

## **Project Monitoring & Project Controlling**

Sascha Kolbuch

Dresden, July 10th 2014



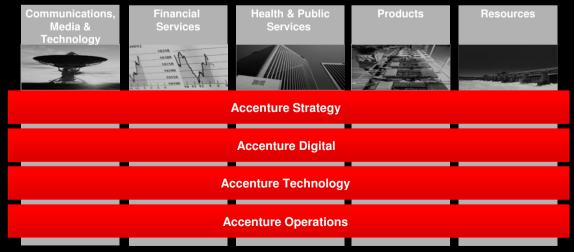
## Agenda

- Accenture Profile
- General Overview Project Management @ Accenture
- Project Calculation & Project Planning
- Project Monitoring & Controlling

## 290,000 employees at Accenture serve more than 4,000 clients around the world

### **About Accenture**





<sup>&</sup>lt;sup>1</sup> As of Aug 31, 2013

#### Facts<sup>1</sup>

- Leadership: ~5,600 Managing Directors
- 28.6 billion USD revenues in FY13
- Geographic Regions:
  - Americas
  - Asia Pacific
  - Europe / Middle East / Africa

#### **Clients**

- 4,000 clients in more than 120 countries
- 89 of the Fortune Global 100
- 3/4 of the Fortune Global 500
- 28 of the DAX-30 companies
- 99 of our top 100 clients have been clients for at least 5 years, 92 have been clients for at least 10 years

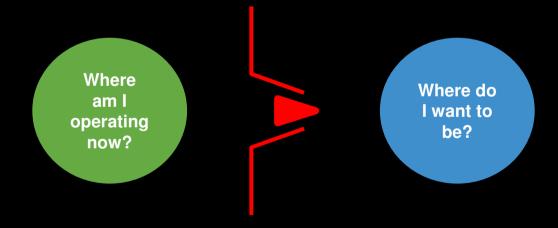
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## Project Management focuses on measurement-driven results, repeatable processes and clear communication.

### Project Management – Introduction

- "A project is a temporary endeavor undertaken to create and deliver a unique product, service or result."
- "Project Management is the application of knowledge, skills, tools, techniques and processes to help clients make better decisions and to complete deliverables that meet a project's requirements."

