

Datacus

Multi-Dimensional Data Explorer

October 26th, 2010



Team Members

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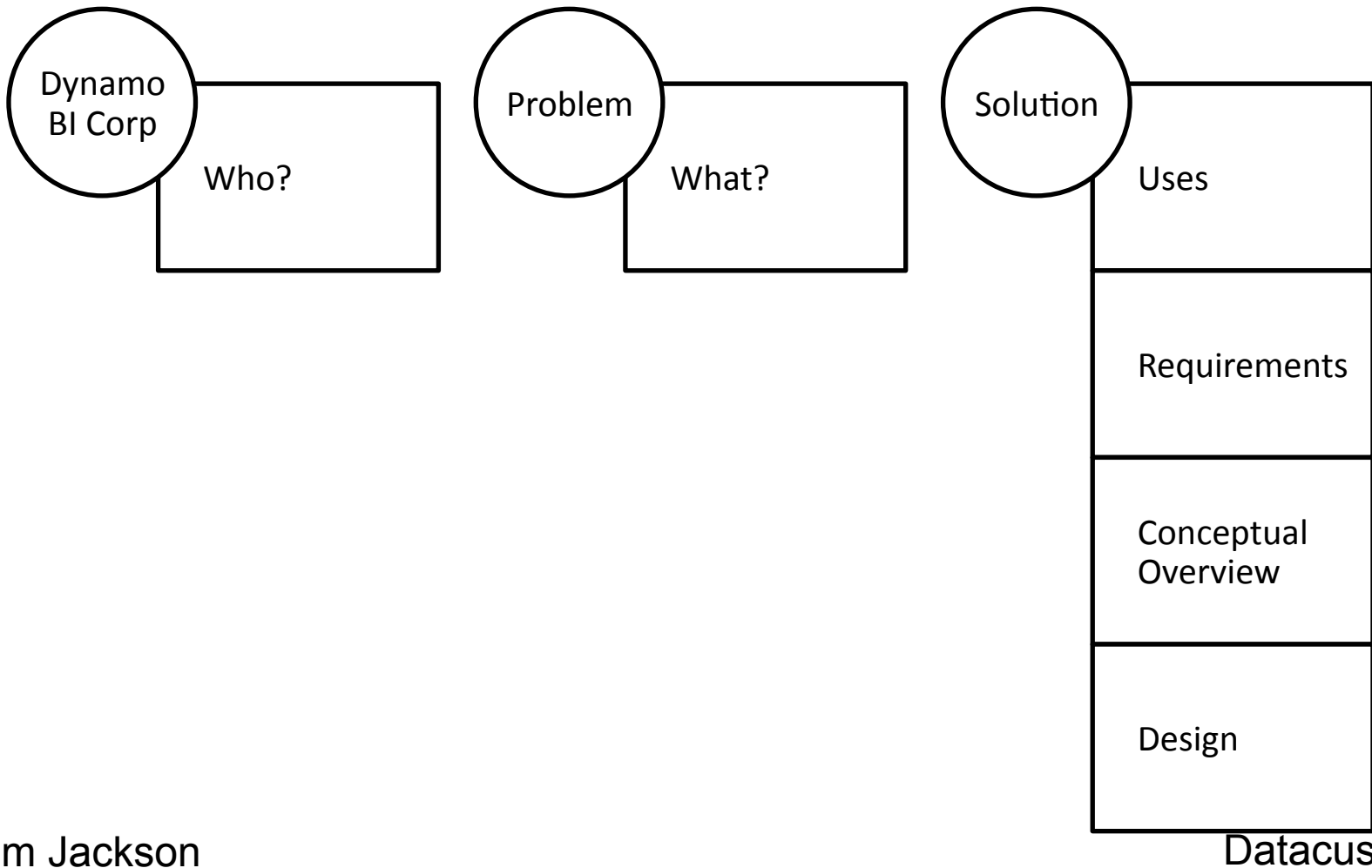
Adam Jackson

Ian Smith

Matt Smith

Adam Jackson

Major Points Of This Presentation



Dynamo Business Intelligence Corporation



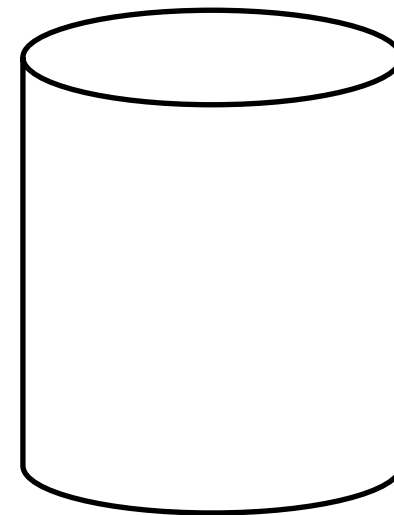
What is Business Intelligence?

The Tools & Techniques used to Analyze
Business Data

Analytics, Data Mining, Dashboards,
Reporting, Charting & Graphing, Predictive
Analysis

Used by majority of Fortune 500 Companies
across all Industries

Problem



```
SELECT { [Measures].[Sales Amount],  
[Measures].[Tax Amount] } ON 0, { [Date].  
[Fiscal].[Fiscal Year].&[2002], [Date].[Fiscal].  
[Fiscal Year].&[2003] } ON 1 FROM [Adventure  
Works] WHERE ( [Sales Territory].[Southwest] )
```

