

### Course Description

#### Overview

This course enables users of all levels to understand essential concepts and features required to create and analyse associative and temporal charts.

The scenario-driven exercises include example intelligence reports, witness statements, research extracts and other records with instructions on how to chart directly from the raw data and document the information using cards. The resulting associative and temporal charts enable the students to present published charts for dissemination and / or briefings.

The Searching and Analytical exercises introduces different data sets to expand exposure to different charting / visualisation methodologies.

Understanding the way entities, links and attributes behave when copying, duplicating, merging and combining charts.

#### Course Objectives

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

- Understand the terminologies used in Analyst's Notebook - Entities, Links, Attributes.
- Use the navigation options to view and manipulate the chart.
- Create associative charts by adding entities, links and attributes from raw data.
- Understand the basic behaviour of entities, links and attributes when added to the chart.
- Create customised entities, links and attributes and add the new definitions to the Standard Template.
- Use cards to document information and inferences.
- Use layouts to arrange entities and links to tidy the chart.
- Prepare the chart for printing, briefing purposes and PDF creation for dissemination.
- Understand the difference between Copy, Pasted and Duplicated entities / links.
- Merge charts or selected chart items into other charts.
- Understand how the use of Date and Time effects the placement of entities and/or links on a chart.
- Understand the difference between Controlling, Ordered and Free behaviour.
- Use the basic Search Bar and Find Text to find textual information on a chart.
- Use the Visual Search, List Items, List Cards and Bar Charts & Histograms to analyse charts.
- Planning Import Specifications to create associative and temporal charts.
- Create, edit and run import specifications from spreadsheets to create associative and temporal charts using subscriber details and telephone calls.
- Modify the Options of Analyst's Notebook to suit the user's requirements.

#### Intended Audience

This course is suitable for the following audiences:

- Law Enforcement Agencies
- Intelligence Analysts
- Investigators
- Researchers
- Accountants
- Auditors
- Prosecutors, Lawyers, Solicitors
- Fraud Analysts
- National Security
- Telecommunications, Insurance, Banking, Retail industry

## Q<sup>3</sup>i<sub>2</sub> – IBM9I02G IBM i2 Analyst's Notebook Essentials

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### Prerequisites

The prerequisites for taking this course are:

- Comfortable using the Microsoft Windows operating system.
- Basic understanding of analytical techniques.

### Follow-On Courses

This course is a prerequisite for the following courses:

- Q<sup>3</sup>i<sub>2</sub> - IBM9I03G IBM i2 Analyst's Notebook Intermediate
- Q<sup>3</sup>i<sub>2</sub> - IBM i2 iBase User course
- Q<sup>3</sup>i<sub>2</sub> - IBM i2 iBridge User course

### Course Elements

Exercises in this course are presented using the following elements:

#### Guided Exercises

Raw data is provided and students are guided through the process to solve the scenarios with detailed step-by-step instructions to obtain the required results.

The scenarios include multiple entities and links to ensure repetition and thereby reinforce the functionality of i2 Analyst's Notebook.

#### Guided Error Handling Exercises

In some cases, the students will be guided towards forcing errors or bad charting practices. These are designed to show how to fix the error or chart the information a different way.

#### Visualisation Techniques

After learning the basics involved in creating associative and temporal charts, students will be asked to use functions already taught in subsequent exercises. This ensures repetition learnt early can be applied again in different situations, such as using searching functions to modify chart elements to emphasise certain areas of the chart which can aid in visually analysing and briefing from a chart.

#### Revision

After each exercise, the students may be asked a series of questions to reinforce their knowledge.

### Estimated Training Schedule

**Note:** Course speed will vary depending on individual's computer skills, willingness and prior knowledge.

#### Day 1.

##### 1. Introduction To Analyst's Notebook

**Scenario: Fraud Investigation**

**Reports: Three basic reports**

- Learn about Entities, Links and Attributes.
- Using Cards to document information - copying, pasting and deleting cards.
- Introduce the Change Representation function.
- Introduce the use of Date & Time and how it effects Controlling, Ordered and Free behaviour.
- Copying versus Duplicating.
- Navigating the chart.
- Saving charts and using cover sheets.

