



LANTERN

It's Time to Reimagine BI

White Paper Dynamic Groups

▶ From Any Source to Actionable Insight

Modemetric Inc. White Paper Series.

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Table of Content

Executive Summary	1
Dynamic Groups: An Overview	2
Use Cases	3
New Dimensions	3
Custom Distribution	3
Data Consolidation	4
Data Standardization	4
Host Data Model Extension	5
Multi-Dimensional Hierarchy	5
Conclusion	6

Executive Summary

In modern enterprises, the volume, variety, velocity, and complexity of data has fueled the demand for Business Intelligence (BI) solutions. Such organizations seek to capture, contextualize and understand the key business-critical data hidden within their enterprises and, also, gain insight for predicting and enacting successful outcomes. The number of BI and analysis tools developed over the past decade are a testament to the growing need and competitive forces driving organizations to find the “right” solution.

Modemetric has over 10 years of experience in pioneering technology that delivers BI and advanced data discovery for meeting the challenges of today's organizations where “traditional” BI solutions have fallen short ¹. Our flagship product, The Lantern Platform, is an enterprise-grade BI solution, which is far faster and easier to deploy than traditional BI systems. It contains a rich feature-set which also differentiates it from other BI or data discovery tools in the market. After an analysis of specific customer-requirements, Modemetric assessed the available BI solutions, specifically the traditional tools provided by the leading BI software vendors and specialists as well as data discovery and visualization applications, and then architected a platform from the ground up. This architecture is unique in that it specifically incorporates the feature-set and benefits of both traditional BI as well as Data Discovery tools.

Lantern transforms the way organizations connect, access, and extract data. By providing flexibility and scalability, it can be used for reporting, analyzing, and presenting views and dashboards for an organization of any type or size. Characterized by the “click, not code” approach, Lantern includes a complete suite of tools which support ad hoc reporting, multi-dimensional analysis/OLAP, data visualization graphs, gauges, dashboards, scorecards, hierarchical reports, data integration, data mapping, and data transformation. With Lantern, IT departments can quickly rollout scalable and complex reporting and BI solutions without writing a single line of code, while maintaining complete control over data integrity, security, and data quality.

In this thought leadership white paper, written for professionals charged with executing a successful BI strategy within their organization, we will examine and present the importance and benefits of key, game-changing functionality within the Lantern platform—the ability to define, formulate and gain insight from utilizing Dynamic Groups and code mapping, which can enable your organization to limit the time and cost involved in accessing and analyzing data across disparate systems and, also maintain a high level of security and data quality. Based on use cases, we will also identify best practices for gaining the maximum benefit through the implementation of Dynamic Groups.

¹ See: Gartner MQ for BI and Analytics, 2015



Dynamic Groups: An Overview

In modern enterprises, the volume, variety, velocity, and complexity of data has fueled the demand for Business Intelligence (BI) solutions. Such organizations seek to capture, contextualize and understand the key business-critical data hidden within their enterprises and, also, gain insight for predicting and enacting successful outcomes. The number of BI and analysis tools developed over the past decade are a testament to the growing need and competitive forces driving organizations to find the “right” solution.

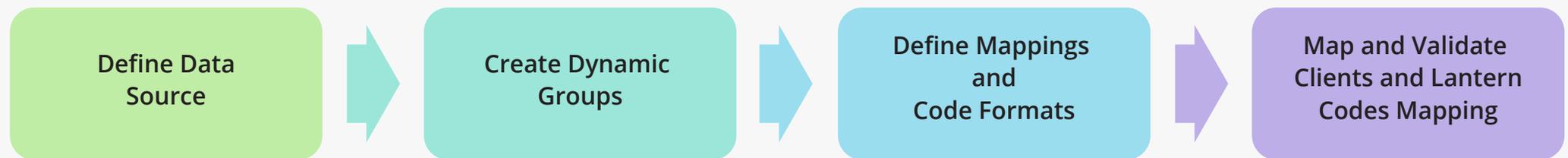


Figure 1: High-level flow of Dynamic Groups screen

By using Lantern’s Dynamic Groups module, your organization can organize and map the hierarchies and dimensions of your data without having to resort to complex programming or tedious query writing. For example, if your organization has deployed three different applications, such as CRM, Billing and Rating, we can expect differences in the way various entities have been named. In the CRM system, there can be an entity called “Subscriber”, which may be called “Customer” in the Billing application and “Consumer” in the Rating application. Since the same entity is identified by

three different names in three different applications, mapping them can be a real challenge. By using Dynamic Groups, you can define a single unique code, such as “Purchaser,” which can be mapped to “Subscriber” in the CRM application, “Customer” in the Billing application and “Consumer” in the Rating application.

