



What Happens When Your Team Members Go Out to Sea?

Naval Oceanographic Office
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Topics...

- Project Background
- Challenges
- TSP – Teamwork
- TSP – Process-to-task Mapping
- TSP – Project Data Mining
- Conclusions

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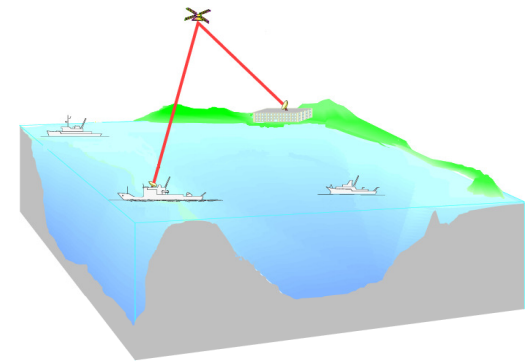
Mission - To optimize sea power by applying relevant oceanographic knowledge in support of U.S. National Security



Project Background

- Survey Operations Center (SOC) Concept

- Customers: Operations, Production
- Near real-time survey data access
- Near real-time ship position tracking
- Via C-band satellite connectivity
- Comply with IA constraints



- Project Focus – IT Lifecycle Maintenance

- Distributed system
- Hardware replacement
- Operating system upgrades
- Software updates
- System administration

Challenges

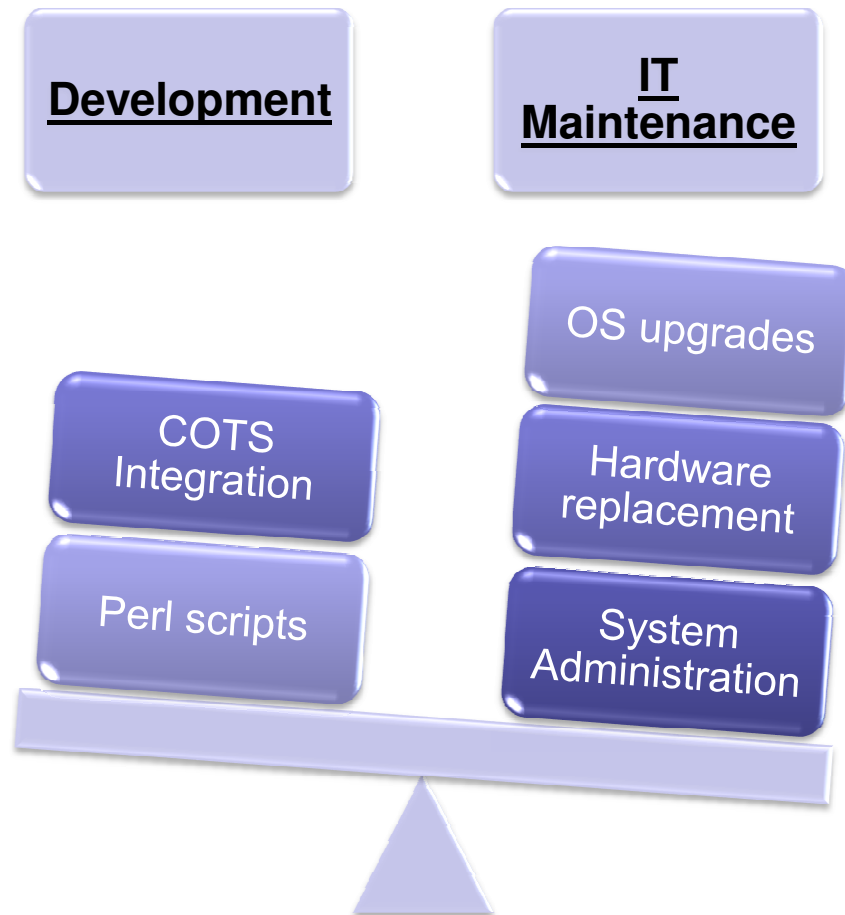
Finding balance...

- Skill sets
- Costs (effort)
- Resource availability



Solutions...

- Task and role backups
- Cross training
- Dynamic TSP planning



TSP - Teamwork

As a team...

