

## Coffee, Junk Food, and Good Humor:

### Recipe for a Successful PeopleSoft Enterprise 8.9 Upgrade

Jim Prevo, Chief Information Officer

Lisa Kory, DBA

4/14/2008



# Topics to be covered

- Company Profile
- PeopleSoft Footprint
- Motivation for the Upgrade
- Goals & Strategy
- Project Plan
- Fit-Gap Scoping
- Making It Happen
- Additional Work Done
- Results
- What We Did Right
- What We'll Do Differently Next Time

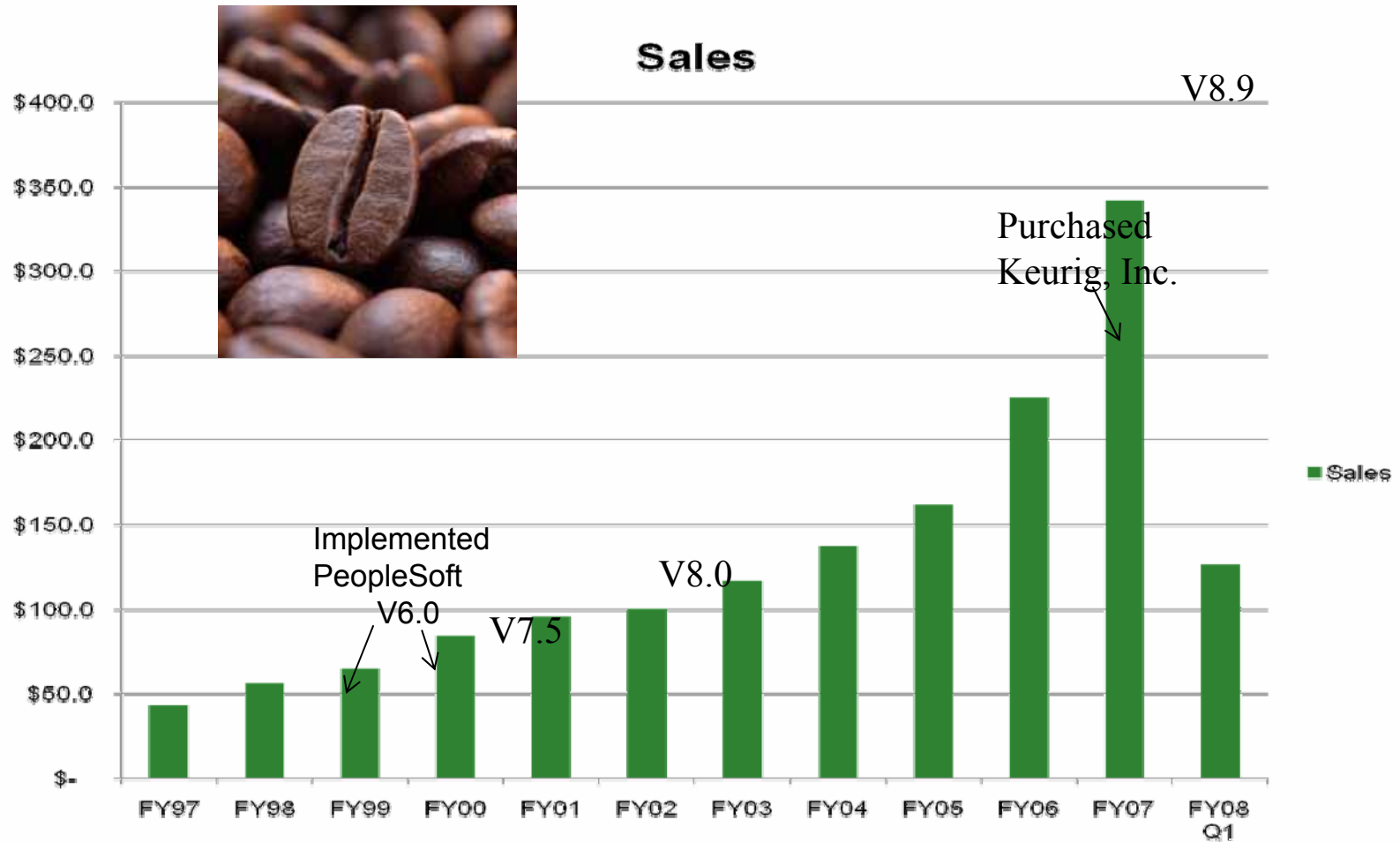


# Company Profile

- Public Company (NASDAQ: GMCR)
- Specialty Coffee
  - Green Mountain Coffee Roasters
    - Single Origin, Blends, Flavors
    - Fair Trade & Organic
  - Newman's Own Organics
- Keurig - Premium Single Cup Brewing Technology



# Sales History



# Facilities

- Corporate Campus – Waterbury, VT
- 2<sup>nd</sup> Plant – Essex, VT
- Regional Operations Centers
  - Maine, New York, Massachusetts, Connecticut
- Keurig Offices – Wakefield, Mass.



