



# Achieve Automated ANSI-748 EVMS Compliance utilizing Microsoft Project

Welcome to a live Demonstration of the



The world's premier earned value automation tool for Microsoft Project



**Presented by:**

**Stuart Trahan**

**Founder and Chief Technology Officer**





**COMPLIANCE**  
SOFTWARE TECHNOLOGY, INC.

Worldwide provider of Microsoft Project COTS solutions, custom software applications, training, and consulting services with a special emphasis on EVMS.





**Stuart Trahan (left) discussing Microsoft Project with Chris Capossela, General Manager of the Microsoft Project product unit**





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## CSTI Clients



# What is Earned Value Management?

ID	Name	2002												
		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
31	New Additional Channel Study													
32	Improved SNR Study													
33	3.9 Dynamic Range (fire channel) Study													
34	Spatial Resolution Study													
35	Coverage Rate Study													
36	Polarization Control Study													
37	Edge Response Study													
38	Envelope, Mounting, Orientation, Constraint Study													
39	Torque Compensation Study													
40	Trade Study Data Buffer Analysis													
41	Revised System Level Trade													

## ANSI/EIA-748

The essence of earned value management is that a target planned value (i.e., budget) is established for each scheduled element of work. As these elements of work are completed, their target planned values are "earned". As such, work progress is quantified and the earned value becomes a metric against which to measure both what was spent to perform the work and what was scheduled to have been accomplished.

