

# IBM i2 Analyst's Notebook Premium

*IBM i2 Analyst's Notebook Premium provides a one-stop shop integrating proven analytical tools within a rich data-centric environment*



## Contents

- 1 Introduction
- 1 Who should read this white paper
- 2 Benefits of i2 Analyst's Notebook Premium
- 3 Data-Centric Analytical Environment
- 5 Key Features of i2 Analyst's Notebook Premium
- 13 Complementary Products
- 14 Questions and Answers

## Introduction

IBM® i2® Analyst's Notebook® Premium is a rich, data-centric analytical environment that helps analysts and investigators conduct investigative analysis to combat modern, sophisticated criminal, and terrorist activity. Designed for a single user, i2 Analyst's Notebook Premium helps reduce the time and costs associated with uncovering networks, patterns and trends that can be hidden in a mass of disparate data.

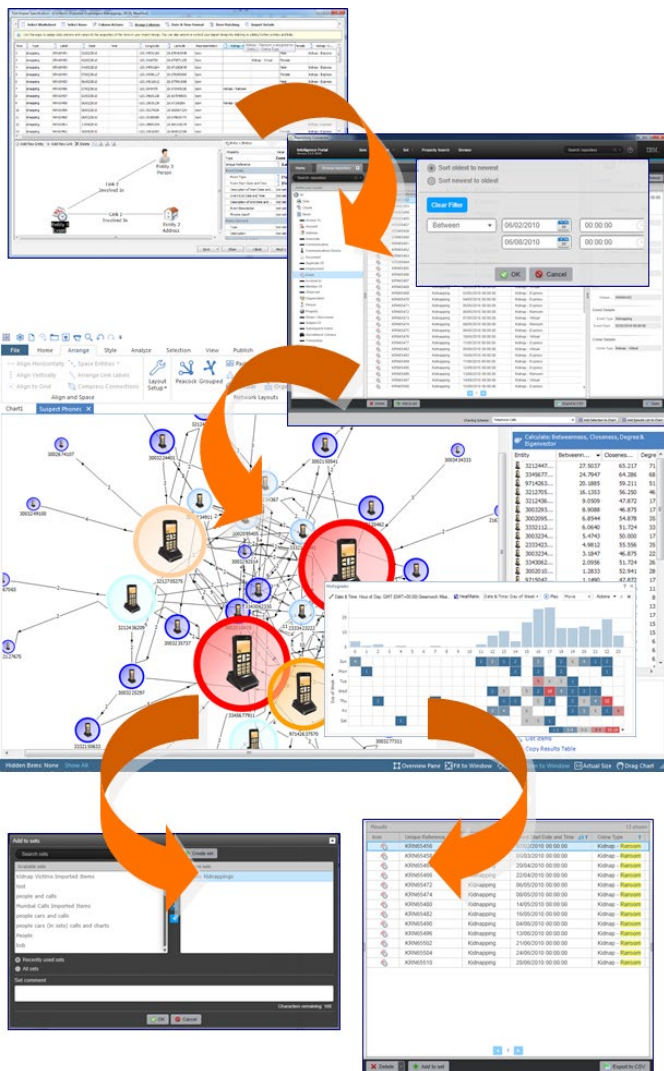
## Who should read this white paper

This white paper is intended for:

- Potential users such as analysts and investigators who want information about i2 Analyst's Notebook Premium and the benefits it provides
- System administrators who wish to gain a high-level understanding of the product and the system prerequisites that are needed to install and run the application
- Users who wish to learn how to exploit the maximum value of i2 Analyst's Notebook Premium

This document provides an overview of the i2 Analyst's Notebook Premium product. For more information on product features and capabilities in specific versions visit: [ibm.com/smartercities](http://ibm.com/smartercities).

*IBM i2 Analyst's Notebook Premium provides a one-stop shop integrating proven analytical tools with a rich data-centric environment.*



### Benefits of i2 Analyst's Notebook Premium

i2 Analyst's Notebook Premium provides a data rich intelligence environment. With a powerful set of assisted analysis and visualization capabilities that are designed to help users quickly deliver high-value intelligence from ever-growing data sets. i2 Analyst's Notebook Premium offers the following benefits:

#### Productivity

- Helps commercial, law enforcement, defense and national security organizations to identify and disrupt criminal and terrorist activities
- Supports efficiency with dedicated capabilities for data management, information discovery, charting, and chart management
- Delivers a singular user environment providing a wealth of analytical tools that are supported by a robust repository
- Facilitates the analysis of large amounts of data with a flexible importer, which is designed to be an intuitive and efficient tool that helps users populate the repository with content from text-based files such as telephone records, financial transactions, or Automatic Number Plate Recognition (ANPR)
- Is designed to encourage lateral thought and increase analyst creativity by structuring data in a way users think and modelling the world in terms of the links between entities
- Retains full data provenance and evolution of information helping users track and understand the history and credibility of each item in the repository
- Helps the user to search across existing intelligence products with advanced searching capabilities