# PeopleSoft Footprint

- FSCM V8.9, Tools 8.48

- Oracle 10gR2 64 bit
- Procure to pay
- Order to cash
- Plan to produce
- 450+ users

- CRM V8.9

- SQL Server 2000
- On-line Marketing
- Lead management
- IT Help Desk
- Campaign Management
- OCSS for B2B
- 110+ direct users

GMCRCR Order Entry **Order Entry Form**

NEXT 02/15/2008 SALES DRFT [ ] PO# [ ] Source PHONE CC CC Info - Alt + D ZERO  
 Status Pending Carrier ID FEDEX Ship Via FEDEXSTD Reason Code [ ] Ship Date 10/03/2007 Route NONE Route Schedule 10/03/2007

Sold To: G0220997 Lisa Kory 355 Cochran Rd Richmond, VT 05477-9782 USA  
 Contact ID: 141746 Lisa Kory lisa.kory@gmcr.com 802/244-5621 BUSN 802/882-2191 HOME  
 Ship To: G0220997 Lisa Kory 355 Cochran Rd Richmond, VT 05477-9782 USA  
 Location: 1 Go Override - Alt + G  
 Team Code: 4500 Mail Order Sales Price Group: EMPLOYEE

**Order Lines** Customize Find View All Find 1-10 of 10

Line	Product	Fulfillment Data	Margins	Requested Dates	Scheduled Dates	Ship To	Ship To Taxes	Ship Options 1						
'S	[Product]	Prod Desc	Grind Code	Qty	Qty Avail	UOM	Ship From	Ship Date	Ship Via	Unit Price	Extended Amount	Route	Last Oprd	Last Updated
1	4001	K-Cups Our Blend - 25 cups/box		2.0000	2380	CS	IN001	02/15/2008	FEDEXSTD	45.6000	91.20			
2	T36027	Costa Rican Peaberry Select12oz		1.0000	312	EA	IN001	02/15/2008	FEDEXSTD	4.3950	4.40			
3	T36316	Fair Trade Organic Ethiopian Y		2.0000	2079	EA	IN001	02/15/2008	FEDEXSTD	4.3450	8.69			
4	T14004	Single Koup FT Rain Forest Nut		1.0000	34095	EA	IN001	02/15/2008	FEDEXSTD	0.0000	0.00			
5	T14000	Single K-Cup Hot Cocoa		20.0000	39	EA	IN001	02/15/2008	FEDEXSTD	0.0000	0.00			

# PeopleSoft Footprint

- EPM V8.8 SP2
  - SQL Server 2000
  - Data warehouse with 3<sup>rd</sup> party tools
    - Cognos Power Play V7.3 and Microsoft SQL Server 2005 Reporting Services
  - 5 direct users, 150+ users of the reporting tools
- HCM V8.8, Tools 8.44 (**upgrading to 9.0, 8.48**)
  - Oracle 8i (upgrading to 10g)
  - HR, Stock Administration
  - 4 users

Company Level Reports		Supermarkets	
<b>Inside Sales</b>		<b>Region</b>	<b>Territory</b>
<b>AFH National Accounts</b>		North East	North
<b>Consumer Direct</b>			BJs
<b>Region</b>	<b>Territory</b>		Wegm
Consumer	Corporate Gifting Sales		Price t
	Mail Order Sales		Demor
	Mail Order - SBO		Shawt
			C&S
CONSUMER	CD Resellers		Hannz
			AG Ne
			Bozzu
		NY/NJ MidAtlan	NY NJ
			Shopr
			Shopr
			Kings
			Pathr
		South East	South
			Harris
			Publix
			Wal-M
			Costo
			Sams
		Midwest	Midwe
			Front
			Targe
			Pevto
<b>International</b>			
<b>Region</b>	<b>Territory</b>		
INTERNATIONA	International		

# PeopleSoft Footprint

- FSCM database (before)
  - HP DL585 G1 Opteron 885 dual-core/2.6 GHz
  - 4-CPU
  - 175 drives @ 15K rpm – RAID 0+1
  - 20 SCSI-320 channels
  - Oracle 8i, 435 GB database
- FSCM database (after upgrade)
  - Same hardware
  - Oracle 10g, 450 GB database
  - Windows 2003 Server 64 bit





# PeopleSoft Footprint

- FSCM Transaction Load
  - Orders/Shipments/Invoices
    - 90 TL/LTL per day (140,000 pieces)
    - 3,750 parcel service orders per day (30,000 pieces)
    - 500 DSD orders per day (25,000 pieces)
  - Production Schedules/Completions
    - 1300 Schedules per week
  - POs
    - 400 per week



# Our Motivation for Upgrading FSCM

- V8.1 was less robust than future versions
  - Some performance problems
  - Recurring errors requiring clean-up routines
  - Many workarounds
- V8.1 was no longer supported
- V8.9 Looked Good
  - New table structure in fulfillment
  - New functionality throughout
  - Many fixes and performance improvements
  - A path to Fusion if we decide to go there someday
- GMCR Growth Explosion
  - Needed to get on solid ground to support rapid growth