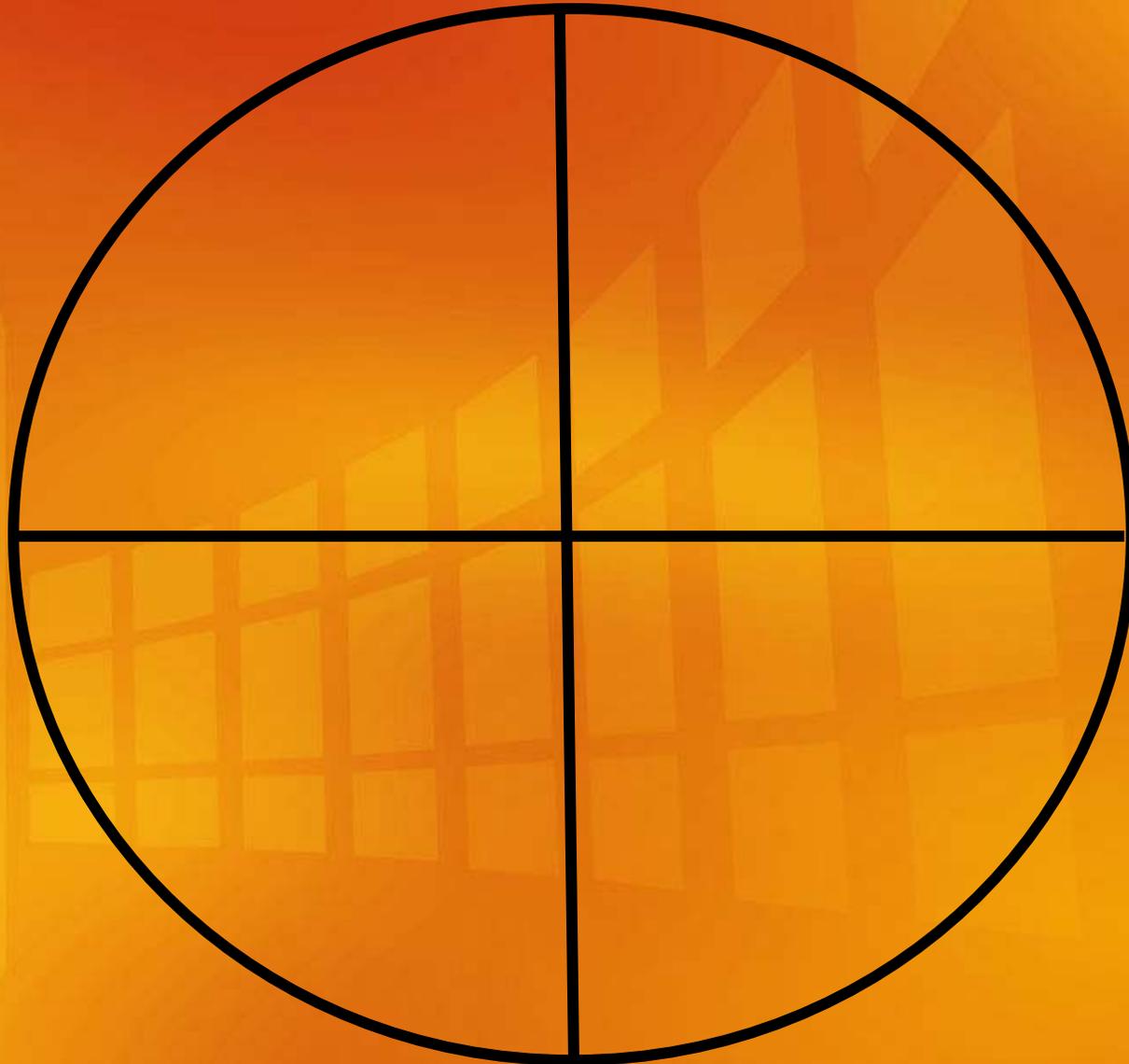


# Terminology is Important

- Estimate / Current Plan / Forecast / EAC
  - Duration
  - Start
  - Finish
  - Work
  - Cost
- Budget / Baseline / Original Plan / BAC
  - Baseline Duration
  - Baseline Start
  - Baseline Finish
  - Baseline Work
  - Baseline Cost



# Earned Value Reporting Cycle



# Earned Value Reporting Cycle



**Step 1**  
Data  
Management



# Earned Value Reporting Cycle

**Step 2**

Data  
Integration



**Step 1**

Data  
Management



# Earned Value Reporting Cycle

**Step 2**  
Data  
Integration



**Step 3**  
Data  
Consolidation



**Your EV Tool**



**Step 1**  
Data  
Management



# Earned Value Reporting Cycle

**Step 2**  
Data  
Integration



**Step 3**  
Data  
Consolidation



**Your EV Tool**



**Step 1**  
Data  
Management



**Step 4**  
Reporting



# Today's Topic

forProject



controls automation suite

How the **forProject** will enable you to manage and status your EV Budgets and Forecasts within Microsoft Project and seamlessly integrate them into your EVMS .



# Core Problem Statement

Data integration from MSP into your EVMS is:

- Manual,
- Time Consuming,
- Complicated,
- Labor Intensive, and
- Subject to Human Error



# The Challenge...

- **EVMS tools provide some integration to MSP, but DO NOT provide a Methodology (a roadmap) to manage EVMS data within Microsoft Project.**
- **Exporting MSP aggregate data at the Control Account level by fiscal period is only available thru a MANUAL copy/paste process or use of an Export tool.**





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# CSTI Methodology for Managing Earned Value within Microsoft Project

**forProject**



controls automation suite



# forProject



controls automation suite

...is a suite of tools for Program Control professionals, designed to help automate the more grueling activities experienced during an EVMS reporting cycle.

## Tools include:



Utilities



Profiler



Tracer



Export





## Utilities for Project™

- ❑ Aligns MSP data across all schedules in the organization
- ❑ Manages and Controls the WBS
- ❑ Reports tasks in the schedule requiring status
- ❑ Automatically Calculates Earned Value within MSP using Earned Value Types
- ❑ Shows BCWP progress shading on the baseline gantt bar
- ❑ Provides a quick Earned Value analysis for hours and dollars

**The Time Savings and Efficiencies provide a compelling ROI to your enterprise.**





# Utilities for Project™

demo





## Export for Project™

- ❑ Eliminates dual data entry
- ❑ Exports MSP data in Excel, CSV, Access and XML formats
- ❑ Allows User Definable Fiscal Periods
- ❑ Exports MSP time-phased data into custom fiscal periods
- ❑ Exports fiscal roll-ups from any date into the future (solves for ETC export)
- ❑ Validates current exports against saved exports for accurate data configuration control
- ❑ Sums and groups data from multiple projects
- ❑ Creates an exception report for tracking new, deleted and changed tasks
- ❑ Features open mapping architecture optimizing user flexibility to customize export file configuration
- ❑ Provides for selective data export by use of Microsoft Project® filters