**Collaboration**

- Provides full integration with IBM i2 Analyst's Notebook allowing users to produce i2 Analyst's Notebook charts based on the Analysis Repository data, making it easier to share information across teams and organizations
- Delivers dedicated capabilities for importing data held within i2 Analyst's Notebook charts to complement intelligence held within the Analysis Repository. This allows, users to identify patterns and connections in information that might otherwise be missed
- Extendable for use with IBM i2 Analyze to provide a fully collaborative environment across an organization

**Configurable off-the-shelf application**

- Configurable to suit data and operations-oriented workflows across an organization. Enables users to use intuitive tools and tailor their individual environment without having to involve the IT department.
- Offers a cost-effective deployment by utilizing a repository built on a flexible embedded storage mechanism
- Streamlines data collection and management:— the repository can be populated by entering new data through a customizable form interface, importing from text files or by extracting and importing existing intelligence held in i2 Analyst's Notebook charts
- Organizes your analysis by creating sets of information that are relevant to your investigation
- Integrates and stores data from multiple cases or investigations in one place and helps uncover significant commonalities within or between cases

**Integrates with and leverages existing IBM i2 product Investment**

- Delivers interactivity with other IBM i2 products such as IBM i2 Analyst's Notebook Connector for Esri or IBM i2 iBase
- Fully integrated with i2 Analyst's Notebook for data entry, interactive information exploitation, searching and browsing, and results dissemination in the form of charts

- Obtains additional value from your existing i2 Analyst's Notebook charts by using the Chart Item Uploader to deconstruct your charts into native repository entities and links

**Data-centric analytical environment**

i2 Analyst's Notebook Premium offers a single user a one-stop shop analytical environment. Consisting of a data-centric Local Analysis Repository that is optimized for data management, information discovery and analysis it helps users effectively manage a wide range of intelligence by collating it into a single repository.

i2 Analyst's Notebook Premium offers the following:

**Local Analysis Repository—offers a storage facility containing analytically rich data**

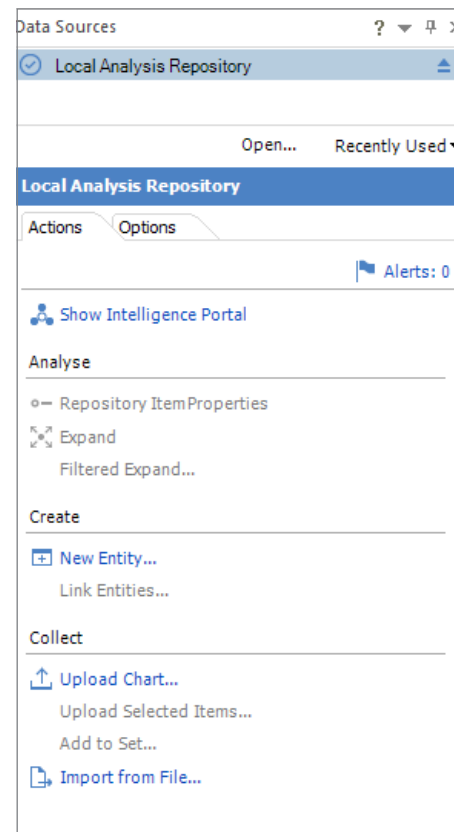
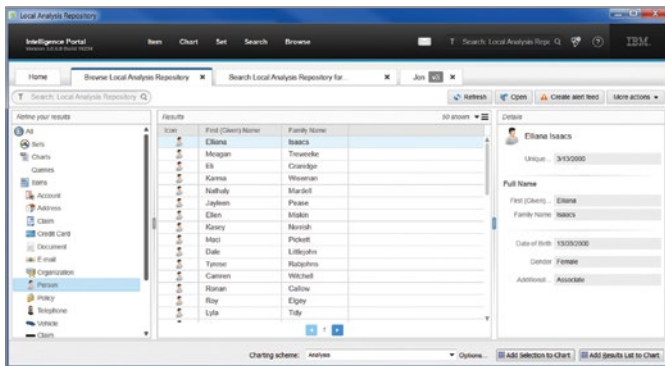
The Local Analysis Repository offers the primary storage facility for good quality information and intelligence products. Advanced data management features within the Local Analysis Repository ensure that information can be collected, collated, and consolidated from various disparate sources for a richer, centralized aggregated view of analysis-ready information. The Analysis Repository can easily be created or modified by users with the Schema Designer, in order to quickly adapt to changing needs and situations, and to remain relevant to ongoing operations.

**Lightweight portal—provides a simple interface to manage, search and update data held within the repository**

The lightweight Intelligence Portal feature allows the user to manage and work with the data held within their repository. It offers powerful browse and search capabilities and provides intuitive methods to add any item or collections of items to a chart for further analysis. The data management interface is designed to enable rapid data entry and management, as well as powerful search and discovery capabilities.

These features allow users to quickly explore their collated data and identify key information within the local analysis repository. Data of interest can also be exported in a commonly supported structured data format so that key information can be quickly disseminated across organizations.

