



# **Resource Management**

**What is it good for?**



# Agenda

- Some of the Puzzle pieces
  - Introduction
  - Purpose Summary
  - Only time for four pieces today
    - But, they are BIG pieces
  - Definitions
  - Explanations
- Combining the pieces to make the puzzle



# Speaker Introduction

- Over 15 years of experience in several industries in Project Management, Resource Management, Product Development, Systems Administration, and Training. He has implemented Project Management Offices in two separate companies. Collin is an expert in Microsoft's Enterprise Project Management tools. He has worked with Microsoft Project versions 98 through.
- Degrees/Certifications
  - MBA, PMP, MCP, MCTS, MCT, CIRM
- Author:
  - "Mastering Resource Management; Using Microsoft Project and Project Server 2010"



# Summary

Resource Management is an area of Project Management that is often overlooked as a critical part of the process to provide value to customers. Whether your projects are for internal or external customers, the ability to understand your resource capacity, skills and timing and your project's resource needs are critical. For a Project Manager to obtain the results that they need from their projects there a number of moving parts and pieces about those projects that they need to understand but having awareness about resources is one of the most essential. To understand your resources answers a myriad of questions ranging from "Can we even do this project?" to "When can this project be completed?".



# Summary

- Can we even do this project?
- When can this project be completed?
- Who can do this project?
- What is the effect on
  - Other projects?
  - On the Resource?
  - On the Overall budget?



# Summary

- Your individual organization's questions:
  - Think of the big questions **your** organization is asking
    - For example:
      - On Time Percentage
      - Budget Analysis
      - Time Billed to Customers



# Definitions

- Resource
  - Skilled human resources (specific disciplines either individually or in crews or teams), equipment, services, supplies, commodities, material, budgets, or funds.
- Resource Calendar
  - A calendar of working days and nonworking days that determines those dates on which each specific resource is idle or can be active. Typically defines resource specific holidays and resource availability periods. See also project calendar.
    - PMBOK Guide, Fourth Edition






# Calendars


- Project Calendar
  - When can work be done FOR THIS PROJECT
- Resource Calendar
  - When can THIS person work
- This applies whether or not you are using software




# Project Calendar


Calendar options for this project:  Project1 


Week starts on: Sunday 


Fiscal year starts in: January 


Use starting year for FY numbering

Default start time: 8:00 AM 

Default end time: 5:00 PM 

Hours per day: 8 

Hours per week: 40 

Days per month: 20 

Default settings in Microsoft Project – Monday through Friday, 8 hours a day, 40 hours a week Project Calendar

# Resource Calendar

Resource calendar for 'Collin':

Base calendar: Standard

Legend:

- Working
  - Nonworking
  - Edited working hours
- On this calendar:
- Exception day
  - Nondefault work week

Click on a day to see its working times:

September 2011

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Working times for September 1, 2011:

- 8:00 AM to 12:00 PM
- 1:00 PM to 5:00 PM

Based on:

Default work week on calendar 'Standard'.

Collin's Resource Calendar – Monday through Friday, 8-5, 40 hour week

# Resource Calendar Two

Resource calendar for 'Bruce':

Base calendar:

Legend:

- Working
- Nonworking
- Edited working hours
- On this calendar:
- Exception day
- Nondefault work week

Click on a day to see its working times:

September 2011

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Working times for September 1, 2011:

- 7:00 AM to 12:00 PM
- 1:00 PM to 6:00 PM

Based on:  
Default work week on calendar 'Bruce'.

Bruce's Resource Calendar – Monday through THURSDAY, 7-6, 40 hour week

# Assigning Work

- Assigning Collin to work isn't much of an issue since the two calendar's match.

Calendar options for this project: Project1

Week starts on: Sunday

Fiscal year starts in: January

Use starting year for FY numbering

Default start time: 8:00 AM

Default end time: 5:00 PM

Hours per day: 8

Hours per week: 40

Days per month: 20



Resource calendar for 'Collin':

Base calendar: Standard

Legend:

- Working
- Nonworking
- 31 Edited working hours
- 31 Exception day
- 31 Nondefault work week

Click on a day to see its working times:

September 2011

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Working times for September 1, 2011:

- 8:00 AM to 12:00 PM
- 1:00 PM to 5:00 PM

Based on: Default work week on calendar 'Standard'.



Work is done M-F, 8-5

- Assigning Bruce to work can become an issue since the two calendar's do NOT match.

