***Case Study*:**
Migrating from Microsoft Desktop Tools to **Demantra Demand Management** for Sales Forecast Management

Presented by:
Robert Beltrone, ***OnPlan Solutions LLC***

Agenda

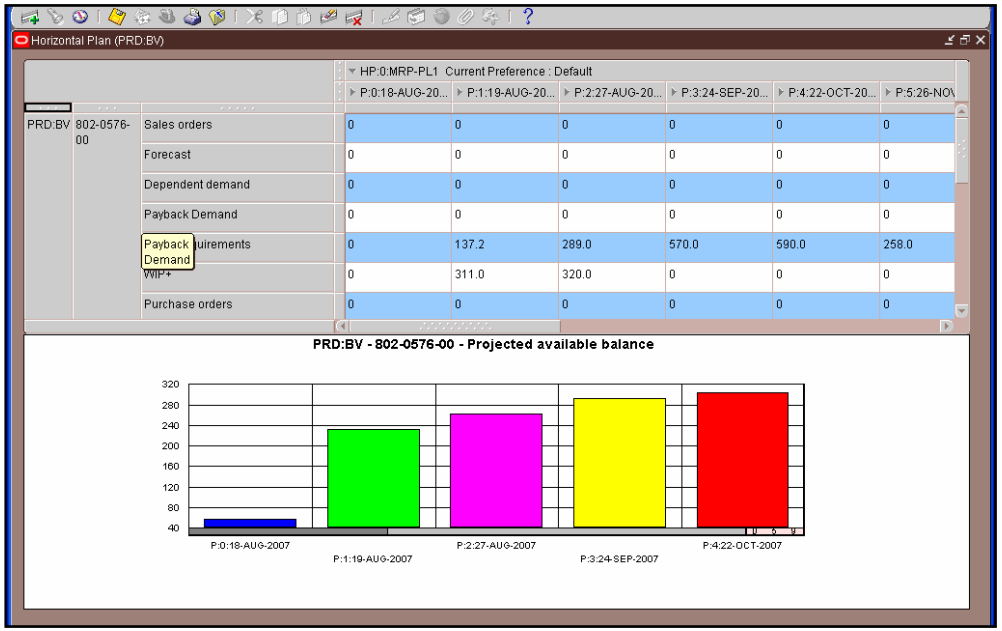
- *Case Study Situation Briefing*
- *Forecasting Systems Background*
- *Legacy Solution*
- *Business Change Happens*
- *Demantra Demand Management*
- *Solution Identified*
- *Case Study Conclusions*

Situation Briefing

How the project came about…

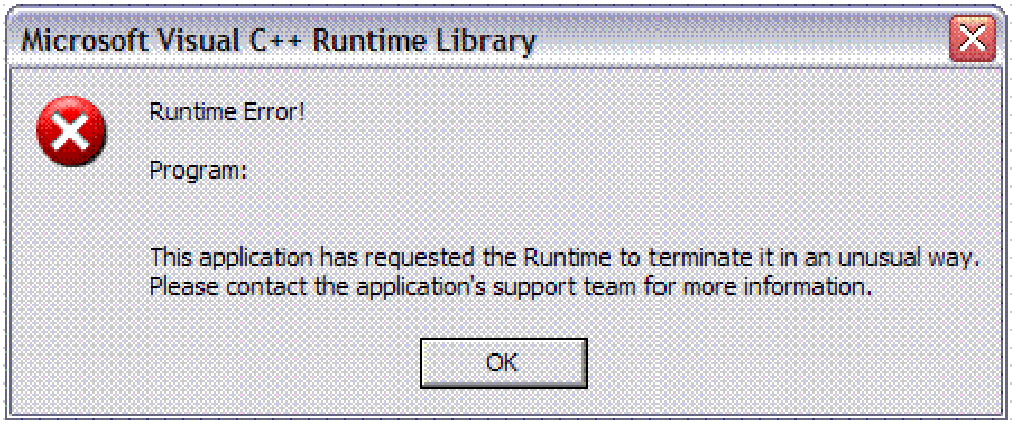
Day in the Life of a planner at Maxtek…

- Importance of Sales & Production Forecast is Paramount
  - Accuracy of forecast directly impacts
    - inventory & labor resource operating budget
    - customer service & satisfaction



Business Needs *Eclipsed* Legacy Forecasting Solution

- Forecast Tools & Process in Need of an Overhaul
  - Question: Did not want to rely on MS Access to forecast $50 million of revenue?



Situation Conclusion

Conclusion:
"Serious business problem in need of an enterprise solution!"

Next Steps:
1. *Charter a Business Systems Project*
2. *Identify Business Sponsor*
3. *Set Measurable Objectives*
4. *Identify Consulting Partner*

Forecasting Program Background

Where we have been…

Maxtek Components Corporation

- Overview:
  - A Tektronix company *recently acquired by Danaher Corporation*
  - Over 37 years experience
  - Specializing in low-volume, high-performance microelectronics

www.maxtek.com

- Turn-key IC Packaging Services for Medical, Military and Measurement Applications:
  - Design, Assembly, Test
- Product Segments:
  - Packages (single- and multi-chip)
  - Modules (electrical, optical, RF/microwave)
  - Data Converters (high-speed D/A & A/D)