# Upgrade Goals & Strategy

- Goals

- Upgrade to V8.9 on Oracle 10g (was 8i)
- Same or better functionality and performance
- “Go-Live” Before Fall 2007
- Improve our process for performing Upgrades
  - More Formal
  - More tools and automation
- A solid platform on which to build
- Project completion on time and budget
- Stay SOX Compliant
- Have fun



# Upgrade Goals & Strategy

- Strategy
  - Upgrade not re-Implement
  - Hire help to “Make It Happen” (quickly)
  - Focus on getting from V8.1 to V8.9
    - No major new features and functions during the upgrade
  - Budget through fit/gap, then approve final phases
    - Due to original sticker shock
  - Upgrade Lab



# GMCR Project Team

- Project Managers (2)
- IST Development
  - Development Manager
  - Developer/Analysts (4)
  - Integration Developers (2)
  - DBA
- IST Infrastructure
  - Many hours from desktop/server/network teams
- IST Security Administrator



# Project Team

- Consulting Partners (cycled in and out)
  - Technical Manager
  - Functional Developers (5)
  - Technical Developers (7)
  - Tech/DBAs (2) [performed the actual upgrade]
  - Integration Developers (2)



# Project Team

- Functional Experts
  - Purchasing
  - Pricing
  - Manufacturing
  - Inventory (2)
  - Distribution
  - Order Management
  - Service
  - Finance (2)
  - Planning