When Lantern has to generate a report, it will simply query “Purchaser,” which will bring consolidated information from the three disparate

applications whose entities were previously mapped by the Lantern code. In addition to this scenario, the Dynamic Groups module can be used in many other scenarios, some of which have been discussed in the Use Cases section of paper.

In addition to mapping the codes, Lantern also provides you with the option to specify mapping properties like mapping type, validation type, cardinality type, mapping settings, description, etc. This enables your system administrators to maintain

greater control over the mappings. With Lantern’s simplified interface, in addition to individually mapping the Client Codes with Lantern Codes, you can map an entire range of client codes with just a few clicks. Lantern also provides the option to switch viewing modes, based on user preference, which is a useful feature that appeals to users who prefer Lantern-side codes as well as to users who are more familiar with the Client-side codes.

Figure 1 is a flow diagram that displays the high level process for code mapping in Lantern.

Use Cases

The following are some use cases that demonstrate the benefit of using code mapping in Lantern:

1. **New Dimensions**
2. **Custom Distribution**
3. Data Consolidation
4. Data Standardization
5. Host Data Model Extension
6. Multi-Dimensional Hierarchy

New Dimensions

Dynamic Groups support the mapping of any number of levels between different entities in the source data model. This capability, which allows new dimensions to be added to the existing data, helps define new relationships between entities that enable powerful and flexible reporting supporting granular data drilldown options.

Figure 2 provides the high-level process for adding new dimensions to the existing data:

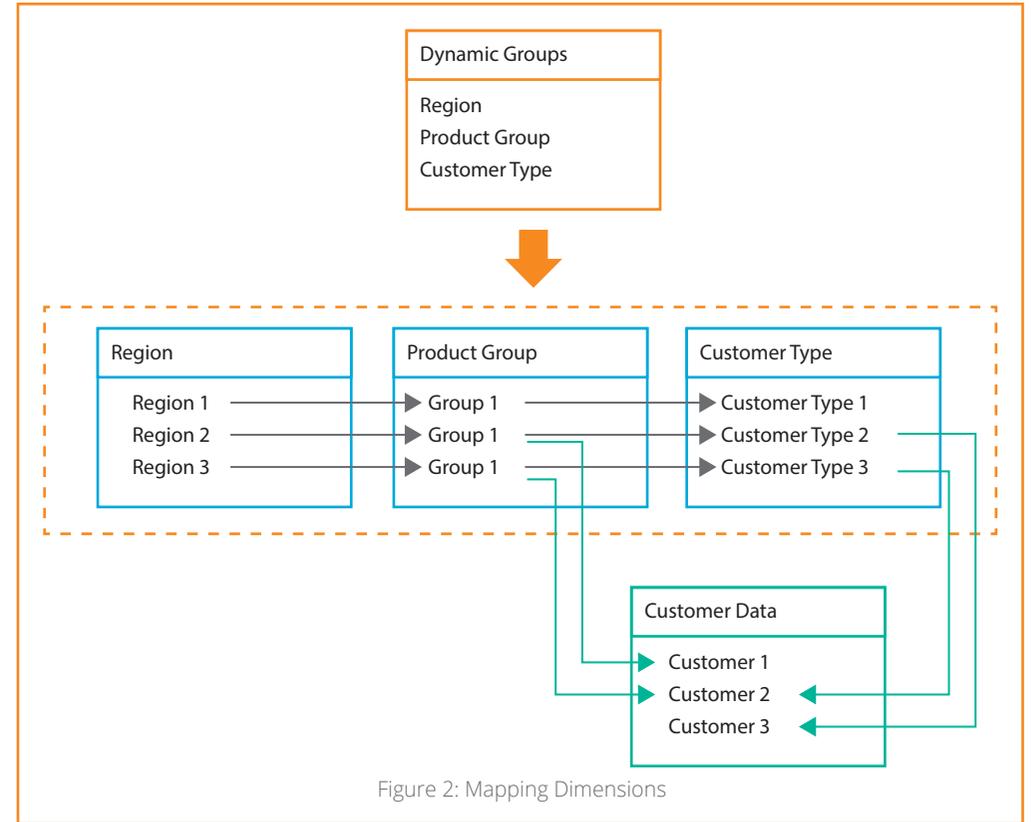


Figure 2: Mapping Dimensions

Custom Distribution

Code mapping in Dynamic Groups allows users to apply the distribution of income, expenses, or any other numeric data to new dimensions. For example, Account Heads of a single department can be assigned different budget allocation percentages, as shown in the following table 1:

Department	Account Head	Weightage [Allocation]%
HR	Expenses	30
	Advances	30
	Petty Cash	40

Table 1: Budget Allocation

Department, Account Head and Weightage fields are completely configurable through Dynamic Groups.

