
- Demand by node.
- Distribution and feeder components by demand point.
- Interoffice components by demand point.




These two buttons allow the user to cycle through the CLLIs.
These two buttons allow the user to zoom in and zoom out.
Click on one of these three buttons to change what is shown in the display area. The first button displays the demand map, the second button displays the cluster, and the third button displays a blank template.
Click on this button to display the state map.
Click to show or hide the feeder route.
Visual Interface
CSBYORXXDS1
Zoom
10%
Lines
Total
This list box allows the user to select the CLLI to be displayed. Click on the down arrow to see a drop down list of CLLIs in alphabetical order.
This indicates the current zoom ratio of the display.
Click on this radio button to display total lines.

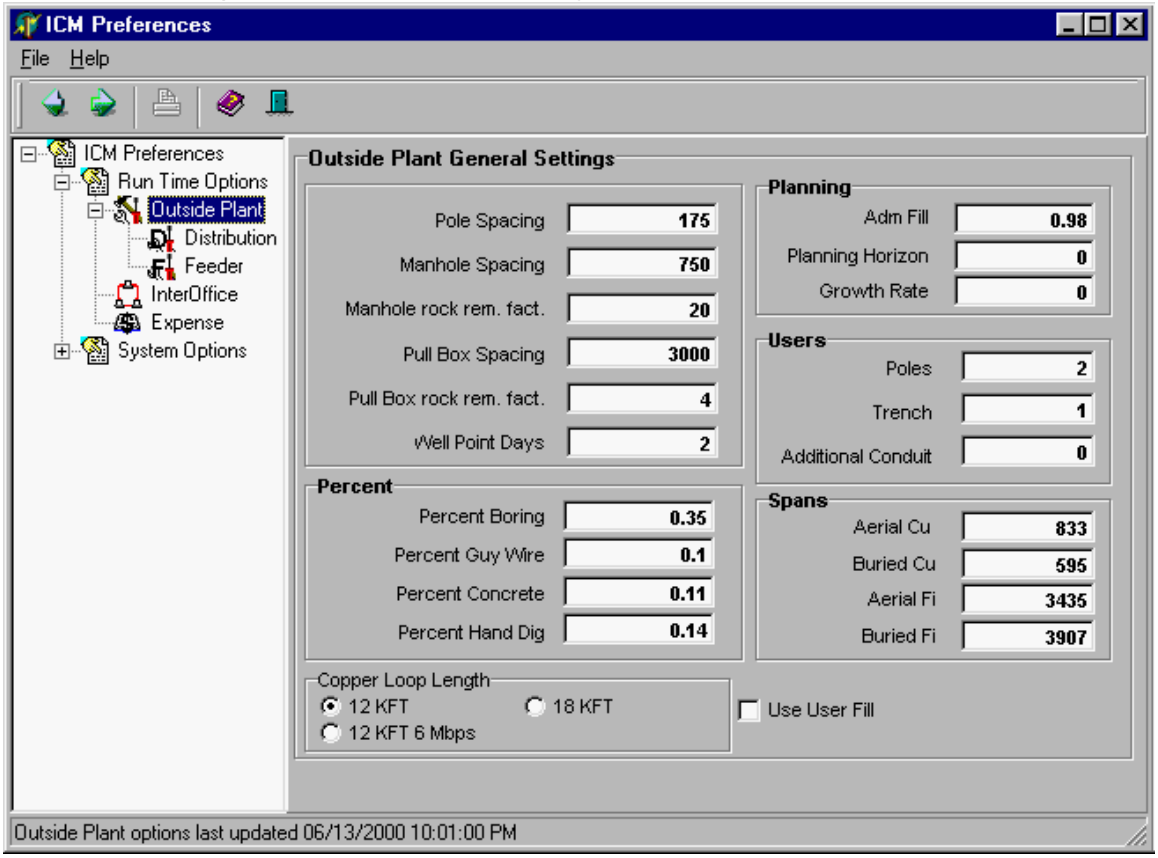

Click on this button to show the DLC points.
Click on one of these buttons to display Tandems only, Hosts only or Remotes only.
Click on this button to show or hide the information panel.
Click on this button to display the Help file.
Click to turn aspect ratio on or off.
Click on this button to exit the Visual Interface.
Residential
Business
Click on this button to change the display to landscape mode.
Click on this radio button to display residential lines only.
Click on this radio button to display business lines only.
Click on this button to print the current map.


CSBYORXXDS1
Total Lines = 13132
0
1 - 10
11 - 50
51 - 100
101 - 200
201 - 300
301 - 400
over 400
This indicates the CLLI code currently on display.
This indicates the number of lines for the CLLI on display, according to Total Residential or Business lines depending on the user's selection.
This is the display area.
These are demand points
This is the demand color association.


CSBYORXXDS1
Feeder
Distribution
Component Size Units
CONDUITCU 2 16567
CONDUITFI 2 364483
CuUnd26 200 2650
CuUnd26 400 1325
CuUnd26 900 2650
CuUnd26 1200 2650
CuUnd26 1500 1823
CuUnd26 1800 1823
CuUnd26 2700 1823
CuUnd26 3000 3646
MANHOLECU 662 8
MANHOLECU 912 8
PULLBOXCU 662 6
PULLBOXFI 1823 3
PULLBOXFI 2650 8
PULLBOXFI 2706 3
PULLBOXFI 2734 4
PULLBOXFI 2844 6
PULLBOXFI 2871 6
PULLBOXFI 2899 8
PULLBOXFI 2935 7
PULLBOXFI 2941 4
PULLBOXFI 2981 4
PULLBOXFI 3024 4
PULLBOXFI 3037 6
PULLBOXFI 3038 18
PULLBOXFI 3066 4
This indicates the CLLI currently on display.
Click on this tab to display Distribution information about the CLLI.
Click on this tab to display Feeder information about the CLLI.
This is the information area and will display Feeder or Distribution information according to the tab selected.

ICM's Preferences

The Run Time Options for ICM can be changed from this window.



Using ICM

Starting ICM

To start ICM:

1. Select **Start/Programs/Integrated Cost Model**.
   - The system opens the main window. All instructions in this guide start from this window.

Running the model

To run the model:

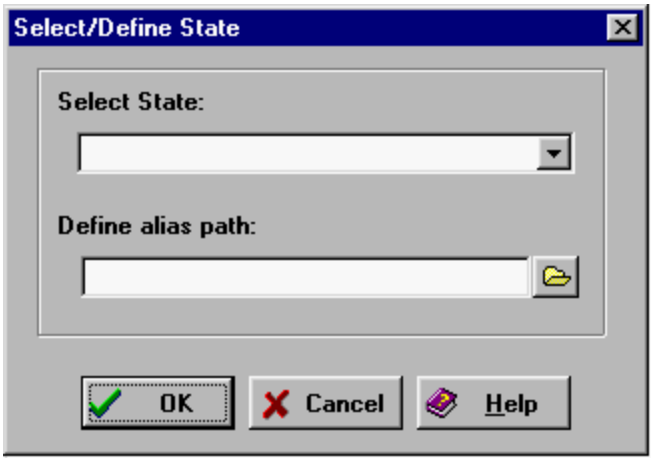
1. Click on the **Run** button in ICM's Main Toolbar.
   - The system begins processing all of the data and displays a progress bar. The processing may take one to two hours, depending on the speed of the computer and the State to process.

   After changing any of the inputs or mapping, the model must be run. The model then uses the new data in the calculations.

Changing Alias Path

To change alias path:

1. Select **File/Change Alias Path** from ICM's Main Menu.
   - The following window is displayed.



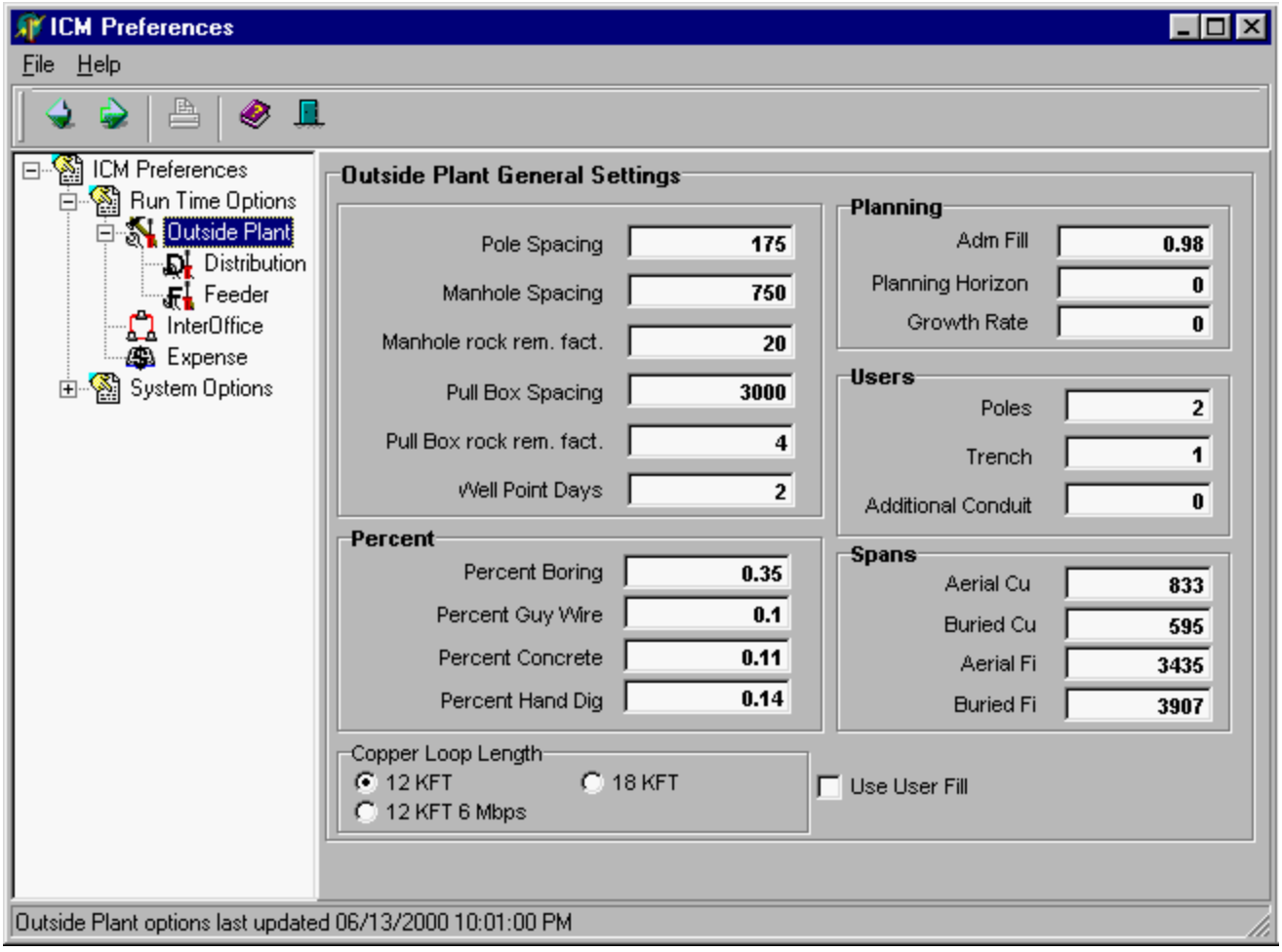
2. Select the state to run from the drop down list.
3. Enter the full path to the Database directory of the version of ICM to run in the "Define alias path" edit box.
   - Click the folder button next to the field to navigate to the correct directory.

4. Click **OK**.

Changing Preferences

To edit the user Preferences:

1. Click on the **Preferences** button or on the **Preferences** menu item in ICM's Main Toolbar.
   - The following window is displayed.



2. Click on the Preferences to edit, in the Tree Viewer.
3. Press the **Tab** key to go to the field to edit, or use the mouse to click on the edit box.
4. Enter the new data.
5. Press the **Tab** key on the **Enter** key.
6. Click on the **Exit** button to return to ICM's main toolbar.

Outside Plant General Settings

This page contains options and values the user can change for Outside Plant, which include the following:

General Settings

Pole Spacing: typical number of feet between poles.

Manhole Spacing: typical number of feet between manholes.

Manhole rock rem. fact.: number of pole holes in the bedrock that would be required to remove the bedrock in the area used as a surrogate to place a manhole.

Pull Box Spacing: typical number of feet between pull boxes.

Pull Box rock rem. fact.: number of pole holes in the bedrock that would be required to remove the bedrock in the area used as a surrogate to place a pull box.

Well Point Days: number of days for which well points would be required, to remove underground water in the area to be excavated to place a manhole.

Percent

Percent Boring: percent factor of buried trench that requires boring (tunneling) under pavement or other obstructions.

Percent Guy Wire: percent factor of poles, which require anchors and down guys.

Percent Concrete: percent factor of buried trench that requires the removal and replacement of pavement, and concrete.

Percent Hand Dig: percent factor of required hand digging included in mechanized trenching. This hand digging is in addition to the incidental hand digging included in the trenching costs.

Copper Loop Length

12 KFT: select for 12,000 ft copper loop length.

12 KFT 6 Mbps: select for 12,000 ft copper loop length capable of 6 Mbps transmission.

18 KFT: select for 18,000 ft copper loop length.

Planning

Adm Fill: maximum usable capacity or percent factor for the number of pairs in a copper cable, to allow for defective pairs.

Planning Horizon: Not currently used in the model.

Growth Rate: Not currently used in model.

Users

Poles: number of companies including GTE, which are sharing the shared poles.

Trench: The number of companies including GTE, which are sharing the trench.

Additional Conduit: The number of ducts placed in shared conduit for companies other than GTE.

Spans

Aerial Cu: typical number of feet of copper cable between aerial splices, in distribution and feeder cables.

Buried Cu: typical number of feet of copper cable between buried splices, in distribution and feeder cables.

Aerial Fi: typical number of feet between aerial splices, in fiber feeder cables.

Buried Fi: typical number of feet between buried splices in fiber feeder cables.

Use User Fill: when checked, allows the user to input utilization factors for distribution and feeder. The Loop Module adjusts cable investments to reflect the fill levels indicated.

Outside Plant Distribution Settings

This page contains options and values the user can change for Outside Plant, which include the following:

Distribution

Drop

Drop Size: Number of pairs contained in the service (drop) wire placed from the distribution serving terminal to the NID at the customer's location.