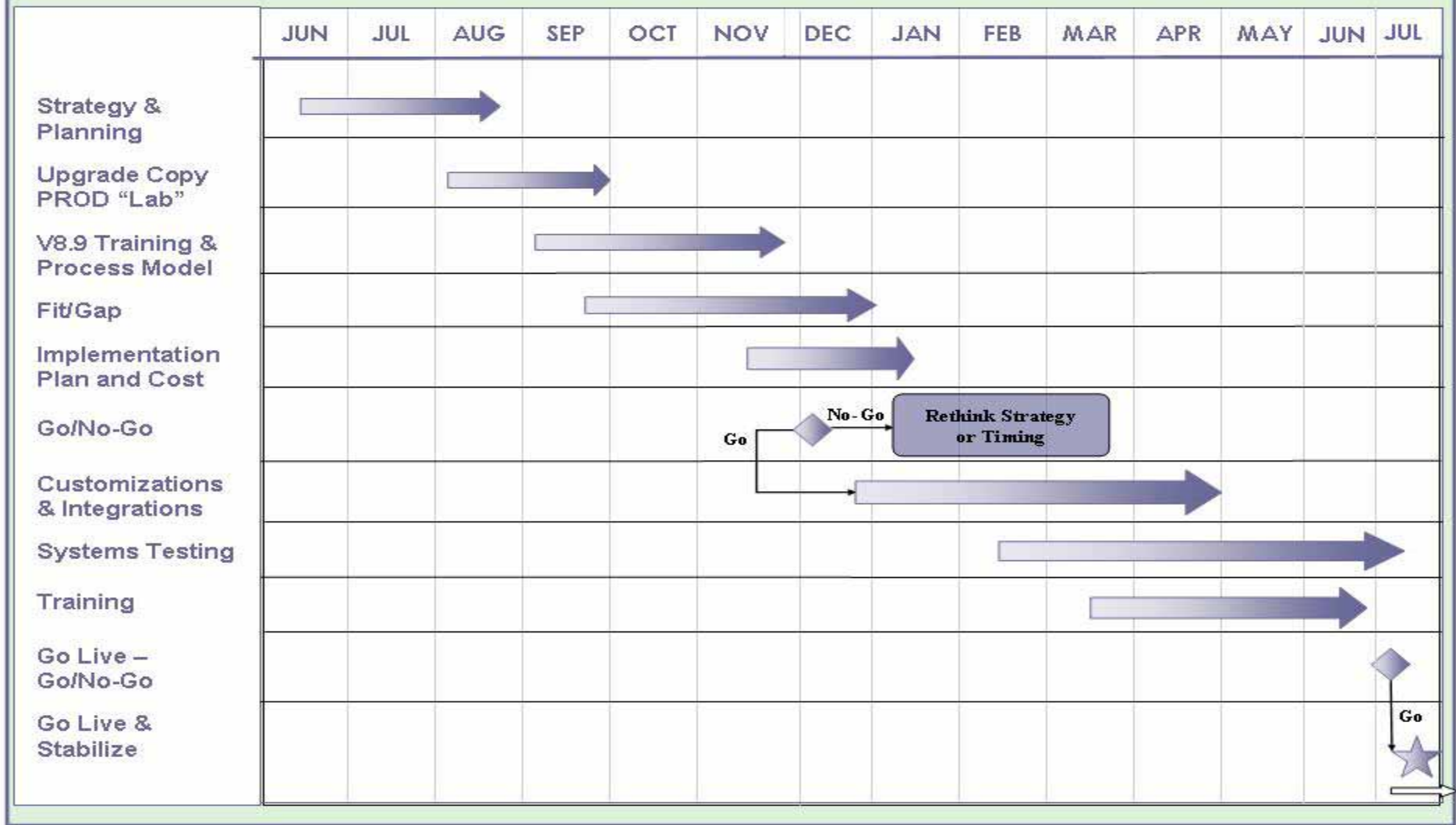


# Hardware Environments

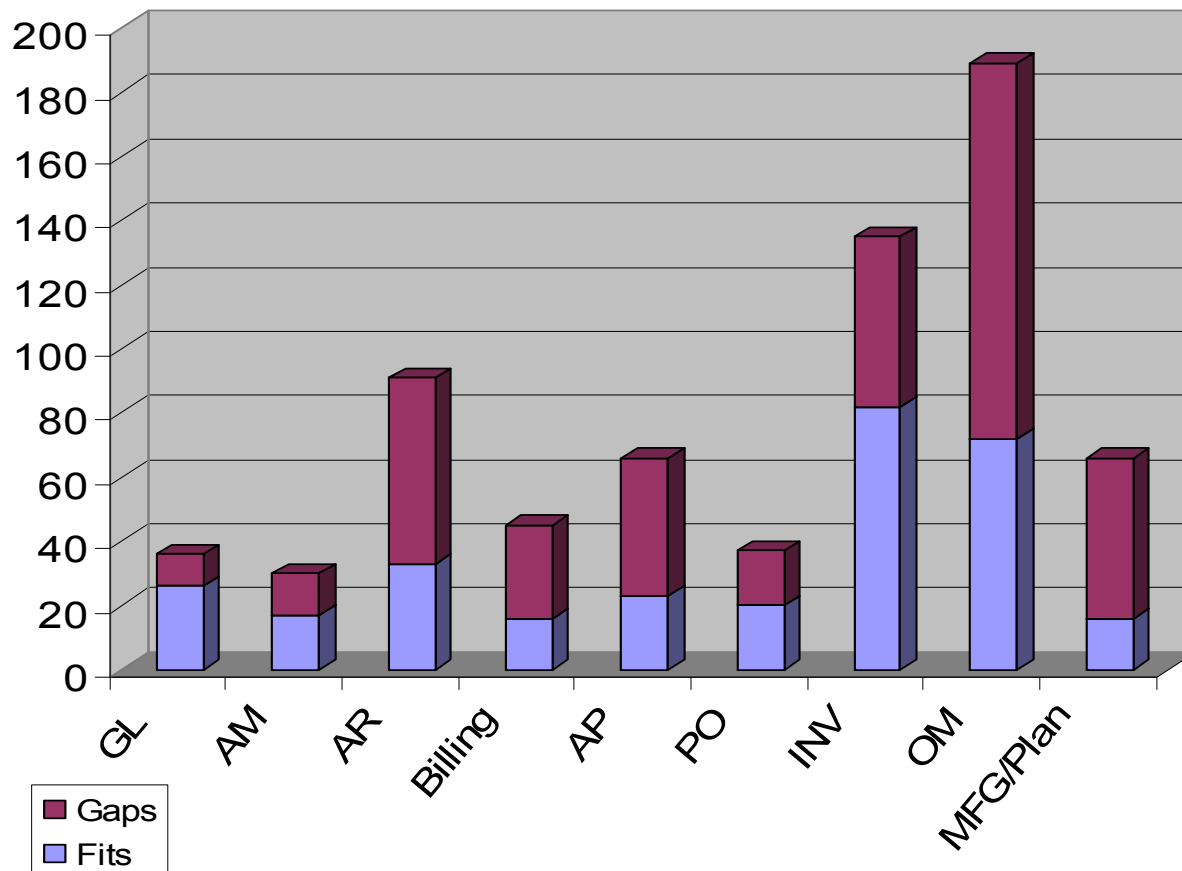
- 3 Oracle 10g database servers
  - DL 585 or similar
  - [Demo, Dev, Test, Query] [UA, Train] [Stage, Load Test]
- Separate FWAB servers for each environment.
- Load Testing on hardware that would become production.
  - 4 HP Blades with web and app server collocated.
  - Separate Blades for Supply Planning and Integration.



