

### Course Description

#### Overview

This course enables users of all levels to understand essential concepts and features required to create, edit and delete records in iBase as well as all methods of searching, querying reporting, charting and exporting iBase records.

The scenario-driven exercises include example reports, images and other information with instructions on how to create records directly from the raw data and document the information using a consistent methodology. Users will learn how to search for records using the different searching and analytical functions in both the iBase User and Analyst's Notebook interfaces.

The exercises introduces different ways to identify the extent of a network and how to incorporate some of the Analyst's Notebook visualisation and searching techniques with iBase data.

Understanding the way iBase works in creating unique records and how it works with Analyst's Notebook.

#### Course Objectives

Upon completion of this course, users should be able to:

- Connect to databases using UNC Naming Pathways.
- Manage the Most Recent Use (MRU) List Manager.
- Modify Security Roles and Permissions
- Reset iBase User Passwords.
- Change the Registry Setting to modify more than 100,000 records at a time.
- Batch Edit and Assign Icon Shading.
- Batch Delete.
- Run the Duplicate Records Checker and Merge Multiple Entities.
- Restore and Purge Soft-Deleted Records.
- Create Export and Import Specifications.
  - Create Advanced Column Actions for data cleansing.
  - Create Export and Re-Import routines.
- Create Batch Import Specifications.
  - Setup the iBase Scheduler Configuration.
  - Schedule Batch Imports using the iBase Scheduler Configuration with different triggers.
- Optional Extra: Create Staging Databases to generate Telephone Subscriber & User substitution files.
  - Export data from current “production” database.
  - Import data into staging database.
  - Export data out of staging database into Hyperlink fields to de-duplicate.
  - Re-import data into concatenated textual field.
  - Export data as substitution files.
  - Reimport data into current “production” database with substitution file.
  - Set up scheduled Export and Imports to trigger when new telephone data is imported into the current “production” database.
- Using the Audit Viewer.
- Using SQL Scripts to change icons and icon shading and scheduling the scripts.
- Relocating SQL Databases from one server to another server.

## Q<sup>3</sup>i<sub>2</sub> – IBM i2 iBase Systems Administrator

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### Intended Audience

This course is suitable for the following audiences:

- iBase Administrators
- iBase Designers

### Prerequisites

The prerequisites for taking this course are:

- Comfortable knowledge of Microsoft Windows operating system.
- Basic understanding of SQL Server Management Studio.
- Q<sup>3</sup>i<sub>2</sub> IBM i2 iBase User course
- Q<sup>3</sup>i<sub>2</sub> IBM i2 iBase Importing course
- Q<sup>3</sup>i<sub>2</sub> IBM i2 iBase Designer & Setup course

### Follow-On Courses

There are no follow-on-courses.

### Course Elements

Exercises in this course are presented using the following elements:

#### Guided Exercises

Exercises are provided on different administrative actions that can be encountered as an iBase Administrator. Students are guided through the process to administer the database with detailed step-by-step instructions to obtain the required results.

The importing exercises include multiple repetitive actions which should reinforce knowledge base and skills.

#### Reinforcement

The SQL Relocation exercise is not performed often but can occur every 3-5 years, depending on the client's IT Server upgrade requirements. When the Windows Server environment is upgraded, this will inevitably involve SQL Server upgrades.

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## Q<sup>3</sup>i<sub>2</sub> – IBM i2 iBase Systems Administrator

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### Estimated Training Schedule

**Note:** Course speed will vary depending on individual's computer skills, willingness and prior knowledge so exercises may start / finish either earlier or later than can be anticipated.

