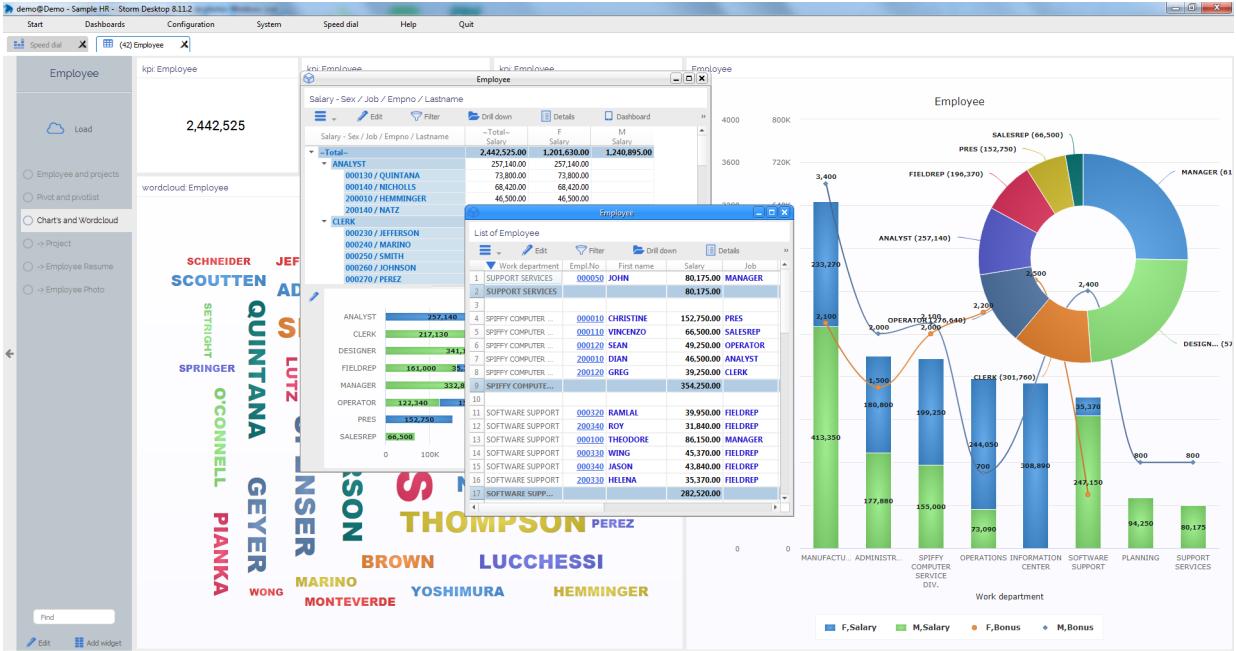




Why Storm

v. 8.13.x



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1 Why Storm

1.1 Why to select Storm

Storm is the first BI tool offering a true contextual database navigation. It reads and loads real-time data based on selection made by the user. For a selected context, the Drill-down menu display all the possible path to jump to contextual dashboards. 15 minutes is enough for a user to become fluent with the navigation philosophy. The real time architecture is simple and don't require any new hardware investment. Keep the data where they are, Storm will read it and provide you a free database navigation as never before.

Storm does not require data migration: it connects directly to the datasources, allowing for real time data analysis. It is built using Qt libraries. It consists of two main tools: StormConnect and StormDesktop. The former provides a configuration designer displaying the database hierarchy, while the latter is the application for data navigation.

1.2 StormDesktop

Storm innovative drill down system allows to select any or all records from a starting page, and jump from there to any other one tied by links in descending hierarchy. The data of the new table are filtered basing on user selected records from the starting table.

Storm provides powerful reports, charts, and dashboards. It's an easy to use tool to visualize and analyze your data.

Features

- Real time connection: Dynamic SQL in real time, via ODBC or native driver on the following databases: DB2, MSSQL, MySQL, Oracle, PostgreSQL, SQLite, SybaseSQL, source ODBC Excel or others
- Simultaneous connections: In real time, on multiple schemas or databases with in memory aggregation
- Access rights management: Users, Projects, Dashboards, Fields, Data
- Start: Hierarchical dashboard menu
- Repository: Published dashboard menu, with automatic execution, management of published objects
- Drill down: Tree with possible drill down and elements for every drill down
- Report: Reporting powered by NCRReport
- Widgets: Lots of customizable widgets for data visualization
- Paramset edit: Management of available filtering criteria
- Columnset edit: Management of columns' visibility on the List Widget
- Sorting: Sorting and totals on the List Widget
- JavaScript : JavaScript engine for the creation of functions, generation of virtual columns, definition of factors with expressions.

Functional architecture

Storm provides dashboard to dashboard drill-down navigation.