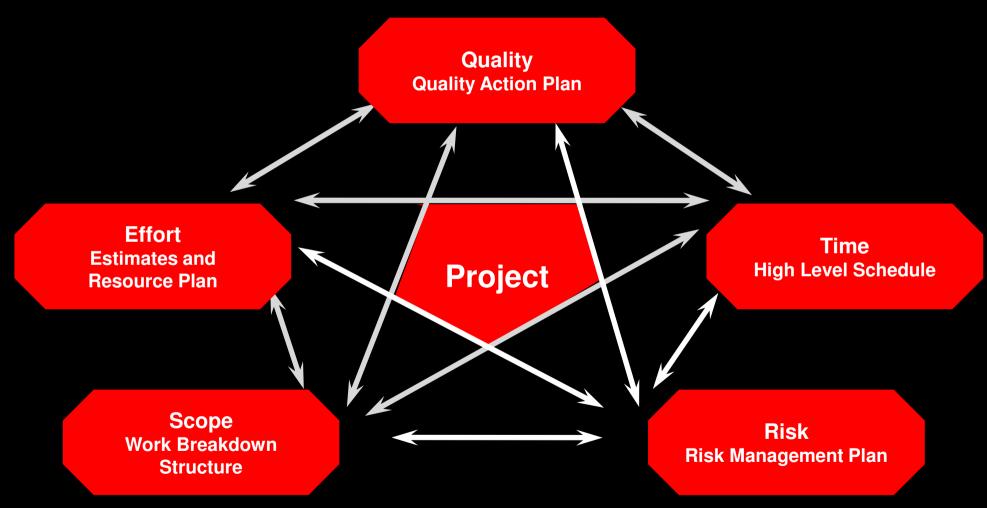


#### Principles:

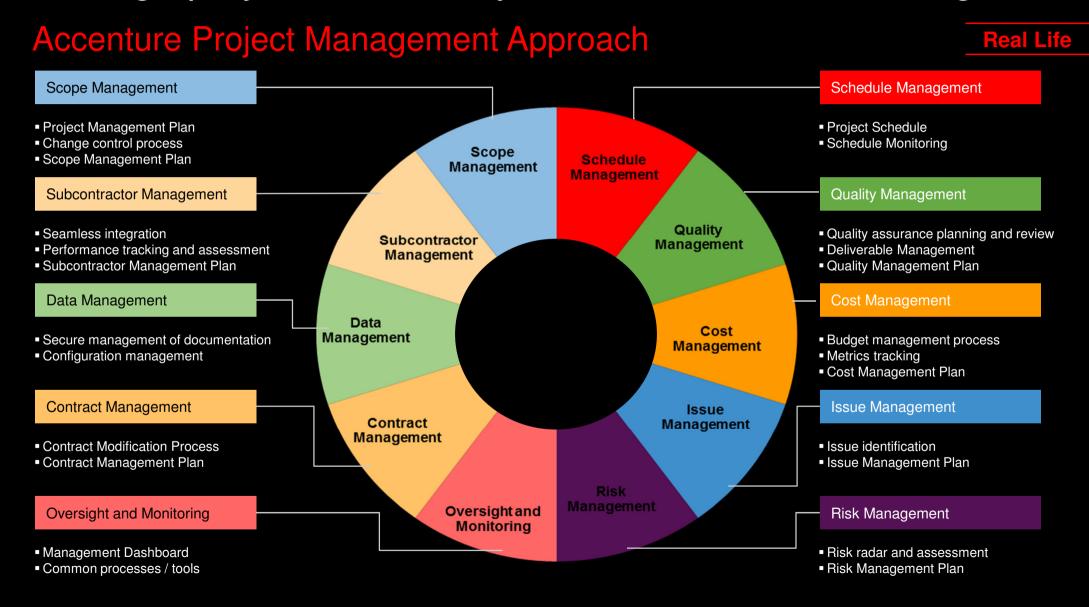
- Be clear on where you're going
- 2. Plan carefully on how you will get there
- 3. Deliver on promises made in your project plan

# It is helpful to use the SQERT model when thinking about Project dimensions

### **SQERT Model**



## Our comprehensive methodology provides tools to help manage projects effectively on schedule and on budget



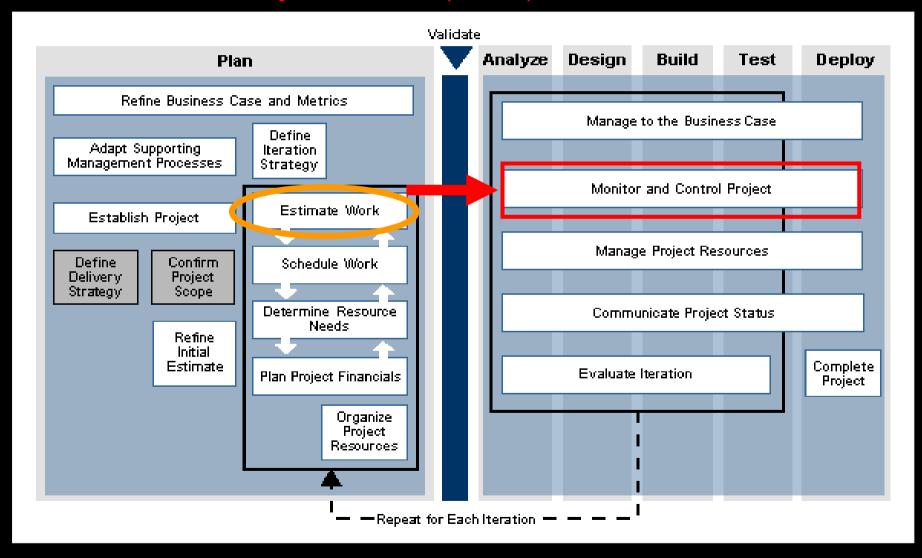
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## The project management method is part of Accenture Delivery Methods (ADM), our master project approach