Sales & Marketing Legacy Forecast Solution

2001 Business Needs

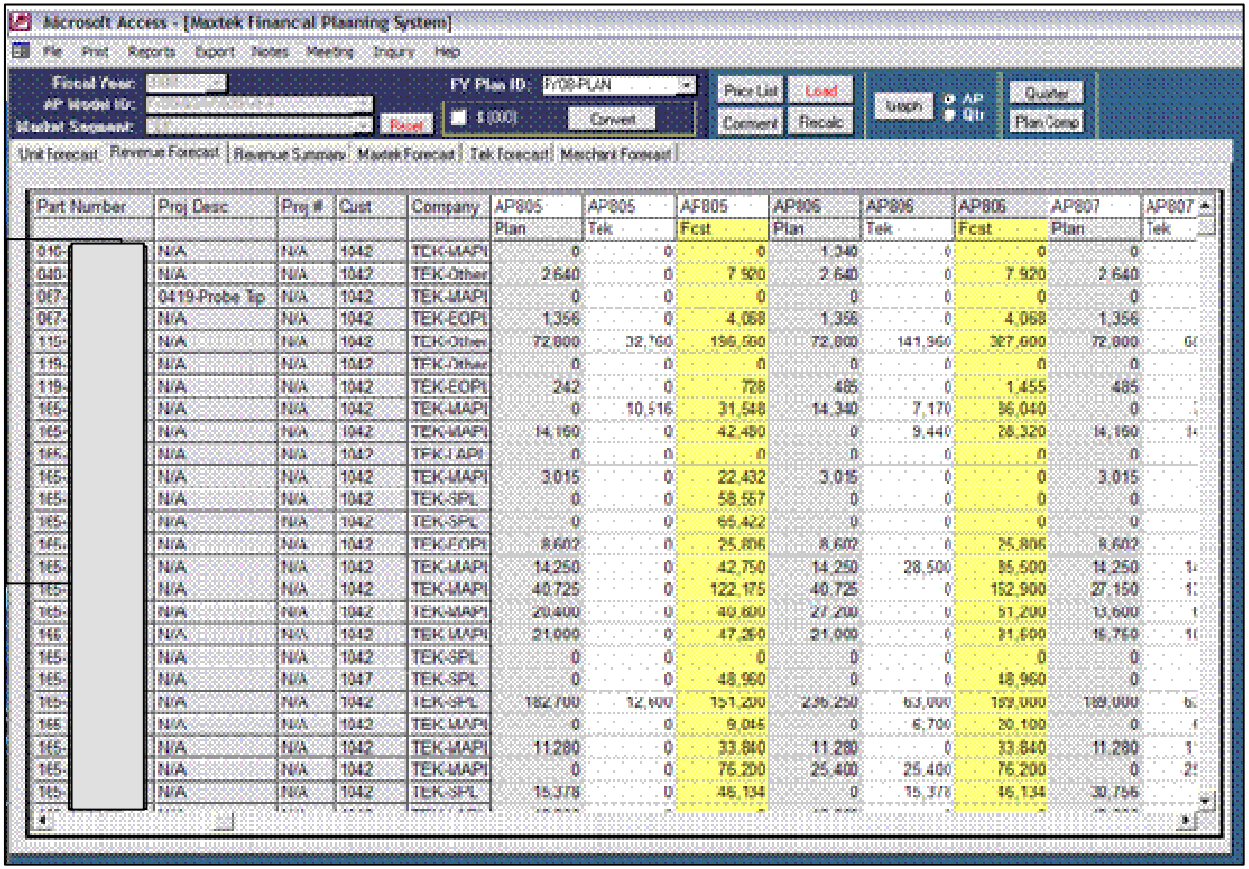
- ***Requirement 1***: Ability to collect & consolidate product forecasts generated by customers, partners, and direct sales delivered in spreadsheet and flat file formats
- ***Requirement 2:*** Access to 'data show' based presentation tools enabling forecasting teams to collaboratively review, modify, and approve forecasts based on a business process schedule
- ***Requirement 3:*** The desktop tools must provide the ability to document the decisions, modifications, and approvals for historical review and audit trail analysis

Legacy Forecast Solution

Maxtek IT Legacy Forecasting Solution

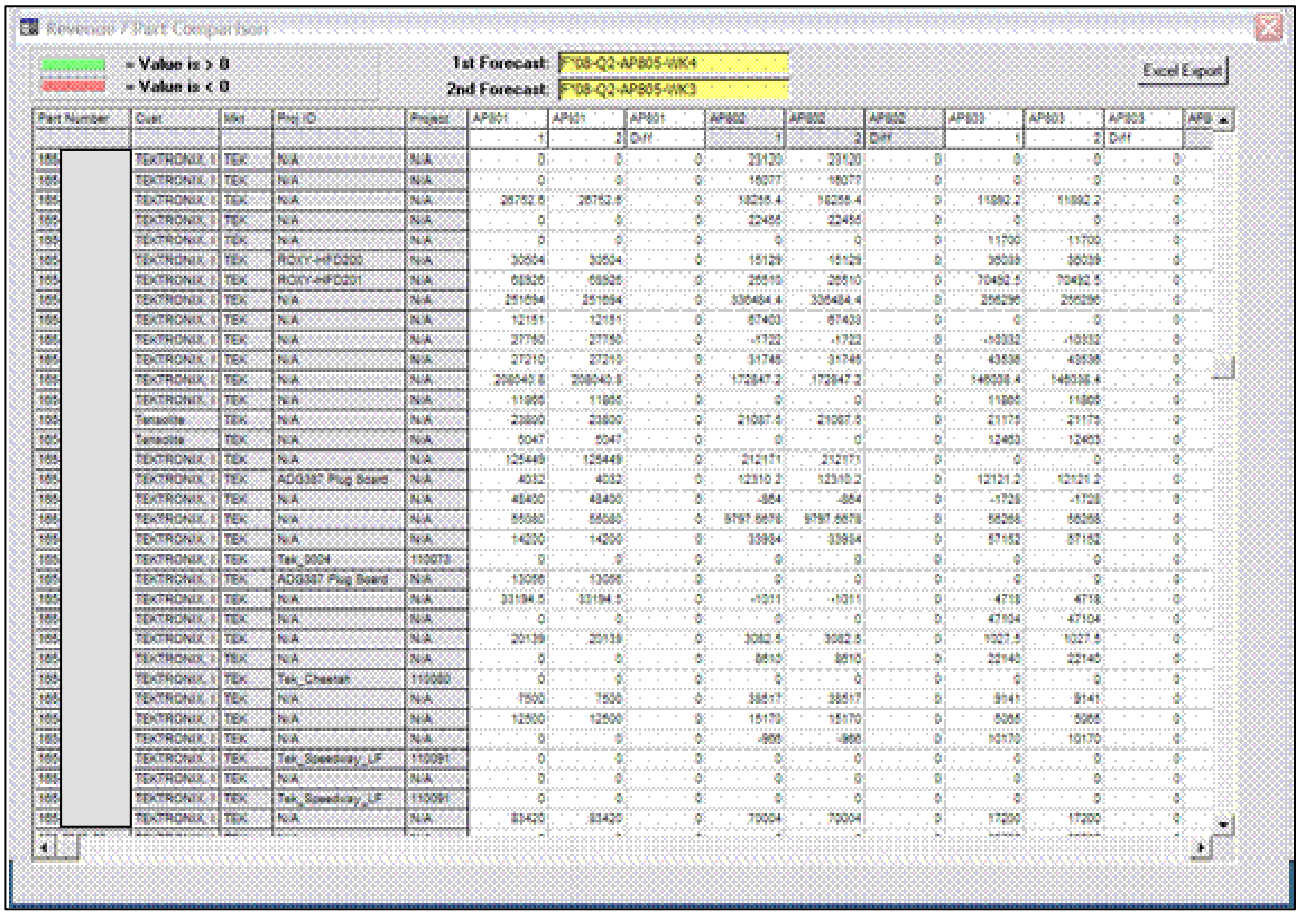
- Used simplest possible solution using tools familiar to the business users that could be quickly deployed
- Initial collection and consolidation of a rolling production forecast standardized MS Excel templates were deployed
- Forecasts from external sources used delimited flat file formats
- Several MS Access forms were designed to facilitate team based collaboration for forecast review and modification
- MS Access forms allowed forecast changes, notes, and approvals to documented in a group format while projecting forecasts using a data show

