

# Dataactics

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Master  
the power  
of your data

## Solution Brief

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# Solvency II

## Introduction

Solvency II aims to establish a revised set of EU-wide capital requirements and risk management standards for all Insurance companies. Within this directive data must be **proven** to be of a high quality standard for the Risk Assessment Model to be approved by the Regulators.

While a company may handle some upkeep of data quality in-house, **this is unlikely to be adequate to prove cover of the directives in Solvency II and satisfy the Regulators.** Insurance companies need to be able to profile and scorecard their data to demonstrate the quality of their data to the regulators. This requirement is ongoing and can be readily automated to save time wading through samples and ensure that 100% of data is reviewed.

The first step will be to have a sample of data analysed to show the extent of anomalies that need to be addressed. Then a solution can be created which will enable profiling, standardising, reformatting and scorecarding data coming from multiple systems in various currencies and languages.

## The Proposed Solution

The Dataactics v4 Data Quality Solution can perform a number of tests on the data to analyse the degree of quality, showing up any anomalies which would affect the accuracy of the Minimum Capital Risk Requirement calculation.

**The following are the type of anomalies Dataactics can investigate:**

## Check for level of Accuracy –

- Check for client data accuracy such as address verification and date of birth
- Ensuring textual descriptions match claim codes. E.g. a storm water claim which should have a SW code might have a flood water FW code instead.
- Check for duplicate claims. Claims that may have the same policy number but a different claim code, one might have an escape of water code and the other a water damage code. The free text description can be parsed to check if it is a duplicate claim or two separate claims.
- Check for invalid data such as invalid descriptions, invalid codes, invalid lost dates or catastrophe codes.
- Accuracy checks for claim dates falling outside the policy period.

## Check for level of Completeness –

- The text description might have recorded a flood but no claim code was chosen.
- Check for invalid data or an incomplete address
- There could be multiple policies claiming for the one address and due to incomplete data there is confusion as to whether it is a duplicate claim or a housing association with many different policies.

## Check for the Appropriateness of data -

This involves ensuring the data is appropriate for the calculation of capital requirement.

- For example, the actuary will base the insurance policy rate on the number of items recorded, but the person inputting data may be recording the top pricing band width number instead of the actual number of items. I.e. recorded 20 items (20 being the top of the price bandwidth), actually bought 17 items, this inaccurately pushes up the cost of risk needing to be covered.
- Check for appropriate policy duration (some may have policies where the end date is before the start date).
- If the actuary is calculating risk on the correct data this will usually minimise the capital requirement needed by the Insurance Company to cover risk.

## Information to Identify Trends

In conjunction with the quality of the data, Dataactics v4 can be used to pull information from the data to identify trends. Such as:

- Investigating claims that were made for a certain disaster
- Claims taken out on the policy start or end date
- The months that saw the highest claims or spikes in frequency for certain postcodes

- Most claimed for cases such as theft, water damage ,store damage, flood damage
- Policy numbers that held high numbers of claims

A lot of this information can be used for checking trends within the data to more quickly identify suspect claims.

A data quality tool is essential in meeting the Solvency II directive not only because it can, like Business Intelligence Tools, profile, analyse and detect where the quality is not sufficient but it also can resolve any material issues found (Article 86f, 3.1.4.1 Data Quality Management – Internal Processes).

Given the volumes of data within an organisation complete manual resolution is unachievable and a data quality tool is needed to process and correct volumes of data quickly. In addition it may be that in order to analyse the data fully, data cleansing and transformation is required prior to the analysis and only a data quality tool can provide the range of functionality required in this area.