Solution

Datacus



Solution Overview

Uses

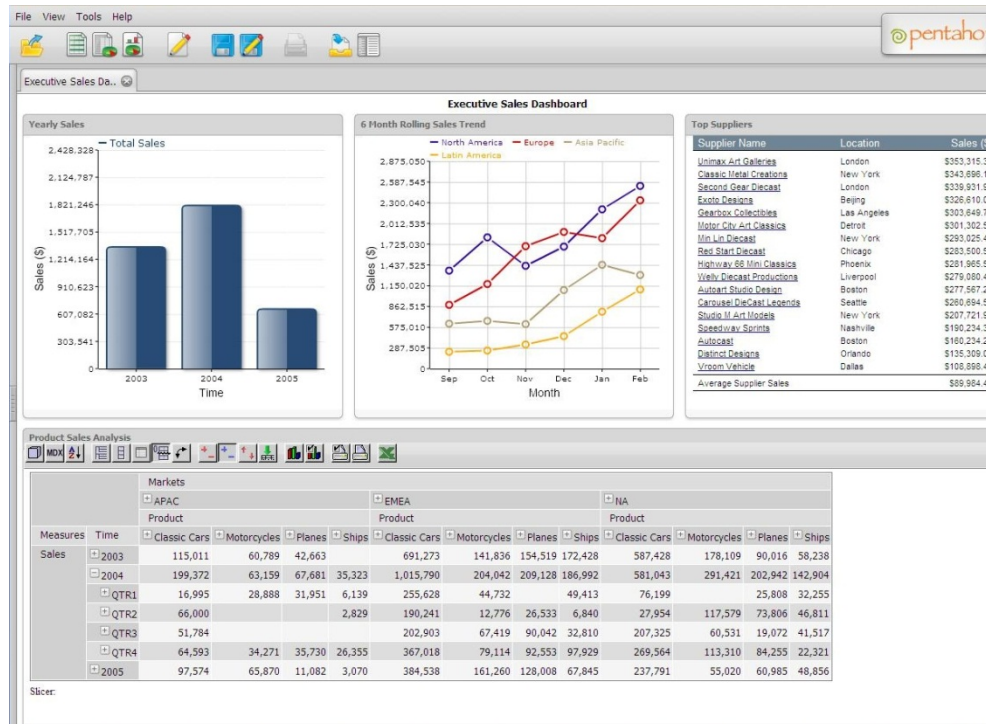
Requirements

Conceptual
View

Design

User Interface
Architecture

Uses of Datacus



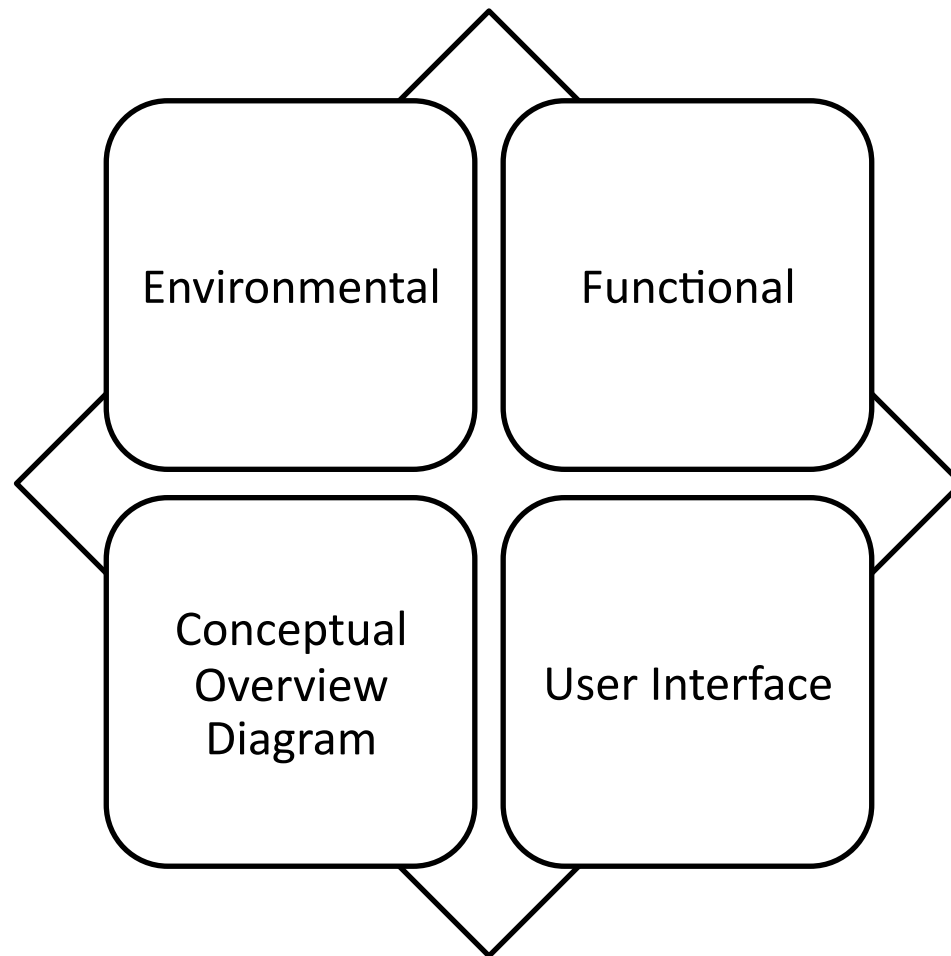


More Uses

Great solution for companies fed up
with their current BI systems

Anyone who needs help making sense
out of large amounts of data

Requirements Overview