Calendar options for this project: Project1

Week starts on: Sunday

Fiscal year starts in: January

Use starting year for FY numbering

Default start time: 8:00 AM

Default end time: 5:00 PM

Hours per day: 8

Hours per week: 40

Days per month: 20



Resource calendar for 'Bruce':

Base calendar: Standard

Legend:

- Working
- Nonworking
- 31 Edited working hours
- 31 Exception day
- 31 Nondefault work week

Click on a day to see its working times:

September 2011

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Working times for September 1, 2011:

- 7:00 AM to 12:00 PM
- 1:00 PM to 6:00 PM

Based on: Default work week on calendar 'Bruce'.



When is the work done?



# Definitions

- **Capacity**

- The amount of time that a Resource has available for work in any time period



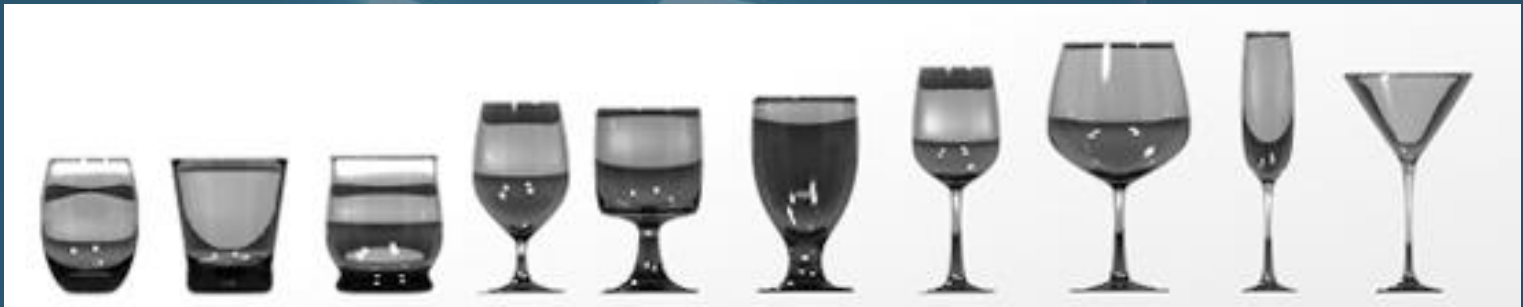
- **Utilization**

- The measurement of how much of a Resource's capacity has been or is being used measured against their capacity



# Capacity

- Resource Capacity can be highly variable:
  - Part Time vs Full Time
  - Dedicated vs Shared
  - Vacation time
  - Administrative (Non-Scheduled) time



# Utilization

- What is the right utilization
  - A certain number of hours per day/week/month
  - A percentage of time
  - A percentage of capacity



OR



OR



OR





# Definitions

- Skill Set
  - What can the Resource do
    - How do you quantify this
    - How do you qualify this
    - How do you keep this current
- Generic Resource
  - Based on a skill set
  - Can be assigned in advance



# Skill Sets

- Example One A
  - Project Manager
  - Sales
  - Accounting
  - Marketing
  - Product Development
  - Business Analyst
  - Human Resources
  - Knitting



# Skill Sets

- Example One B
- The drill down on one of the skill set for Knitting
  - Level 1: Projects for first-time knitters using basic knit and purl stitches. Minimal shaping.
  - Level 2: Projects using basic stitches, repetitive stitch patterns, simple color changes, and simple shaping and finishing.
  - Level 3: Projects with a variety of stitches, such as basic cables and lace, simple intarsia, double-pointed needles and knitting in the round needle techniques, mid-level shaping and finishing.
  - Level 4: Projects using advanced techniques and stitches, such as short rows, fair isle, more intricate intarsia, cables, lace patterns, and numerous color changes.
    - Craft Yarn Council
- Example of how Skill Set might look: “Knitting.Level2”