## Financials/SCM Upgrade V8.9



# Fit/Gap Scoping



# Fit/Gap Scoping

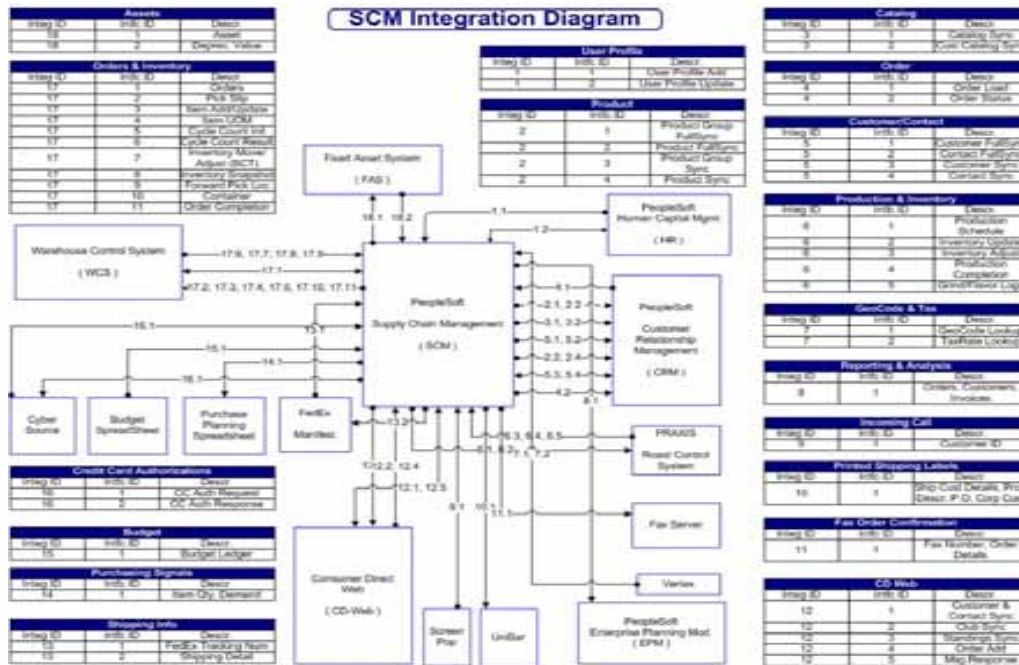
Module	Hours
<b>Billing</b>	<b>550</b>
<b>GL</b>	<b>64</b>
<b>AM</b>	<b>124</b>
<b>AP</b>	<b>330</b>
<b>AR</b>	<b>380</b>
<b>IN</b>	<b>828</b>
<b>OM</b>	<b>817</b>
<b>PO</b>	<b>522</b>
<b>MFG/Planning</b>	<b>262</b>
<b>Sub-Total</b>	<b>3877</b>

## Tech Team

<b>Lead</b>	<b>960</b>
<b>Integration</b>	<b>1113</b>
<b>Robots</b>	<b>908</b>
<b>Planning Consulting</b>	<b>240</b>
<b>Sub-Total</b>	<b>3221</b>

# Fit/Gap Scoping - Integrations

~50 Integrations



# Making It Happen

	June	July				August				September				October				November			
(Week Beginning Sun)	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24	10/1	10/8	10/15	###	###	11/5	11/12	11/19	11/26
<b>Analysis Phase</b>																					
Planning Phase																					
Project Team Training																					
Upgrade Initial Pass																					
<b>Analysis and Design</b>																					
Business Process Analysis																					
GAP Analysis																					
Functional Design																					
Detailed Design																					
<b>Development Phase</b>																					
Developing Specs																					
Resource Assessment / Hiring																					
Review Technical Specs																					
Customizations																					
Integration Development																					
Security																					
Robot Development																					
Application Tuning																					
<b>Test Phase</b>																					
Unit Testing scenarios and scripts																					
System Testing scenarios and scripts																					
Unit Testing (DEV and TST)																					
System Testing																					
Load / Performance Testing																					
<b>Training Phase</b>																					
Build Training Documentation																					
Training																					
Refresher Training																					
<b>Upgrade Test Moves</b>																					
Upgrade Pass 1																					
Upgrade Pass 2																					
Upgrade Pass 3																					
Upgrade Pass 4																					
Dress Rehearsal (July 25-31)																					
<b>Deploy</b>																					
Go Live - (Aug 17 - 20)																					
<b>Post-Deploy Support</b>																					
Define/Build Prod Environment																					
Finalize change control env's																					



# Making It Happen

(Week Beginning Sun)	December				January				February				March				April			
	12/10	12/17	12/24	12/31	1/7	1/14	1/21	1/28	2/4	2/11	2/18	2/25	3/4	3/11	3/18	3/25	4/1	4/8	4/15	4/22
<b>Analysis Phase</b>																				
<b>Planning Phase</b>																				
<b>Project Team Training</b>																				
<b>Upgrade Initial Pass</b>																				
<b>Analysis and Design</b>																				
Business Process Analysis																				
GAP Analysis																				
Functional Design	█																			
Detailed Design	█	█																		
<b>Development Phase</b>																				
Developing Specs	█	█	█	█																
Resource Assessment / Hiring		█	█	█	█	█														
Review Technical Specs			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Customizations					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Integration Development					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Security																				
Robot Development																				
Application Tuning																				
<b>Test Phase</b>																				
Unit Testing scenarios and scripts	█	█	█	█																
System Testing scenarios and scripts					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Unit Testing (DEV and TST)										█	█	█	█	█	█	█	█	█	█	█
System Testing																				
Load / Performance Testing																				
<b>Training Phase</b>																				
Build Training Documentation										█	█	█	█	█	█	█	█	█	█	█
Training																				
Refresher Training																				
<b>Upgrade Test Moves</b>																				
Upgrade Pass 1					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Upgrade Pass 2																				
Upgrade Pass 3																				
Upgrade Pass 4																				
Dress Rehearsal (July 25-31)																				
<b>Deploy</b>																				
Go Live - (Aug 17 - 20)																				
<b>Post-Deploy Support</b>																				
Define/Build Prod Environment																				
Finalize change control env's																				



