

IDEA VERSION EIGHT

What You Can Do with IDEA

Import and Export Your Data

IDEA allows you to import your data from a multitude of formats, including files originating from large mainframe computers and accounting software.

Import Assistant

Import easily almost any file type from almost any source, using IDEA's Import Assistant to guide you. Import various types of data coming from legacy mainframes, mid-range accounting software and big ERP systems. IDEA allows you to read data from:

- Text (Fixed and variable length) and Delimited (CSV, DEL) files
- AS-400, Microsoft Access or Excel files
- XML, dBASE, or SAP AIS databases and more...

ODBC

Connect, using ODBC, to all major relational databases such as Oracle, DB2, SQL, Sybase, SAP or AS-400.

Report Reader

Create reports using system tools, save the reports to files (PRN or PDF), then use Report Reader to describe and capture the data in IDEA. Define the reports by using simple "point and click" tools to identify the data you need.

Export your data and results out of IDEA in multiple formats like Excel, Access, HTML, XML, Text, RTF (Microsoft Word), PDF and more.

Protect Data Integrity

IDEA protects the source data by allowing read-only access to your clients' data to avoid any unwanted changes and maintain data integrity. This functionality, in conjunction with the automatic audit trail creation, allows you to easily document and review your work.

Manage your Data

IDEA allows you to easily manage your files and results by grouping all of them in a single Working Folder. All results, macros, databases and definitions are automatically stored in this central folder. To back up your project, simply back up your Working Folder.

Organize your Data

Explore your data by adding additional fields and grouping and ordering your data before starting deeper analysis.

Sort your records in a specified order

Create a new database physically sorted in the specified order. You can also simply display your data in any order without creating a new database by clicking on a column or using the Indices task.

Group matching records together

Use the Group Records task to organize matching records in indexed fields (keys) into expandable/collapsible groups.

View your results in graphical format

Graph values in a database or test results in line, bar, stacking bar, curve, scatter, pie or area charts.

Add, delete or change field properties

Change the type, the name, the description or add tags for IDEA Smart Analyzer.

Create “virtual” calculated fields

Create Virtual fields based on calculations or create Editable fields that allow you to enter your own information, such as inserting your audit findings directly in the database.

Perform complex calculations and conversions

IDEA provides almost 100 @Functions which can be used to convert formats, manipulate text or to compute numeric, financial and statistical data. Create your own custom equation functions using Visual Basic in a rich interface. Use your Custom Functions in the Equation Editor just like @Functions and share them with your team.

Link related fields

Click on a value in a field and assign an action based on this value. This field type allows you to set up relationships across multiple databases. For example, create an action field on “Customer Number” in a customer database to link to related invoices. Action fields can also be used to run IDEAScript macros (see below) or other applications.

Profile your Data

Have a quick look at millions of transactions and view your data in a comprehensive and summarized representation.

Display statistics

Statistics can be generated for all Numeric, Date and Time fields within a database. Statistics can also be used in equations to compare individual records to the statistics for the whole database. Click on any statistic to view the associated records.

Profile your data

Stratify on a Numeric, Character, or Date field to categorize records into bands. Summarize your data and total numeric values for each unique key; you can summarize your data, calculate the sum or average, and then turn your results in to professional looking charts in seconds (see Figure 1). Age a database from a specified date for up to six user-defined intervals. For example, the outstanding accounts could be aged at the year-end in order to determine provisions required against bad debts.

Create multi-dimensional, multi-variable analysis of large databases

You can drag and drop required data fields onto a pivot table to create powerful analysis.