# Skill Set Assignment

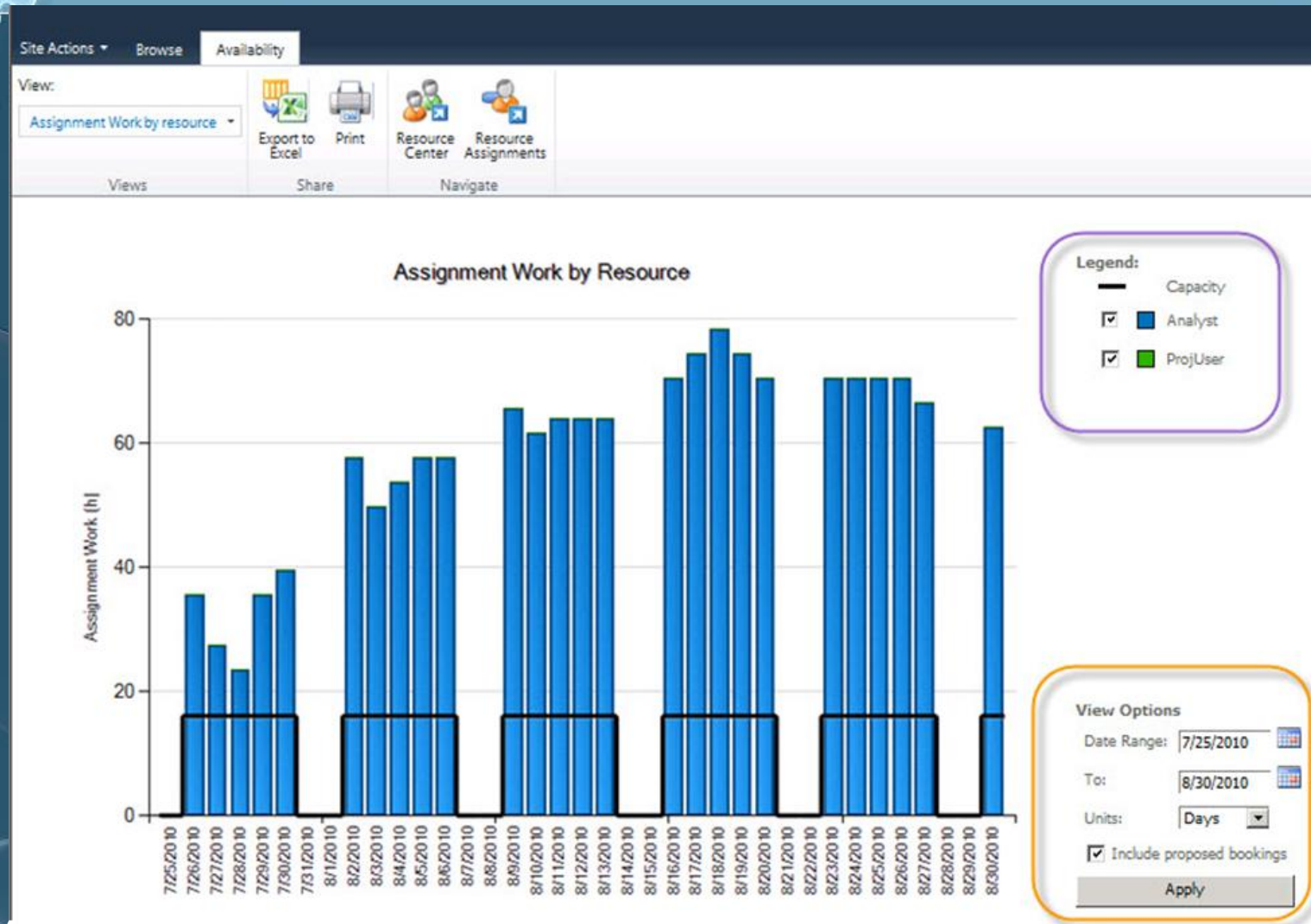
- We know we need a Level 3 Knitter six months from now.
- Assign the Generic Resource that matches Level 3
- Change assignment to real person with the Level 3 Knitting skill set when the time comes