Desktop Legacy Forecasting System (Microsoft Access)



- Forecast Entry Worksheet

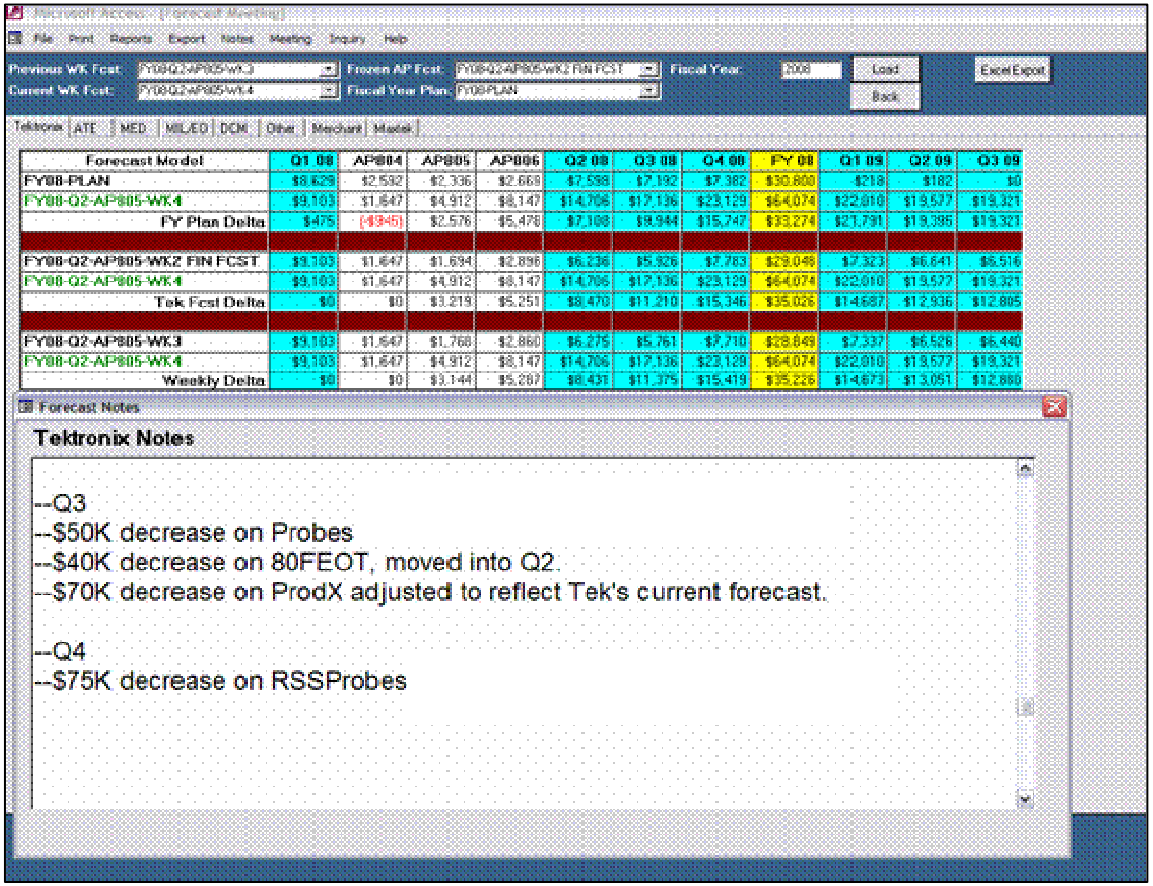
Desktop Legacy Forecasting System (Microsoft Access)



- Primary MS Access Collaboration Form

Desktop Legacy Forecasting System (Microsoft Access)

- Note Taking Capability



Business Change Happens

The one business constant is change…

OnPlan Solutions LLC

www.OnPlanSolutions.com

- **Overview:**
  - OnPlan Solutions is the *trusted advisor* of choice for industry leaders using Oracle Applications in the Pacific Northwest
  - Consulting team has an average of 10 years Oracle EBS Implementation Experience
  - OnPlan Solutions has extensive industry experience delivering "complex" Oracle projects

- **Consultancy Expertise:**
  - Global Oracle Rollout Program Management
  - Supply Chain Optimization & Finite Scheduling
  - Advanced Oracle CRM Solutions

Business Environment Changes

Area	Element Driving Business Change
Product Mix & Profitability	• *Success of ETO* product lines • Ongoing *cost reduction & lean manufacturing* programs • *Rapid growth* in the customer base
Data Complexity	• Significant increase of *data volumes* • Enhanced use of *ASCP & finite production scheduling* • Need for better *revenue & production forecast visibility*
Customer Driven Enterprise	• Drive to *exceed customer service level* goals • *Integrating customer* through enhanced collaboration • *Time to market* improvement through better forecasting