3: Select for a 3 pair service drop

5: Select for a 5 pair service drop

Maximum Length: Maximum length for the drop wire.

Minimum Length: Minimum length for the drop wire.

Business

Threshold: minimum number of business units to trigger a pair drop with the number of cable pairs as indicated by Pairs below. (For Example with a value of 499 for Threshold and a value of 25 for Pairs, a number > 499 of units would trigger a drop with 25 pairs.)

Pairs: 25 pair drop

Threshold: minimum number of business units to trigger a pair drop with the number of cable pairs as indicated by Pairs below.

Pairs: 50 pair drop

Residence:

Threshold: minimum number of residence units to trigger a pair drop with the number of cable pairs as indicated by Pairs below.

Pairs: 25 pair drop

Units:

Lines/Res: lines per residence for a residential unit.

Lines/Bus: lines per business for a business unit.

Terminals

Res Units: number of Residential units that are served from each Terminal.

Bus Units: number of Business units that are served from each Terminal.

Sharing Distribution Percent

Foreign Poles: percent of distribution poles that are not owned by GTE, but are used by GTE through lease arrangements.

Aerial: percent of distribution poles owned by GTE shared by GTE and others. (For the quantity of others see Users/Poles.)

Buried: percent of distribution trench owned by GTE shared by GTE and others. (For the quantity of others see Users/Trench.)

Undgnd: percent factor of distribution conduit owned by GTE shared by GTE and others.

Percent of no cost

Dist. Trench: percent of distribution cable trenching provided by developers at no cost to GTE (in states where applicable).

Drop Placement: percent of Residential drops installed by developers at no cost to GTE (in states where applicable).

Engineering

Distribution Factor: Factor applied to working lines to properly size distribution cable.

Outside Plant Feeder Settings

This page contains options and values the user can change for Outside Plant, which include the following:

Feeder

Sharing Feeder Percent

Foreign Poles: percent of feeder poles owned by other companies which, GTE attaches to through lease arrangements.

Aerial: percent of feeder poles owned by GTE shared with others.

Buried: percent of feeder trench owned by GTE shared with others.

Undgnd: percent of feeder conduit owned by GTE shared with others

Cross Connect

Factor: factor applied to the demand used to size the feeder cable to determine the size of the cross-connect box. It is based on the rule of “one pair in and two pairs out”, which means for every feeder pair entering the cross connect box there are typically two distribution pairs leaving the box.

Min Size 1: minimum size of the cross-connect box that will be placed in a cluster at a location other than at the DLC (Digital Loop Carrier) location.

Min Size 2: minimum size of the cross-connect box that will be placed in a cluster at the DLC location.

Min Distance: minimum distance from a DLC or Wire Center to a cross-connect box.

Engineering

Feeder Factor: Factor applied to working lines to properly size feeder cable and DLC equipment.

Interoffice User Settings

This page contains values the user can change for Interoffice, which include the following:

User Settings

Administrative Fill: maximum capacity or percent factor for the number of interoffice circuits to account for maintenance, spares, and defective material. Percent of circuits for maintenance, spares, and defective material = 1 - administrative fill.

Intra-Ring Factor: percentage of traffic that originates and terminates on the same ring. Used to calculate the total switched traffic per ring.

Aerial Span: typical number of feet between aerial splices in transport facilities. Equivalent to the value Aerial Fi in Outside Plant Run Time Options.

Buried Span: typical number of feet between buried splices in transport facilities. Equivalent to the value Buried Fi in Outside Plant Run Time Options.

Air to Route Ratio: ratio factor to use in converting airline distance into route footage. The factor represents route distance divided by airline distance and will thus be greater than one.

Use InterRing Ratio: toggle indicates the use of InterRing Ratio. When selected the following factors appear.

InterRing Facilities Ratio: ratio applied to facilities algorithms used to develop investment for InterRing facilities.

InterRing Termination Ratio: ratio applied to termination algorithms used to develop investment for InterRing Terminations.

Expense User Settings

This page contains values and options the user can change for Expense, which include the following:

Life

Toggle indicates whether “Book” or “Economic” depreciable lives and salvage will be used by ICM in the calculation of Depreciation & Return and Composite Income Tax factors.

Market

Toggle indicates whether “Retail” or “Wholesale” expense input data is to be utilized by ICM.

- Wholesale data is selected when results are being produced for Unbundled Network Elements (UNE’s).

- Retail is selected when results are being produced for products and services.

Shared: Toggle indicates whether “Shared” costs are to be “included” or “excluded” in the calculation of the Maintenance & Support factors within ICM related to network elements. A check mark in this field ensures that shared costs are to be included as a component of total expenses used in the computation of Maintenance & Support factors within ICM.

Inflation: A user-defined inflation factor applied to expense data in ICM over a defined time frame.

Productivity: A user-defined productivity factor applied to expense data in ICM over a defined time frame.

Horizon: A user-defined time frame (i.e.- number of years) applicable for inflation and productivity adjustments in ICM.

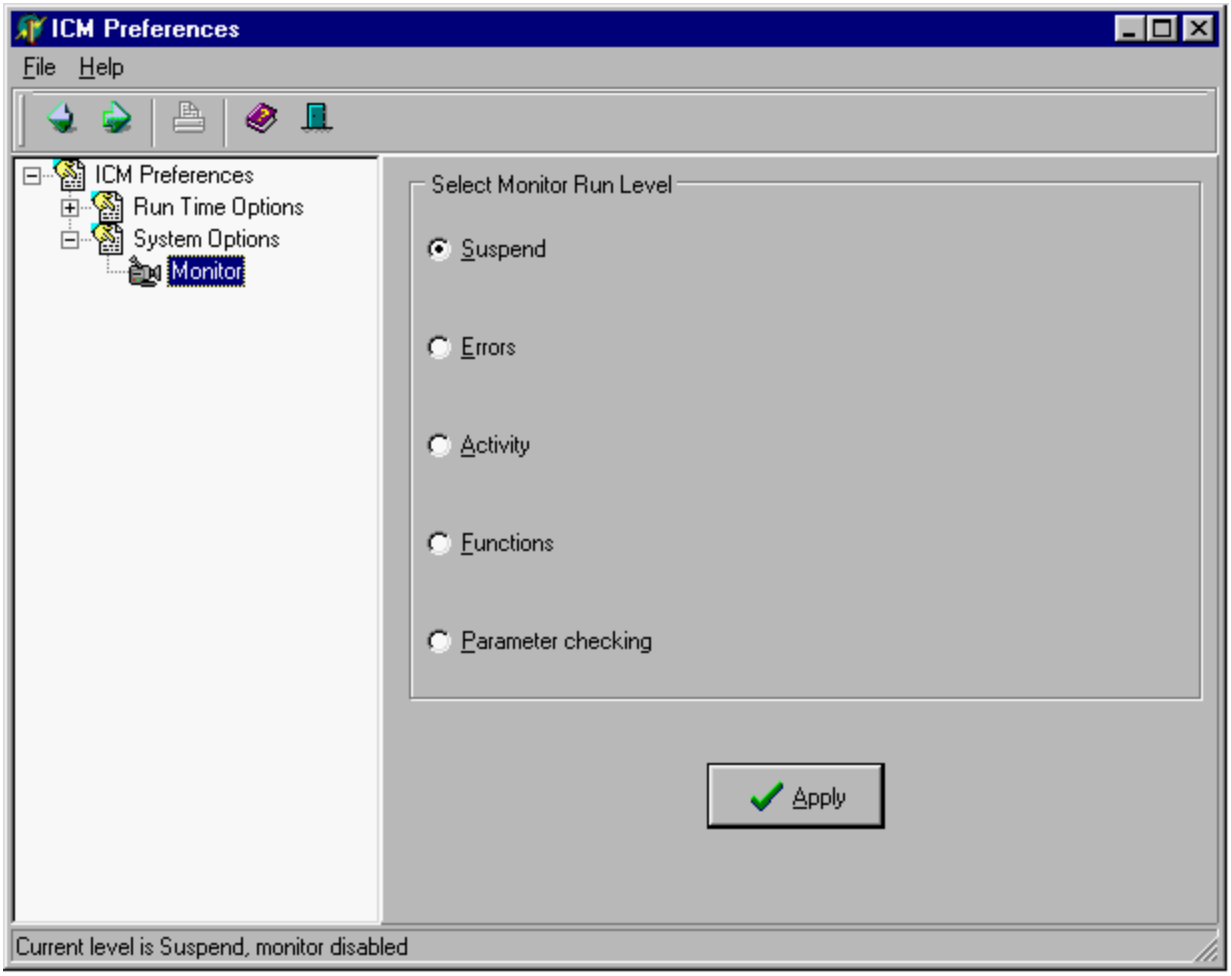
Calibrate: Toggle indicates whether ICM should automatically calibrate the C.A. Turner adjusted ARMIS investment data in ICM associated with Switch, Circuit Equipment and Outside Plant activity to the levels calculated by the Switch, Loop, Interoffice Transport and SS7 modules of ICM. A check mark in this field results in the computation of calibration factors with the resulting factors appearing in the Adjust3 column of the XXGTEEXP database file for the following accounts:

Category:	**FCC Part 32 account(s):**
Switching	2212
Circuit Equipment	2232
Outside Plant (OSP)	2411 through 2441, excluding 2431

Changing the Run Time Monitor Level

To set the Run Time monitor level:

1. Click on the **Preferences** button in ICM's Main Toolbar.
2. Click **System Options** in the Tree Viewer.
3. Click on **Monitor**
   - The following is displayed:



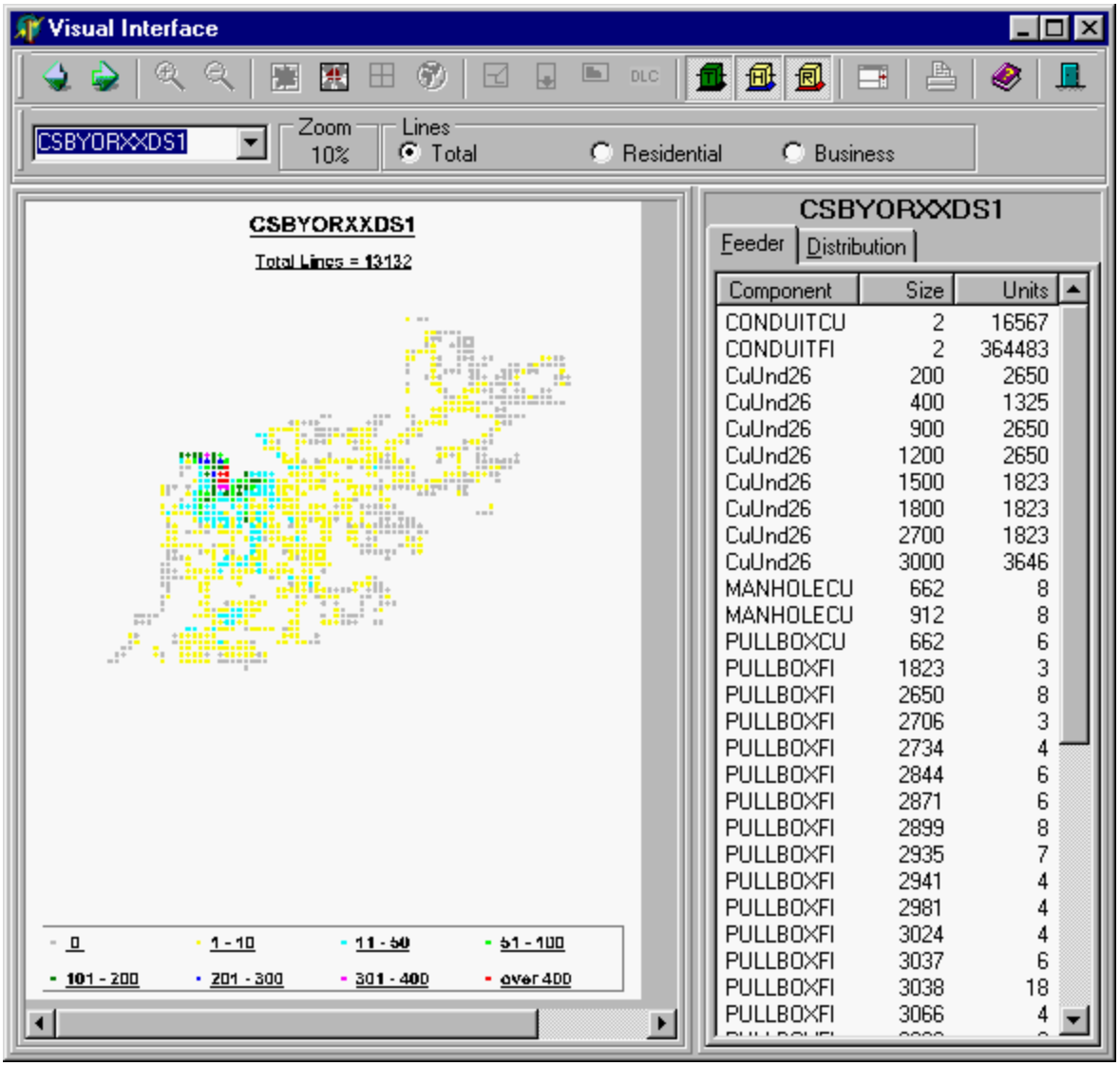
4. To change the current monitor level click on the radio button next to monitor level desired.
   - The current monitor is selected when Monitor is first clicked.
   - The status bar also shows current monitor level and some information about it.
   - Higher monitoring levels include all the lower levels. For example: selecting Functions will produce a log file that contains all entries from the Errors level to the Functions level.
   - Highest Level of monitoring is done when Parameter checking is selected.

5. Click on the **Apply** button to apply changes, or click on the **Exit** button to exit Preferences without changing the monitor level.

Running the Visual Interface

To run the Visual Interface:

1. Click on the **Visual Interf**. button in ICM's Main Toolbar.
   - The following window is displayed:



2. No CLLI will be displayed the first time the Visual Interface is opened. To display a CLLI select it from the drop down list located in the top left corner.
3. Click on the **Exit** button to return to ICM's Main Toolbar.