- Plan the work
- Monitor and track status (weekly)
- Review lessons learned

Benefits...

- Team buy in and accountability
- Shared technical knowledge in planning
- Easier task reassignments

Changed resources
due to schedule
conflicts

Task	Resources	Plan Hours	Plan Date
RTDHS - Determine Requirements	c3	0.0	11/23/2009
RTDHS - Inspect Requirements	c3	0.0	11/23/2009
RTDHS - Design	c3	0.0	11/23/2009
RTDHS - Design Review	mc, na	2.5	11/23/2009
RTDHS - Design Review Rework	dg	2.5	11/23/2009
RTDHS - Code	na	5.0	11/30/2009
RTDHS - Code Review	na	2.5	11/30/2009
RTDHS - Code Inspection	c3, na	2.5	11/30/2009
RTDHS - Test (Unit)	c3	3.8	11/30/2009
RTDHS - Implement on Operational	c3	2.0	11/30/2009
RTDHS - Test Case Development	cd	2.0	12/7/2009
RTDHS - Test Operational (System)	cd	2.0	12/7/2009
RTDHS - Acceptance Test by NP1	c3	2.0	12/7/2009

Note: Actual task data has been included in this presentation with team member permission.

TSP – Process-to-task Mapping

RHEL
upgrade
process
converted to
tasks

Copy and
paste tasks
for 2
workstations

Phase	Task	Resources	Size Measure	Rate (Per Hr.)	Estimated Hours	Engineers	Plan Hours	Plan Date	Plan Week	Actual Hours	Actual Date	Actual Week
PLAN	WSB1 - Submit Ripkin to Replace Box	cj	HR	1	0.5	1	0.5	1/5/2009	4	1.5	3/2/2009	12
CODEINSP	WSB1 - Check XP Configuration	cj	HR	1	2	1	2.0	6/1/2009	25	1.7	6/19/2009	27
CODE	WSB1 - Install of CA Software	cj	HR	1	1.5	1	1.5	6/8/2009	26	20.2	6/19/2009	27
UT	WSB1 - Test System (Unit)	cj	HR	1	2	1	2.0	6/8/2009	26	2.0	6/19/2009	27
IT	WSB1 - Test of Data SCP	cj	HR	1	2	1	2.0	7/13/2009	31	0.5	7/31/2009	33
AT	WSB1 - Acceptance Test	cj	HR	1	0.5	1	0.5	7/20/2009	32	0.0	9/8/2009	39
							8.5		28	25.9		27
REQ	WSB1 and WSR1 checklist	cj	HR	1	2	1	2.0	1/5/2009	4	2.3	3/2/2009	12
PLAN	WSR1 - Submit Ripkin to Replace Box	cj	HR	1	0.5	1	0.5	6/1/2009	25	1.5	3/2/2009	12
CODEINSP	WSR1 - Check XP Configuration	cj	HR	1	2	1	2.0	6/1/2009	25	2.0	6/19/2009	27
CODE	WSR1 - Install of CA Software	cj	HR	1	1.5	1	1.5	6/1/2009	25	5.8	6/19/2009	27
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AT	WSR1 - Acceptance Test	cj	HR	1	0.5	1	0.5	7/20/2009	32	0.0	9/8/2009	39
							10.5		28	13.1		27