Environment Requirements

Development

- Windows 7 OS
- Eclipse 3.1.2
- Adobe Flash Builder 4

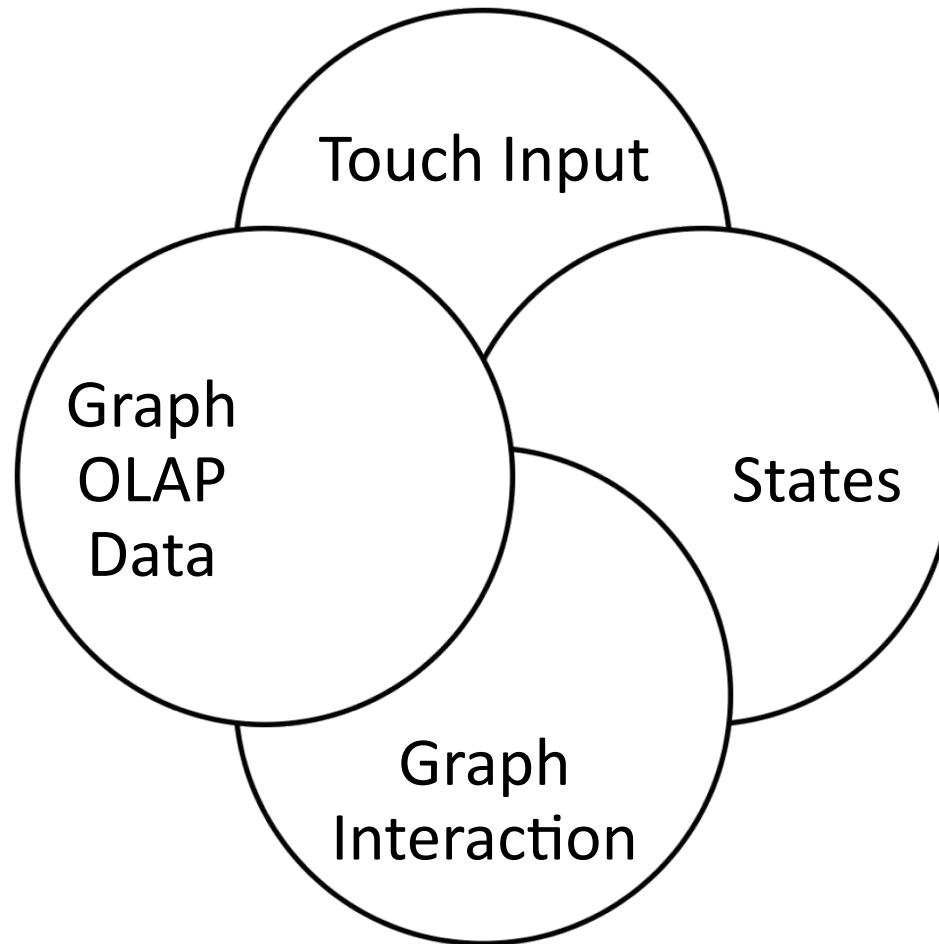
Runtime

- Windows 7 OS
- Flash Player 10.1 and above

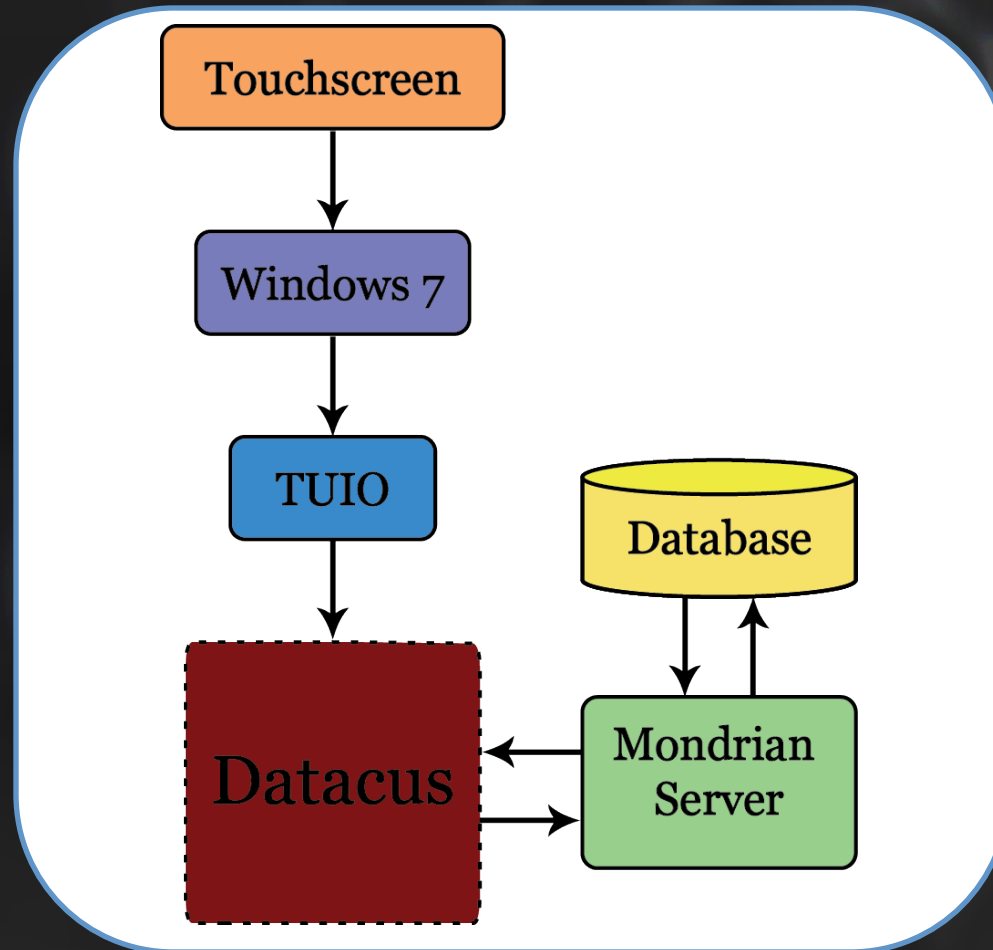
Hardware

- Processor: 2GHz or higher Intel or AMD processor
- Minimum 1920x1080 pixel 24-bit color multi-touch display of any size
- Connection to an available OLAP database