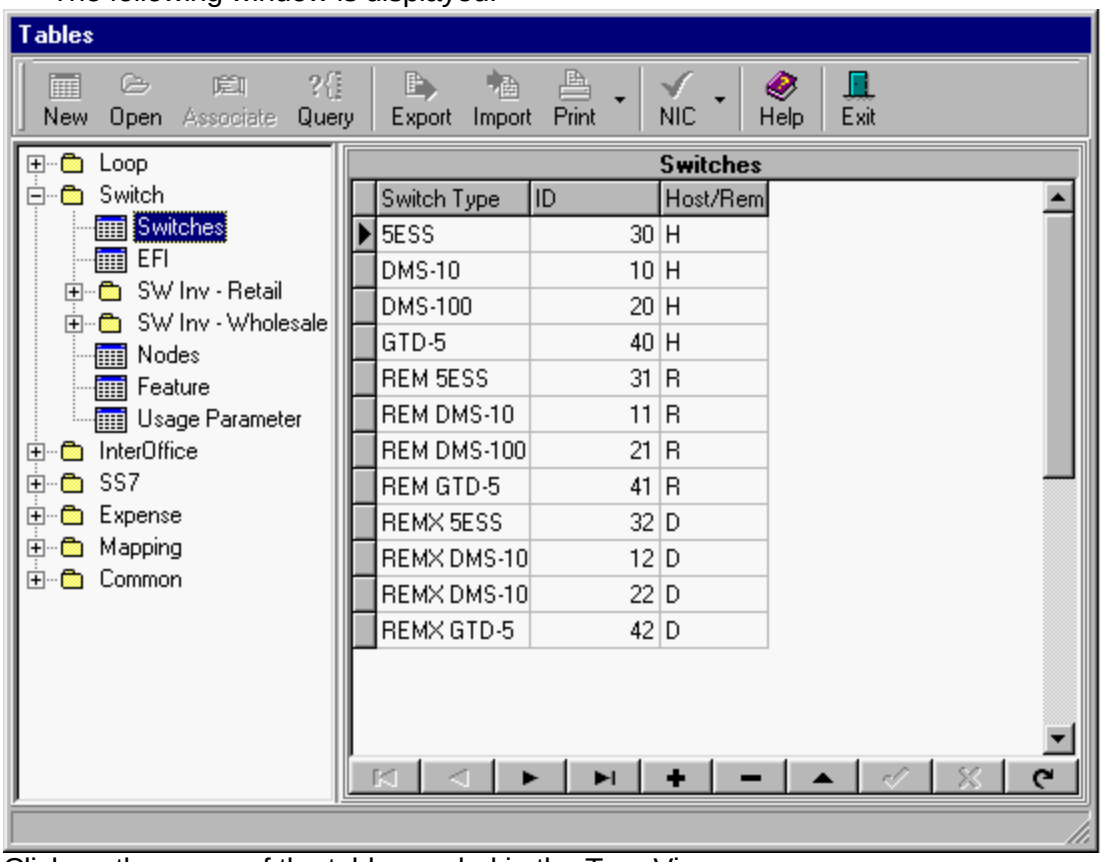
Viewing and Printing Data

The Input Data for each Module is available from the ICM Tables window.

To view and print any of the data tables:

1. Click on the **View Tables** button on ICM's Main Toolbar.

- The following window is displayed.



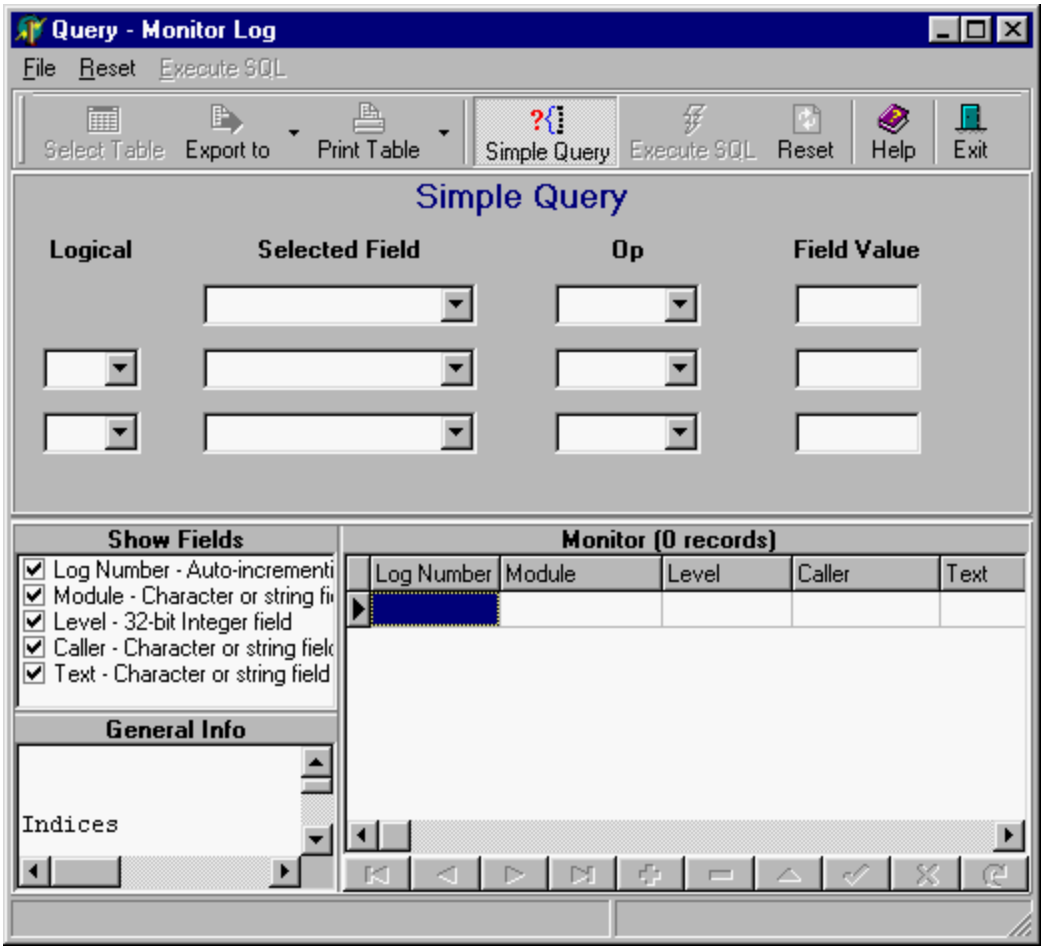
2. Click on the name of the table needed in the Tree Viewer.
3. Click on the **Print** button to print in Landscape, or click on the down arrow, select and click on the **Print - Portrait** menu item to print in Portrait.
4. Click on the **Exit** button to return to ICM's Main Toolbar.

Viewing the Monitor Log File

To view and print the monitor log file:

1. Click on the **Log** button in ICM's Main Toolbar.
   - The Query Utility is used to display the monitor log file so queries can be done on the Monitor table just as it would be done for any other table.
   - All field information is available for field selection. Values for modules can be found in the log.
   - For example, the value 'InterOfc' in the module field refers to the InterOffice module, and the value 'Switch' refers to the switching module.

- The following window is displayed.



2. Click on the **Print** button for portrait or click on the down arrow, select the **Print Landscape** menu item and click for landscape.
3. Click on the **Exit** button to return to ICM's Main Toolbar.

NOTE: The monitor log file is cleared every time the application is started up. The RunLevel setting is maintained from one execution session to another.

Using the Query Utility

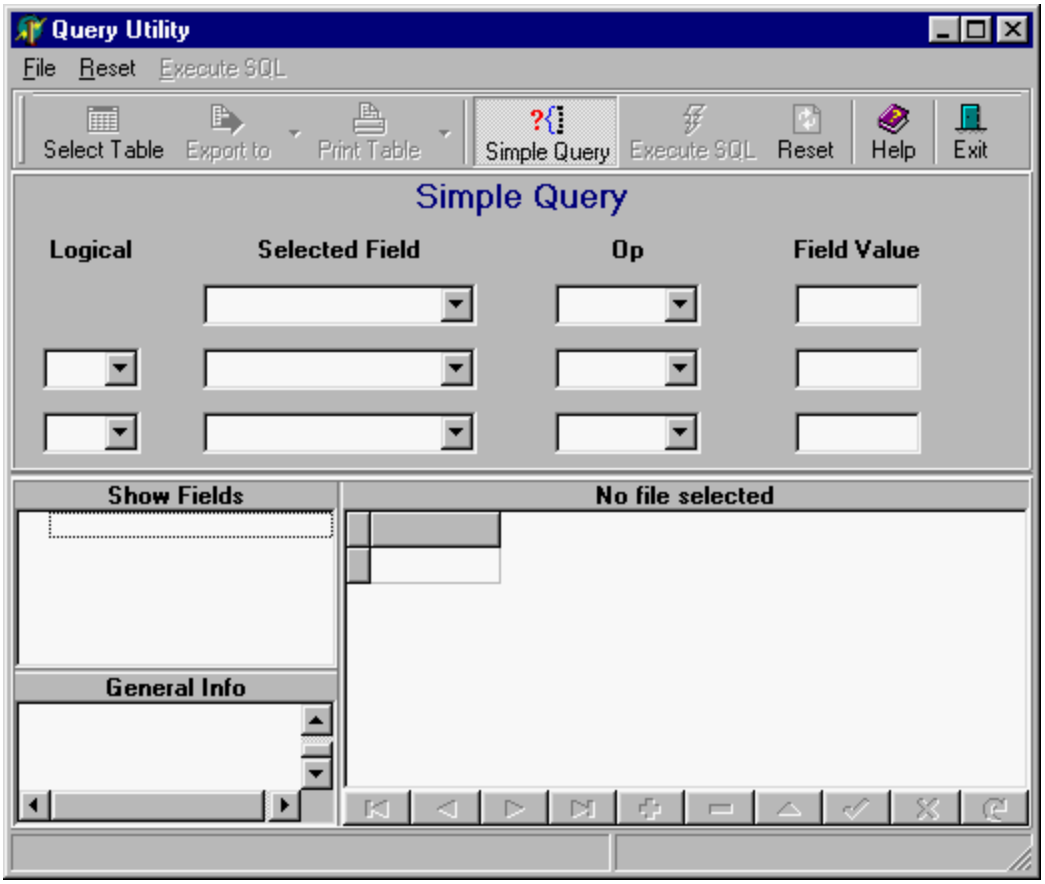
Viewing Table Data

Input and other tables can be viewed and queried in the Query Utility.

To view any data table:

1. Click on the **Utilities** button in ICM's Main Toolbar, then select and click the Query Utility menu item.

- The following window is displayed.

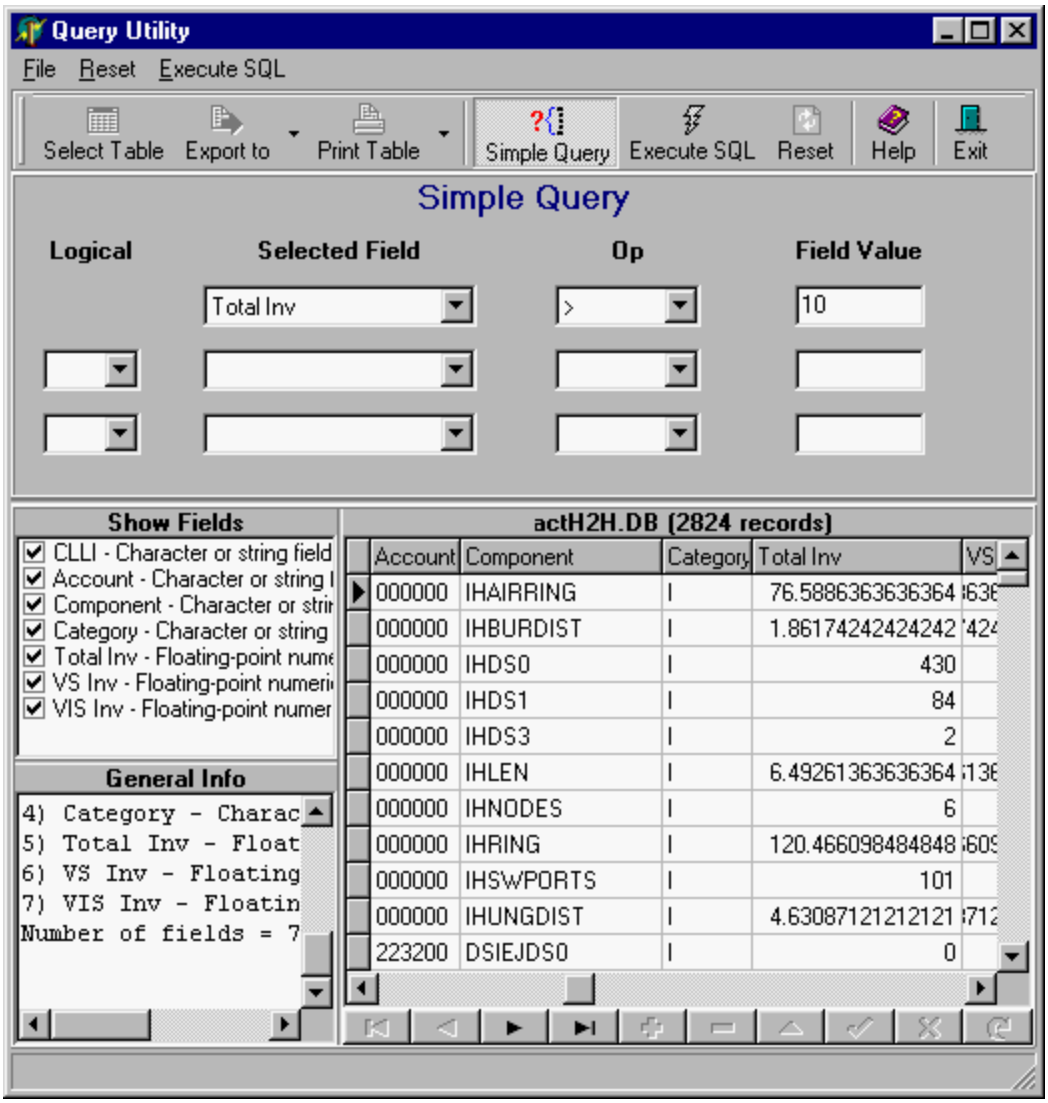


2. Click on the **Select Table** button.
   - The Open window is displayed.
3. Select the data table to open.
4. Click **Open**.
   - The Query Utility can now be used to search for information and sum data.
5. Click on **Exit** to return to ICM's Main Toolbar.