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TSP – Data Mining

TSP Week Summary - Form WEEK

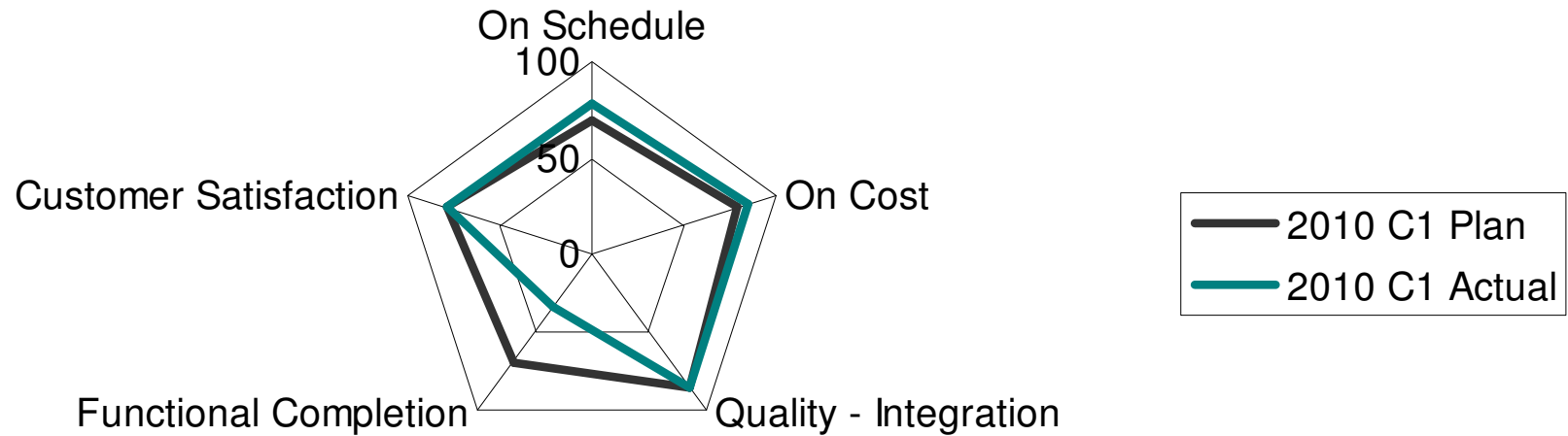
Name	Team	Date	3/17/2010
Team	SOC		
Status for Week	24	Selected Assembly	
Week Date	3/1/2010	SysAdmin I	
Task Hours %Change		Weekly Data	Plan / Actual
Baseline	278.0	Schedule hours for this week	12.0 0.0
Current	320.3	Schedule hours this cycle to date	287.3 204.8
%Change	15.2%	Earned value for this week	3.7 0.0
		Earned value this cycle to date	89.2 96.9
		To-date hours for tasks completed	310.3 205.8
		To-date average hours per week	12.0 8.5
		EV per completed task hour to date	0.312 0.477
		Plan - Actual	1.40 82.5
		Project End Dates	
		Baseline	2/15/2010
		Plan	3/29/2010
		Predicted	3/1/2010

Assembly	Phase	Task	Re-source	Plan Hrs.	Actual Hrs.	Baseline or End Date
TASKS DUE THROUGH WEEK 26						
SysAdmin I	MGMT	Weekly Antivirus updates week 5	cj	0.0	0.0	5
SysAdmin I	MGMT	Check ship processes week 23	cj	0.0	0.0	
SysAdmin I	MGMT	Check local machine processes week 23	cj	0.0	0.0	
SysAdmin I	MGMT	Weekly Antivirus updates week 23	cj	0.0	0.0	
SysAdmin I	MGMT	Satellite server ships updates week 23	cj	3.5	0.0	22
SysAdmin I	MGMT	Satellite server Local server updates week 23	cj	1.5	0.0	22
SysAdmin I	MGMT	Software patches	cj	0.0	0.0	22
SysAdmin I	MGMT	Weekly Antivirus updates - 3/1	ko	1.5		
SysAdmin I	MGMT	Daily local system process check - 3/1	ko	2.5		
SysAdmin I	MGMT	Satellite server ships system updates - 3/1	ko	0.0	0.0	
SysAdmin I	MGMT	Satellite server Local system updates - 3/1	ko	0.0	0.0	
SysAdmin I	MGMT	Update JAVA tracking spreadsheet - 3/1	ko	1.0	0.1	

Actual data shows ~8.5 hours per week required for system administration of SOC local network servers

Note: Actual task data has been included in this presentation with team member permission.

Project Summary Chart



Conclusions

- TSP benefits for SOC –
 - Building effective teams
 - Executing duplicate work processes
 - Data mining for future planning
- No silver bullets here
 - Calendar schedule fidelity is still difficult to achieve
 - Due in part to emerging tasks, changing processes, leave, power outages, world events
 - Individuals have to have willingness to participate as team members
 - Willing to share technical expertise and experience
 - Willing to track and share planned and actual task data
 - Willing to hold each other accountable
 - Willing to step in when other team members need help

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