

WHITE PAPER



DATA DICATIONARY

DEFINING AND USING A COMMON LANGUAGE



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INTRODUCTION

The success of any business organization depends heavily on its ability to effectively communicate with-in various groups and organizations. This entails that all branches of the organization must perform optimally to ensure the best possible products and services for valued consumers. These branches include sales, marketing, operations, human resource, and accounting to name a few. When these branches operate on a daily basis, a lot of information materializes and each branch must take account of all data, otherwise, the entire organization will lose track of essential reports such as sales, accounting, performance, and profitability among others. This is where Data Dictionaries become an essential information system in an organization.

DATA DICTIONARY DEFINED

A traditional dictionary, as we all know, is a book listing that contains information explaining specific words of a language. When dictionaries of various languages are compared, they are similar in the sense that they all contain information; however, the context of each is completely different from one another. If dictionaries help provide the context for words, a Data Dictionary provides the context of a collection of information, otherwise known as data. It acts as documentation structure that proves useful for branches of business organizations that utilize spreadsheets containing a lot of variables. With a data dictionary, your team members working in sales, accounting, and operations will have the ideal tool to save all essential information that arise from daily operations. It also allows them to make sure that the right terminology is used in inputting data, making it identifiable and most importantly; easy to understand by all members of your organization.

A Data Dictionary is a database tool for recording, coordinating, and processing information about any type of data that your organization uses. It is one of the most powerful tools available for documenting and gathering

analytical findings that are used to develop cross-references as well as correlations between data information, business statistics, and process modeling items. It is ideal software for storing information about data structures and individual data items as well as for sharing that data in an organized and understandable manner.

NEED FOR DATA DICTIONARY

In the past, an organization has had to manually tally all important data in each branch of their day-to-day operations. Managers heading sales, accounting, and operations used this information in creating reports for their CEO, COO, and other higher-ups. Many times, these managers would forget to include certain details that would result in inaccurate reports. For those running an organization today such as a business or non-profit organization, a Data Dictionary can help you understand and recall all details in your daily operations. Team members in your sales and accounting will use this program to store information in spreadsheets that they can use and re-use as they see fit. With this program, they can store and re-use information in a week, a month, and up to 5 or 10 years if necessary. With a Data Dictionary, no detail is left unaccounted for and your managers will be able to recall everything that they need to produce accurate reports.

USES OF DATA DICTIONARY

In an organization, a Data Dictionary can be used for many essential activities that occur in its day-to-day operations. Some activities that this software program can be used for are:

- **Determine.** A Data Dictionary allows users to easily determine and identify the contents of data stored in any files being used in your organization.

- **Provide.** It provides an ideal starting point for developing screens and reports.
- **Validate.** Data Dictionaries may be utilized by team members in your organization to validate a data flow diagram for completeness and accuracy.
- **Develop.** It allows users to users to develop the logic for data flow diagram processes.

ANATOMY OF DATA DICTIONARY

Using a Data Dictionary also proves useful for when you share a data set. This could be sharing data with a collaborator, co-worker or a manager. If you are looking to share data with another individual, having a data dictionary aids that person in being able to better understand your data as it is well organized and structured. A structured Data Dictionary consists of many variables that include:

- **Variable Name.** If a traditional dictionary contains a word and the meaning of that word, a data Dictionary must contain the name of the information or value. This will make it easier to identify the information.
- **Definition.** As the information has been identified, a definition will allow the information to be better understood.
- **Data Type.** This allows others to interpret the information appropriately.
- **Data Size.** This allows others to know exactly how much space the information will take up on the database.
- **Possible Values.** These lists the codes used in the various fields.

Basically, a Data Dictionary should include all information that another person would need to reproduce results or use the information for their own use.

BENEFITS OF USING DATA DICTIONARY

As a Data Dictionary contains all the essential information about each variable in a data set, it is not

necessarily a documentation about the data itself; but rather, a documentation that gives you the context of understanding that data. When you are able to understand the context of the data, you can now use this for your own good. Many people have trouble reading specific spreadsheets because they are cluttered with a lot of information that seem disorganized and unstructured. With a Data Dictionary, you can streamline analysis of your data. Other benefits in utilizing this software are:

- **Creating Concise Documents.** Database users and developers can create Data Dictionary documents that catalogue contents of one or more databases. This typically includes the names and descriptions of multiple records, tables, and entities as well as all additional details.
- **Allows Easy Editing of Data Information.** The entities that constitute a Data Dictionary is known as Metadata, which is data that defines other data. In a business organization, Metadata comes in the form of a customer order number where the number order would be considered as operational data and the length of the customer order number field would be considered Metadata. With a Data Dictionary, users can easily create, modify, and delete specific data fields.
- **Promotes Multi-Application Use within the System.** When a type of data is defined in the Data dictionary, it is usually available to any software program operating within the application. This prevents any inconsistencies when defining data types that may be used by other applications. In the event that a change in data occurs, this updates all other programs using the specific data, which prevents redundancy and considerably helps decrease the cost of maintenance.
- **Acts as a Central Storage Location.** A Data Dictionary acts as a convenient central storage location where individuals can store all kinds of data structures. This includes individual data items such as:
 - Textual Definition
 - Composition
 - Data Type
 - Data Length
 - Allowed Values
 - Default Values

- Numerical Range
 - Other Validations
- **Prevents Redundancy in Data Management.** A Data Dictionary contains is able to store a substantial amount of information. It also provides users with a series of tools for the entry and evaluation of stored information. Through these, data management is efficient and prevents any redundancy as information need only be inputted once to be available throughout the entire system. In addition, any and all changes take immediate effect in all relative applications.
- **Document Accessibility.** Data Dictionary documents are very easy to edit. During a meeting, team members can print a hard copy of any specific document to distribute to other team members. Data Dictionary documents do not require any special programs or applications to be printed. They are formatted readily for any type of printer.
- **Fast Database Upgrades.** A Data Dictionary is a software program like any other being used by organizations today. This program requires regular upgrading to keep up-to-date with all technological changes or regulatory compliances. Regular updating

of the program very little time for programmers and ensures no wasted time and resources for your organization.



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