**The Time Savings and Efficiencies provide a compelling ROI to your enterprise.**





# Export for Project™

demo





## Profiler for Project™

- ❑ Automatically profiles time-scale Work or Cost including Baselines
- ❑ Applies an authorized baseline adjustment to a task after it is in progress and has slipped from the baseline
- ❑ Supports Baseline 1-10 in Microsoft Project® 2002
- ❑ Profiles from selected MSP From-date to selected MSP To-date
- ❑ Forward spreads hours or dollars from the project Current Date or Status Date without changing the hours or dollars in the past.
- ❑ Profiles all tasks in the entire project or a selected task only
- ❑ Provides use of project filters for selective profiling of the entire schedule
- ❑ Supports MSP 2000 / 2002 / 2003

**The Time Savings and Efficiencies provide a compelling ROI to your enterprise.**





# Profiler for Project™

demo





## Tracer for Project™

- ❑ Provides split-screen display of Tracer Navigation Dashboard and MSP Gantt View
- ❑ Eliminates the cumbersome process of viewing current task information through pop-up dialog boxes
- ❑ Provides the current task Critical Path Information, Predecessor, Successor, Baseline, User Field, and Other Task Information in the same view
- ❑ Provides quick task navigation via use of Next, Previous, Go To, and Trace buttons
- ❑ Facilitates Critical Path debugging by allowing a quick trace up or down project logic.
- ❑ Traces to external tasks
- ❑ Utilizes Zoom-in / Zoom-out and Go To Selected Task for pleasant viewing

**The Time Savings and Efficiencies provide a compelling ROI to your enterprise.**





# Tracer for Project™

demo



## Recent Win – Case Study

Output	Creation		Monthly Maintenance	
	Current	Future	Current	Future
IMS/Critical Path Analysis	354 hrs	0 hrs	122 hrs	0 hrs
Baseline/Resource Loaded Schedules	831 hrs	1,052 hrs	200 hrs	284 hrs
Earned Value	0 hrs	0 hrs	54 hrs	15 hrs
Estimates to Complete	0 hrs	0 hrs	140 hrs	37 hrs
Top Level/Review Formats	0 hrs	0 hrs	85 hrs	0 hrs
	<b>1,185 hrs</b>	<b>1,052 hrs</b>	<b>601 hrs</b>	<b>336 hrs</b>
Savings in Monthly Maintenance			265 hrs	
Savings in Creation		133 hrs	x 12 months	
		x 2 per year	x 10 programs	
<b>Total Savings per Year</b>	<b>266 hrs</b>		<b>31,800 hrs</b>	
				<b>32,066 hrs</b>





- **Total Dollar Benefit on 10 Current Programs**
  - 5 Fixed Price Programs (32,066 hrs / 2 = 16,033 hrs saved)
    - (16,033 hrs/per yr x \$37 per hr) x 160% variable overhead =
    - **\$950,000 per yr savings**
  - 5 Cost Plus Programs
    - \$950,000 per yr x 10% =
    - **\$95,000 per year revenue growth**



# CSTI EVMS Methodology Benefits

- Tools are simpler to use
  - Ease of use will increase ownership of schedules
  - Simplification of process reduces burden on CAMs' time investment
  - Results oriented reports will lead management teams to embrace tools
- Processes are more efficient
  - Tools provide efficiencies in scheduling tasks
  - Process promotes quicker turnaround for schedule updates, EV & ETCs
  - Allows true critical path analysis
- Tools are “state of the art” - setting the industry standard.
  - Schedules become a management tool
  - Insight to critical dependencies, including Cross Product Dependencies (CPDs)



# Current Roll-out Features & Benefits

- Integrated Master Program Schedule (MPS) for each Program
  - Allows true critical path analysis
  - Insight to critical dependencies, including Cross Project Dependencies (CPDs)
  - Allows individual schedules to be maintained while providing overall program integration.
  
- Real Time Updates
  - Weekly Schedule update allows opportunity to address issues as they are identified.
  