Functional Requirements



Conceptional Overview Diagram



User Interface Requirements

Touch
Input

Options
Menu

Trash

Four Panels

Paging

Series

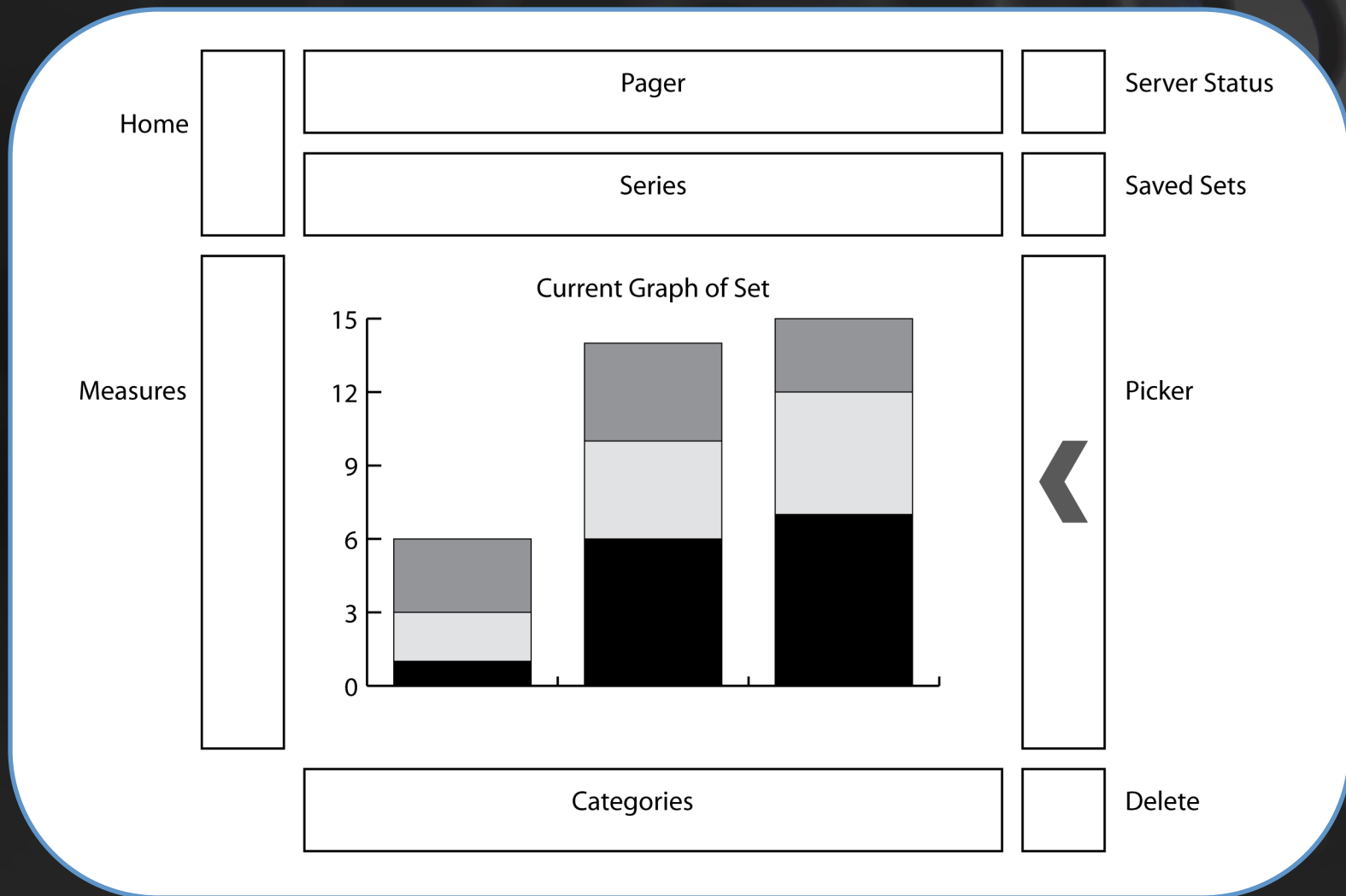
Categories

Measures