Legacy Solution Falls Behind

Area	Legacy Limitations
Enterprise Solution	• MS tools employed lack enterprise level access, security, approval layers, and reporting • Maintenance and enhancement of the legacy tools and interfaces became cumbersome & time consuming
Enabled Collaboration	• Collaboration is disjointed due to multiple files involved • Integration with Oracle E-Business suite is not efficient
Process Automation	• Lacking executive presentation capabilities • Lacking automated statistical forecasting methods • MS Desktop is not workflow enabled

Forecasting Solution

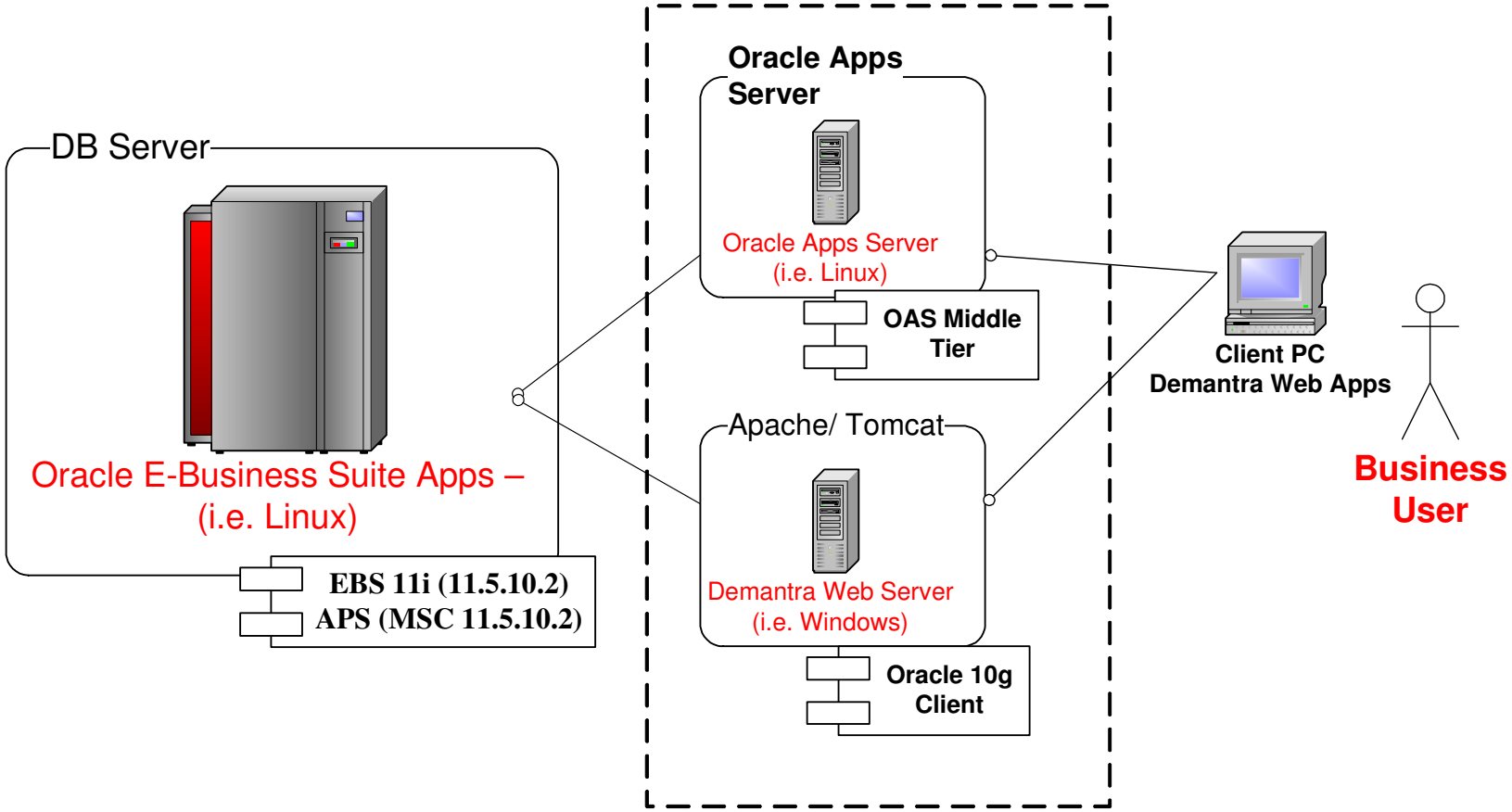
Business Requirements Summary

Area	Forecasting Solution Business Requirements
Original Tool Requirements	• ***Req1***: Ability to collect & consolidate product forecasts • ***Req2***: Ability to review & edit forecast in a collaborative fashion • ***Req3***: Ability to document forecast changes, notes, & approvals.
Newly Identified Tool Requirements	• ***Req4***: ***Enhanced collaboration with entire supply chain including Tektronix, other customers, and field sales*** • ***Req5: Ability to plan to actual forecast status relative to real-time sales information (enabling a demand-driven enterprise).*** • ***Req6: Ability to complete advance analysis of proposed forecast by customer and product combinations*** • ***Req7: Ability to limit the viewing & manipulation of public sector compliant sensitive data by security clearance***

Demantra Demand Management

What we learned about this product…

Demantra Server Configuration



Maxtek Production Server Configuration

Server components utilized the Maxtek implementation:

- Oracle Applications 11.5.10.2 centralized ASCP instance running 10.2.0.3 RDBMS
- Demantra Windows Server with Tomcat Application Server
- Oracle Application Server 10.1.3 J2EE Server and Web Server for hosting the Demantra Application
- Windows Client machines for access the Business Modeler and Collaboration Workbench

Demantra Server Configuration

Notes & Gotcha's....