  - Facilitates month-end updates by reviewing changes incrementally
  
- Web Browser access to Schedules at all levels of Enterprise
  - Users do not need to know how to use MSProject to view schedules



# Current Roll-out Features & Benefits

- Electronic Notification of Tasks Requiring Updates
  - Simplifies update process by focusing CAM on only those tasks which were planned to start/finish each week.
- Schedule Health Report Card
  - Schedule metrics summarized automatically
  - Help pinpoint issues with schedule that may compromise validity of schedule analysis (e.g. orphan tasks, tasks with long durations).
- Deadline Alert Process
  - Notifies team when a deadline has been breached so that the conflict can be resolved.
    - Provides early warning of potential slips via alerts
    - Allows workarounds to be implemented prior to impacts
- Tasks Calendars
  - Allows different work schedules for select tasks (e.g. System Test 24 / 7 )



# Current Roll-out Features & Benefits

- Cost Accounts coded with Key Identifiers (e.g. IPT, subsystem, function)
  - Allows logical grouping of complex schedules for various reviews of information
- Time Phased Network Diagrams
  - Ability to easily view near term tasks and task relationships to overall project
- Trained Schedule Analysts staff
  - Will work hand in hand with Core Team to develop and maintain Master Program Schedule integrity and facilitate full utilization of tool set to meet program needs.
- Schedulers Ability to Validate Baseline, EV, & ETC (export) data prior to MPM.
  - Minimizes amount of regression due to data transfer through a conversion gate.
  - Facilitates MPM validation by comparing export data file to MPM





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# Workflow Management System



# Schedule Health Report Card

**Schedule Health Report Card**

Total Tasks: 251   Summary Tasks: 37   Detail Tasks: 119   MilestoneTasks: 57   External Tasks: 38

Project Path: <>\TRNG\_Copy KatterhenryR2\_SPT.Published

Report Date: 12/1/2003

Status Through: 10/25/2003

**Schedule Health Grading**

Total Points Available: 24

Health Points Earned: 14

Health Grade: 58.33%

Print

Criteria	Value	Healthy	Points										
<a href="#">Relationship to Activity Ratio</a>	1.1	<input type="checkbox"/>	0										
<a href="#">Start Activities</a>	8	<input type="checkbox"/>	0										
<a href="#">Finish Activities</a>	7	<input type="checkbox"/>	0										
<a href="#">Isolated Activities</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Summary Logics</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Finish to Start Relationships</a>	237	<input checked="" type="checkbox"/>	1										
<a href="#">Finish to Finish Relationships</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Start to Start Relationships</a>	1	<input checked="" type="checkbox"/>	1										
<a href="#">Start to Finish Relationships</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Negative Lags</a>	1	<input type="checkbox"/>	0										
<a href="#">Positive Lags</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Must Start On's</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Must Finish On's</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Start No Later Than's</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Finish No Later Than's</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Long Durations</a>	11	<input type="checkbox"/>	0										
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>&lt;=20</th> <th>&gt;20&lt;=40</th> <th>&gt;40&lt;=60</th> <th>&gt;60&lt;=120</th> <th>&gt;120</th> </tr> </thead> <tbody> <tr> <td>95</td> <td>15</td> <td>7</td> <td>9</td> <td>2</td> </tr> </tbody> </table>				<=20	>20<=40	>40<=60	>60<=120	>120	95	15	7	9	2
<=20	>20<=40	>40<=60	>60<=120	>120									
95	15	7	9	2									
<a href="#">Positive Duration Variances</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Positive Finish Variances</a>	0	<input type="checkbox"/>	0										
<a href="#">Should Have Started</a>	17	<input type="checkbox"/>	0										
<a href="#">Should Have Finished</a>	13	<input type="checkbox"/>	0										
<a href="#">Future Starts</a>	3	<input type="checkbox"/>	0										
<a href="#">Future Finishes</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Baseline Starts Missing</a>	0	<input checked="" type="checkbox"/>	1										
<a href="#">Baseline Finishes Missing</a>	17	<input type="checkbox"/>	0										