Searching for Table Information

To search for information:

1. Open a table as shown in Viewing Table Data using the Query Utility.
   - For this example the actH2H.db table was used.



2. Select the field to do a search on from the Selected Field drop-down list.
3. Select an operator to use for the search from the Op drop-down list.
   - The available operators are:

=	Equal to
< >	Not equal to
<	Less than
<=	Less than or equal to
>	Greater than
>=	Greater than or equal to
Like	
Not Like	

   - The Like operator searches for the characters entered in the Field Value. The % character can be used as a wildcard that matches one or more characters. For example, if a search is done for REM% as the Switch Type, all rows in which the Switch Type starts with REM are found. The % wildcard can be used at the beginning or end of the characters to find.

- The Not Like operator searches for rows that do not contain the characters entered. The % wildcard can also be used with Not Like searches. For example, if Not Like is used to search for REM% as the Switch Type, all rows in which the Switch Type does **not** start with REM are found.

4. Enter a value to search for in the Field Value edit box.
5. Click the **Execute SQL** button.
   - The information that matches the search is displayed in the grid.
   - The search criteria can be changed, or additional search criteria can be entered in the fields below the first row of search criteria.
   - If an additional search criterion is entered, select a logical operator. Use “And” to find information that matches all the information entered. Use “Or” to find information that matches one or more of the values entered.
   - Click on **Execute SQL** to see the new search results, each time search criteria is changed.
   - Once the information needed is gathered, the results can be saved to a table or a text file. For more information, see Saving Search Results.

Saving Search Results

You can save results either to a table or to a text file:

To save to a Paradox table

1. Click on the **Export to** button, then select and click **Export to DB**.
   - The Save As window displays.
2. Enter a file name.
3. Click **Save**.

To save to a csv file

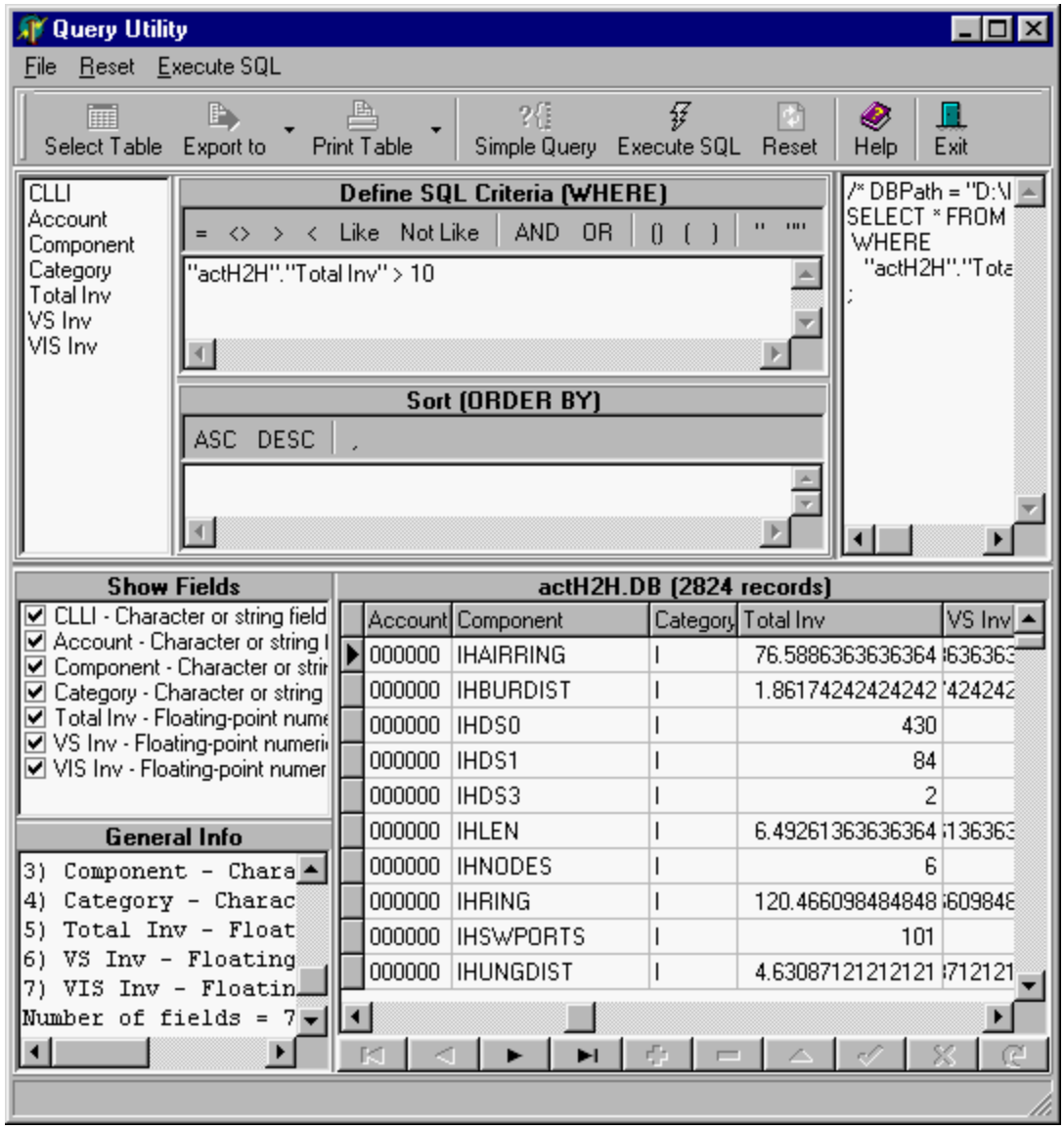
1. Click on the **Export to** button, then select and click **Export to CSV**.
   - The Save As window displays.
2. Enter a file name.
3. Click **Save**.

Enter an SQL Statement

To create and execute an SQL statement:

1. Open a table in the Query Utility as shown in Viewing Table Data.
2. Click on the **Simple Query** button.

- The following window is displayed.

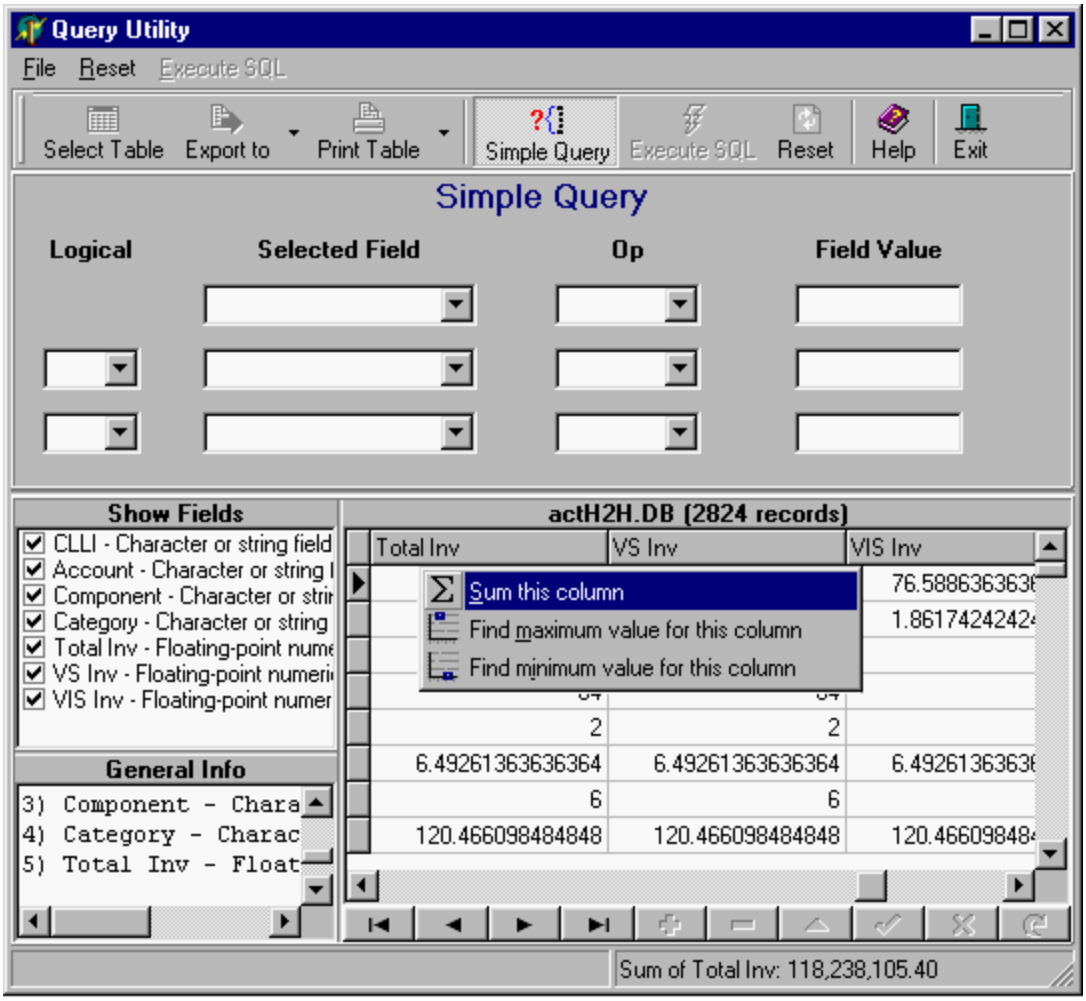


3. Create an Interbase SQL statement.
   - This is the Borland syntax for SQL statements.
   - To create the SQL statement drag fields from the list into the Define SQL Criteria (WHERE) edit area or Sort (ORDER BY) edit area and use the toolbars to add the operators. The SQL statement can also be typed directly, just make sure the name of the table and fields are typed correctly.
4. Click on **Execute SQL**.
   - Search results can now be saved to a Paradox table or to a text file. For more information, see Saving Search Results.

Summing a Single Column

To sum a column in a table:

1. Open the table in the Query Utility as shown in Viewing Data tables.
2. Click any cell in a numerical column.
3. Right-click anywhere on the grid area.

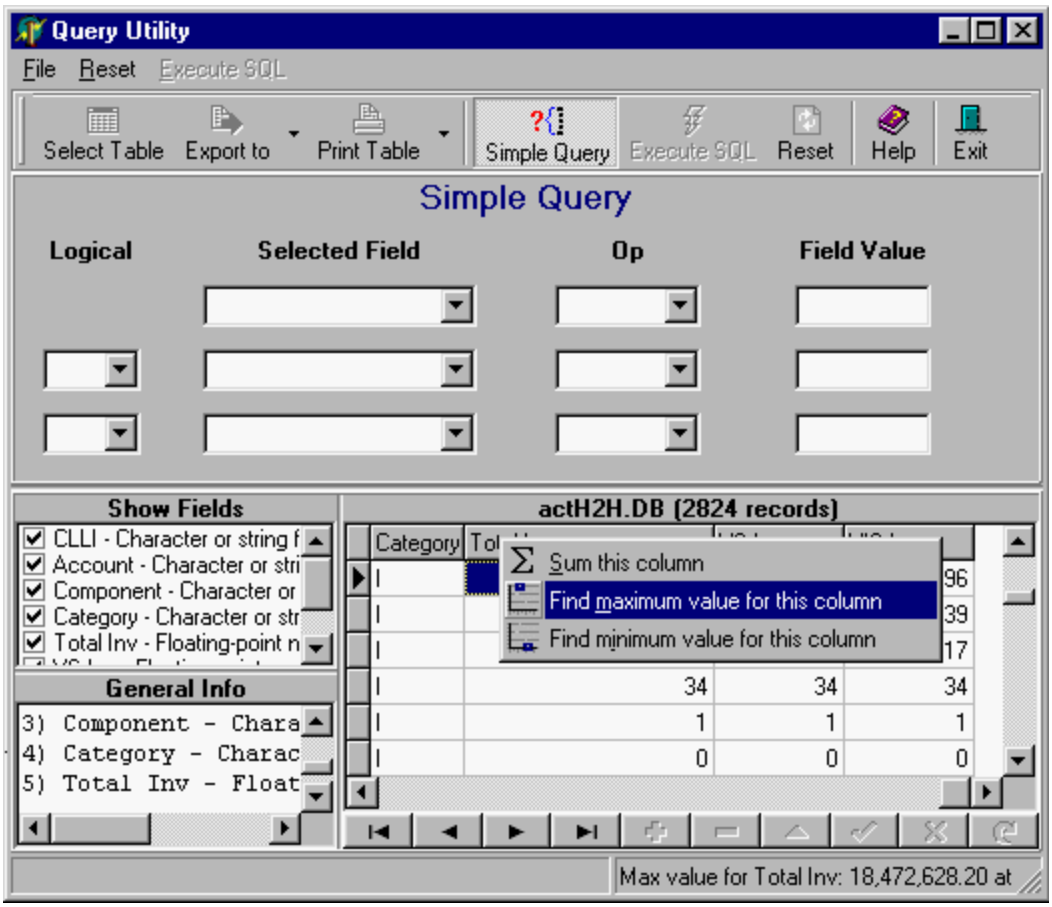


4. Select and click on **Sum this column** from the pop-up menu.
   - The total is displayed on the status bar at the bottom right of the window. In a large file, the process may take a few minutes.

Finding the Maximum or Minimum Value in a Column

To find the maximum or minimum value in a column:

1. Open a table in the Query Utility as shown in Viewing Data Tables.
2. Click any cell in a numerical column.
3. Right-click anywhere on the grid area.



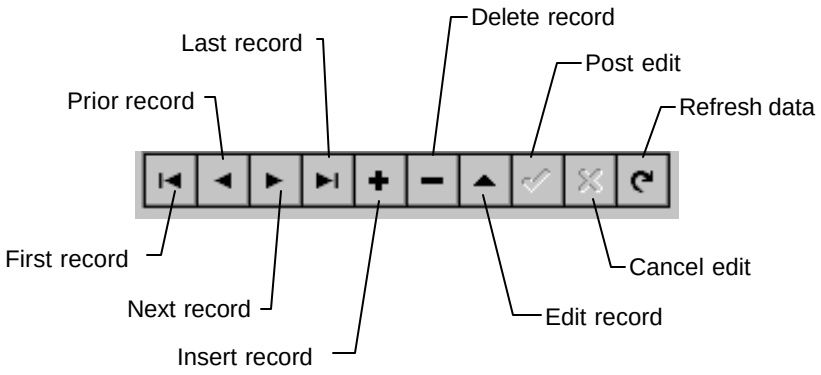
4. Select and click on **Find maximum value for this column** or **Find minimum value for this column** from the pop-up menu.
   - The record with the highest or lowest value for that column will be selected and the value displayed on the status bar at the bottom right of the window. In a large file, the process may take a few minutes.