For further information on the analysis tools that are included in i2 Analyst's Notebook see: [ibm.com/software/products/en/analysts-notebook](https://ibm.com/software/products/en/analysts-notebook)



### Analysis Tools—a rich set of analysis tools to assist the user in performing analysis to provide actionable intelligence

i2 Analyst's Notebook provides a rich visual analysis client within i2 Analyst's Notebook Premium. This helps analysts, and those involved in intelligence analysis, to quickly turn complex sets of disparate information into high-quality, actionable intelligence. Within i2 Analyst's Notebook Premium these analytical capabilities can be performed on data held within the Local Analysis Repository.

## Key features of Analyst's Notebook Premium

i2 Analyst's Notebook Premium offers features designed to assist the user in day-to-day analysis and intelligence production. Some of the key features include:

### Powerful analysis capabilities

i2 Analyst's Notebook Premium includes the wide range of analysis capabilities that are found within i2 Analyst's Notebook. The extensive data-centric analysis environment enables users to quickly gain understanding of the information they are faced with and pin-point any key intelligence.

These capabilities can help analysts to quickly analyze complex data sets and allow users to:

- Quickly analyze data by providing multiple analytical views on to data of interest
- Drill down into data sets to identify non-obvious connections, patterns, and trends.
- Get better insight in to the critical timeline of events
- Increase understanding of target criminal, terrorist, or fraudulent networks
- Identify potential duplicates within imported data.
- Understand the who, what, when, where, and why of any analysis task

i2 Analyst's Notebook Premium provides the tools to quickly analyze complex data sets, as well as the ability to create multiple analysis views on to data of interest. Data can be displayed as association, temporal, spatial, statistical and spreadsheet views. These multiple views help to give a wider understating of all the important who, why, what, when, and where aspects.

i2 Analyst's Notebook Premium provides users with a range of temporal, social and geospatial analysis tools. The multiple views can help analysts gain greater insight of a charted data set, all from within a single user environment.

### Data filtering and histograms

The dynamic filtering and histogram views provide users with quick feedback on the information that is contained within a charted data set. Users can quickly browse and filter information that is based on any property of the data within a charted data set. The use of visual bar graphs, list view or histograms can provide insight to the user. These interactive list and histogram views allow users to quickly identify, select and drill down into information of relevance. Any non-relevant information that does not pass the filter criteria can be filtered out by either hiding or "graying" it out. Multiple filters can also be applied to quickly and efficiently narrow down larger data sets and identify possible high-value intelligence.

### Temporal Analysis and Visualization

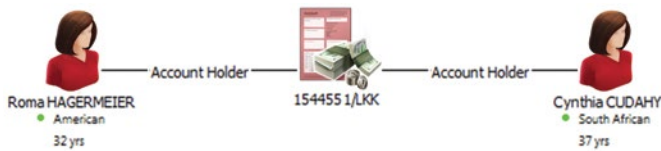
Answering the "when" question is a critical need for most tasks that are posed to intelligence analysts and their organizations. i2 Analyst's Notebook Premium provides a set of temporal analysis tools that can help in understanding the temporal aspects of virtually any data set.

### Data entry and management

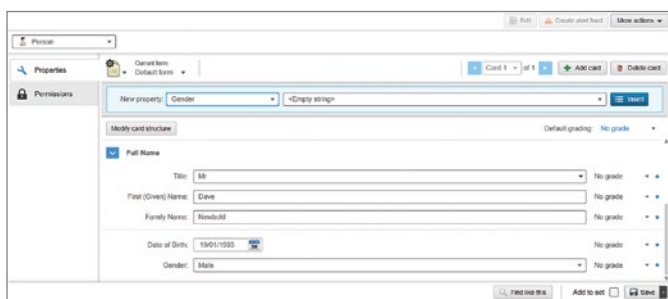
Successful investigation and intelligence analysis requires the ability to effectively store, manage and retrieve large volumes of disparate data within an investigation. i2 Analyst's Notebook Premium hosts a variety of data ingestion tools, making it easy to get this information into your repository.

**Form-based data entry**

i2 Analyst's Notebook Premium models relationships in terms of entities and links in a structure that mirrors how analysts think. These relationships can be used and stored in the customizable Local Analysis Repository.



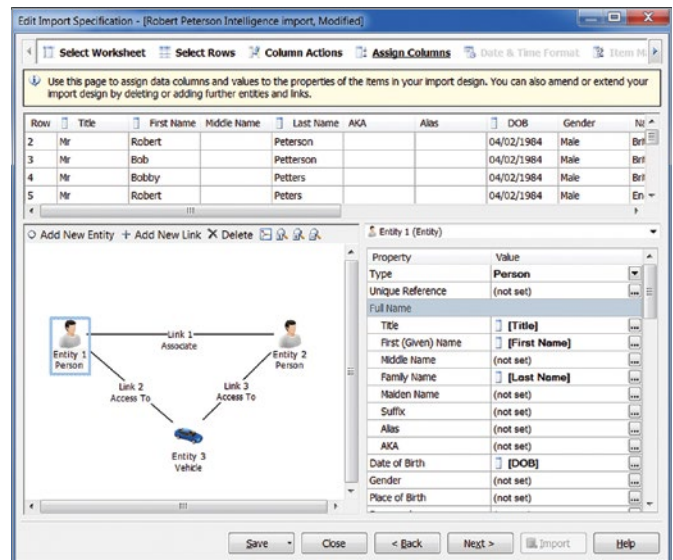
Users manually enter data into i2 Analyst's Notebook Premium through a fully customizable form-based interface. Each entity type has various properties that have been configured within the schema. Each property can have its own grading and multiple instances of each property can be used.