Use Cases

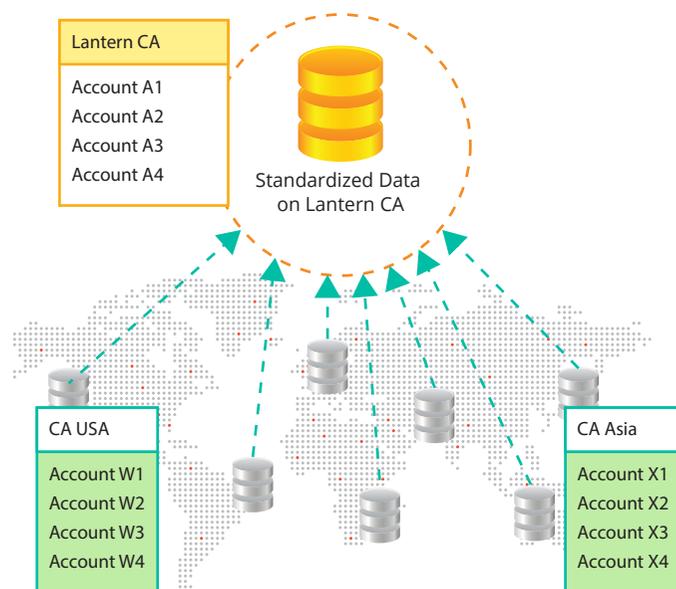
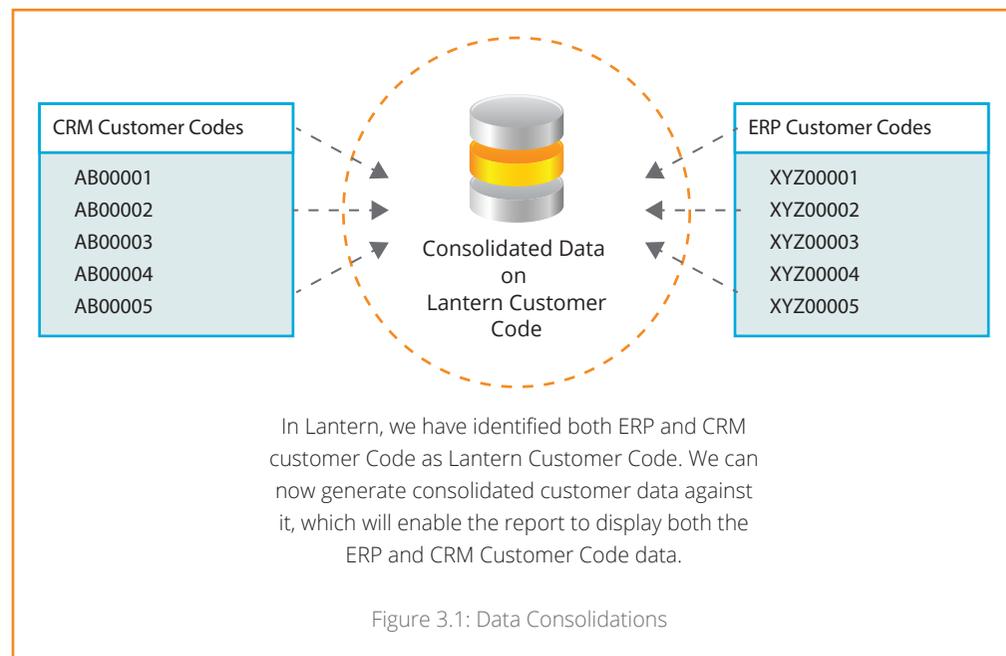
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Data Consolidations

With the help of Dynamic Groups, data from different sources can be consolidated on the fly. For example, if your organization has two different sets of customer codes, one in CRM and the other in an ERP system, then data from these two sources can be combined and consolidated using Dynamic Groups.

Figure 3 illustrates the Data Consolidation concept:



Data Standardization

Dynamic Groups can be utilized for standardizing data from disparate sources. This permits different resources to work on the same data with better contextualized understanding and, also, streamlines the data exchanged between partners and providers. For example, if your company has divisions located in various geographies, and each division has its own Chart of Account, Lantern's Code Mapping can be used for the different Chart of Account datasets, enabling them to be standardized into a single Chart of Account instance. This can help your organization to reduce the time and effort required to search and consolidate key information located across different systems. This also improves data quality and security by eliminating the "swivel chair" approach to accessing information.

Use Cases

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6. **Multi-Dimensional Hierarchy**

Host Data Model Extension

Dynamic Groups can be utilized for extending the host's data model by defining a unique Lantern code with specialized extension fields and, subsequently, mapping them to the client data. For example, in an ERP solution, there is no provision for maintaining sales budgets. However, if the company desires to maintain the sales budget for comparative analysis with the actual data, it can be achieved through Dynamic Groups. The process involves defining all the budget fields (like customer code, budget, and year) and, subsequently, mapping them to the client's data.