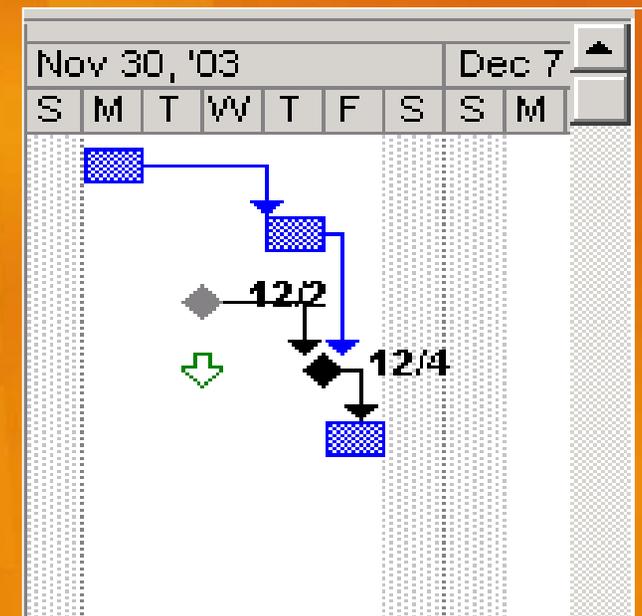


# Deadline Alert Notification



	i	Task Name	Duration	Start	Finish	CPD ID	Deadline	CPD Comments	Predecessors	Successors
1		task 5	1 day?	12/1/03	12/1/03		NA			2
2	📅	task 6	1 day?	12/4/03	12/4/03		NA		1	4
3		Outfeed: task 3	0 days	12/2/03	12/2/03	CPD_ITT1234	NA			4
4	⚠️	Infeed: task 7	0 days	12/4/03	12/4/03	CPD_ITT1234	12/2/03		2, <>\TRNG_CPD Project 1.Published\3	5
5		task 8	1 day?	12/5/03	12/5/03		NA		4	

- NOTE: The DEADLINE indicator depicts a situation where the Outfeed CPD has breached the Infeed CPD agreed to date which is found in the Infeed CPD's Deadline date column.
  
- This is only cleared once the conflict has been resolved by:
  - Identifying a recovery plan which pulls the offending task back to the need date
  - Implementing a work around in the plan to accommodate the later date and changing the deadline to reflect the “revised” need date.



# Scheduler Receives and Reviews CAM Updates

Update

## View task changes submitted by resources

Task changes from resources (7/7/2003 - 7/7/2003)

Customization tab

View Options Filter, Group, Search Apply Rules

Update Actions Menu Bar

Accept all | Show history | Insert Notes | 7/7/2003-7/7/2003

Accept?	Name	Work	Remaining Work	% Work Co
	- 100X DVD Drive	40h	22h	A
	- Task update	40h	22h	A
	- Steve Masters	40h	22h	A
	Develop risk analysis	40h	22h	A

Print Grid Export Grid to Excel

Accept/Reject column

1. Once the CAM has updated the requested status, the scheduler is notified electronically that the status is available.
2. Updates that are “Accepted” by the scheduler are automatically updated in the Master Program Schedule.



# History of Schedule Changes

- Microsoft Office Project Server 2003 stores an archive of past task updates that the scheduler has made. This allows the scheduler to review the history of task updates made for all their projects and resources.

The screenshot displays the Microsoft Office Project Web Access 2003 interface in Microsoft Internet Explorer. The browser window title is "Microsoft Office Project Web Access 2003 - msp11beta2 - Microsoft Internet Explorer". The address bar shows the URL: "http://msp11beta2/PserverSample/Transactions/TaskTransHistory.asp?\_oid=-1".

The main content area is titled "View history of past task changes" and shows "Update history on resource task changes (5/1/2003 - 6/30/2003)". There are buttons for "View Options" and "Filter, Group, Search". Below this, there is a "Show Task Changes" section with a date range of "5/1/2003-6/30/2003".

The table below lists the task changes:

Accept?	Last Updated On	Name
Accept		- 100X DYD Drive
Accept		- Task update
Accept		- Scott Bishop
Accept	6/25/2003	Assign resources to preliminary investigation
Accept	6/20/2003	Conduct preliminary stage review decision
Accept	6/20/2003	Assign pilot stage resources
Accept		- Steve Masters
Accept	7/15/2003	Develop risk analysis
Accept	6/20/2003	Conduct preliminary stage review decision
Accept	6/20/2003	Assign resources to development stage plan
Accept	6/2/2003	Develop plan for customer product testing
Accept	6/20/2003	Conduct customer evaluations of prototype prod
Accept	7/19/2003	Decision point - go/no-go to pilot stage