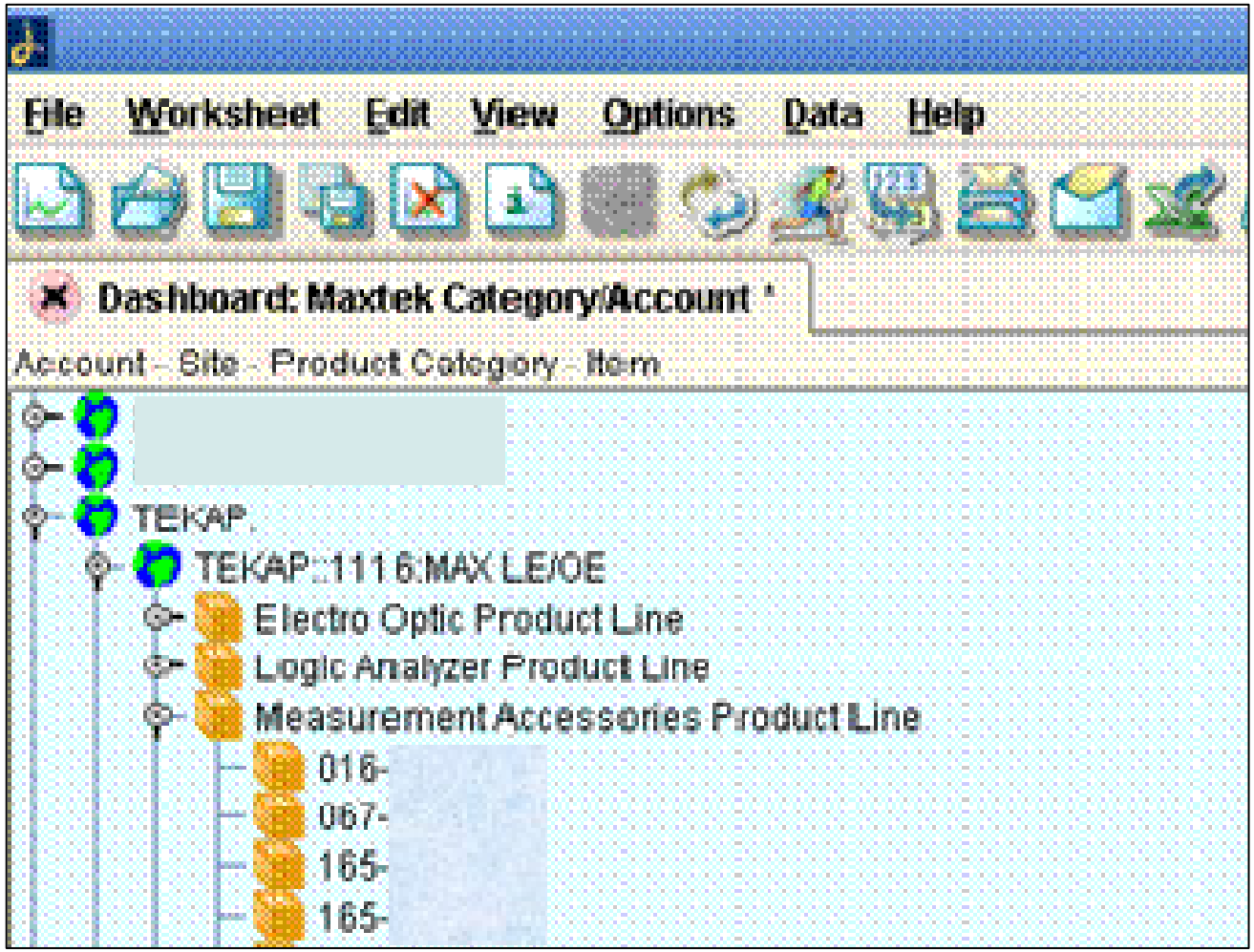
- *Upgrade EBS 11i (11.5.10.2) applications to J2SE 1.5.0.12*
- *Upgrade EBS 11i (11.5.10.2) applications Developer 6i to latest*
- *Install Latest ASCP Collections and Engine Patches on EBS/APS*
- *Identify and apply the latest EBS Demantra Integration Patches*
- *Install a Demantra Windows Server*
- *Install the full Oracle Client to exactly match the database version*

Demantra Key Concepts

"Levels and Members"

- Extendible Multidimensional Data Modeling
  - Resembles an extendible data warehouse w/ predefined dimensions
  - Extendible dimensions, or **levels**, of the tool are *items*, *locations*, and *time resolution*
- IT Analyst Defines Dimension **Members**
  - Examples
    - ***EBS Item*** is Product Family, Category, and Item
    - **EBS Location** is Region, Customer, & *Ship_To*
    - **Time Resolutions** is Quarter, EBS Accounting Period, & Production Week