**Flexible data acquisition**

i2 Analyst's Notebook Premium includes a flexible and intuitive importer. The importer facilitates direct data importation from source files, as entities and links, into the Local Analysis Repository for further analysis. Import specifications help streamline subsequent imports.

When importing the user can choose whether to find and update any duplicates that may already exist within the repository.





## Chart Item Uploader

With i2 Analyst's Notebook Premium users can leverage existing intelligence held within i2 Analyst's Notebook charts. The Chart Item Uploader feature ingests data held in each chart into the Local Analysis Repository. Extracting individual entities from charts allows a user to quickly build detailed intelligence on individuals or events that may otherwise be hidden in numerous different i2 Analyst's Notebook charts or text files.

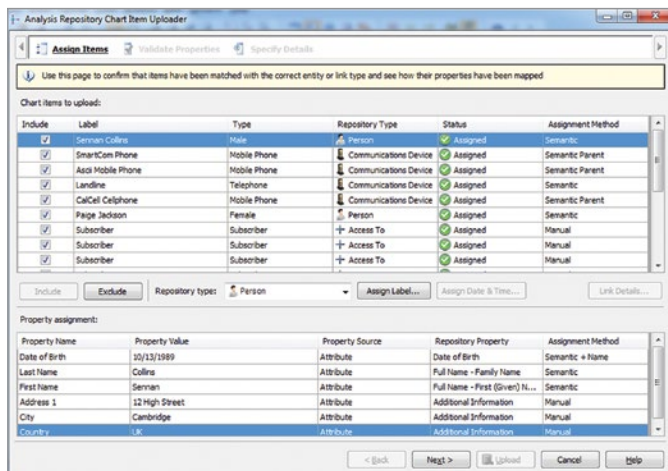


Chart Item Uploader offers a wizard-driven interface, allowing the user to configure how items are stored in the repository, maximizing the value of each i2 Analyst's Notebook chart.

The wizard will initially exploit semantics and name matching algorithms to automatically assign chart data to repository fields. These assignments can be overridden by the user and can be memorized, allowing Chart Item Uploader to learn the user's preferences and automatically map to these preferences in future sessions.

In addition, the import can be configured to identify items within the repository that match based on discriminators

set by the user. This means that where items already exist in the repository they will be updated.

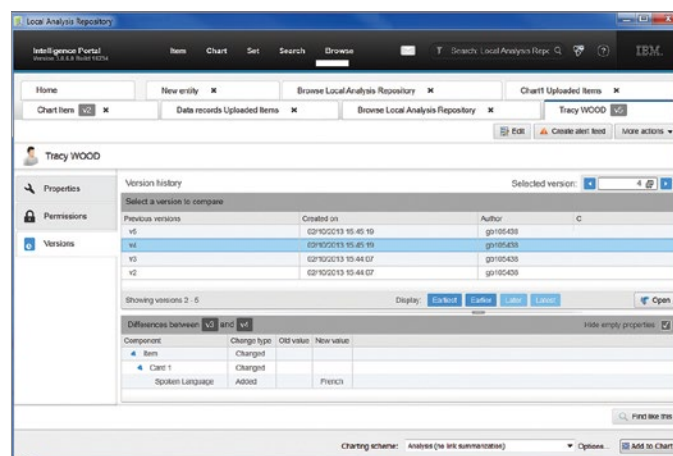
Items that are extracted from a chart can be grouped as Analysis Repository Sets to help manage the new information. Full traceability can be maintained by optionally storing the original chart, as well as links to all extracted items from the chart.

If a user extracts an item from an i2 Analyst's Notebook chart that originated from another data source, the Chart Item Uploader feature makes note of that provenance in the Local Analysis Repository. So when the item is recharted from the repository it can still be used with the existing data sources.

## Data versioning

i2 Analyst's Notebook Premium provides full version history for all items within the Local Analysis Repository.

The version history allows a user to see how the information for a particular entity has been built up over time.





### Working with the Local Analysis Repository

i2 Analyst's Notebook Premium offers dedicated capabilities that help users work with and analyze the data held within their repository.