# System and Database Architecture

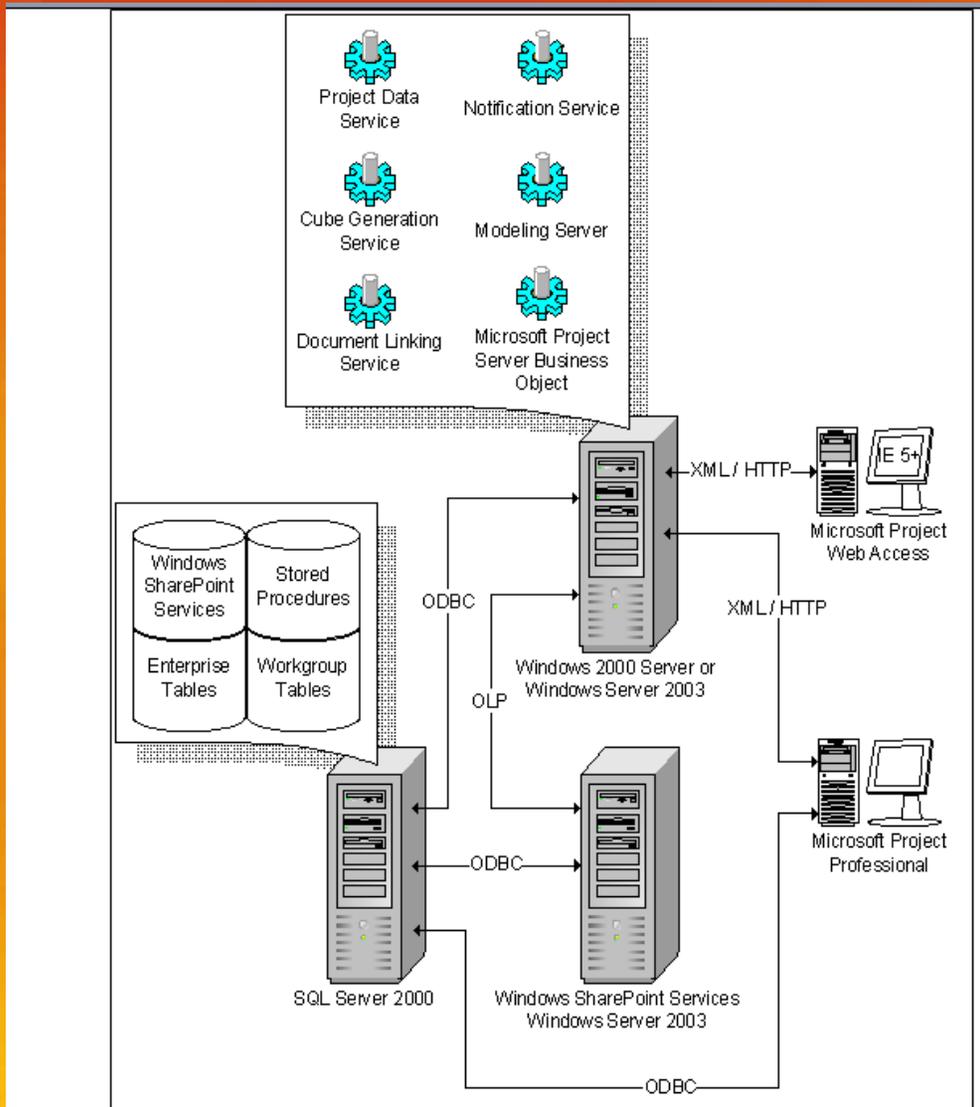
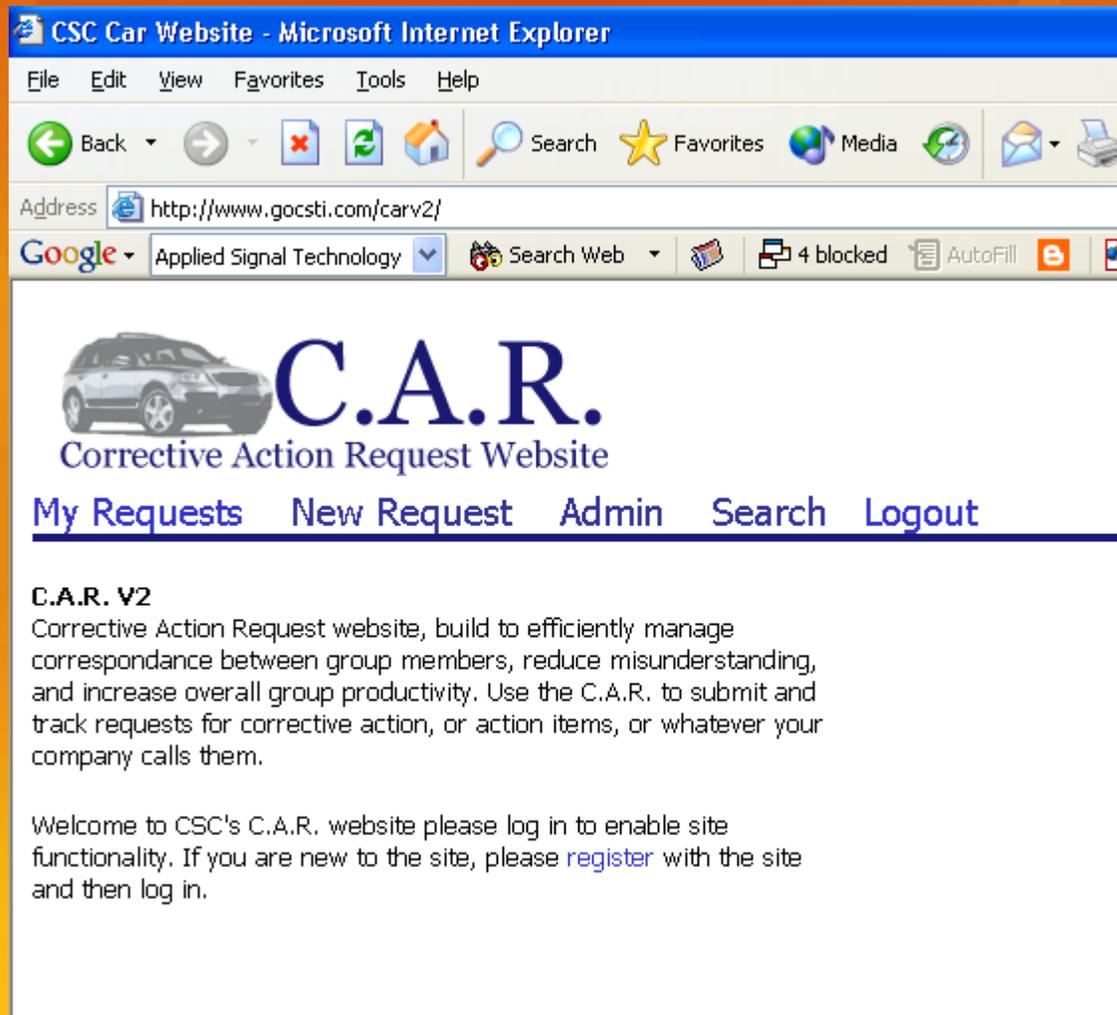