# Making It Happen

(Week Beginning Sun)	May				June				July				August				
	5/6	5/13	5/20	5/27	6/3	6/10	6/17	6/24	7/1	7/8	7/15	7/22	7/29	8/5	8/12	8/19	8/26
<b>Analysis Phase</b>																	
<b>Planning Phase</b>																	
<b>Project Team Training</b>																	
<b>Upgrade Initial Pass</b>																	
<b>Analysis and Design</b>																	
Business Process Analysis																	
GAP Analysis																	
Functional Design																	
Detailed Design																	
<b>Development Phase</b>																	
Developing Specs																	
Resource Assessment / Hiring																	
Review Technical Specs																	
Customizations																	
Integration Development																	
Security																	
Robot Development																	
Application Tuning																	
<b>Test Phase</b>																	
Unit Testing scenarios and scripts																	
System Testing scenarios and scripts																	
Unit Testing (DEV and TST)																	
System Testing																	
Load / Performance Testing																	
<b>Training Phase</b>																	
Build Training Documentation																	
Training																	
Refresher Training																	
<b>Upgrade Test Moves</b>																	
Upgrade Pass 1																	
Upgrade Pass 2																	
Upgrade Pass 3																	
Upgrade Pass 4																	
Dress Rehearsal (July 25-31)																	
<b>Deploy</b>																	
Go Live - (Aug 17 - 20)																	
<b>Post-Deploy Support</b>																	
<b>Define/Build Prod Environment</b>																	
<b>Finalize change control env's</b>																	



# Additional Work Done

- Hardware Environments
  - Duplicate database platform
  - HP Blade PIA
  - Added a CISCO hardware load balancer
- SharePoint Portal
  - Document Repository
  - Issue Tracking
  - Change Management Process
- Replaced SQA Robot with Quick Test Pro
- Implemented HP (Mercury) Load Runner
- Archived OM/BI data



Submitted (New)					
Edit	ID	Description	SME Name	Created	Developer Name
	240	GMCR_89_BI_ED1_INVOICING - Move SQC file.	Barbara Winter	9/19/2007 2:51 PM	Justine Myers

In Process					
Edit	ID	Description	SME Name	Created	Developer Name
To create a new item, click "New" above.					

Completed UAT					
Edit	ID	Description	SME Name	Created	Developer Name
	241	GMCR_89_BI_ED1_INVOICING - Move SQC file.	Barbara Winter	9/19/2007 2:51 PM	Justine Myers



# Just to make life interesting

- New Office Building for IST
  - New data center with new (to us) cooling technology
- New Hires
  - Grew our team by 43%
  - And replaced one defector!
- New CEO
- New Plant
- New Consulting Partner
  - Needed to change after fit-gap
  - PS Go-Live saved the day



# Results

- Go-Live on August 20<sup>th</sup>
- Actual spend was 10% over final budget
- Upgrade “event” took 1 hour longer than plan
- Most business processes worked well
- Fulfillment failed initially
  - Actually had stops and starts for seven days.
  - Lost three or four days of shipping time due to problems
  - Business was fragile due to unprecedented demand exceeding capacity in a few areas
  - Business was in pain from this for four to six weeks.
- General stabilization phase took about four weeks.



## Results

- Period end, Quarter end and Year end processes
  - Proceeded without significant events and on time
- Upgrade process was “blessed” by SOX Auditors
- Upgrade process was definitely improved
- Had Fun!
- Our overall assessment is qualified “Success”
- The pain is behind us and we are well positioned for the future.

# Results

- Some nice comments on improvements...
  - 8/24: We just extracted 5,117 invoices in under 2.5 minutes!
    - That's Huge!
  - 9/4: 12,000+ orders that got pushed through the [billing] system Friday night. ...  
The 8.9 version isn't even customized. This is a major improvement from 8.0.



# Special Thanks

- Many thanks to the Oracle/PeopleSoft Enterprise Team
  - Char Jorgenson
  - Frank D'Ambrose (interrupted his vacation to help us!)
  - Jane Scott
  - Mike Lizio (flew to GMCR from Atlanta to help)
  - Paul Chamberlin
  - Rob Williams
  - Vittikuti Rambabu (Ram)
  - Everyone who helped out from the GSC
- For many long days, scores of teleconferences, analysis, coding, coaching, POCs, etc.