### Charting

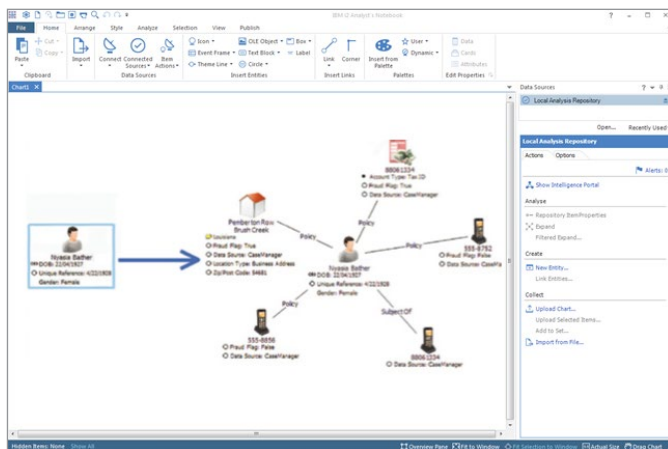
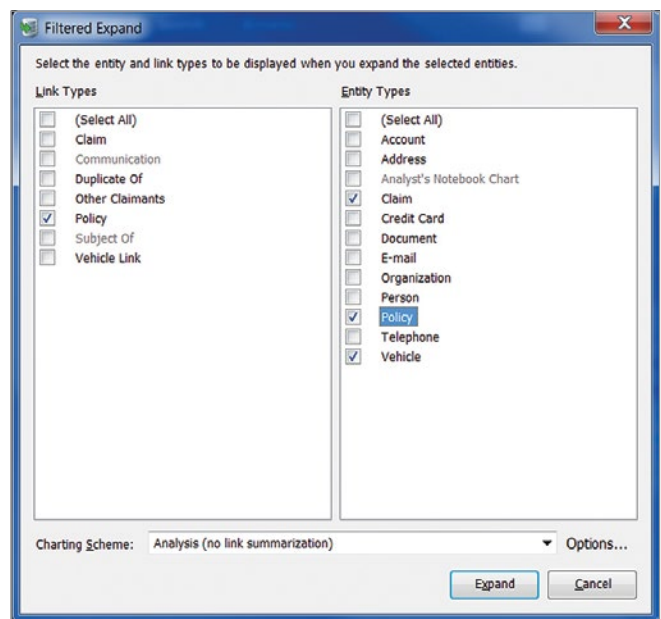
The Intelligence Portal allows a user to chart data directly. Entities, links and sets can all be charted when viewing them within the repository to perform further analysis. If an item already exists on a chart, re-charting will update the item with any new information.

### Expand

When a repository item is charted, a user may wish to uncover further information that is known about the item from their repository. By expanding the item, any associated items in the repository will be charted, providing more context on the item and enabling further analysis.

### Filtered expand

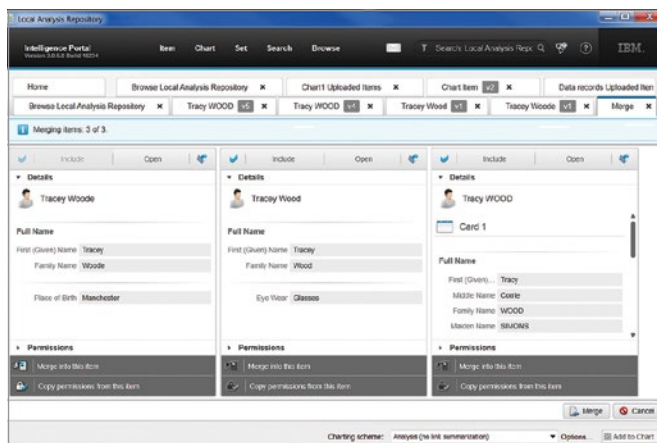
As with expand, filtered expand provides a means to chart further information on an item. Filtered expand allows the user to determine the extent of the expansion by limiting the particular types of information and setting the charting scheme they wish to be used. This will minimize any noise and clutter that is charted.



## Merge

When items are added to an i2 Analyst's Notebook chart further analysis may uncover that two or more entities are actually the same item. The user may decide to merge these items on the chart surface.

Chart merging allow a user to test hypotheses for whether two or more entities are actually referencing the same item. If this hypothesis is proved the user can apply the same merge on the repository by choosing one item as the master record and merging the other item's data into it. This could include properties, cards, data records and links.

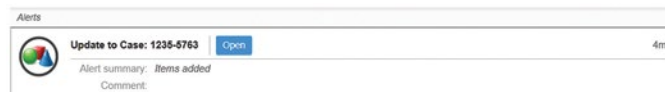


With alerting, users can set up alert feeds for entities, links or sets. Examples of alert feeds are:

- Send an alert when an entity or link is added to a set.
- Be informed when changes to an item occur—for example if Chart Item Uploader or Importer adds additional content to a repository item.
- Alert that a new link to an item has been added.

When an alert occurs:

- The alerts counter in the task pane will notify the user that new alerts have been received.
- The user can read the alerts within the portal.



Alerts are even more powerful when i2 Analyst's Notebook Premium is connected to i2 Analyze, where multiple users share common intelligence data. Alerting enables collaboration where co-workers are studying the activities of common persons or objects as part of separate investigations or intelligence gathering tasks.

## Repository sets

A set is a collection of records for entities, links or both. Entities and links can belong to more than one set. You can use a set as a simple list of records to help track your analysis, or, when used with Chart Item Uploader, to provide context and provenance of repository items. An entire set can be charted for further analysis.