### Accenture Delivery Methods (ADM)

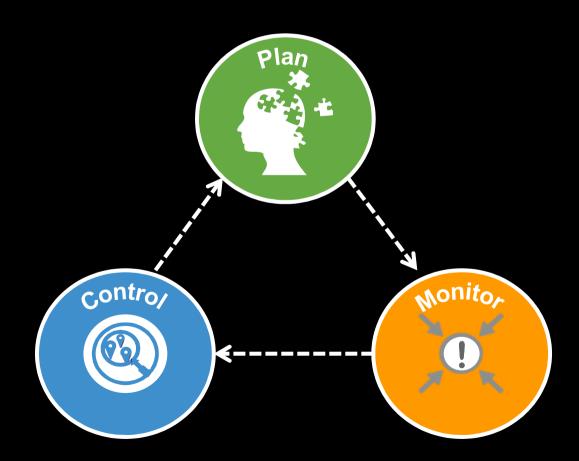
**Real Life** 



## There are three key project management processes supporting a project's life cycle.

### **Project Management Process**

The three key processes Plan, Monitor and Control are co-dependent and continuously cycle throughout all of the stages of the project.



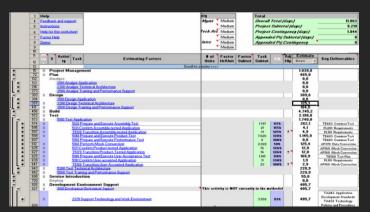
# Planning and calculation are the initial steps in setting up a project – adaptions are possible within the lifecycle

### Project Calculation & Project Planning

**Real Life** 

#### **Project Calculation**

- Project calculation is used for the estimation of efforts for the completion of tasks which builds the baseline for solid project controlling.
- Without a precise estimation of efforts a project can...
  - ...exceed the time and budget planning
  - ...radically reduce the profit margin
  - ...decrease the team morale



**Example ADM Estimator** 

### **Project Planning**

- Project planning is an essential part zu ensure that the adequate team members execute the right tasks at the right time.
- Project planning includes:
  - Project Plan
  - Milestones
  - Planning of resources



MS Project task structure

## The general planning process includes four process steps – we focus on the estimation of a project's scope

Project Management – Planning Process

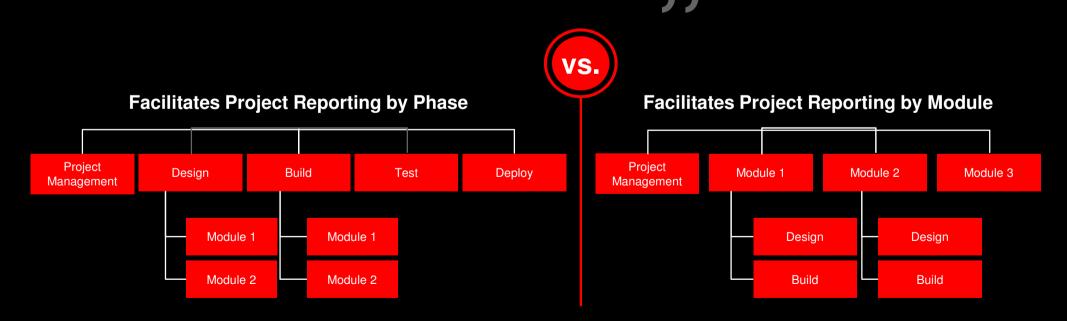


# There are two different examples of how a WBS could be structured for a project

Task Structure – Define WBS

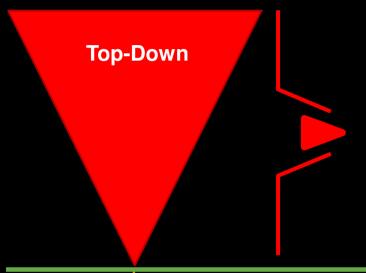
### WBS (Work Breakdown Structure) ...

- is a **description** of the **project's scope** as defined by the program management.
- is used for defining the scope of a project in terms of its outcomes and deliverables.
- becomes the structure of your work plan within MS Project.