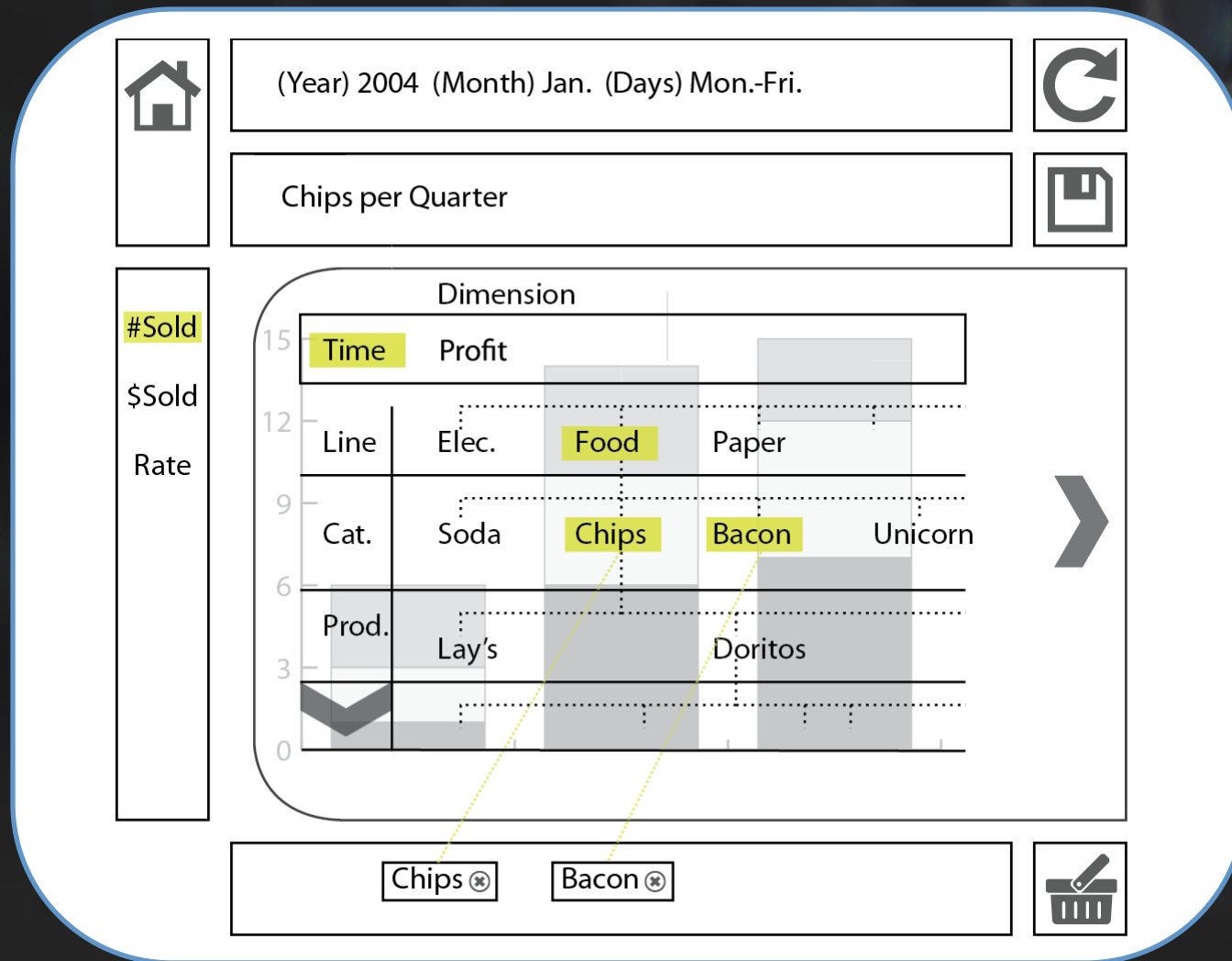
Picker

Sets

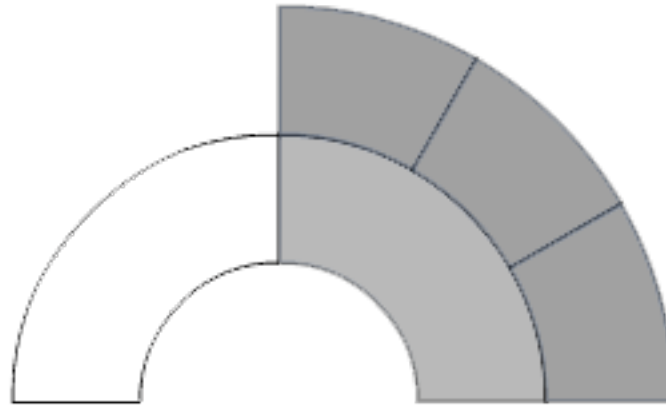
GUI



GUI



Dynamic Touch Menus



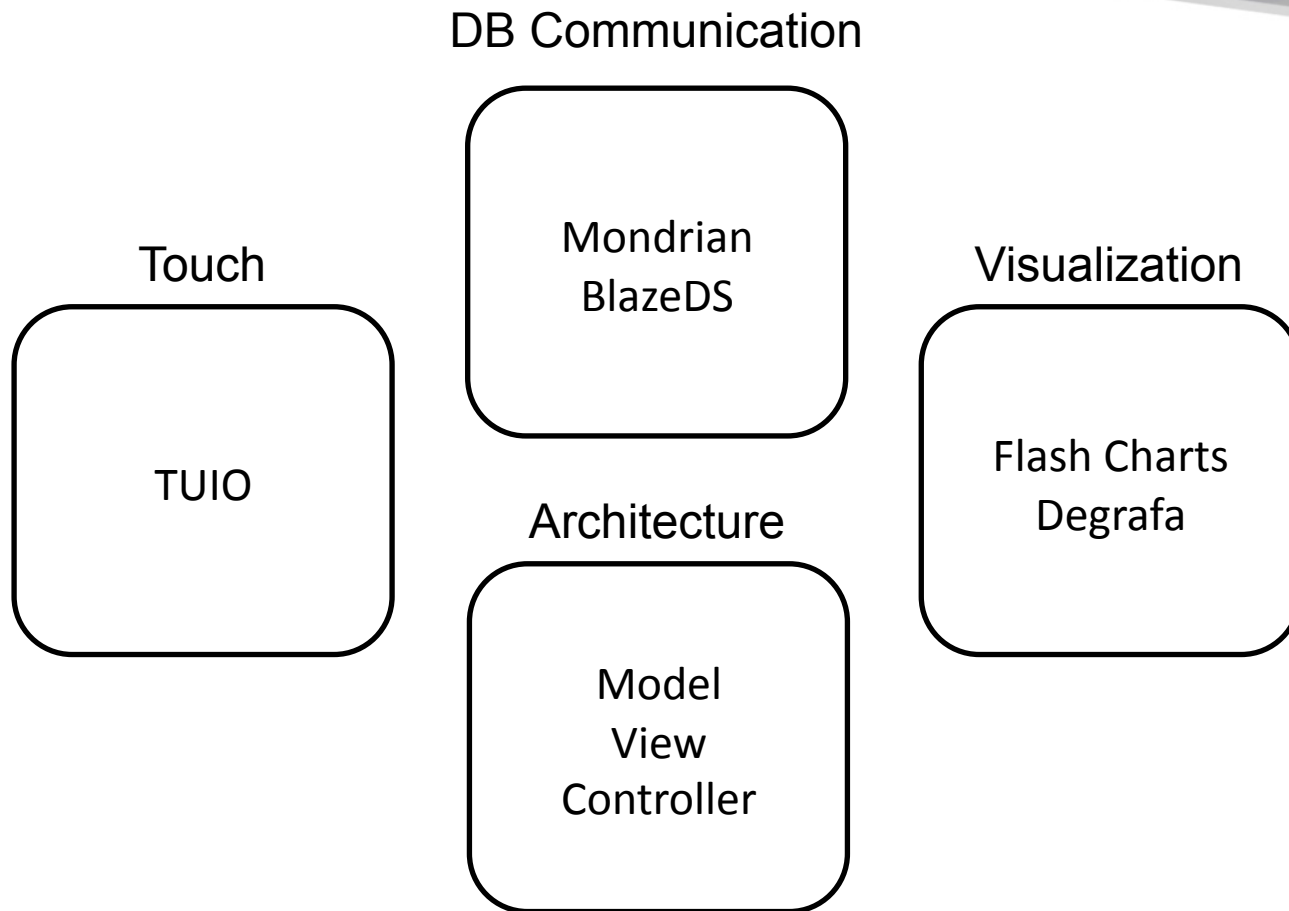
Design: Issues

Multi-Touch
Interaction

OLAP