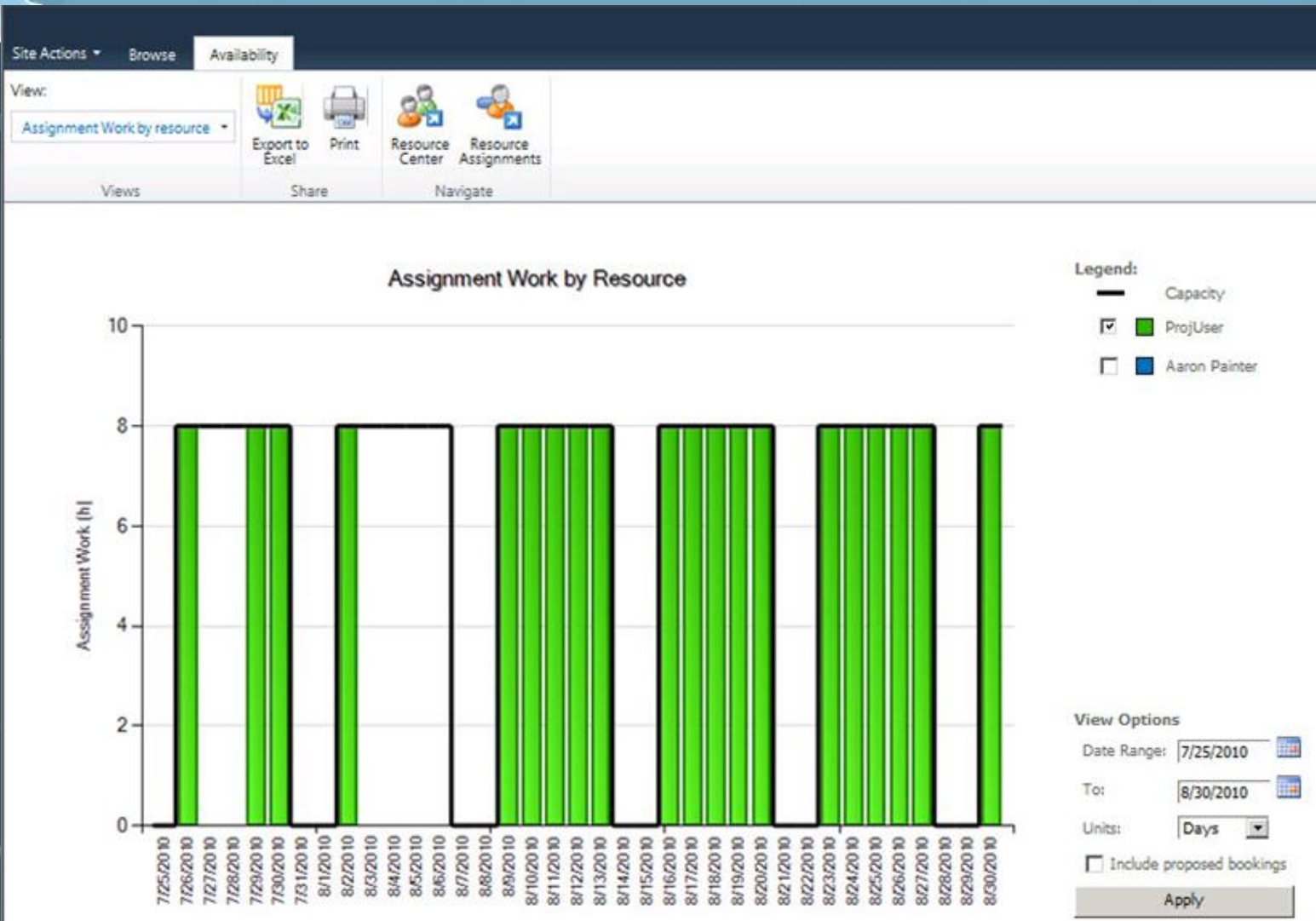
# Combining the Pieces

- Calendar
  - Capacity
  - Utilization
  - Skill Set
- 
- This combined information gives us the picture needed to answer the questions about Resources