## Enhanced Infotips

The Infotip is designed to give the user an easier way of understanding the level of information behind a chart item, without having to navigate the more detailed “Edit Item Properties” dialog.

With i2 Analyst’s Notebook Premium the Infotip provides many of the common actions a user would wish to perform for an item. This includes expand, filtered expand and searching for similar items in the repository. This provides a more intuitive and efficient workflow for the user.

**Paige Jackson**

- First Name Paige
- Last Name Jackson
- Address 1 43 Grove Yard Court
- City Houston
- State Texas
- Country USA
- Date of Birth DOB: 04/02/1984
- Maiden Name Francis

Data Records  
Local Analysis Repository (2)

Configure...

**Repository Item Properties**

- Expand
- Filtered Expand...
- Add to Sets...
- Search for "Paige Jackson "

If an item is not currently in the repository, the Infotip will still let the user search for similar items or upload the item to the Local Analysis Repository.

## Searching within the Local Analysis Repository

There are four main features used to comprehensively query information and intelligence products; each is tailored to a specific starting point for the user.

### Text search

Styled as a simple search bar, this provides a single search across all records, documents, and charts stored within the analysis repository or connected third-party sources.

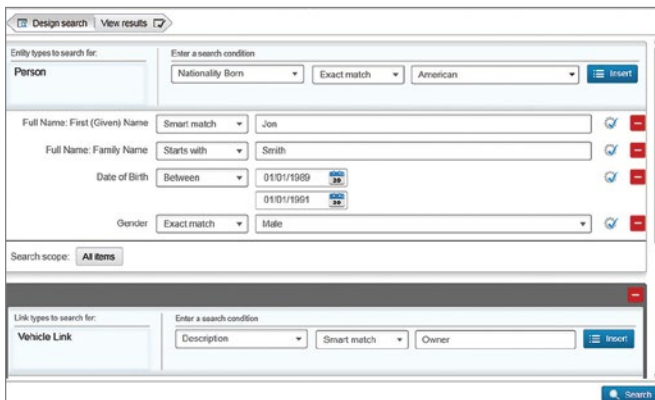
This mode of searching helps the user save time during the initial discovery tasks when a key word or phrase is known. Employing both exact and fuzzy matching criteria, the text search makes allowances for typing mistakes, erroneous punctuation, spelling mistakes and name variants. As a result, it is ideal for searching across data stores where human error may be a factor when creating data. Highlighting as well as additional context are provided with the results, helping the user understand why these matches were returned. To reduce any potential noise coming back from the search, the user can run a pre-filter to target preferred items of interest.

### Browse

This search feature is best used when more than a key word or phrase is known about an item. All records of any given entity or link type are listed. A user can interactively select pertinent properties, which are added as columns, to further enrich the context of the browse being conducted. Once all properties of interest are added, patterns within the data are easily identifiable. Sorting and filtering operations can then be undertaken to pin-point records of interest. When browsing links, relevant information from the entity types at either end can also be added to the list. This adds a further dimension to facilitate greater understanding of the information.

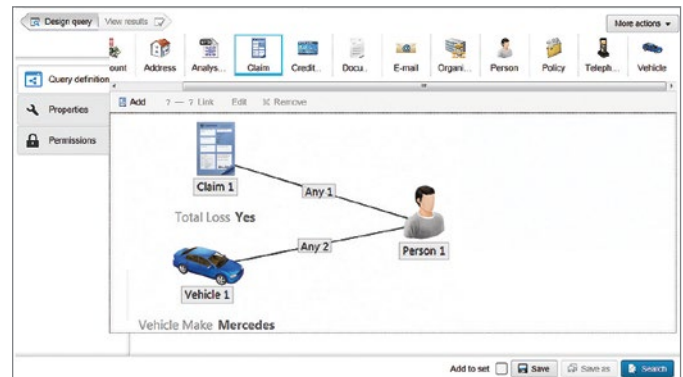
**Property based search**

This feature is designed to help analysts quickly analyze entity or link types in greater detail. Through targeting values contained in identified properties, users benefit from a more granular approach to questioning information. When analyzing a single entity type, any given property, or combination of properties can be built to represent a relatively complex set of conditions. Because the properties can be of various data types, the operators used in conjunction with the value vary. For instance, a text data type will allow operators such as 'equal to', 'starts with', or a smart (fuzzy) match; whereas a date time field will present the user with same as, before, after, between and so on. This allows greater flexibility when building the profile of a question. Properties can be used in the same way when questioning links. In addition to this the user can also use entities at either end to constrain the question further. By way of an example, a property search could be constructed to find what property certain individuals have owned or been in possession of within a specified time. This could be anything from a dwelling to a communication device or a vehicle. These searches are quickly created and often present the user with a tailored set of results to work with.



**Visual query**

Visual query allows users to create a visual shape of the question. Single entities through to complex networks containing indirect relationships can be defined without the need to learn complex query languages. As with property search, any number of properties can be assigned to entity and link types to hone the results. Query definitions can be saved for re-use and shared across the operation community to reduce duplicating effort. Like other items stored in the analysis repository, permissions can be placed on the definitions or similar queries can be grouped to assist with their management.