Editing Data & Mapping

Editing Data Tables

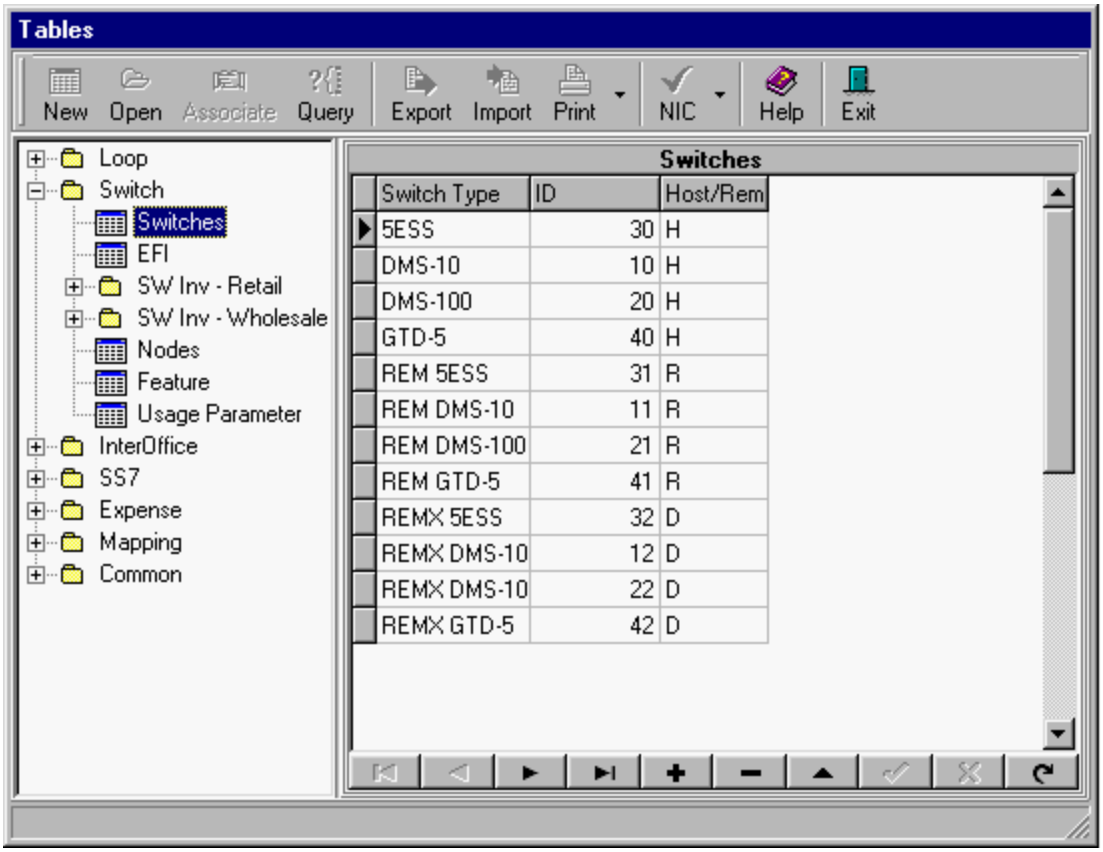
Any ICM data tables can be edited from the ICM Tables window. The editing process is the same for each table.

Use the editing tool to move through the table and edit the data. Placing the mouse pointer over a button displays the button's hint as shown bellow:



To edit data tables:

1. Click on the **View Tables** button on ICM's Main Toolbar.
   - The following window is displayed.



2. Click on the name of the table to edit in the Tree Viewer.
3. Use the mouse or the keyboard to move around and edit.

To use your mouse

a) Click on the cell to be edited.
b) Click the cell again.
c) Enter the new data.
d) Click Post Edit button.

To use your keyboard

a) Press Tab until the cell to be edited is reached.
b) Press Enter.
c) Enter the new data.
d) Tab to the next row.

- If Key Violation error message appears, a duplicate record was created, and must be changed.
- Use the First record, Prior record, Next record, and Last record buttons to move to the row of data.
- To insert a new row of data, click Insert record. To delete a row of data, click the Delete record button.

4. Click on the **Exit** button to return to ICM's main window.

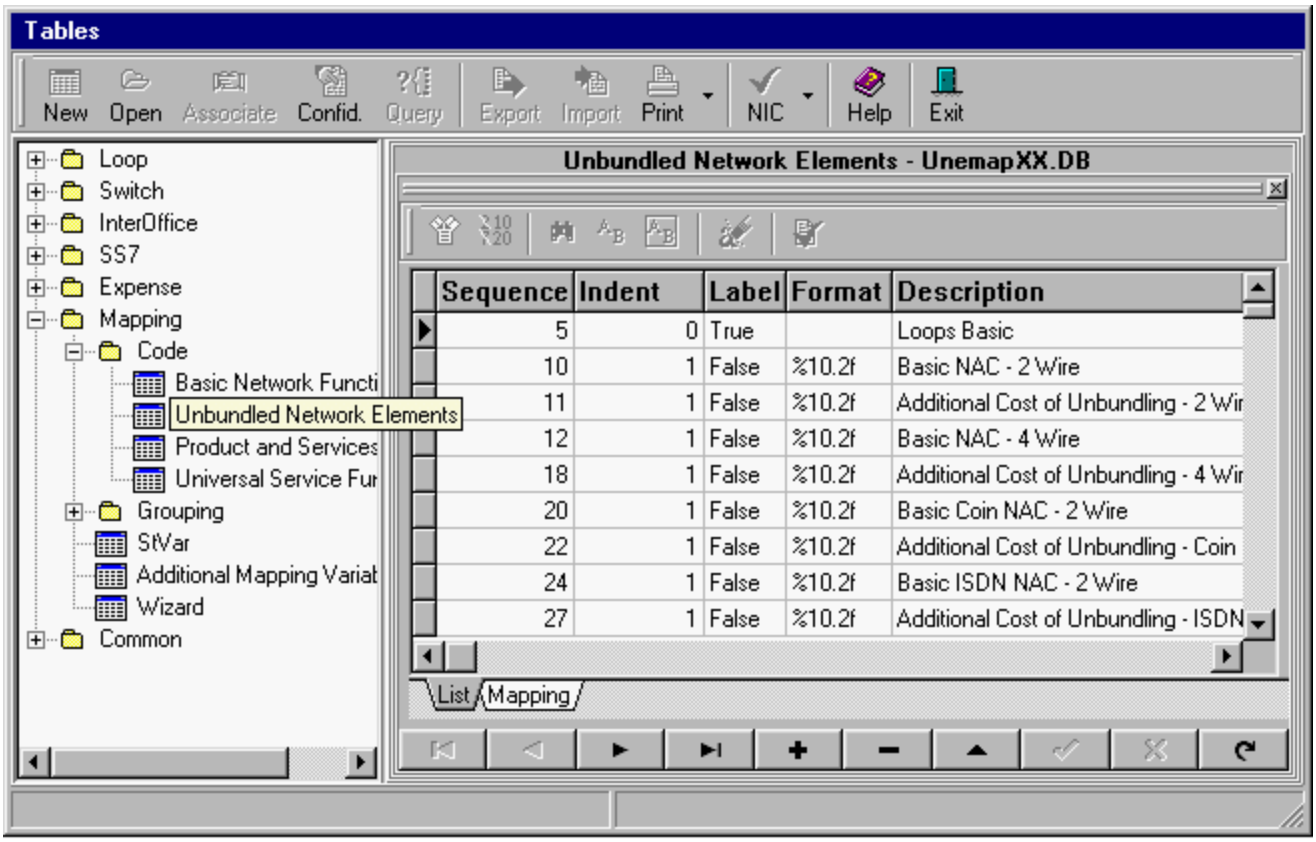
Editing the Mapping

Mapping can be edited for Products and Services, UNEs, BNFs, and USF. Editing for the entire mapping is done the same way. The steps below use UNEs as an example.

***Note**: Products and Services mapping is not applicable in states where results for products and services are not provided.*

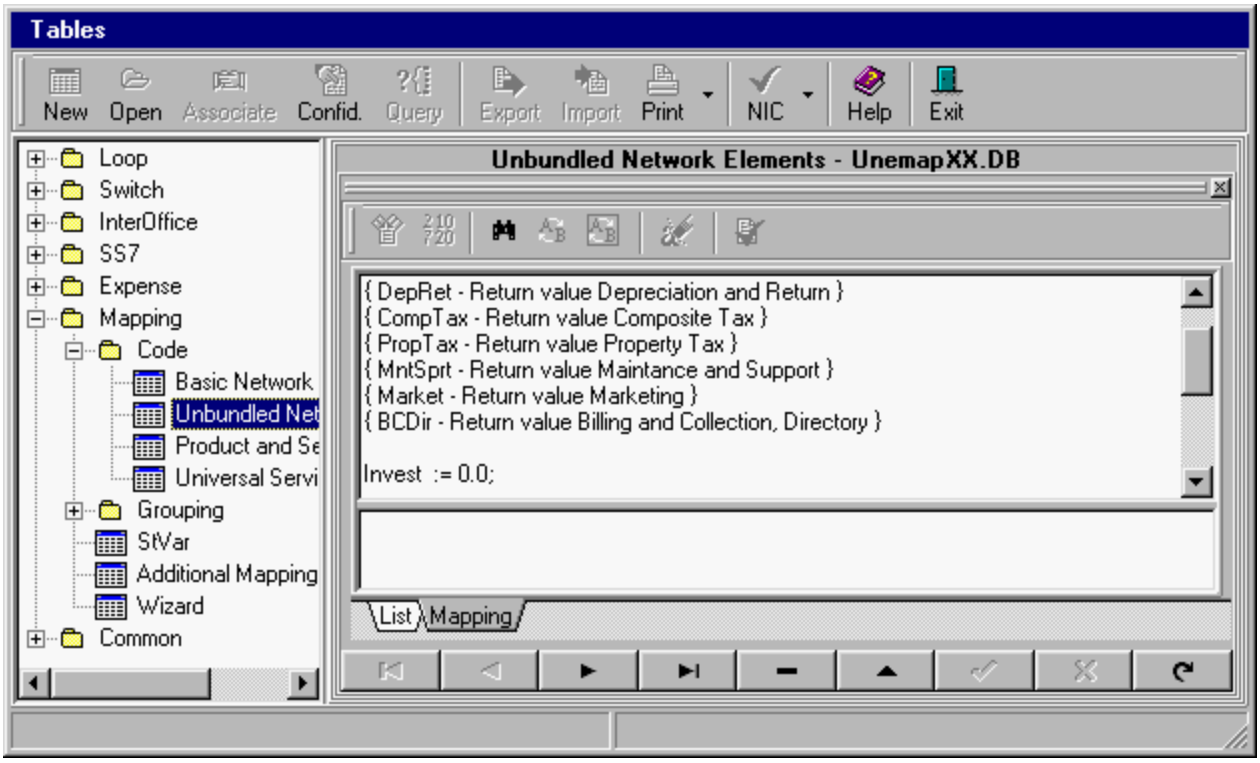
To edit element mapping:

1. Click on the **View Tables** button in ICM's Main Toolbar.
2. On the Tree Viewer click on Mapping, click on Code, then click on Unbundled Network Elements.
   - The UNE list is displayed, which contains a list of the UNEs that can be viewed and defined.



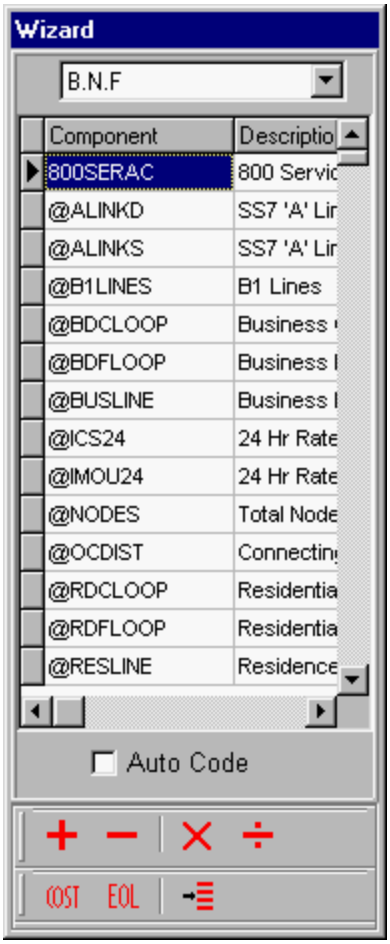
3. Select the UNE from List.
   - The List page allows the user to control the format of the UNE report. The sequence in which the UNEs appear and the Indent (in spaces) of each UNE can be changed.
   - If False is entered in the Label column, costs for that UNE are generated. If True is entered, the UNE is shown as a label or heading. The Format column controls the format of the number for example, %10.2F creates 10 columns with two decimal places and floating point decimal.

4. Click on the Mapping tab.



- The top portion of the Mapping tab shows how the unit investments and expenses are mapped for the UNE selected.
- To add components to the mapping, continue with step 5 below.