Figure 1. Enterprise Project Architecture

- Scalable
- Supports API
- Supports ODBC
- Enterprise Integration
- Authenticated Security
- Secure Web Access
- User access control at the app and user Levels



# *Customer Support*



The screenshot shows a Microsoft Internet Explorer browser window titled "CSC Car Website - Microsoft Internet Explorer". The address bar displays "http://www.gocsti.com/carv2/". The page content includes a car image, the text "C.A.R. Corrective Action Request Website", and a navigation menu with links: "My Requests", "New Request", "Admin", "Search", and "Logout". Below the navigation menu, there is a section titled "C.A.R. V2" with a description: "Corrective Action Request website, build to efficiently manage correspondance between group members, reduce misunderstanding, and increase overall group productivity. Use the C.A.R. to submit and track requests for corrective action, or action items, or whatever your company calls them." A welcome message follows: "Welcome to CSC's C.A.R. website please log in to enable site functionality. If you are new to the site, please [register](#) with the site and then log in."

## Level 1 Support

- CAR Website
- CSTI Support Team

## Level 2 Support

- CSTI Support Team
- CSTI Development



**Step 2**  
Data  
Integration



**Step 3**  
Data  
Consolidation



**Your EV Tool**



**Step 1**  
Data  
Management



**Step 4**  
Reporting





*Announcing New forProject™ Releases!*

Coming in May 2004

**forProject**  
  
controls automation suite



**Import forProject™**

*Imports Actuals into  
Microsoft Project...*



**Pricer forProject™**

*Performs complex pricing inside  
Microsoft Project...*





Step 1 - Data Management

Step 2 - Data Integration

Step 3 - Consolidation

Step 4 - Reporting



# Q & A

**for Project**  
  
controls automation suite



Utilities



Profiler



Tracer



Export