### Configurable off-the-shelf deployment

The installer provides a simple wizard-driven installation process. The wizard will install the following:

- i2 Analyst's Notebook
- i2 Analyst's Notebook Premium Connector
- Local Analysis Repository
- Associated Help files
- Language Selector Tool

The following tools can optionally be installed:

- i2 Analyst's Notebook Premium Schema Designer (including Charting Scheme Editor)

Once installed, users can select one of the built-in schemas to get started or use the Schema Designer and customize the Local Analysis Repository to suit the needs of their organization. These tools help users get started and bypass the need to explain to their IT department how they want the repository to be configured.

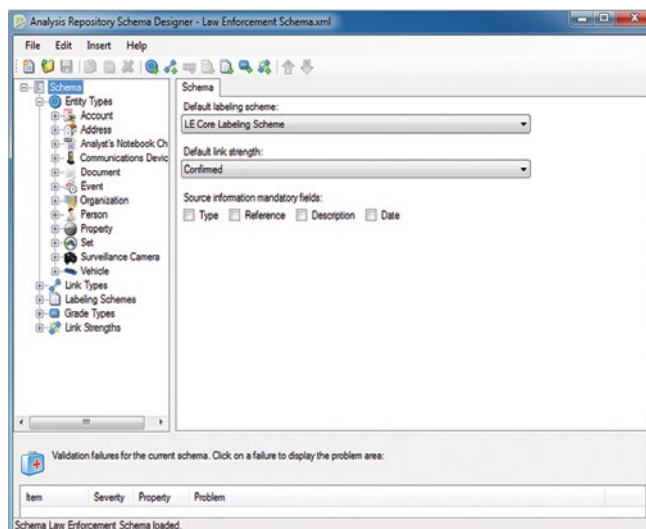
### Built-in schemas

There are three built-in schemas to choose from when first running the product; each schema offers industry-specific entities, links and properties that are relevant for the industry:

- Law Enforcement
- Commercial Fraud
- National Security and Defense

### Schema Designer

With the Schema Designer feature, users can either create a new schema or customize one of the standard schemas. This allows users to customize their repository and i2 Analyst's Notebook Premium task panes to suit the environment they operate within.



Schemas can be shared across organizations with i2 Analyst's Notebook Premium. This means that an established Schema that is effective and successful for one user can be picked up and leveraged by other users in that organization.

To ensure data integrity of the Local Analysis Repository, the user can only make additive changes to the schema after data has been inserted into the repository.

### Charting Scheme Editor

The Charting Scheme Editor allows a user to configure how entities and links within the Local Analysis Repository are mapped to the chart surface. This gives the user the power to control the amount of information that is charted when performing analysis.

Users have access to multiple charting schemes, allowing them to dynamically set how each item is charted. For example, when charting an item for analytical purposes, the user may wish to chart more detail per item than when charting for briefing purposes.

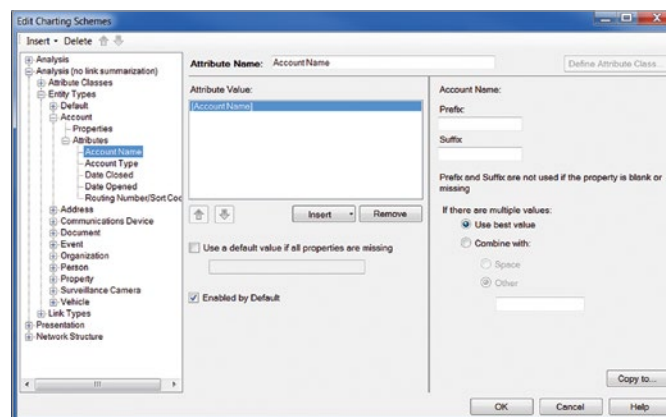
Each charting scheme is linked to the database schema where each entity type, link and attributes can have independent settings.

Charting schemes can be shared across organizations so users using i2 Analyst's Notebook Premium can chart with the same level of detail each time.

### Foreign language capabilities

i2 Analyst's Notebook Premium provides support for users working in a multi-cultural environment as it is designed to support the storage, searching, charting and retrieval of textual information in multiple languages.

Text in its native language can be stored alongside translated values, facilitating back reference to the original data, enhancing data integrity and inter-agency working.



### Complementary products

i2 Analyst's Notebook Premium offers tight interaction with other IBM offerings, resulting in more value without the need for users to undergo extensive retraining.

### Collaborative working

When using i2 Analyst's Notebook in conjunction with i2 Analyze the single user Local Analysis Repository will be upgraded to a shared collaborative environment called the Group Analysis Repository. This enables multiple users to work collaboratively on the same case. All the tools within i2 Analyst's Notebook Premium will be extended to support collaborative working. For instance, alerts can be created to track when other users interact with your data and all users can benefit from legacy charts or imports. In addition, i2 Analyze includes a fully configurable security model.

Further information is available for [i2 Analyze](#).