Communication

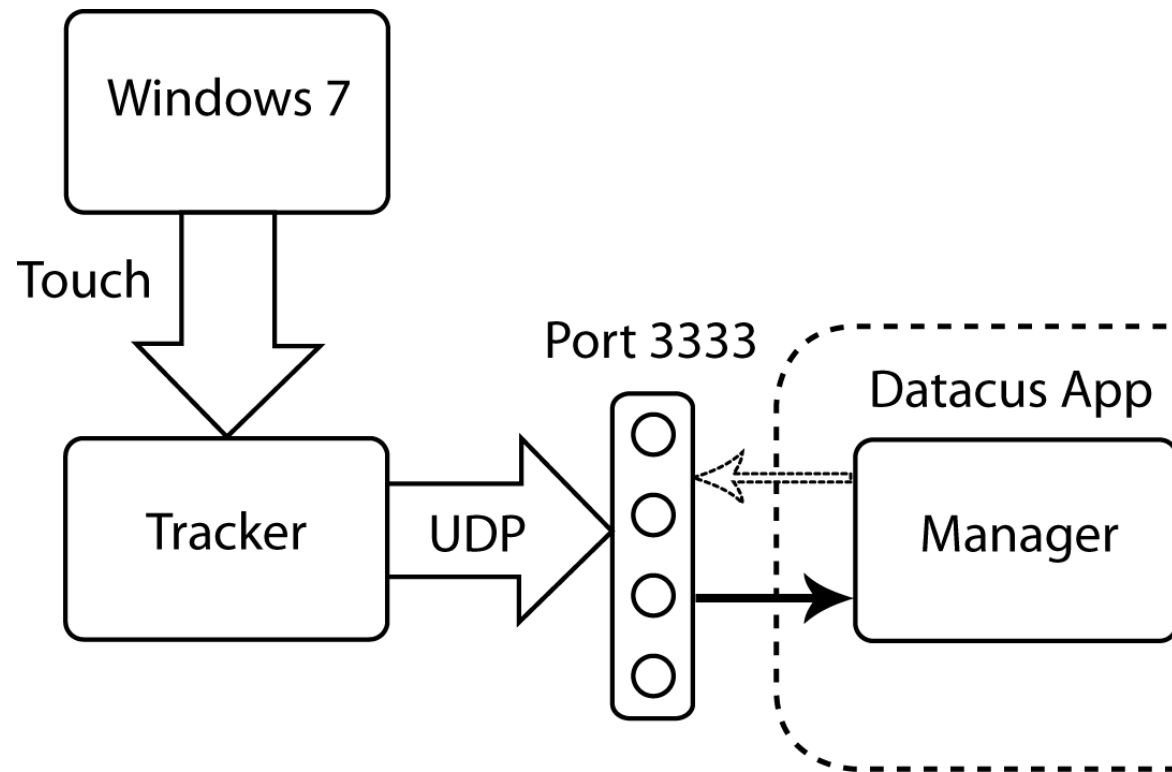
Data Exploration

Design: Implementation



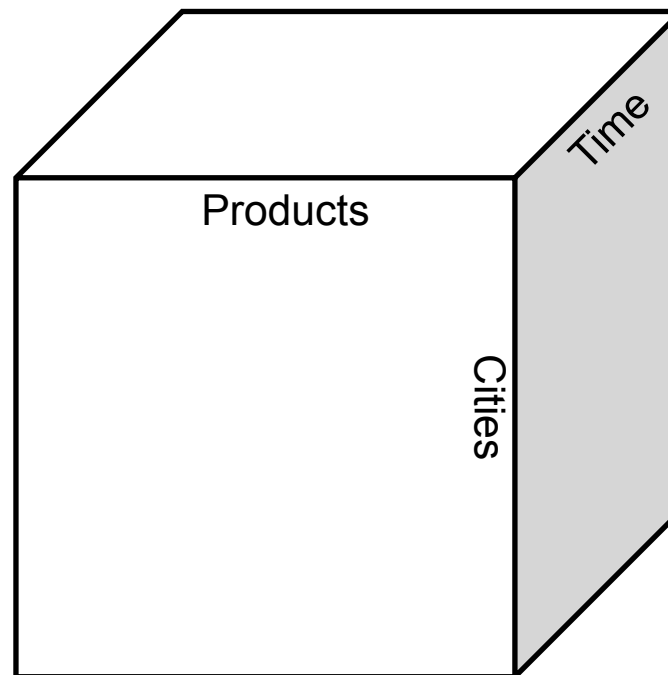
TUIO

Table-top User Interfaces Objects



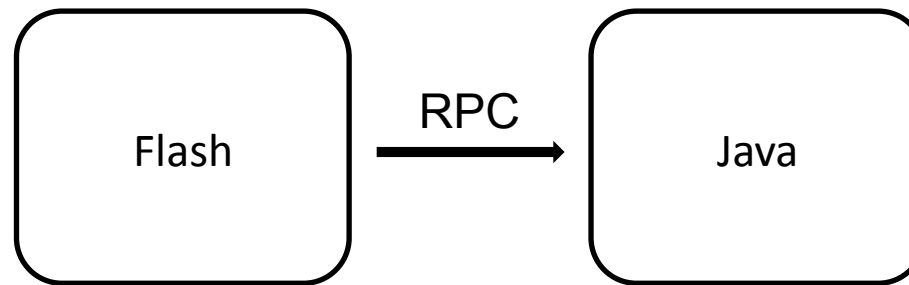