5. Select the type of component to be added from the wizard's drop-down list at the top.



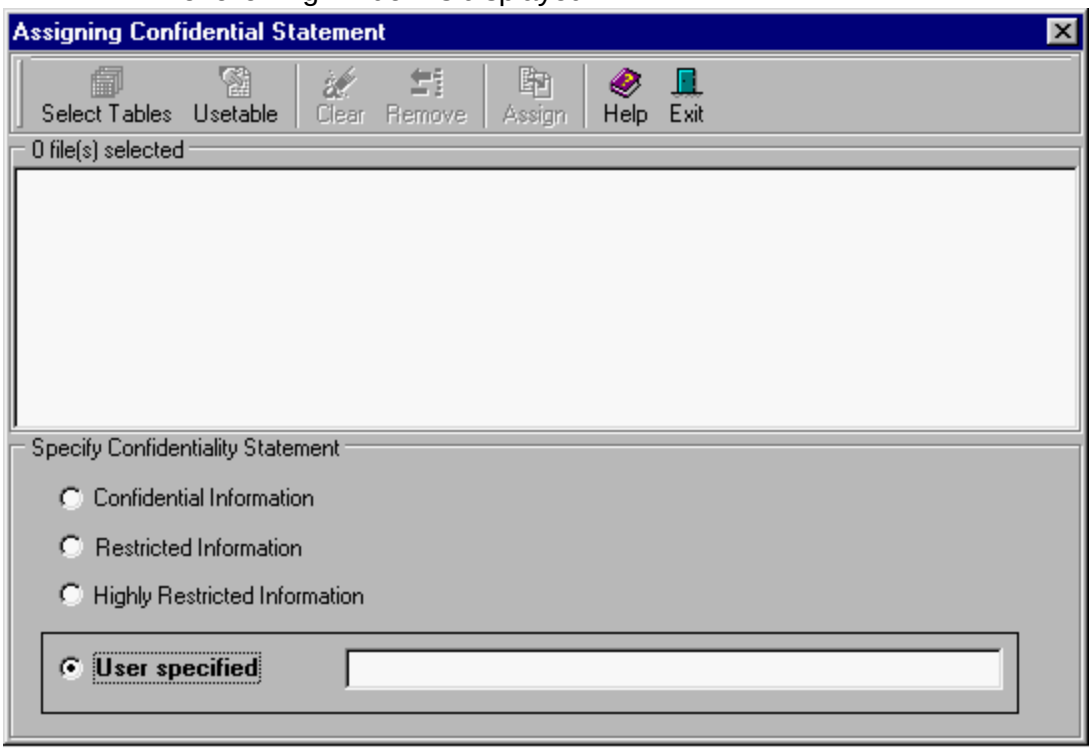
6. Select the component to add from the list.
7. If editing existing mapping, cut the line that starts with "cost=."
   - Cutting the cost line copies the line to the Clipboard so that it can be pasted it back in at the end.
   - If the cost line is not removed, the new data is added after the cost line and will not be part of the cost calculation.
8. To map the investment and expenses for each component in one step, turn on the Wizard.
   - To turn the Wizard on click on the box next to "Auto Code". If there is a checkmark next to "Auto Code", it is already on.
   - If the Wizard is not turned on, each investment and expense related to the component must be added separately.
9. Click the **Insert** button to add the component selected to the UNE mapping.
   - All of the appropriate investments and expenses will be added.
   - A comment in brackets will be added at the top of the mapping with the abbreviation and definition for each item that was added.
10. Repeat steps 5 through 9 for each component that needs to be mapped to the UNE.

11. Paste the cost line back in if it was cut in step 7 or click the **Cost** button to generate the code to calculate the monthly cost.
    - If the cost unit for the UNE being mapped is minutes or messages, the "/ 12" in the cost line should be deleted.
    - For more information about the coding rules for the mapping, see Programming Language Alpha.
12. To save the changes, click Post Edit  on the editing tools.
13. Click on the **Test** button.
    - This tests the code for proper syntax.
    - The numbers that display on the Test Results tab do not reflect actual data.
14. Repeat steps 3 through 13 for each UNE that needs to be changed.

Assign Confidentiality Statement

To change or assign a Confidentiality Statement to a table:

1. Click on the **Utilities** button, then select and click on the **Assign Confidentiality Statement**.
    - The following window is displayed.



2. Click on the **Select Tables** button and select the tables for which to assign the statement.
3. Click on **Open**.
4. Select one of the default statements or Click on the User specified radio button and enter the statement in the edit box.

5. Click on the **Assign** button.
6. Click on Exit to return to ICM's main toolbar.

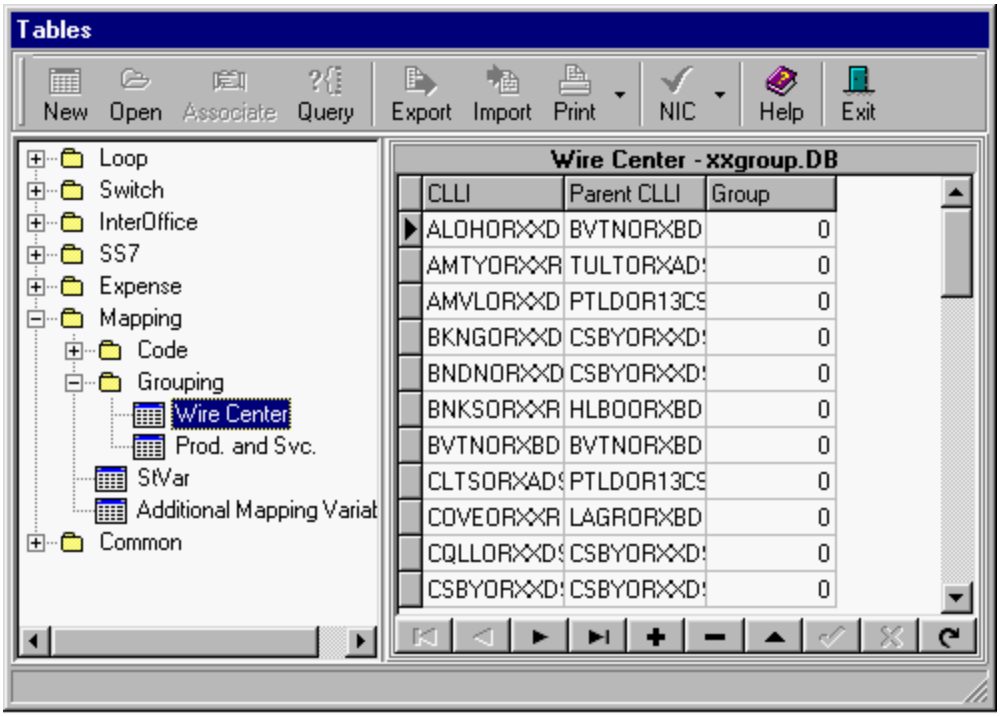
Editing and Setting up Mapping Groups

Editing Mapping Groups

The mapping groups that allow the creation of reports for groups of wire centers can be edited.

To edit a mapping group:

1. Click on the **View Tables** button in ICM's Main Toolbar.
2. In the Tree Viewer, click on Mapping, click on Grouping, and then click on Wire Center.
   - The following is displayed.



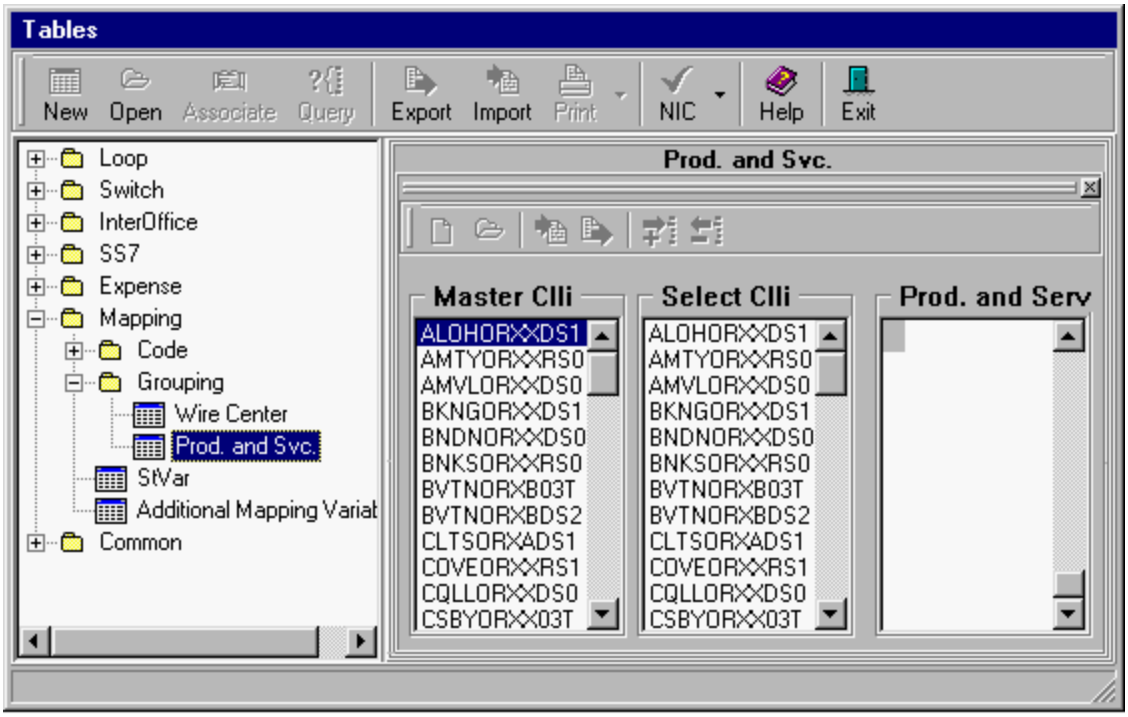
3. Editing the groups is done the same way as for other data tables.
   - To group wire centers give them the same group number.
   - To reset the groups and reload CLLIs from the nodes table, right click on Wire Center, then select and click on **Load CLLIs**.

Setting up Product and Service Groups

To set up product and service groups:

1. Click on the View Tables button in ICMs Main Toolbar.

2. In the Tree Viewer, click on Mapping, click on Grouping, and then click on Prod. and Svc.
   - The following is displayed.

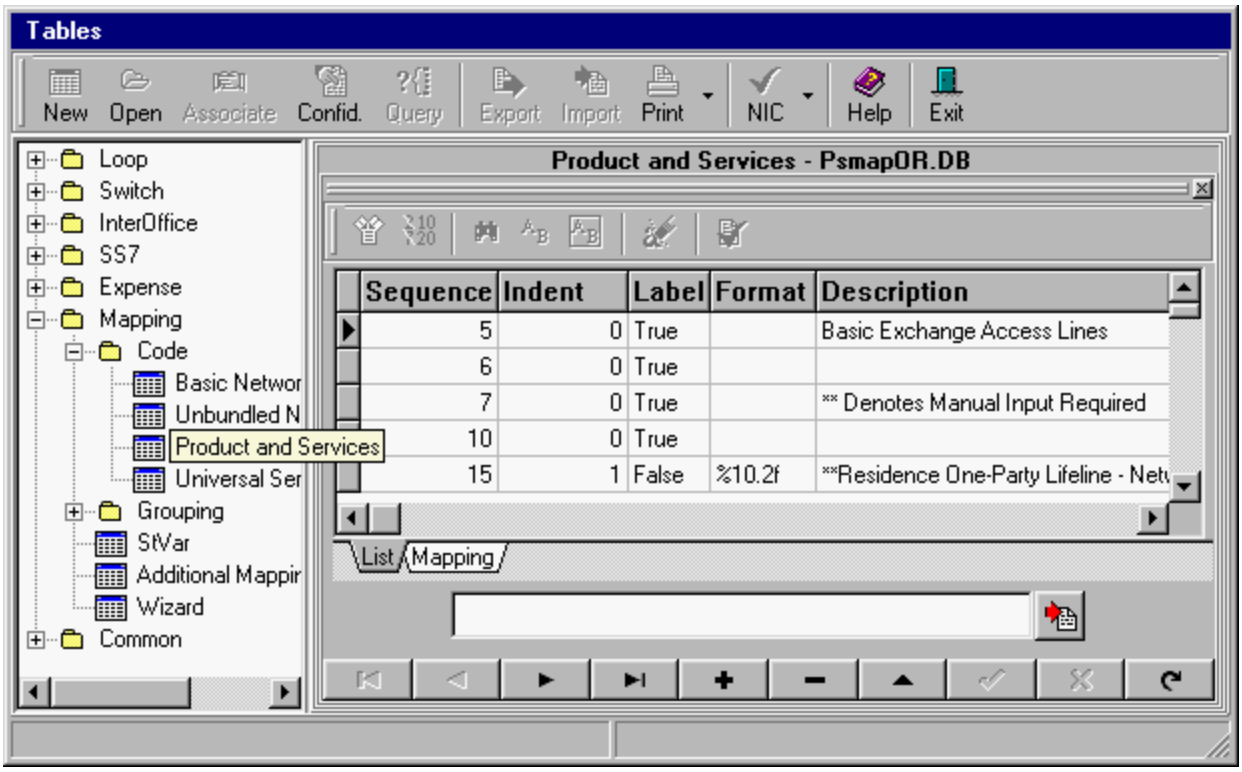


3. Click on the **New File** button.
   - The Save As dialog window is displayed.
4. Enter the file name for the group file.
   - Use db as the file extension.
5. Click **OK**.
6. Select the CLLI code, from the Master CLLI list, for which the group will be created.
1. Select CLLIs from the Select CLLI list.
2. Click the **Insert** button to add the CLLIs to the Product and Services group.
3. Repeat steps 7 and 8 if more CLLI need to be added to this group.
4. Repeat steps 6 through 8 for each group that needs to be created.
   - Changes are automatically saved in the file created in step 3 and 4.
   - To remove a CLLI code from a group, select the CLLI code from the Product and Services Group column and click on the **Delete** button.
   - This group file can now be used to generate reports for products and services.