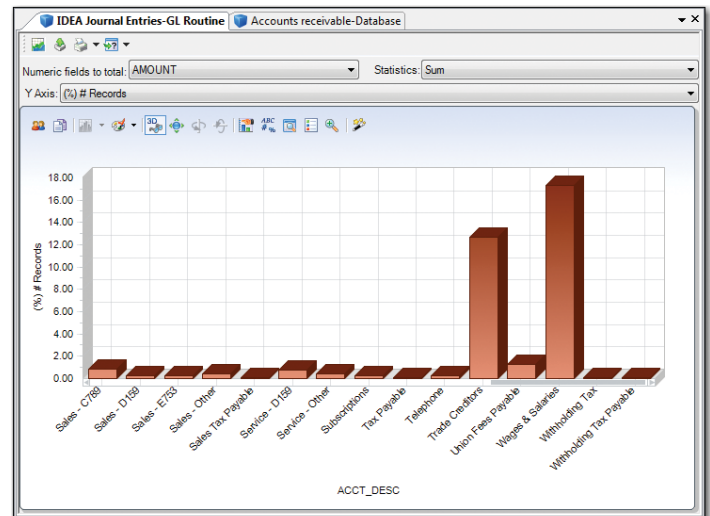


Figure 1 – Summarization

Analyze your Data

Perform powerful tasks designed especially for audits and analysis. Thanks to IDEA's ease-of-use, accountants, auditors, systems and financial professionals can easily create their own analysis.

Extract specific records

Extractions, or exception testing, are the most frequently used functions to identify items which satisfy a specific characteristic, such as payments more than \$10,000 or transactions before a given date. The extraction criteria are entered using the Equation Editor. You can perform up to 50 separate extractions with a single pass through the database. The Equation Editor in IDEA allows you to create simple or complex extractions using an intuitive interface.

Extract top records

Extract the top or bottom records. For example, you can extract the top ten transactions for every account.

Identify missing and duplicate records

Identify duplicate items within a database, e.g., duplicate account numbers, duplicate addresses or duplicate insurance or benefit claims. Duplicate Key Exclusion (also known as Same-Same-Different) identifies duplicates but only where a specified field is different. Search for gaps in numeric, date or alphanumeric sequences, such as invoice numbers.

Identify possible fraud

Detect possible errors, potential fraud or other irregularities using Benford's Law. Benford's Law states that digits and digit sequences in a dataset follow a predictable pattern. The analysis counts digit occurrences of values in the database and compares the totals to the predicted result according to Benford's Law.

Search

Find text easily within multiple fields of a database without using an equation to specify the criteria. By entering the text you are looking for and by using wildcards, locate and isolate quickly the transactions you want to find. You can search not only in all the fields in a database but also in more than one database simultaneously.

Correlation, Trend Analysis and Time Series

Developed in conjunction with Dr. Mark Nigrini, IDEA allows you to analyze historical data and to predict values into the future. Forecast the current data and identify the difference between the predicted and actual data. Measure the relationship between two variables like sales for one branch compared to the sales for the whole company. Detect groups with higher potential of fraud or erroneous transactions.

Sample your Data

IDEA offers five sampling methods together with the ability to calculate sample sizes based on parameters entered and to evaluate the results of sampling tests.

Systematic

Extract a number of records from a database at equal intervals by entering the required number of records or specifying the selection interval.

Random

Enter the sample size as well as the range of records from which IDEA will automatically generate random samples to be extracted. Optionally, extract a number of random samples for each band generated by the stratification.

Attribute

Determine the number of samples that you are required to randomly extract in order to extrapolate (in the evaluation step) the errors found in the samples to the whole population.

Monetary

Predict the total error amount in a database (population), based on the error found in a sample of the database using sophisticated sampling methods including cell or fix interval, Multiple Samples Evaluation or classical proportional to size sample evaluation.

Classical variables

Select samples based on particular characteristics like mean or difference estimation, combined or separate ratio and combined or separate regression. This sampling method allows you to stratify (based on the monetary value), plan, extract and evaluate your samples.

Use Multiple Data Files

Whenever you need to cross-match, validate or add information from different sources, IDEA has many tasks you can use to achieve your goal.

Create a visual connection between multiple databases

Generate a single database from several other databases that share common or "key" fields. To create a visual connection between databases, select a primary database, and then connect databases that contain matching records. Visual Connector supports one-to-many and many-to-many relationships.