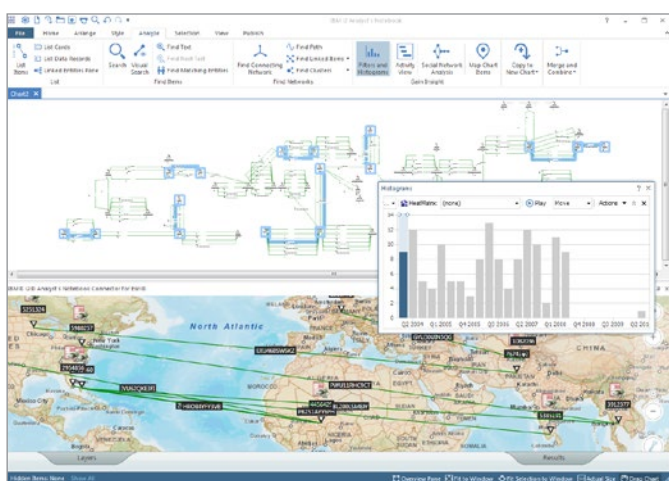


## Geospatial analysis

Combining i2 Analyst's Notebook Premium with i2 Analyst's Notebook Connector for Esri provides an integrated environment for link, temporal and geospatial analysis.

The i2 Analyst's Notebook Connector for Esri provides users, whose organizations have Esri servers, with a side-by-side mapping and link chart interface. This allows geospatial data to be questioned without losing the context of its place within the wider link chart.

Further information is available for [i2 Analyst's Notebook Connector for Esri](#).



## Questions and answers

### What are the system requirements?

The system requirements and pre-requisites for i2 Analyst's Notebook Premium are available at: [ibm.com/software/products/en/analysts-notebook-premium](http://ibm.com/software/products/en/analysts-notebook-premium)

### What documentation is provided?

The following documentation is supplied with i2 Analyst's Notebook Premium:

- i2 Analyst's Notebook Premium Release Notes
- i2 Analyst's Notebook Premium Online HelpIs i2 Analyst's Notebook Premium available in languages other than English?

### Is i2 Analyst's Notebook Premium available in languages other than English?

i2 Analyst's Notebook Premium is developed in US English. It is available in the following translated variants:

- English (UK)
- English (US)
- French
- German
- Italian
- Spanish
- Portuguese (Brazilian)
- Japanese
- Chinese (Simplified)
- Chinese (Traditional)
- Russian
- Korean
- Turkish
- Arabic
- Hebrew

i2 Analyst's Notebook Premium will be installed in the native language for the operating system; the user can select a different language by choosing one from the language selector tool.



## Does i2 Analyst's Notebook Premium integrate with other IBM i2 Products?

i2 Analyst's Notebook Premium includes i2 Analyst's Notebook, which offers integration with many IBM products such as i2 Analyst's Notebook Connector for Esri, i2 iBase, i2 Text Chart as well as i2 Analyze. For more information or to discuss your requirements further please contact your IBM representative.

## Can I upgrade from my existing version of Analyst's Notebook?

Yes, i2 Analyst's Notebook Premium includes the latest version of i2 Analyst's Notebook. Your existing charts can be leveraged by using Chart Item Uploader and you can still use them within the i2 Analyst's Notebook Client.

## Training and implementation

IBM offers standard training courses for i2 Analyst's Notebook Premium. These are designed to help your staff get immediate timesaving and analytical benefits from your new system.

For assistance with advanced configurability or deployment please contact your IBM representative to learn more details on the Professional Services engagements that are available.

## For more information

To learn more about IBM i2 Analyst's Notebook Premium, please contact your IBM representative, or visit: [ibm.com/i2software](http://ibm.com/i2software)

To learn more about all of the IBM Smarter Cities solutions, visit: [ibm.com/smartercities](http://ibm.com/smartercities)



---

© Copyright IBM Corporation 2017

IBM Security  
Route 100  
Somers, NY 10589

Produced in the United States of America  
March 2017

IBM, the IBM logo, ibm.com, i2, and Analyst's Notebook are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

The performance data discussed herein is presented as derived under specific operating conditions. Actual results may vary. It is the user's responsibility to evaluate and verify the operation of any other products or programs with IBM products and programs. THE INFORMATION IN THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

The client is responsible for ensuring compliance with laws and regulations applicable to it. IBM does not provide legal advice or represent or warrant that its services or products will ensure that the client is in compliance with any law or regulation.

Statement of Good Security Practices: IT system security involves protecting systems and information through prevention, detection and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, misappropriated or misused or can result in damage to or misuse of your systems, including for use in attacks on others. No IT system or product should be considered completely secure and no single product, service or security measure can be completely effective in preventing improper use or access. IBM systems, products and services are designed to be part of a lawful, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products or services to be most effective. IBM DOES NOT WARRANT THAT ANY SYSTEMS, PRODUCTS OR SERVICES ARE IMMUNE FROM, OR WILL MAKE YOUR ENTERPRISE IMMUNE FROM, THE MALICIOUS OR ILLEGAL CONDUCT OF ANY PARTY.



Please Recycle