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## MAKING DATA ACTIONABLE

### INTRODUCTION

The increasing acceptance and implementation of business intelligence technology including data warehousing, OLAP<sup>1</sup>, and data mining is putting rich data analysis tools into the hands of business end users but many continue to find they have too much data and not enough information. It's imperative the technology make data actionable to be of real value. The dichotomy of data warehousing and OLAP is while it provides a rich data analysis experience information must be translated into action to be useful to the business. This article provides practical tips on making data actionable so end users can quickly apply information to improve the business.

Best practice #1 for making data actionable: Add context to data and reports. OLAP is very effective at providing multi-dimensional analysis but many times end users lack the context to understand the magnitude, severity, or significance of a number. For example, a sales report shows sales are \$1.5MM for the current week, is that information useful and actionable? In contrast if sales are expressed as a percentage of a previous period (e.g. 110% of last week) the end user now has the context to understand sales are growing and by how much. Adding context to data by using period to period comparisons, ratio's, and percentages is a best practice in making data actionable.

Best practice #2 for making data actionable: Add visual indicators to data. Most people process pictures much faster than a table of data. This fact has caused popular OLAP software vendors like ProClarity, Cognos, and others to add half a dozen different charting options to their reports. However, to be most effective and actionable visual indicators need to be added to data which provide immediate feedback. Simple color coding of data into red, yellow, and green will make data much more actionable.

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<sup>1</sup> On-line Analytical Processing (OLAP) is a method for organizing data into multi-dimensional cubes of data. This organization provides rich analysis along multiple dimensions (e.g. store, sales rep, time, location, product) and across multiple measures (e.g. profit, income, cost, inventory turns) at one time. Most OLAP also provides the ability to drill-down into increasing levels of detail.

Best practice #3 for making data actionable: Build business logic into reports. Most OLAP tools provide the ability to model business rules and apply exception conditions within the reports. For example, inventory turns for a product must be between 8 and 10, otherwise the user should be alerted. Many OLAP tools even provide multiple conditions allowing more sophisticated logic.

Best practice #4 for making data actionable: Leverage syndicated data sources.. Complex business decisions often require data from outside sources to either validate a hypothesis or enrich the analysis. For example, a tire manufacturer might purchase national weather service data and add that as a dimension in their OLAP cube. This would provide the ability to look at how sales are impacted by weather. Bringing this data directly into the OLAP tool eliminates an extra step for the user and makes the data more actionable.

Best practice #5 for making data actionable: Let end users select the tool appropriate for their requirement. OLAP tools can provide very powerful analysis but many times end users simply need a printed report or a spreadsheet. Technology must be an enabler of business users getting their jobs done faster and more effectively not a barrier. In addition, the tool required for one project may be completely different than the requirements for a second project.