Maxtek Item/Location Example

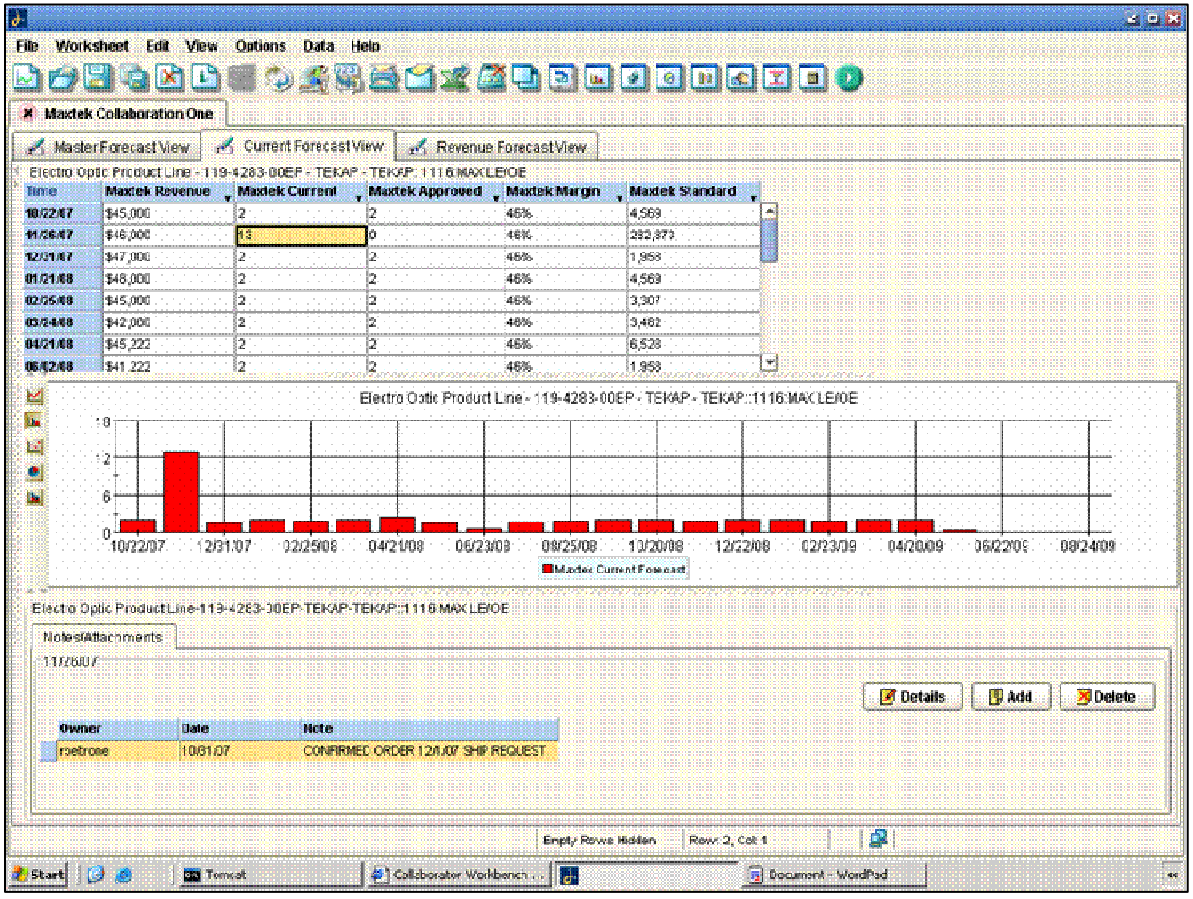


Demantra Key Concepts

Primary User Interface (UI)

Worksheet:

- Primary Business User Interface



Demantra Key Concepts

Features business users will find valuable

Worksheet Area	Description
Basic Input Data	• Create, modify, and manipulate a collected data series. *Example*; review and modify a sales forecast generated by the forecast engine.
Time Resolution	• Change the time resolution dimension of the multidimensional data warehouse. *Example*; review a forecast data series in weekly time buckets or aggregate the data into monthly accounting periods.
Levels	• Create & load a hierarchy within a single data warehouse dimension. *Example*; View sales forecast by region, state, account rep, customer, etc.

Demantra Key Concepts

Features business users will find valuable

Worksheet Area	Description
Combination	• View data based on user defined combinations of levels. *Example*; show me the sales forecast for this product family in a specific geographic region.
Series	• A series is any data set that a business user identifies as part of the business process. *Examples*; sales forecast, production forecast, revenue projections, margin analysis, etc.
Filters & Exceptions	• Filter visible data within a worksheet. *Example*; Show all the data for a specific product category with the exception of a single customer's forecast.

Demantra Key Concepts

Functions IT Analyst will find valuable

Function	Description
Methods	• A Workflow Engine exists with ***pre-defined workflow*** steps, each with predefined behavior. An IT analyst can define a workflow 'method' enhancing the user worksheet interface.
Security	• The Demantra data & menus are secured, so that not all users have access to the same data and options. You can ***control 'no access', 'read-only', 'read/write', or full control***.
Expressions	• Series (data) calculations are defined through Expressions. A series can have either or both of the following 'coded' expressions; '***server*** expression', '***client*** expressions'

Simplified View of EBS Integration to *Demantra Demand Management*

Seeded Oracle EBS 11.5.10 to Demantra Downloads

- Oracle Order Management bookings & shipment history
- Oracle Order Management Price Lists
- EBS Item, categories, product family, and zone hierarchies
- Oracle Customer, ship_to, demand class, and region hierarchies

Demantra Key Concepts

Notes & Gotcha's....

- EBS Downloads
- EBS Item Cost Data
- Unix versus Windows
- Forecast Uploads to EBS
- Lacking ERD for Demantra Schema