• **Revision**

##### 2. Association Charting

**Scenario: Homicide**

**Reports: Thirteen reports including witness statements, coroner's report, telephone records.**

- Create association chart focusing on the associates (the suspects) and their relationships with the victim.
- Creating new link types, attribute classes, attribute instances, semantics and date/time formats and add the changes to the standard template.
- Customise the analytical layouts and run associative layouts to tidy the chart.
- Use Box representations and Groups.
- Merging links and summing numerical links.
- Adding images to icons.
- Adding Legends and Titles and preparing the chart for publication or presentation.
- Saving charts and using cover sheets.

• **Revision**

#### Day 2

##### 3. Timeline Charting

**Scenario: Homicide**

**Reports: Thirteen reports including witness statements, coroner's report, telephone records.**

- Copying new icon images (BMP and PNG) to be used in Analyst's Notebook.
- Create new entity types, link types, attribute classes and gradings and add the changes to the standard template.
- Merging charts and changing representations.
- Create timeline chart focusing on the activities of the victim, her associates (the suspects) and witness statements to identify possible anomalies and simultaneous activities.
- Explore the manual, semi-automatic and fully-automatic theme line and event frame linking behaviour.
- Adding activities using event frames or links.
- Modifying the behaviour of theme lines and event frames.
- Adding images to theme lines and event frames.
- Adding OLE objects.
- Customise the analytical layouts and run temporal layouts to tidy the chart.
- Use the Align or Space tools to tidy the chart.
- Adding Legends and Titles and preparing the chart for publication or presentation.
- Saving charts and using cover sheets.

• **Revision**

### 4. Basic Search & Analysis

#### **Scenario: Car accidents at the same location**

- Use the Search Bar and Find Text to find textual information on the chart.
- Use Visual Search, List Items and List Cards to analyse a chart.
- Copying data from List Items and pasting into Excel to obtain subtotals.

### Day 3

### 4. Basic Search & Analysis (Continued)

#### **Scenario: Boiler Room Scam Victim Transactions**

- Use the Bar Charts & Histograms to analyse the chart.
- Copying results from Bar Charts & Histograms.
- Copying Histogram picture.
- Using Heat Matrix.
- Select Ends / Connections versus Find Linked
- Using Find Path.
- Using analytical search functions (Visual Search, List Items, Bar Charts & Histograms) to modify entities or links that fit a profile to make them stand out on the chart.
- Convert the timeline chart into an associative chart and provide totals sent/received.

- **Revision**

### 5. Merging Charts

#### **Scenario: Car accidents at the same location**

#### **Scenario: Simultaneous incidents**

- Merge two apparently different charts relating to different investigations.
- Use the Find Matching Entities Smart Matching dialogue to find possible duplicate entities.
- Use the Find Matching Entities Label Matching dialogue to find possible duplicate entities.
- Manually merge two entities.

- **Revision**

### 6. Importing Spreadsheets To Create Associative & Temporal Charts

#### **Scenario: Telephone Calls**

- Create import specifications based on excel spreadsheet to create associative charts:
  - Multiple links with call duration link label.
  - Single links with call duration link label.
  - Directed links with frequency count link label.
- Create traditional theme line only import specification based on excel spreadsheet to create temporal charts.
- Create sequence of events import specification based on excel spreadsheet to create a different temporal chart.
  - Copying new icon images (BMP and PNG) to be used in Analyst's Notebook.
  - Create new entity types and semantic and add the changes to the standard template.
  - Modify diverted wiring heights.

#### **Scenario: Telephone Subscribers**

- Create import specification including different entity types, attribute classes and cards.
- Run multiple import specifications to combine Telephone Calls and Telephone Subscribers with associative and temporal representations.

- **Revision**

### 7. Analyst's Notebook Options

- Modifying the options of Analyst's Notebook to suit requirements such as Icons, Theme Line Icon Bar and Printing compatibility.
- **Revision**