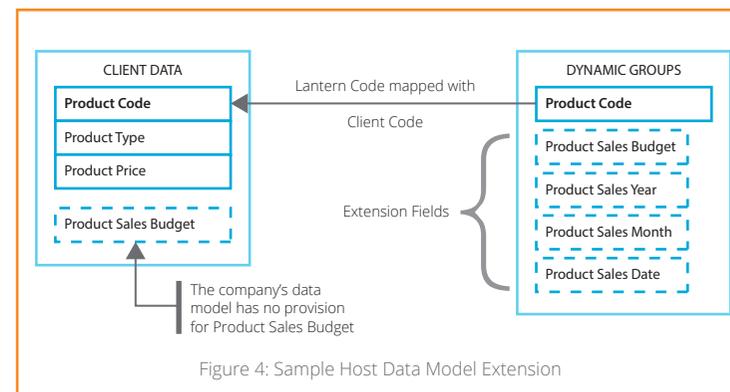


Figure 4: Sample Host Data Model Extension

Figure 4 illustrates a high-level overview of the Host Data Model Extension.

Lantern maintains the primary code, extension fields, and mapping details within its own metadata, which enables the organization to significantly reduce the time and effort required to modify and update the existing data models. With Lantern, an organization can easily and quickly view the product allocated budget details in its reports.

Multi-Dimensional Hierarchy

Dynamic Groups enable multi-dimensional hierarchies of different entities to be defined. These entities can range from country, state, and city to accounts, account types, customer type, etc. A Dynamic Group can be used, for example, by a Sales Manager who wants to analyze the profitability of all the stores in different areas of the city compared to the profitability of stores in cities located in other states. Dynamic Groups can achieve this by mapping shops, areas, cities, states, and country, through a hierarchy as shown in Figure 5.

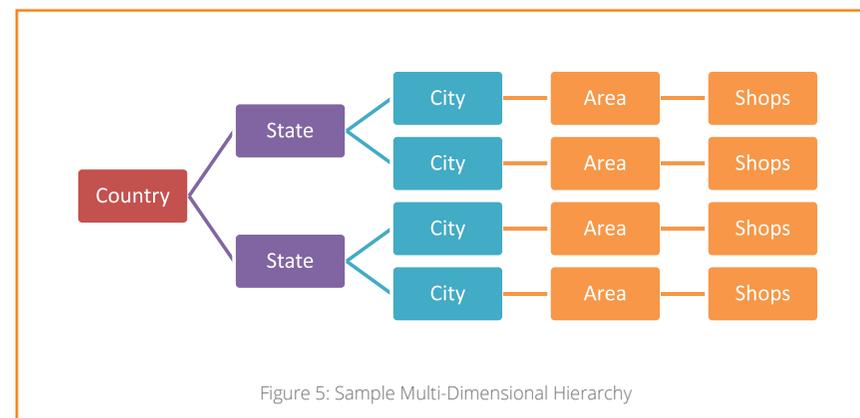


Figure 5: Sample Multi-Dimensional Hierarchy

Using the hierarchy displayed in Figure 5, the Sales Manager can view reports that compare the profitability of all the stores at various hierarchical levels, as needed, such as area, cities and states.

Conclusion

Dynamic Groups is a key functionality of the Lantern Platform, which enables the mapping of entities in different systems as well as to the consolidation contextualizing of information across disparate systems in an enterprise. The use of these groups can help your organization significantly reduce the time and effort required for reporting and analysis, improve data quality, as well as provide enterprise-class security.

The benefits and potential of using the Dynamic Groups of the Lantern platform has been demonstrated in the several use-cases described in this paper.

Based on our successful customer BI roll-outs, best practices illustrate that the usage of Dynamic Groups are best taken as a component of an overall business intelligence strategy, which includes the ability to consume the results and “prepare” the data for reporting, discovery, visualization and further exploration across departments and stakeholders.

Unlocking hidden data through a successful BI and analytics strategy benefits both the business and IT. While IT often plays the role of the chief architect of a BI solution, it needs close partnership with business stakeholders for ensuring success. As part of this strategy, IT needs to steer the business to a self-service environment in which business stakeholders can access, consume and utilize the hidden data in a real-time environment. For this, the Lantern Platform is ideally suited as it can provide the needed BI and analytics functionality through robust, flexible, scalable, and easy to use feature-set.

Related Whitepaper:

Lantern: BI and Advanced Analytics for Today's Enterprise



You can also refer to our overview White Paper, titled “Lantern: BI and Advanced Analytics for Today's Enterprise,” for additional information pertaining to the capabilities and features of the Lantern platform.

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