Solution Identified

How Demantra solved the problem…

Business Solution Matrix

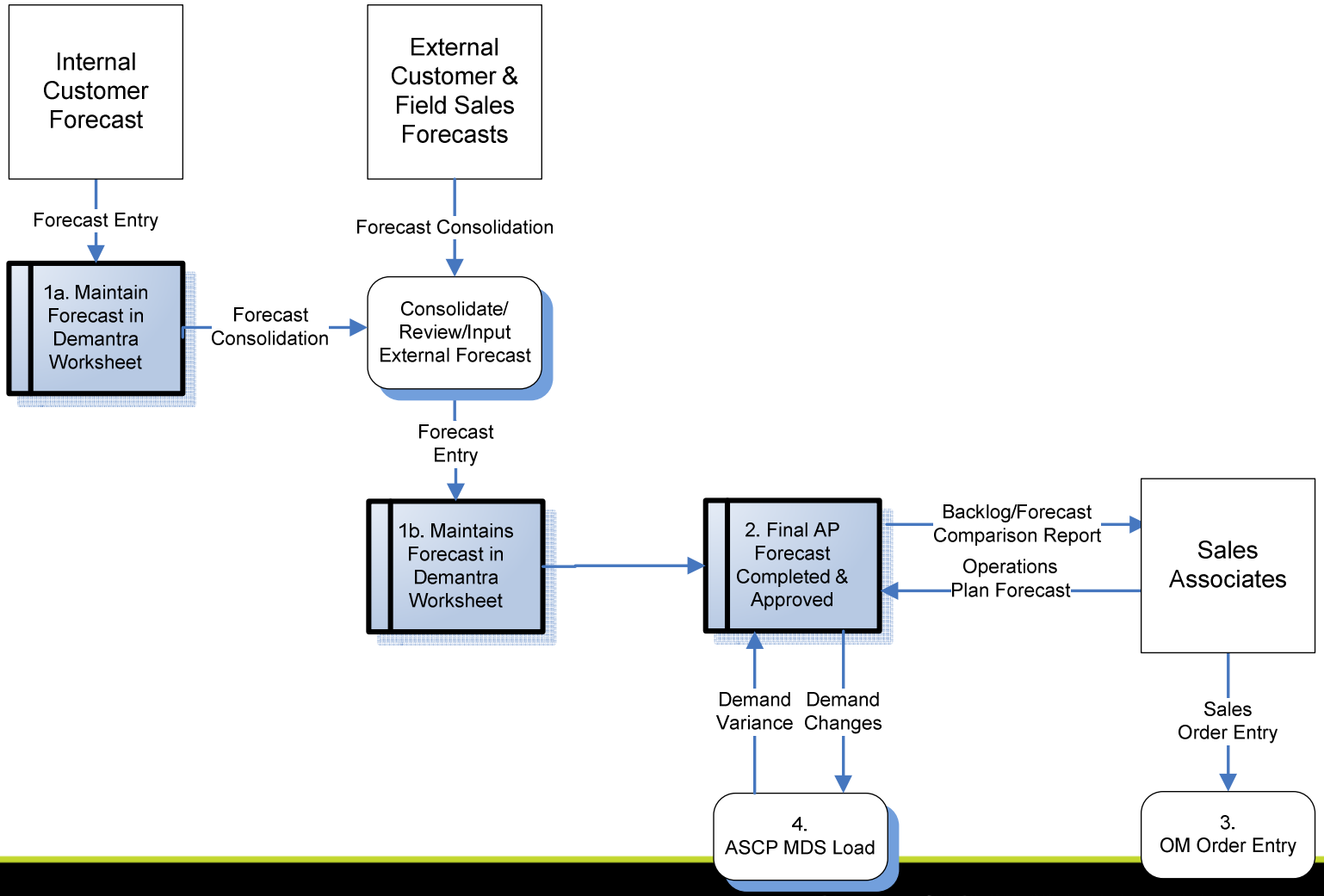
Maxtek Business Requirement	Demantra Demand Management Feature/Function
Better collaboration **through direct access of forecast from Tektronix, other customers, and field sales (consensus forecast)**	➤ ***Integration Profiles*** - Flat file load of customer forecast directly into Demantra ➤ ***Web Based Worksheets*** - Customer UI for forecast entry and modification ➤ ***Secure AppsServer Deployment*** - Field sales UI for forecast entry, review, and modification
Real time look **at current forecast allowing for real-time edits (*demand-driven enterprise*)**	➤ ***Worksheet Notes & Audit Trails*** - Share forecast database that allows for independent viewing, manipulation, and analysis ➤ ***Worksheet Methods & Approval Workflows*** - Shared forecast database that allows for collaborated viewing, manipulation, and analysis
Ability to *auto-generate initial forecast*	➤ ***Bayesian Forecast Engine*** - Forecast engine can produce base forecast from historical sales ➤ ***Automated Forecasting Workflow*** - Starting point forecast for sales & marketing groups
Ability to complete *advance analysis* of proposed forecast by user defined levels	➤ ***Worksheet Aggregation*** - Aggregate forecast based on user defined time, sales geography, and product family hierarchies. ➤ ***Worksheet Layout Design*** - User definable worksheet design and real-time customization

Business Solution Matrix

Maxtek Business Requirement	Demantra Demand Management Feature/Function
Ability to *collect and consolidate* many forecast	➤***Worksheet Series Definition*** - Provide users with a limitless number of data series that can be viewed and manipulated
Role-base workflows **and analysis**	➤***Demantra User Roles*** - Creation of several business user roles that define methods, data access, and approval capabilities
Forecast to Actual **analysis**	➤***Client & Server Expressions*** - Pre-defined set of user callable methods that display calculated data as requested
Limit viewing of *compliance sensitive data*	➤***Security Configuration*** - Limit access edit & viewing ability based on role based security levels