# What We Did Right

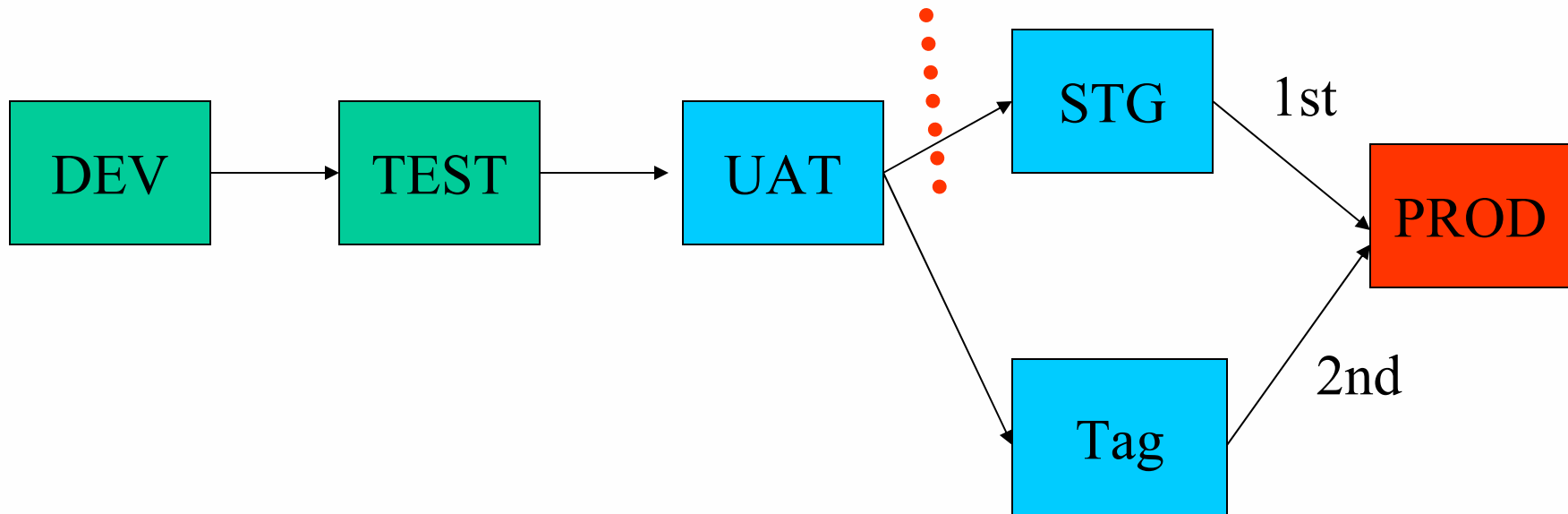
- Dedicated project space
  - SMEs, Developers, Consultants all together
- Dedicated project resources
- Meetings, meetings, meetings
  - Tech Team
  - Full Team (about 30 people)
  - MTP Team (move to production)
  - Integration Team
  - Regular weekly status updates with action plans
  - Great Coffee!



## What We Did Right

- Dynamically monitored the deliverables and made changes to keep on track
- Rejected consultants who were not a good fit
- Kept some consultants during stabilization
- Sent regular communications to company on progress and plans
- Executed five test moves to production to refine the process.
- Great coffee!

# What We Did Right



- Froze staging database 1 month prior to go-live
- Changes within the last month moved to separate, “Tagalong” database.
  - Allowed for freezing upgrade process
  - Could do repeatable upgrade passes



## What We Did Right

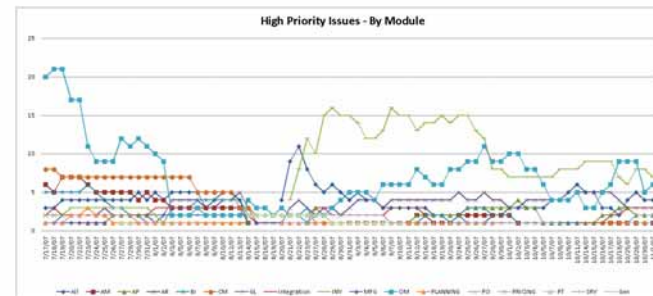
- Laptops & “Getting Started” manual for Consultants and employees
- Great Coffee!
- Calorie Cube, including Advil
- Divide and conquer
  - While tech work was cranking, we developed a full team Chapter 1 through 5 plan
  - Have enough platforms so everyone can work without stepping all over each other
- Dedicated trainer
  - We had 450 people to train. Four to five hours each



# What We Did Right



- Duplicate hardware platform
  - Allowed us to upgrade on the second platform and keep our V8.1 platform up “just in case”
  - Allowed us to do performance and load testing on the exact platform we would be using after go-live
  
- SharePoint Platform
  - Document Repository
  - Issue tracking
  - Change Management Process for SOX (and sanity)