# Combining the Pieces

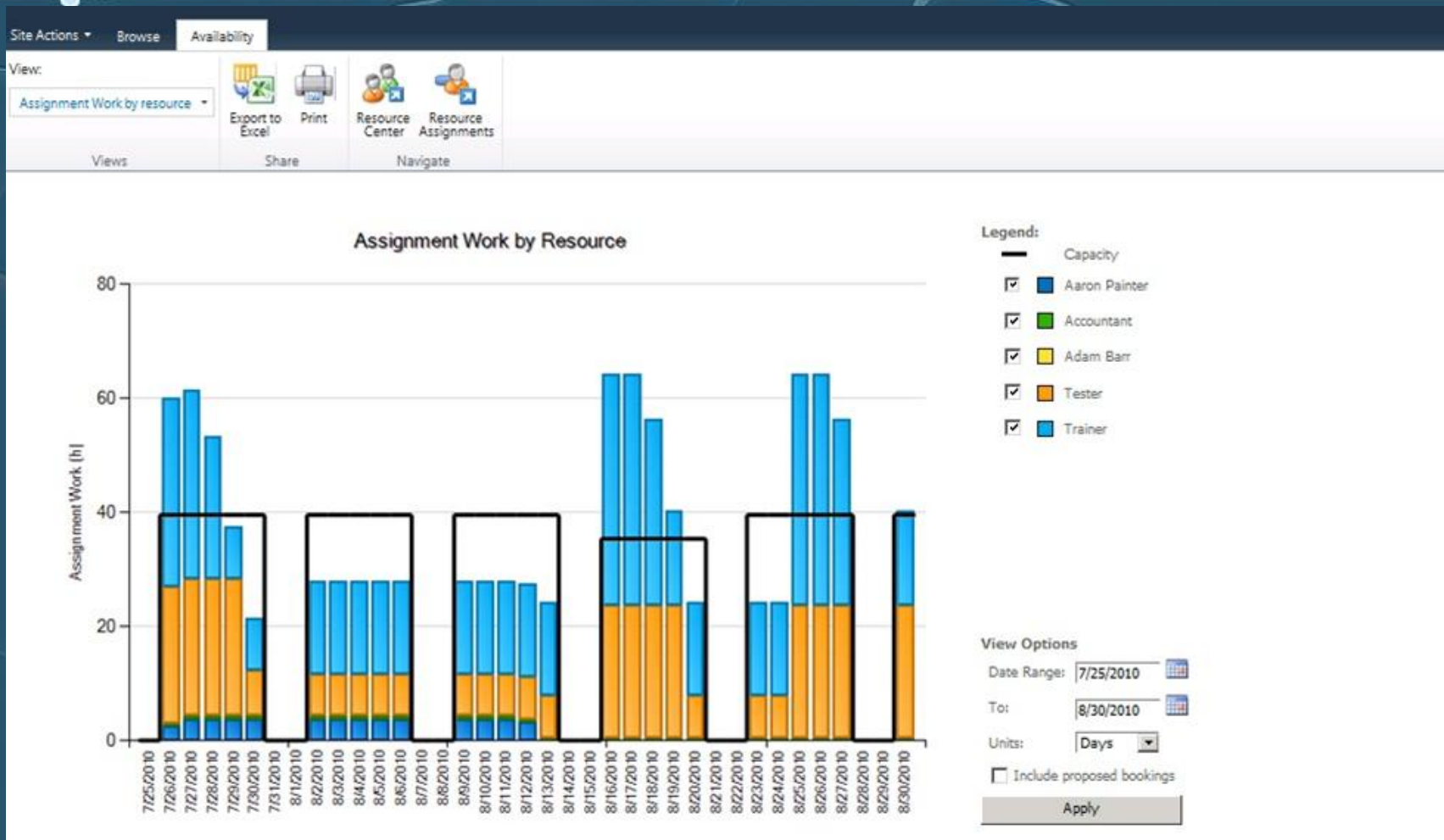


# Combining the Pieces





# Combining the Pieces





# Combining the Pieces

i	Resource Name	Work	Details	M	T	W	T	F
⚠	+ Jessica	512 hrs R	Work	16h	16h	16h	16h	16h
			Overalloc.	8h	8h	8h	8h	8h
			Work Avail.	8h	8h	8h	8h	8h
⚠	+ Ryan	248 hrs R	Work	16h	8h	8h	8h	8h
			Overalloc.	8h				
			Work Avail.	8h	8h	8h	8h	8h
	+ Shelly	24 hrs R	Work	8h				
Overalloc.								
Work Avail.			8h	8h	8h	8h	8h	



# Combining the Pieces

Resource Name	Work	Project	Details					
			T	W	T	F	S	
<b>Jessica</b>	<b>512 hrs</b>	<b>Resource Pool</b>	Work	16h	16h	16h	16h	
			Overalloc.	8h	8h	8h	8h	
			Work Avail.	8h	8h	8h	8h	
Task 3C	80 hrs	Project3	Work					
			Overalloc.					
			Work Avail.					
Task 3D	120 hrs	Project3	Work					
			Overalloc.					
			Work Avail.					
Task 4a	256 hrs	Project4	Work	8h	8h	8h	8h	
			Overalloc.					
			Work Avail.					
Task 4c	40 hrs	Project4	Work	8h	8h	8h	8h	
			Overalloc.					
			Work Avail.					
Task 5B	16 hrs	Project5	Work					
			Overalloc.					
			Work Avail.					
<b>Ryan</b>	<b>248 hrs</b>	<b>Resource Pool</b>	Work	8h	8h	8h	8h	



# Conclusion

- With some setup, Resource information can be obtained that helps us answer key questions
- Start with one or two of these puzzle pieces and then add the others, don't try everything at once
- Once you have these down, there are more puzzle pieces to complete your organization's picture



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