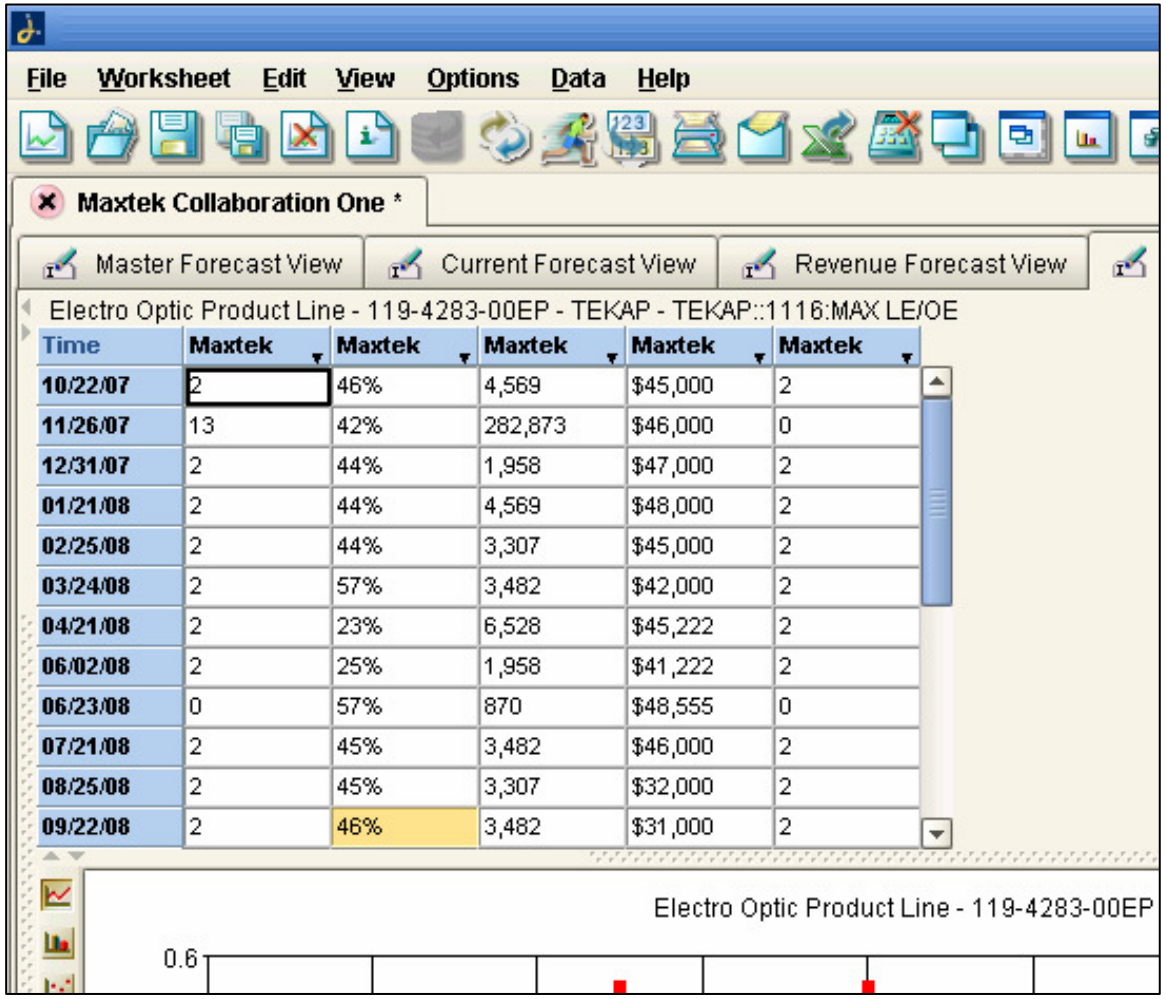
Business Process Flow

Demantra Demand Management



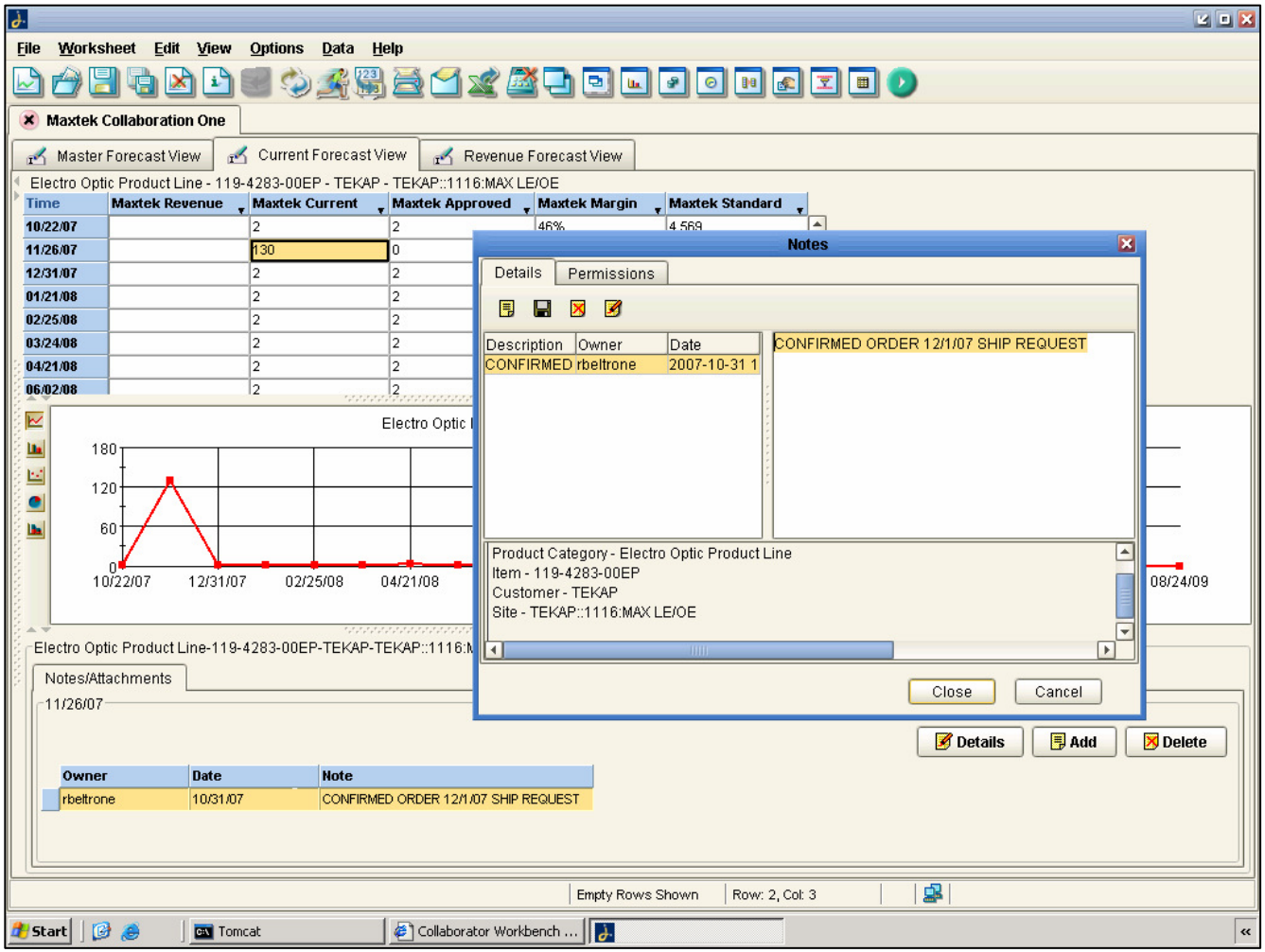
User Interface Examples

Demantra Forecast Entry



User Interface Examples

Collaboration & Notes



Case Study Conclusions

- *Demantra is a straight forward forecast collaboration and generation tool*
  - Emulates a Microsoft Desktop Environment
  - Sufficient integration with Oracle EBS for a large enterprise
- *Many more features/functions* to be deployed
  - As the business users evolve the tool will scale
  - 100% requirements fit now and into foreseeable future

Robert Beltrone
OnPlan Solutions LLC
RBeltrone@OnPlan.biz

Visit www.OnPlanSolutions.com
for a copy of the
Demantra Case Study White Paper