Using a Group File

To use a group file:

1. Select **Table**/**Product Mapping**/**Product and Services**.
   - The Product and Services mapping window displays.

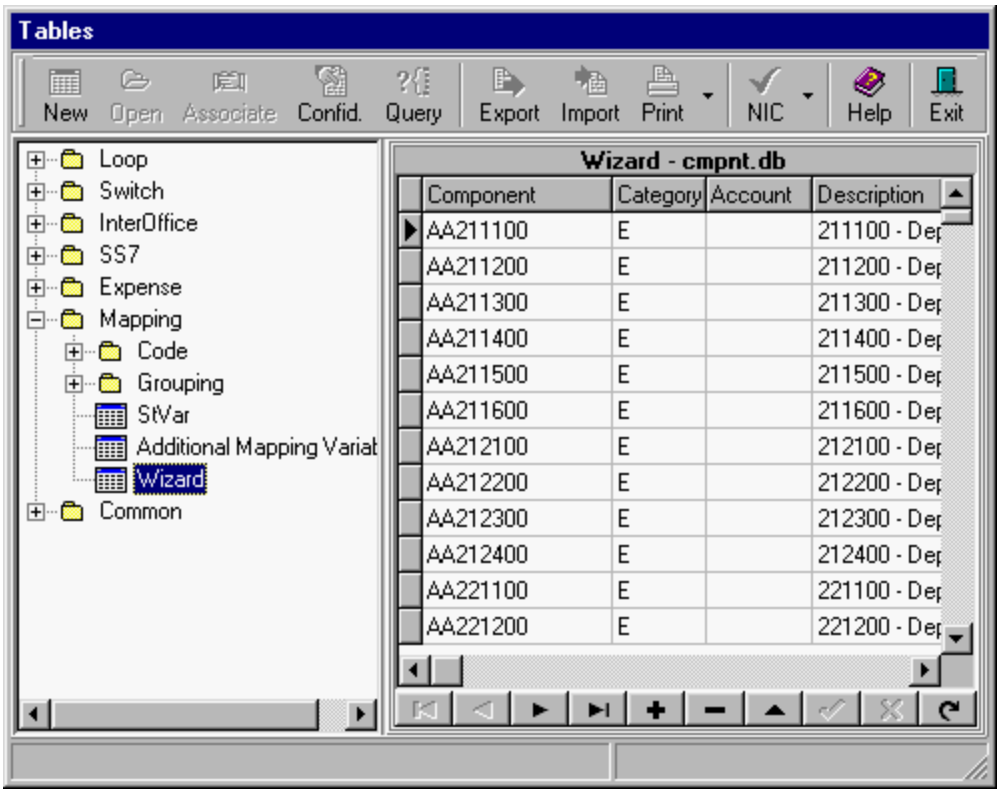


2. Click on the  button.
   - The Open window is displayed.
3. Select the group file that was created.
4. Click **OK**.
   - When the model is run or reports printed, the data will be processed by group.

Adding Components to Mapping Wizard

To add wizard components:

1. Click on the **View Tables** in ICM's Main Toolbar.
2. In the Tree Viewer, click on Mapping, and then click on Wizard.
   - The following is displayed.



3. Insert a row into the table by clicking Insert on the editing tools.
4. Fill in component, category, account, and description.
5. To save the changes, click Post Edit on the editing tools.
6. Click on the **Exit** button to return to ICM's main toolbar.

Re-index

To Pack and Re-index a table:

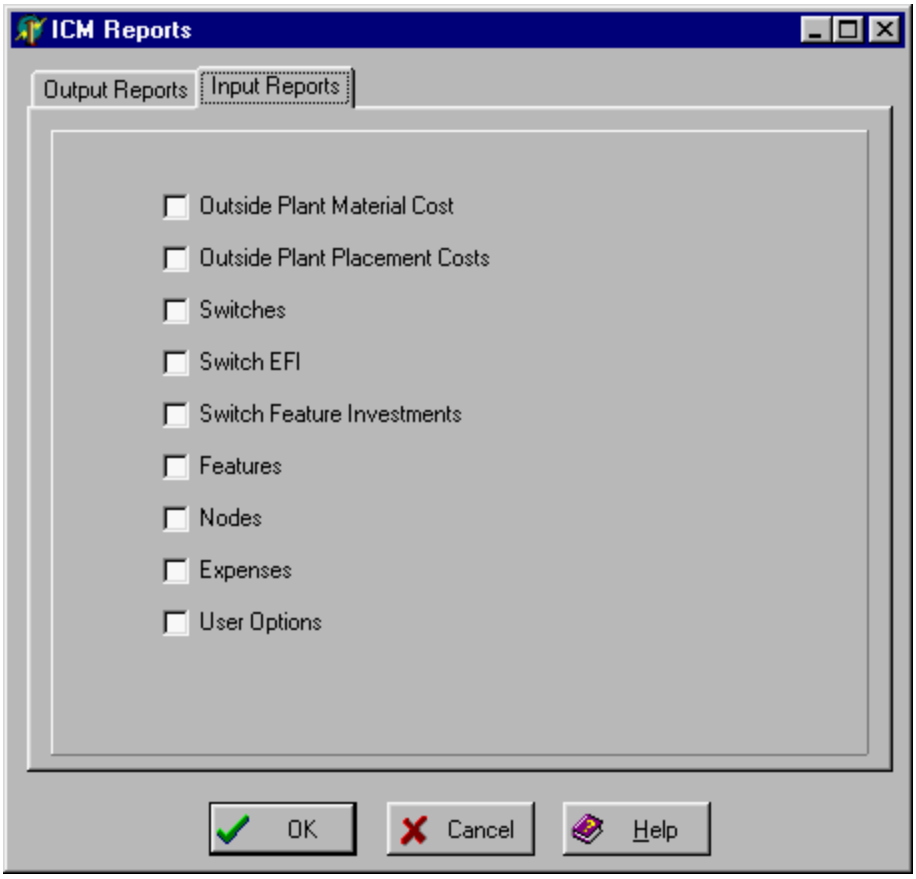
1. Click on the **Utilities** button, select and click on **Pack/Reindex Table** menu item.
   - The Open window displays.
2. Select the table.
3. Click **OK**.
   - A message is displayed to inform whether the process was successful and complete or that the process failed.
   - The ICM Pack/Reindex function can be used to recreate missing index files.

Generating Reports

Generating Input Reports

To generate reports:

1. Click the **Reports** button in ICMs Main Toolbar.
   - The following window is displayed.

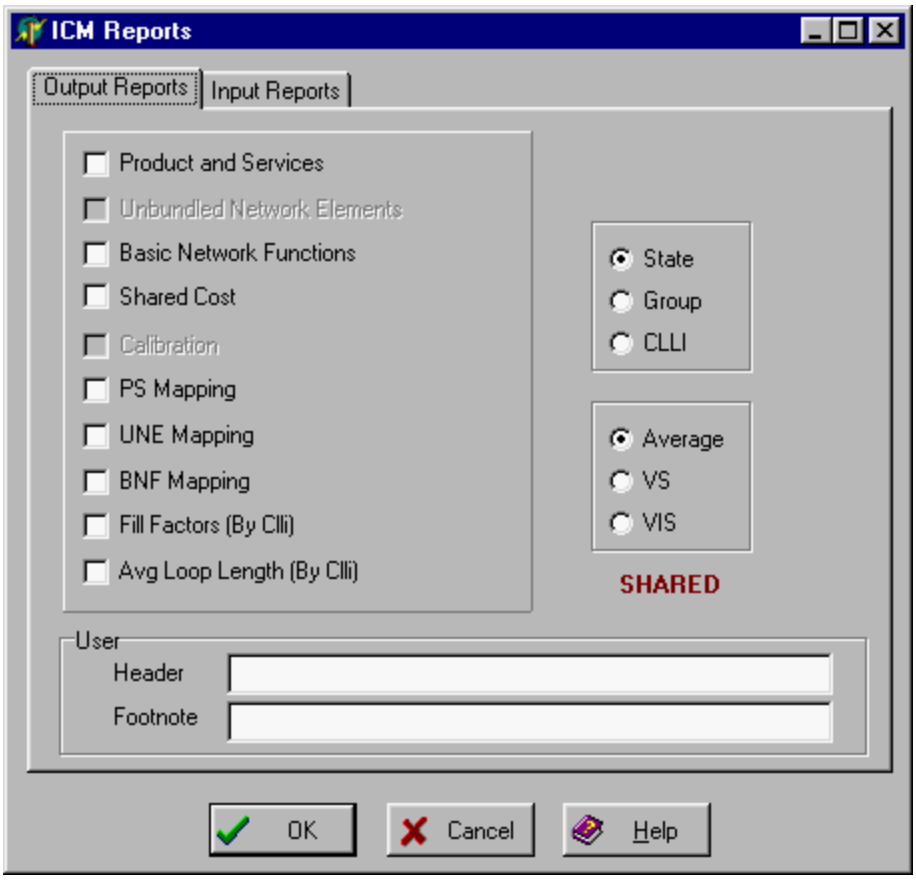


2. Put a check mark next to the reports needed.
   - More than one report can be selected.
3. Click **OK**.
   - Each input report selected is sent to the Report Viewer. To print click on the **Print** button or click on the **Save button** to save the report as a text file.

Generating Output Reports

To generate reports:

1. Click on the **Report** button in ICM's Main Toolbar.
2. Click on the Output Reports tab.
   - The following is displayed.



3. Select from the following options:
   a) State, Group, or CLLI to do the report by state, group, or CLLI.
   b) Average to create a report using the average investment
   c) VS to create a report using the volume sensitive investment
   d) VIS to create a report using the volume insensitive investment

   - The Basic Network Functions output report is used in external studies to develop service costs.
   - The Product and Services output report is available only when Retail is selected in the Expense Run Time Options.
   - The Unbundled Network Elements report is available only when Wholesale is selected in the Expense Run Time Options.
   - To include the Shared Costs, check shared in the Expense Run Time Options.
   - The Calibration output report is available only when Calibrate is selected in the Expense Run Time Options.

4. Put a check mark next to the reports needed.
   - More than one report can be selected.
   - For output reports only, the text for the header and footnote can be specified.
5. Click **OK**.

- Output reports display after they are processed. The reports are sent to the Report Viewer. To print click on the **Print** button or click on the **Save button** to save the report as a text file.

Generating a USF Report

To generate a USF Report:

1. Click on the **Run** button in ICM's Main Toolbar.
2. Select and click on the USF menu item.
   - The necessary data will be calculated and the report will be done according the format in Header Info.

Exporting and Importing

Exporting

To export a data table:

1. Display the table to export on the ICM Tables window.
   - For more information, see Viewing and Printing Data.
2. Click on the **Export** button.
   - The system displays the Save As dialog window.
3. Enter a file name.
4. Click **OK**.
   - The system saves the data in a comma-delimited ASCII file.
5. Click on the **Exit** button to return to ICM's Main Ttoolbar.

Importing

The import utility helps to ensure that the data in the file is correct and gives you error information, before and after importing the file. You can also select your import option:

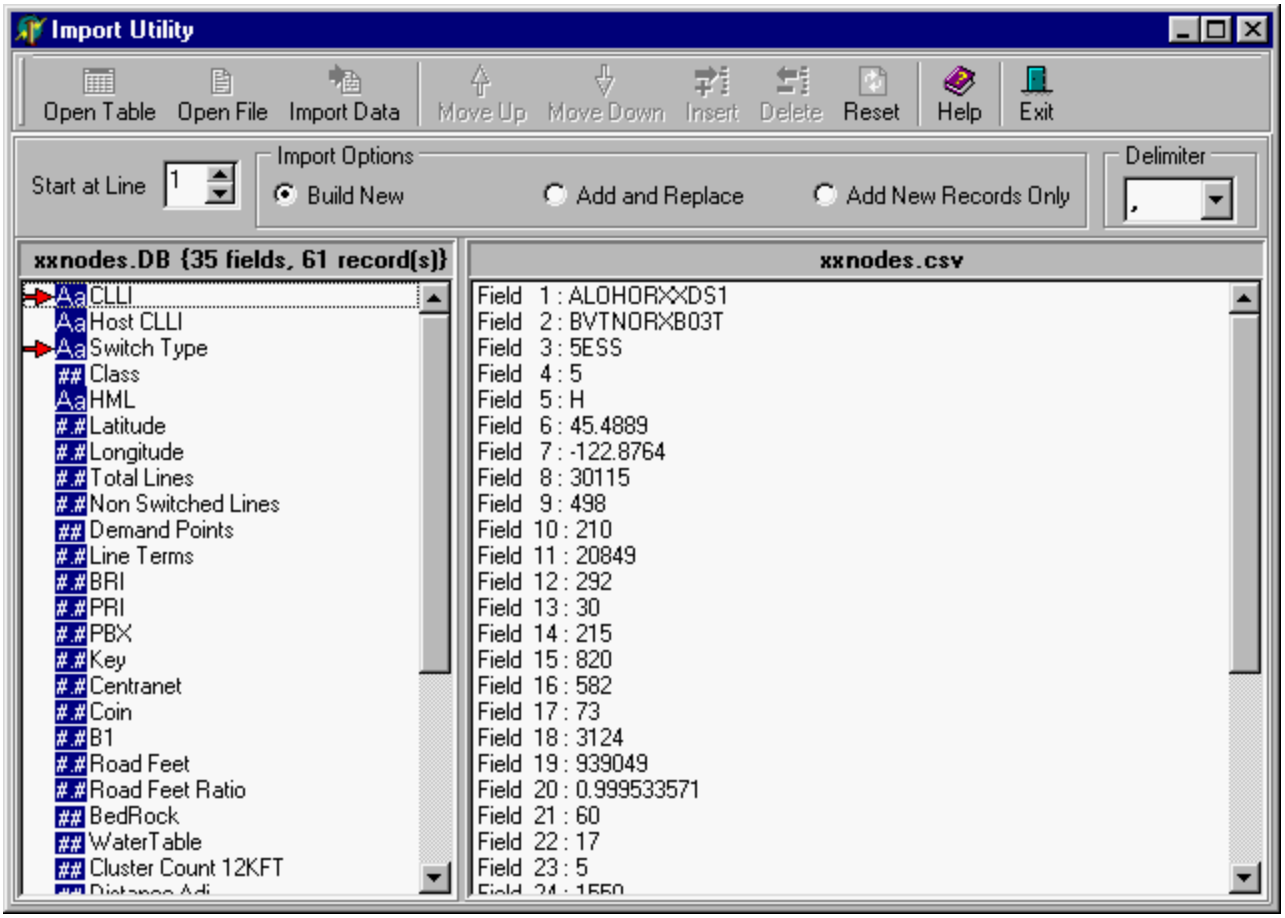
- Replace the current data in the file
- Add new records without replacing duplicate records
- Add new records and replace duplicate records

To import a data file:

1. Display the table to replace on the ICM Tables window, for more information see Viewing and Printing Data.
2. Click on the **Import** button.

- The Import Utility window is displayed showing the name of the current file and how many fields and records the file contains.
- The window also lists each field name in the current table.

3. Click on the **Open File** button.
   - The Open window displays.
4. Select the file to import from.
5. Click on **Open** or press **Enter**.
   - The values for the first line in the file are displayed.