**Note:** The course is run using a VM Session that contains 2 x SQL Server instances.

#### Day 1

1. Admin Login Details
  - Users will need to know how to log into the VM session.
2. UNC Pathways
  - Users will learn how to change the connection of a database from Letter Drive to UNC Pathway which is required for the iBase Scheduler.
3. MRU List Manager
  - After changing the connection from Letter Drive to UNC Pathway, users will learn how to remove the Letter Drive connection from the MRU List so that users don't accidentally log in via the wrong pathway.
4. Modifying Security Roles / Permissions
  - Users will create restricted iBase User Accounts
    - Modified Database Management Groups (Yellow Keys).
    - Modified Systems Commands Access Control (Green Keys).
    - Modified Data Access Control (Red Key).
    - Creating new users.
  - Resetting iBase User Passwords.
5. Batch Editing and Batch Deleting.
  - Increasing the 100,000 iBase Maximum Record Threshold.
  - Using the Batch Edit based on Sets and Queries.
  - Assigning Icon Shadings.
  - Batch Deleting based on Sets and Queries.
6. Find Duplicate Records & Merging Records.
  - Merge records on case-by-case basis.
  - Using the Find Duplicate Records Checker
7. Soft-Deleted Records
  - Restoring soft-deleted records.
  - Purging soft-deleted records.
8. Advanced Importing with Transformations

**Scenario: The code list was changed but existing records need to be changed to reflect the new code list value.**

  - Create a query to find effected records and add the results to a set.
  - Export the set to XML.
  - Re-import the XML and modify the effected records.

**Scenario: Users have obtained the Call Charge Records and Subscriber details from a new Telecom Service Provider called ClverClog Telco.**

  - Map how the data will be imported into iBase.
  - Create import specifications:
    - Telephone Call links between two phones with transformations to clean and standardise the data.
    - Update Telephone Numbers
    - Telecom Activity entity with link to the source phone and destination phone.
    - Import a folder of subscriber text files.

### Day 2

#### 9. Batch Importing, Exporting & iBase Scheduler

**Scenario: Batch the imports for the CleverClog Telco data so that they can be scheduled to import when new files are saved in the folder.**

- Create Batch Import Specifications.
- Setup the iBase Scheduler Configuration for the first time.
- Create scheduled imports for the CleverClog Telco data to trigger on a regular interval OR when a file is updated.

#### 10. Optional Extra: Using Staging Database

**Scenario: When Telco data is added, the subscriber and user details are linked to the Telephone Number. Users have asked for the Subscribers and Users to be added on the Telephone Call Links as well so that they can see the details without looking at what the Telephone Number is linked to. If there are multiple subscribers and users,**

- Create queries to export data from the Production database.
  - Export new Telephone Call records to XML.
  - Export new or updated Subscribers and Users (Person, Organisation, Gang / Group, Military Units, Trading Names) to XML.
- Create import specifications in Staging Database.
  - Import Subscribers and users as a Hyperlink field on the Telephone Number to de-duplicate the values.
- Export the Telephone Numbers with subscribers and users to XML based on queries.
- Import the Telephone Numbers with the different subscribers and users into a single line.
  - Replace line breaks with a semicolon.
- Export the Telephone Numbers with subscribers and users to TXT file to generate substitution files.
- Re-Import the original Telephone Calls XML with the substitution files to add the subscribers and users on the Telephone Call links.
  - Replace the semicolon in the substitution file to a line break so that the different subscribers and users appear on different lines.
- Schedule the process to run only when new telephone calls are created in the production database.
  - Create Batch Exports and Batch Imports.
  - Schedule the batches between the Production database and the Staging database.

#### 11. Auditing

- Using the Audit Viewer.
- Searching the Audit Log and the Security Log.

### Day 3

#### 12. SQL Scripts

**Scenario: Instead of manually running the Assign Icon Shading, automatically change all Transport icon shading to match the Primary Colour without changing the icon.**

- Using SQL Scripts to change icons and icon shadings.
- Converting SQL Scripts to SQL Jobs to schedule them to run every day.

#### 13. Relocating SQL Databases

**Scenario: Server is upgraded or relocated and the production database needs to be relocated.**

- Turn off Search 360 services, Alerts and Scheduler jobs.
- Backup and detach the SQL Database. Move files to the new server.
- Attach database and restore database on new server.
- Setup security login on the new SQL Server.
- Enable CLR Integration and Trusted Certificate status on the new server.
- Reconfigure the SQL Server Connection to the new server.
- Add the Search 360 to the iBase Index Service Configuration.
- Turn on Alerts and verify Search 360.
- Turn on iBase Scheduler Configuration with new location.