Combine two databases into a single database

You can test data which matches or does not match across databases. You can also compare information between databases from other sources like employee records to a supplier database using the address or the phone number.

Append two or more databases into a single database

For example, you may append 12 monthly payroll databases to produce a database of all payroll transactions for the year.

Rapidly identify differences in two databases based on a common field

For instance you could compare a Numeric field from different systems, e.g., the quantity on the inventory master database versus the quantity on the inventory count database.

Process your Data

IDEA can read and process millions of records in seconds. There is no limit to the number of records that IDEA can process.

Automate your Processes

Automate repetitive tasks and create special tests and/or functions.

Create your own macros

IDEAScript is an object oriented programming language, compatible with Microsoft's Visual Basic for Applications™. IDEAScript macros can be created either by recording a series of steps, by copying from the History or the Project Overview (see below), by typing into a Macro Window or a combination of these.

No need to know programming

Now you can build your own automation macros without any programming experience. Simply record some common tasks and then choose to create Visual Script. You can edit your macro by adding or deleting tasks from a simple menu and using the familiar IDEA dialogs.

Report and Review your Data

IDEA creates a record of all changes made to all the databases in a project and maintains an audit trail or log of all operations carried out on each database.

Review an audit trail or log of all operations carried out on a database

Presented in an easy-to-use expandable list, History shows you all the details on every task conducted on a specific file. Each task performed automatically generates IDEAScript code, which can be copied to the IDEAScript editor for re-execution.

Review a graphical audit trail for your entire project

Project Overview provides you with a graphical audit trail for an entire working folder (see Figure 2). You can also view the databases and results in your project in a tabular view. You can even create Visual Script or IDEAScript directly from the Project Overview.

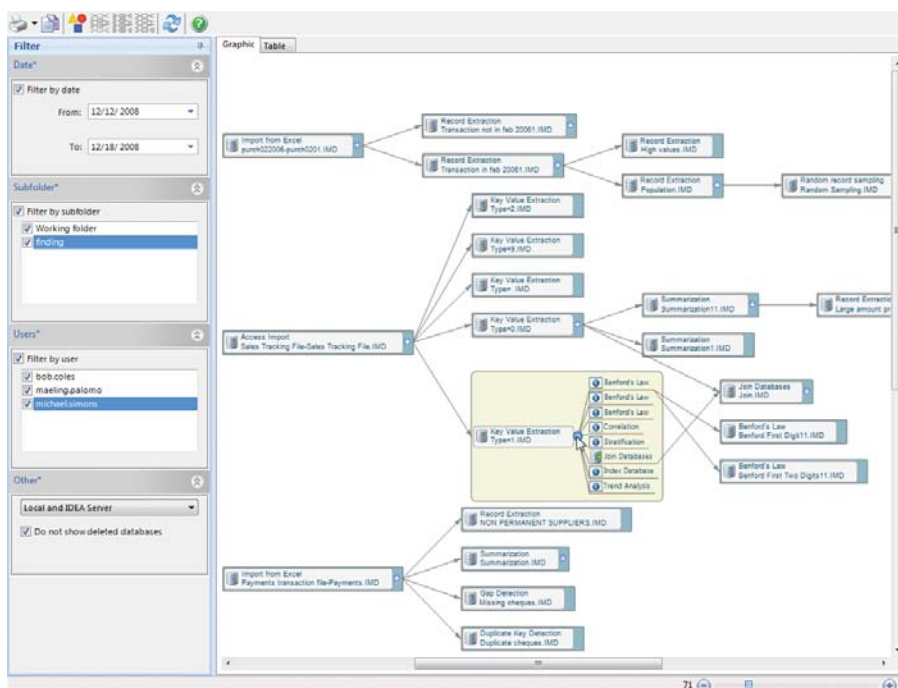


Figure 2 – Project Overview