Solution 2

Measures are:

|  |  |  |
| --- | --- | --- |
| **Data Source** | **Measures** | **Aggregation Properties** |
| Shipment | Actual\_Quantity,  Boxes,  Quantity\_Per\_Box,  Quantity\_Per\_Partial\_Box | Additive  Additive  Additive |
| Invoice | Invoice\_Amount |  |
| Subjob | Cost\_Material,  Cost\_Labor,  Cost\_Overhead, Machine\_Hours, Quantity\_Produced | Additive  Additive  Additive  Additive  Additive |
| Lead | Success,  Quote\_Price,  Quote\_Qty | Non-additive  Non-additive  Additive |
| Job | Quantity\_Ordered, Quotation\_Amount, Quotation\_Ordered | Additive  Additive  Additive |
| Financial\_Sales\_Summary | Actual\_Units,  Actual\_Amount, Forecast\_Units, Forecast\_Amount | All are Additive |
| Financial\_Cost\_Summary | Actual\_Units, Actual\_Labor\_Costs, Actual\_Material\_Cost, Actual\_Overhead\_Cost, Budget\_Units, Budget\_Material\_Cost, Budget\_Machine\_Cost, Budget\_Overhead\_Cost | All are Additive |

Cubes are:

**Lead**

Dimensions: Calendar, Sales Class, Sales Agent, Location, Customer

Measures: Quote Qty, Quote Price, Success

**Job**

Dimensions: Calendar, Sales Class, Sales Agent, Location, Customer

Measures: Unit Price, Quantity Ordered, Quotation Amount, Quotation ordered

**Sub Job**

Dimensions: Calendar, Sales Class, Sales Agent, Machine Type, Location, Customer

Measures: Cost Labor, Cost Material, Cost Overhead, Machine Hours, Quantity Produced, Sub Job Amount

**Shipment**

Dimensions: Calendar, Sales Class, Sales Agent, Location, Cust Location

Measures: Actual Quantity, Requested Quantity, Boxes, Quantity Per Box, Quantity Per Partial Box, Shipped Amount

**Invoice**

Dimensions: Calendar, Sales Class, Sales Agent, Location, Customer

Measures: Invoice Amount

**Financial Cost Summary**

Dimensions: Calendar, Sales Class, Machine Type, Location,

Measures: Actual Units, Actual Labor Cost, Actual Material Cost, Actual Machine Cost, Actual Overhead Cost, Budget Units, Budget Labor Cost, Budget Material Cost, Budget Machine Cost, Budget Overhead Cost

**Financial Sales Summary**

Dimensions: Calendar, Sales Class, Location

Measures: Actual Units, Actual Amount, Forecast Unit, Forecast Amount