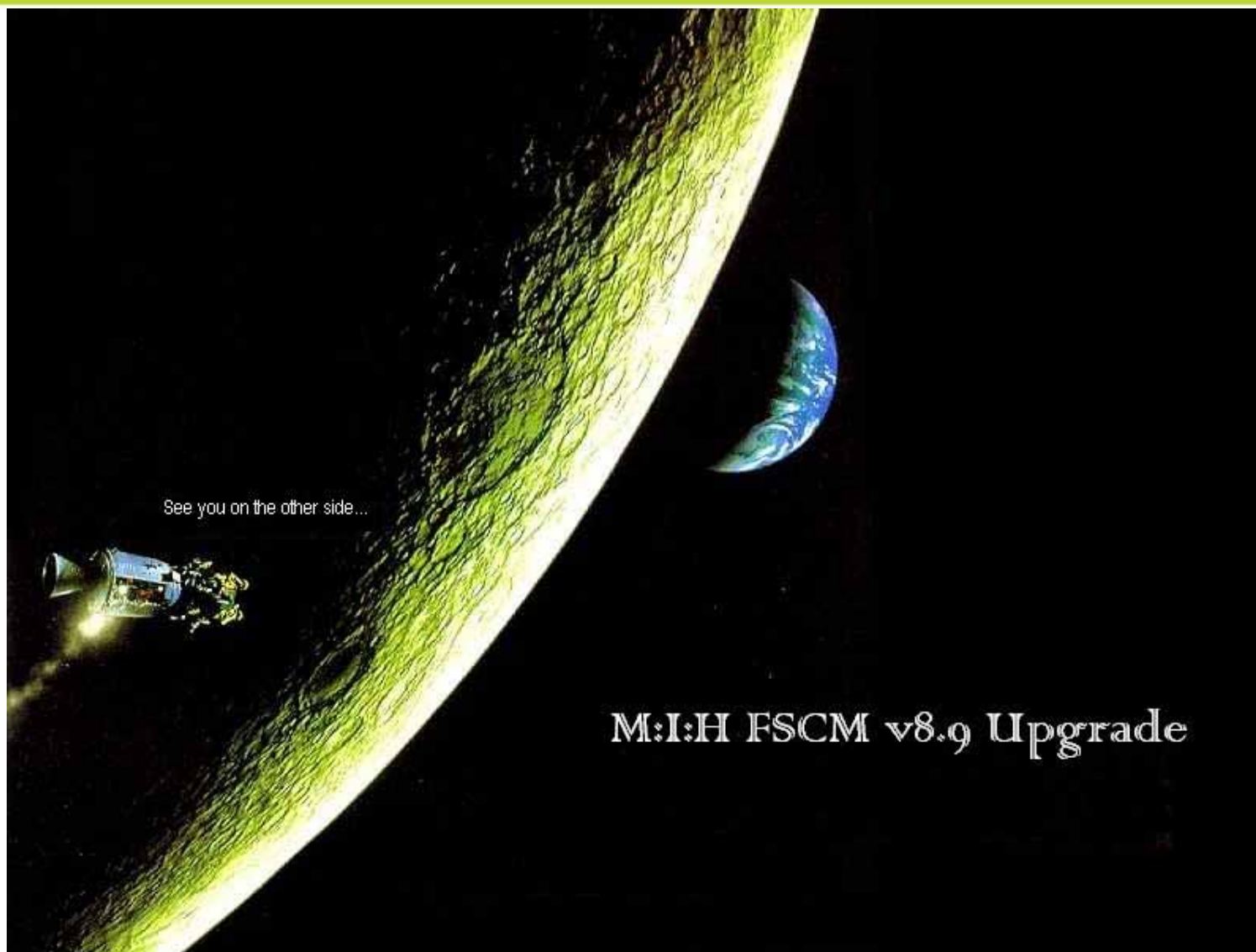
# What We'll Do Differently Next Time

- More hardware platforms set up in advance
  - We scurried a few times to keep from slipping
  - Remember that more platforms require more management
- Get facilities set up in advance of the project start
- Run several full days of transactions through the system to really stress it like real life will stress it
- Pick our partner very carefully
- Believe our first instincts on project cost
  - Get approval up-front...no uncertainty in the middle.
- Go-Live in late spring.
  - Summer vacations and fall busy season were painful

# Questions?

- Email
  - lisa.kory@gmcr.com
  - jim.prevo@gmcr.com
  
- Web Sites
  - www.greenmountaincoffee.com
  - www.keurig.com
  - www.waterburystation.com
  - www.greenmountaincoffee.org

The screenshot shows the Green Mountain Coffee Roasters website. At the top, there's a navigation bar with 'Our Coffees', 'Brewers & Accessories', 'Gifts & Samplers', and 'Café Express'. Below that, a search bar and a phone number '(888) 879-4627' are visible. The main content area features a large image of a tiger, the 'Fair Trade Organic Sumatran Reserve' product name, and a description: 'While the flavor of many coffees from Sumatra is dominated by unbridled earthiness, ours resounds with lush, ripe fruit notes and a syrupy richness. Fair Trade & Organic.' There are options to 'EMAIL A FRIEND' and 'PRINT PAGE'. A 'This selection is:' section shows 'Regular' selected. The 'Purchase:' section lists two options: '# T36451 Whole bean/ground, 10 oz. Bag \$7.39' and '# T4060 K-cup Box/24 \$13.95'. There's an 'Add to Cart' button and a 'Zoom / See More Photos' link. Below the main image, there are sections for 'Tasting Notes', 'Critics are Saying' (with a 90-point rating), and 'RELATED PRODUCTS' (showing 'EXTRA BOLD Sumatran Reserve').



See you on the other side...

M:I:H FSCM v8.9 Upgrade