OLAP/Mondrian

OnLine Analytical Processing

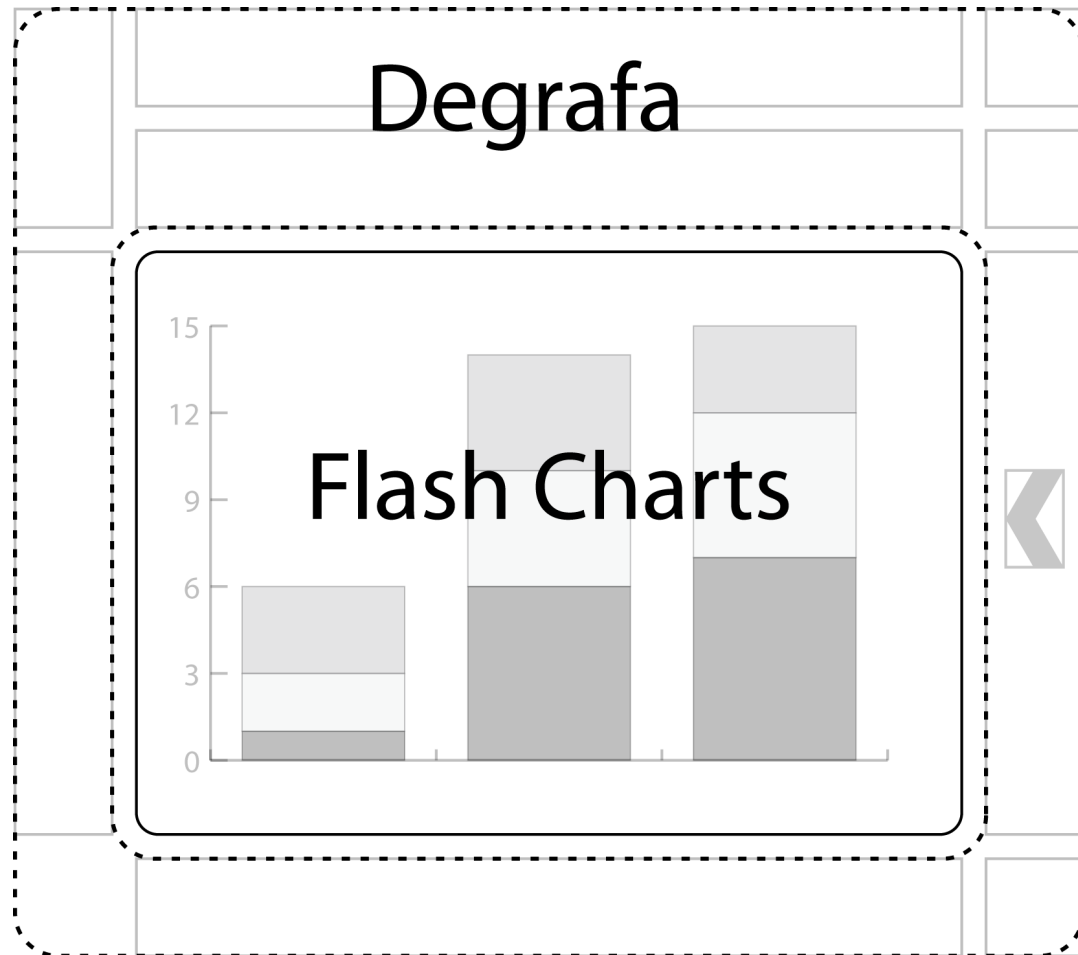


BlazeDS

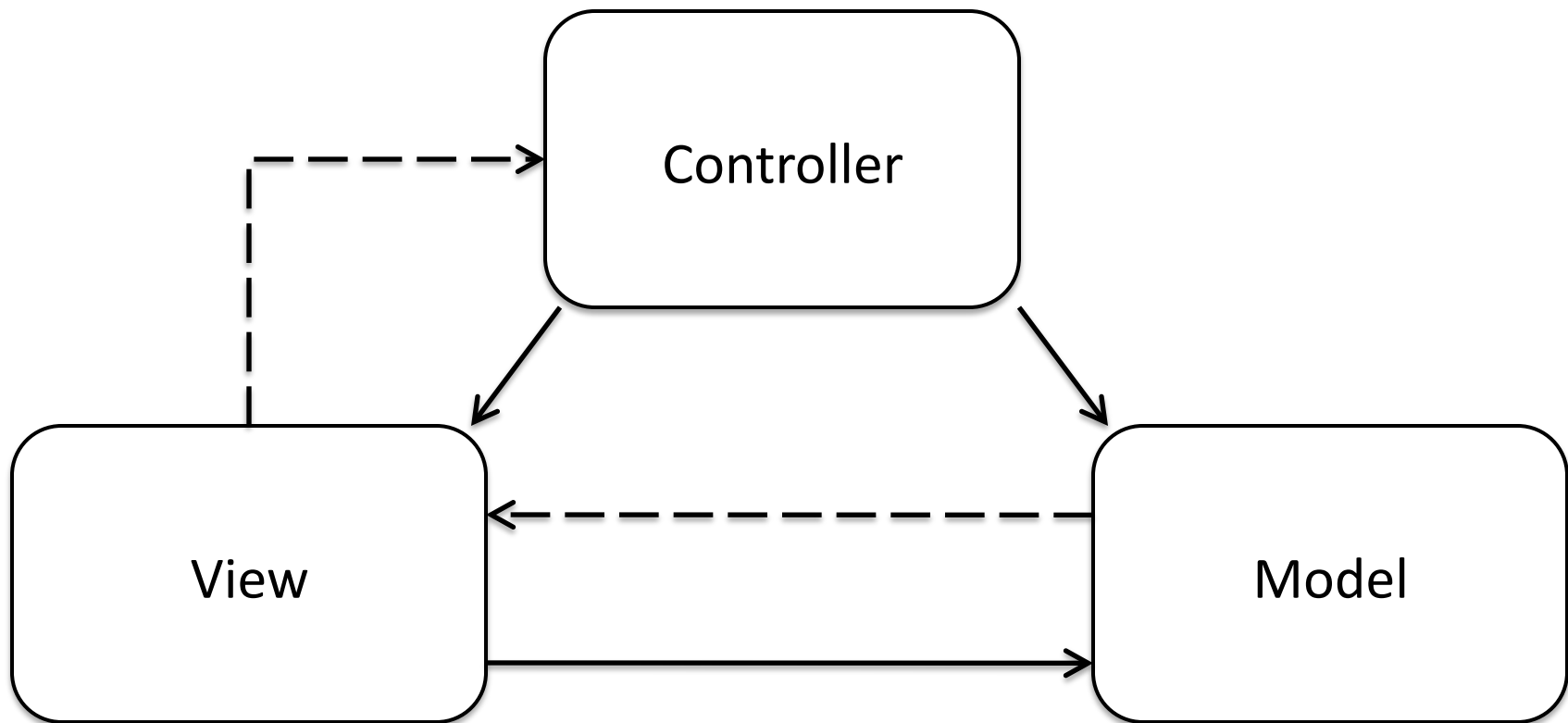
Allows Flash applications to remotely communicate with external Java applications.