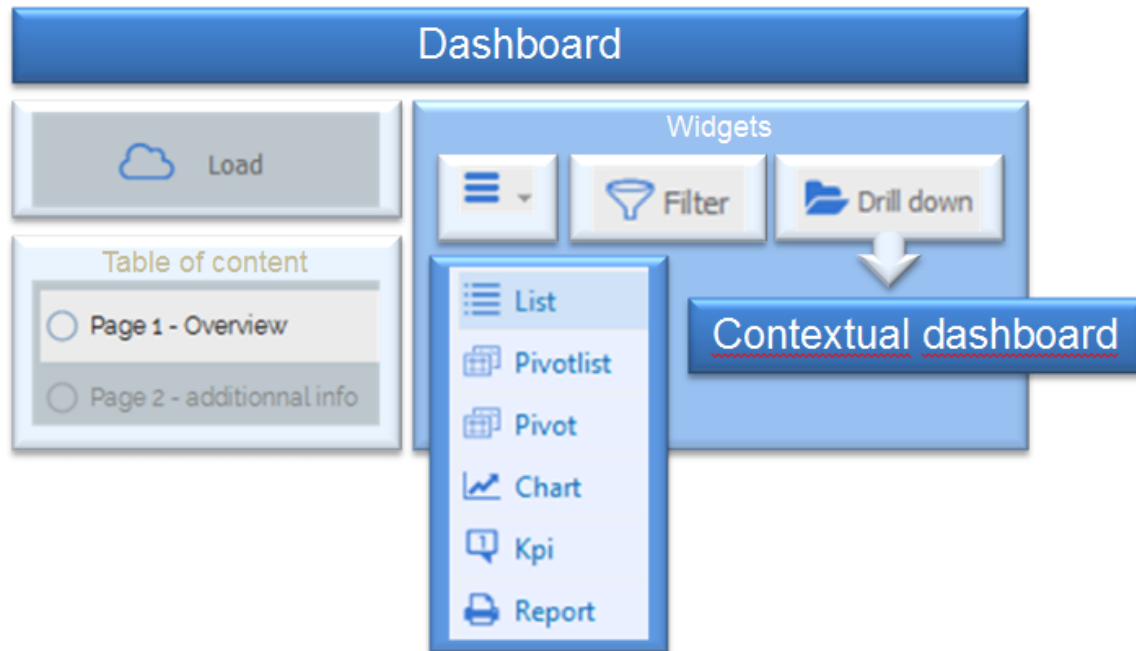


Figure 1.1:

A dashboard is made of the following component:

- Load: Multi-criteria real-time data loading
- Filter: In memory filtering
- Drill-down : jump to contextual dashboard for the graphical selected data
- Widgets: Software component displayed on pages
- Objects: Created by the users
- Dashboard designer : Tool to personalize dashboard layout and data representation
- Repository: Dashboards and object locations
- Dashboard publishing: One click dashboard loading immediately desired data
- Alerts: To schedule notifications

Technical editor are for IT and power users:

- Report designer: Create pixel precision report
- Query editor: Edit native SQL query
- Virtual column: Are created with expression
- JavaScript library: For complex calculations

1.3 StormConnect

Storm Connect is a powerful support tool for SQL datasources that retrieve database metadata and use them to build a skeleton of the business logic: database tables and columns names are taken to define the dashboards, their lists and their filters, while foreign keys are used to define master-slave and father-child relationship between dashboards. Further relations can be easily defined using the keymaker tool from Storm Connect. Specially designed tables and link will be used to automatically define code resolution. Once the business logic is designed, a user can navigate through the data with simple clicks.

Features

- Storm Connect is a tool to get an immediately working Configuration for Storm. Once connected to database engine, with ODBC or native driver, it displays Database hierarchy, data and meta-data. Discovering the database layout you can select tables and views to be considered as Dashboard or Code.
- Codes are automatically resolved when corresponding text are stored into a simple foreign table, into a foreign stacked code table or as de-normalized data warehouse.
- Key Maker is a tool to add Virtual Foreign Keys between tables or views. Using database foreign keys and keys added with Keymaker, Storm Connect will generate SQL templates with all the JOIN to father tables, thus allowing generic filtering and automatic Drill-down to any child (or grandchild of any level).
- Param manager allows to choose for which database columns the WHERE condition must be generated. Filter by menu displays then all the possible params and logical operators for filtering.
- Drill-down paths to lower level Dashboards are displayed as a Tree, and can be reached in one click within Storm.

Supported engine :

- DB2
- FileMaker SQL
- Microsoft
- MySQL
- Oracle
- Sap Hana
- PostgreSQL
- SQLite
- SybaseSQL
- Any ODBC data sources

Connect real time with ODBC or native driver

Display database hierarchy

Data preview :

- Data

- Details, PK, FK, Index, Tree

Main tables or view becomes dashboard :

- Generate SQL template with JOIN to fathers tables
- Placeholder for generic filtering
- Placeholder for automatic Drill-down

Key maker to define missing foreign keys :

- For Tables
- For Views

Mechanism for in memory code resolution :

- Code resolution based on foreign key
- Code resolution for stacked code table
- Code resolution for de-normalized database

Param manager :

- Filter by criteria

Generate Configuration source code Template :

- XML Configuration
- SQL template
- Javascript