6. Set the import options.
   - Select one of the radio buttons to **Build New**, **Add and Replace**, or **Add New Records only**.
   - Specify from what line to start the import.
   - Specify the correct delimiter for the file.
   - The order of the fields in the text file can be rearranged to match the table.
7. Click on the **Import Data** button.
   - The Import Progress window is displayed.
   - When import is done, information about the import can be displayed by clicking the **View Log File** button.

- If there are errors, the log will contain a list of records that were not processed. The records can then be corrected and imported using the **Add and Replace** option.

8. Click the **Close** button to return to the Import Utility window.
9. Click on **Exit** to return to the ICM Tables window.

Note:

- Before importing data, CSV file containing the data needed must be created.
- To save the data currently in the table, export the data to a file before importing. For more information, see Exporting.

Exporting Mapping Results

To export mapping results:

1. Click on the **Utilities** button on ICM's Main Toolbar.
2. Select and click the **Mapping to Text** menu item.
3. Select and click one of the three options

    - BNF for Basic Network Functions mapping results.
    - UNE for Unbundled Network Elements mapping results.
    - PS for Product and Services mapping results.
    - The Save As dialog window appears.

4. Enter a name for the file.
5. Click **OK** or press **Enter**.

Using PL-A

ICM includes a resident compiler (Programming Language Alpha or PL-A) that enables the control of calculations at critical points in the program. The compiler generates machine code and stores it for future use. This method of solving the mapping equations facilitates a more rapid execution time for generating the report tables.

The following topics on operators, syntax, flow control statements, and math functions, provide guidelines for using PL-A and implementing the mapping formulas.

Math and Logical Operators

Math operators for expressions

Symbol		Example
Multiplication	*	A*B

Division	/	A/B
Addition	+	A+B
Subtraction	-	A-B
Power	^	A^B

Logical Operators (used in IF statements)

Symbol		Example
Equality	=	A=B
Greater than	>	A>B
Less than	<	A<B
greater than or equal to	>=	A>=B
less than or equal to	<=	A<=B
not equal to	<>	A<>B

Assignment of Values to Variables

Assignment of values to variables is done using the **:=** operator.

```
A := 5;
Z := 3;
B := A+Z;
C := B + (2^3 * A) + (A*B)/(Z*A);
```

Syntax

- Each line of code must end with a semi-colon.
- Spaces are ignored.
- The compiler is case insensitive.
- Braces are used to enclose comments, for example: {this is a comment}.
- Any name may be used as a variable name except for the keywords used in flow control statement.

Flow Control Statements

For (Index, Start value, End value {,increment})

The function FOR is used for loops. All the arguments for the FOR function are numeric. A FOR function MUST have an END.FOR at the end of the loop. All Statements between the FOR an END.FOR will be executed for each iteration. The increment, if specified, must be positive.

Example:

```
N := 2;
FOR (L, 3, 20);
  N := n * I;
END.FOR;
```

```
A := 2;
FOR (I,3,20,1);
   A := A * I + 2;
   IF (A > I);
      I := I + 1;
   END.IF;
END.FOR;
```

IF (Condition)

The IF function is used to compare values. It MUST have and END.IF statement. The IF statement may also have an optional ELSE statement. The logical operators are used for comparisons.

Example:

```
IF (a = x);
  R  := x;
END.IF;
```

```
IF (r = 4);
  w := 3 / 4;
ELSE;
  W :=  1 / 4;
END.IF;
```

```
IF (A >= B);
 C := A;
END.IF;
```

```
IF (A <> B);
   A := B;
END.IF;
```

Math Functions

Function	Description	Examples
ABS (Number)	Returns the absolute value of a number.	ABS(-1) = 1 ABS(2.5) = 2.5 ABS(-6.1) = 6.1 x := ABS(x);

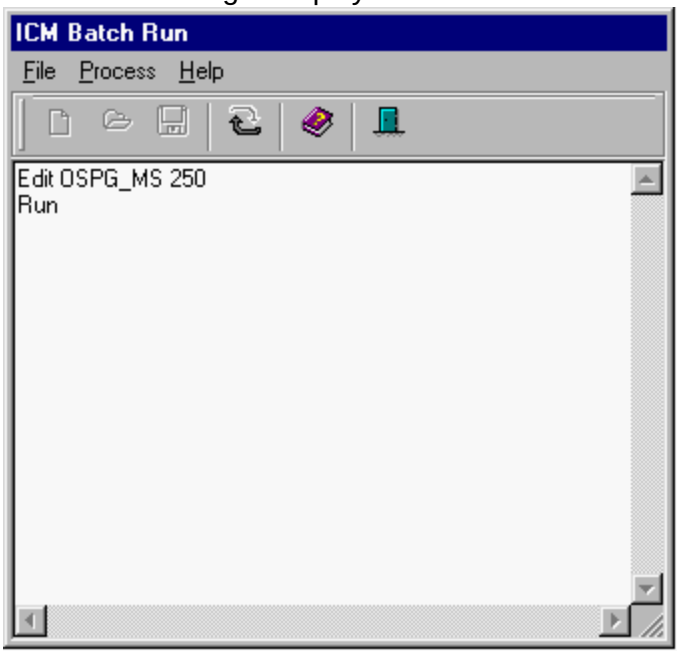
LN (Number)	Returns the natural log of a number.	X := LN(X);
FRAC (Number)	Returns the fractional part of a number.	Xf := FRAC(3.625); {Xf equals .625}
INT (Number)	Returns the integer part of a number.	XInt := INT(2.5); {Xint equals 2}
EXP (Number)	Returns a number, which is raised, to the power of the number passed to the function.	Y := ln(5); X := EXP(Y);
ROUND (Number)	Used to round a number to the nearest integer. Rounds up to the nearest whole number.	Xround :=ROUND(x);
SIN (Number)	Returns the sine of a number expressed in Radians.	PI := 355/113; X := SIN(PI/4);
SQR (Number)	Returns the square of a number.	X := 4; Xx := SQR(X);
SQRT (Number)	Returns the square root of a number.	Xx := 4; X := SQRT(Xx);

Doing a Batch Run

To do a batch run:

1. Click on the down arrow of the Run button in ICM's Main Toolbar.
2. Select and click on the Batch Run menu item.

- The following is displayed.



3. On the edit area type the desired actions or open an existing batch file.
   - For this example a Run Time option is changed and program is run.
4. Click on the **Process** button or the Process menu item to run the program.
   - Any changes made by the Batch Run are permanent.
5. Click on **Exit** to return to ICM's main toolbar.

Using Basic Commands in Batch Run

Run	Use this command to run modules of ICM affected by user changes done with the "Edit" and "Assoc" commands.
Run (All)	Use this command to start a complete ICM run.
Edit	Use this command to change the values of the User Options. Format Edit ItemCode Value For example, "Edit OSPG_MS 250" would change the manhole spacing to 250 feet.
Copy	Use this command to save copies of the tables generated by ICM to a specific location. Format Copy tablename DirectoryPath For example, "Copy actloop.db D:\BatchRun\actloop_new.db".

Assoc	Use this command to associate a table as input for ICM. Format Assoc Index# tablename For example, “Assoc 2002 D:\ICM\Database\NCDDT_10.db”
Outrep	Use this command to print or create a PDF for any of the output reports. Format Outrep Type Level Report [Print,PDF,File] (FilePath) For example, “Outrep Average State UNE Print” would print an average report UNE report at the state level. Use FilePath only when printing to “File”.

Batch Run Codes

Code	Category	Description
OSPG_PS	Outside Plant General Settings	Pole Spacing
OSPG_MS	Outside Plant General Settings	Manhole Spacing
OSPG_MRF	Outside Plant General Settings	Manhole rock removal factor
OSPG_PBS	Outside Plant General Settings	Pull Box Spacing
OSPG_PBF	Outside Plant General Settings	Pull Box rock removal factor
OSPG_WPD	Outside Plant General Settings	Well Point Days
OSPG_%B	Outside Plant General Settings	Percent Boring
OSPG_%GW	Outside Plant General Settings	Percent Guy Wire
OSPG_%C	Outside Plant General Settings	Percent Concrete
OSPG_%HD	Outside Plant General Settings	Percent Hand Dig
OSPG_CLL	Outside Plant General Settings	Copper Loop Length
OSPG_PAF	Outside Plant	Administrative Fill

	General Settings	
OSPG_PPH	Outside Plant General Settings	Planning Horizon
OSPG_PGR	Outside Plant General Settings	Growth Rate
OSPG_UP	Outside Plant General Settings	Poles
OSPG_UT	Outside Plant General Settings	Trench
OSPG_UAO	Outside Plant General Settings	Additional Conduit
OSPG_SAC	Outside Plant General Settings	Spans Aerial Copper
OSPG_SBC	Outside Plant General Settings	Spans Buried Copper
OSPG_SAF	Outside Plant General Settings	Spans Aerial Fiber
OSPG_SBF	Outside Plant General Settings	Spans Buried Fiber
OSPG_UUF	Outside Plant General Settings	Use User Fill
OSPG_UFD	Outside Plant General Settings	User Fill Distribution
OSPG_UFF	Outside Plant General Settings	User Fill Feeder
OSPD_DS	Outside Plant Distribution	Drop Size
OSPD_MAX	Outside Plant Distribution	Drop Maximum Length
OSPD_MIN	Outside Plant Distribution	Drop Minimum Length
OSPD_BT1	Outside Plant Distribution	Business Threshold (1)

OSPD_BP1	Outside Plant Distribution	Business Pairs (1)
OSPD_BT2	Outside Plant Distribution	Business Threshold (2)
OSPD_BP2	Outside Plant Distribution	Business Pairs (2)
OSPD_RT1	Outside Plant Distribution	Residential Threshold
OSPD_RP1	Outside Plant Distribution	Residential Pairs
OSPD_ULR	Outside Plant Distribution	Units Lines/Residence
OSPD_ULB	Outside Plant Distribution	Units Lines/Business
OSPD_TRU	Outside Plant Distribution	Terminals Residential Units
OSPD_TBU	Outside Plant Distribution	Terminals Business Units
OSPD_SFP	Outside Plant Distribution	Percent Foreign Poles
OSPD_SA	Outside Plant Distribution	Percent Arial
OSPD_SB	Outside Plant Distribution	Percent Buried
OSPD_SU	Outside Plant Distribution	Percent Underground
OSPD_NCT	Outside Plant Distribution	Percent of no cost Distribution Trench
OSPD_NCD	Outside Plant Distribution	Percent of no cost Drop Placement
OSPD_EDF	Outside Plant Distribution	Engineering Distribution Factor
OSPF_SFP	Outside Plant Feeder	Sharing percent Foreign Poles

OSPF_SA	Outside Plant Feeder	Sharing percent Aerial
OSPF_SB	Outside Plant Feeder	Sharing percent Buried
OSPF_SU	Outside Plant Feeder	Sharing percent Underground
OSPF_CCF	Outside Plant Feeder	Cross connect Factor
OSPF_CS1	Outside Plant Feeder	Cross connect minimum size 1
OSPF_CS2	Outside Plant Feeder	Cross connect minimum size 2
OSPF_CMD	Outside Plant Feeder	Cross connect minimum distance
OSPF_EFF	Outside Plant Feeder	Engineering feeder factor
IOFU_AF	Interoffice Settings	Administrative Fill
IOFU_IRF	Interoffice Settings	Intra-ring factor
IOFU_AS	Interoffice Settings	Aerial span
IOFU_BS	Interoffice Settings	Buried span
IOFU_ARR	Interoffice Settings	Air to Route Ratio
EXP_L	Expense Settings	Life “BOOK” or “ECON”
EXP_M	Expense Settings	Market “WHOLE” or “RETAIL”
EXP_S	Expense Settings	Shared “TRUE” or “FALSE”
EXP_I	Expense Settings	Inflation
EXP_P	Expense Settings	Productivity
EXP_H	Expense Settings	Horizon
EXP_C	Expense Settings	Calibrate “TRUE” of “FALSE”

AVERAGE	Report type	Average report
VS	Report type	Volume sensitive report
VIS	Report type	Volume Insensitive report
STATE	Report Level	State level
GROUP	Report Level	Group level
CLLI	Report Level	CLLI level
PS	Report	Product and Services
UNE	Report	Unbundled Network Elements
BNF	Report	Basic Network Functions
SHARECOST	Report	Shared Cost
CALIBRATE	Report	Calibration
PSMAP	Report	Product and Services Mapping
UNEMAP	Report	Unbundled Network Elements Mapping
BNFMAP	Report	Basic Network Functions Mapping
FILL	Report	Fill factors (by CLLI)
LOOPLEN	Report	Average Loop length (by CLLI)

Glossary

Acronym	Description
A Link	Access Link
ADM	Add/Drop Multiplexer
ANSI	American National Standard Institute
ARMIS	Automated Reporting Management Information System
B Link	Bridge Link

Acronym	Description
BNF	Basic Network Functions
BRI	Basic Rate Interface
C Link	Cross Link
CCS	Centum Call Seconds
CLLI	Common Language Location Identifier
CMST	Constrained Minimum Spanning Tree
COT	Central Office Terminal
D Link	Diagonal Link
DCS	Digital Cross-Connect System
DLC	Digital Loop Carrier
EF&I	Engineered, Furnished and Installed
ESA	Electronic Serving Area
GTEAMS	GTE Advance Materials System
ICM	Integrated Cost Model
ISDN	Integrated Services Digital Network
LIBD	Line Information Database
MACRS	Modified Accelerated Capital Recovery System
MDF	Main Distribution Frame
MOU	Minute of Use
NECA	National Exchange Carrier Association
NGDLC	Next Generation Digital Loop Carrier
NID	Network Interface Device
OSP	Outside Plant
PBX	Private Branch Exchange
POP	Point of Presence
PRI	Primary Rate Interface
PSTN	Public Switched Telephone Network
RT	Remote Terminal
RTU	Right To Use
SCIS	Switching Cost Information System
SCP	Service Control Point

Acronym	Description
SONET	Synchronous Optical Network
SP	Signaling Point
SS7	Signaling System 7
SSP	Service Switching Point
STP	Signal Transfer Point
TELRIC	Total Element Long Run Incremental Cost
TIGER	Topologically Integrated Geographic Encoding and Referencing
TSLRIC	Total Service Long Run Incremental Cost
UNE	Unbundled Network Element
USOA	Uniform System of Accounts