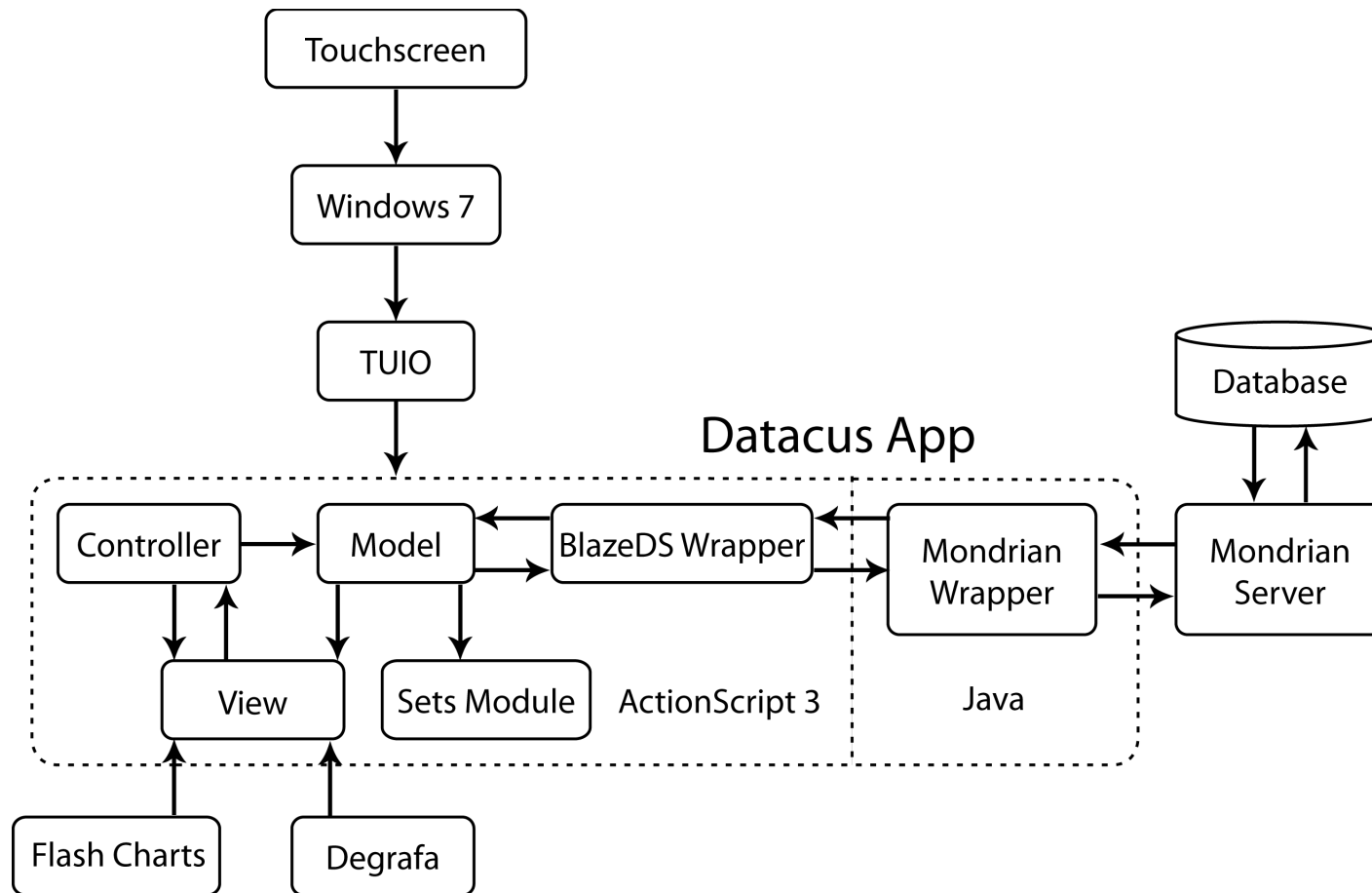
Visualization



Model, View, Controller (MVC)



Datacus Architecture Diagram





Model

The Data Manager

Active Data
Active State
All Categories/Labels



View

The Visualization

UI
Graph
Graphing Libraries



Controller

The Event Handler

Interaction Handling
Model Control
View Control

States

Series

Categories

Preferences

External Save File (.xsf)



Summary

Datacus project for Dynamo BI Solutions

Multitouch BI System

Utilize Multiple Existing Open Source Systems

Demo

Degrafa Pie Menu

Dynamic Flex Charts

Bump Top