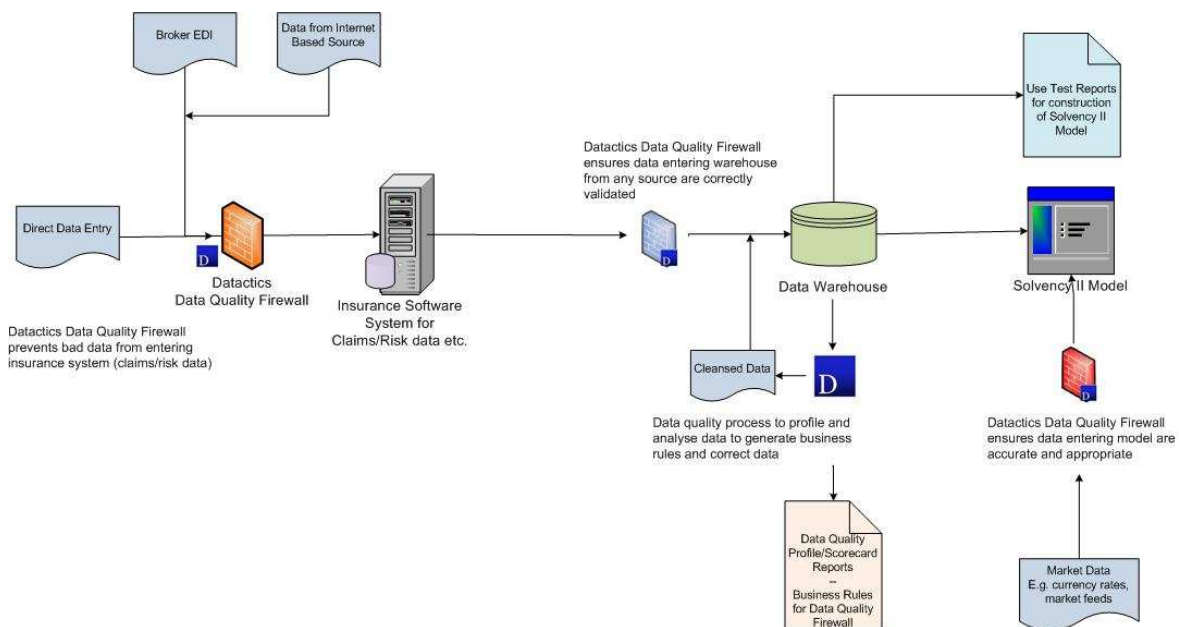
## Solution Overview

Data comes in from a myriad of data systems such as claims management and accounting systems. The Dataactics solution, based on Dataactics v4 and the Dataactics Data Quality Manager would encompass all points of entry with the implementation of optional Data Quality Firewalls to prevent inaccurate data from reaching critical databases, including the data warehouse.

A data cleansing process for data within the data warehouse would also be implemented and this would typically run overnight to ensure that data performance indicators were consistent as well as validate the rules used for any Data Quality Firewall deployed.

Details of the Dataactics Product Suite is available on the Dataactics website at [www.dataactics.com/Products](http://www.dataactics.com/Products).

## Diagram A



\*Please note the inclusion of the Data Quality Firewall is optional

## Implementation Points

- The Dataactics FlowDesigner GUI is used to design, develop and test the data quality processes for all profile and analysis requirements, data cleansing and for implementation of a Data Quality Firewall.
- A Data Quality process is implemented on the data warehouse

to determine the rules for the implementation of the Data Quality Firewalls and also to cleanse existing data. By profiling the data warehouse the historical information can be used to ensure that only accurate information is stored within the databases in the future.

- For external data entering the system it is advised that checks are made to ensure the accuracy and completeness of that data and for each source, such as direct entry or broker data, data quality processes can be deployed as Data Quality Firewalls to validate the data.

For each data source it is typical that the data varies, however slightly, and therefore validation rules may be different. This leads to the requirement for a separate data quality process for each data source. Further analysis may indicate that validation rules can be combined resulting in a single data quality firewall. Data quality firewalls can be implemented through a phased approach.

## Capability

Dataactics product suite contains comprehensive capability to solve data quality issues over different data types. In addition to handling insurance data Dataactics can cleanse name and address data and be integrated to address verification software and PAF data to ensure that the names and addresses are accurate.

Using Dataactics v4, data can be validated and transformed and then matched/de-duplicated. This is not just limited to name and address data but can be extended to other data domains. For example it may be required to match the name and address to another database containing supplementary information about an individual or case and in this scenario it might be required to cleanse the supplementary information before utilization. Dataactics v4 can also be

applied to financial information such as invoices and payment processing to detect, for example, fraudulent activity.

Dataactics v4 has many other features and benefits to fit different solution requirements. It is flexible, adaptable and fully supports various scenarios required for Data Quality.

To fully explore the features of Dataactics v4 please visit [www.dataactics.com/Products](http://www.dataactics.com/Products).

Call us today or visit our website for more information on just how we can help you comply with Solvency II while improving your overall Data Quality...

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