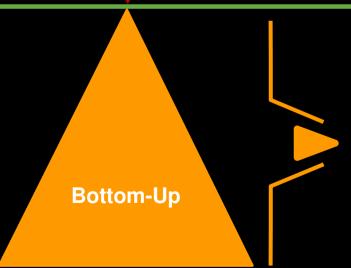


# A combination of top-down and bottom-up estimating models are used to approximate the amount of work

### Top-Down and Bottom-Up Estimating

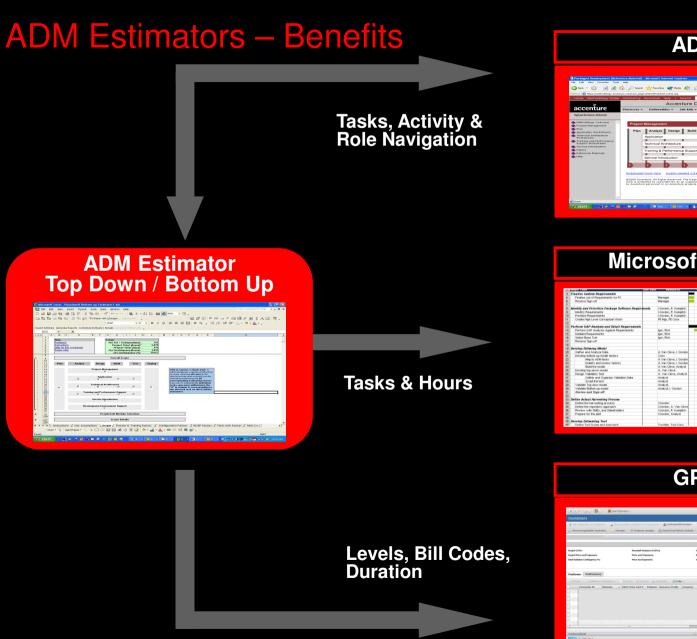


- +/- 25% accuracy, depending on project lifecycle status.
- In early lifecycle stages, you may want to consider increasing the contingency percentage beyond 20%.
- 8-12 factors.
- Extensive use of approximations and "rule-of-thumb" assumptions.
- Typically used during initial selling stage activities.



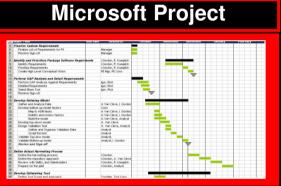
- +/- 10% accuracy.
- 60-100 factors.
- Less use of approximations and assumptions. Use iteratively throughout a project's lifecycle to constantly refine and finetune an estimate, as more detailed requirements are identified.
- Used primarily after the initial selling stage activities.

## ADM Estimators provide Input for Workplan and Cost / Pricing Models



ADM

| Section | Company |



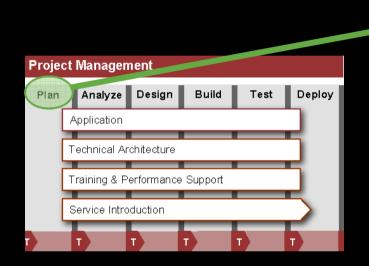


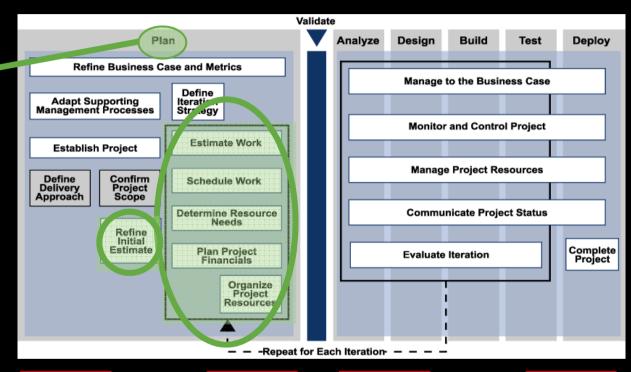
**Real Life** 

## ADM Estimators are tightly Integrated with Accenture Delivery Methods

### ADM Project Management – Plan Example

**Real Life** 





ADM Estimators support project managers at different stages of a project by helping:

- Define scope of work and factors
- Document detailed assumptions
- Generate task-level estimates
- Complete budget, schedule and resource estimates

#### Inputs

- Project Scope Definition
- Iteration Strategy
- Strawman Estimate / Assumptions
- Project Road Map
- Sponsor Goals & Expectations

#### **Outputs**

- Detailed Project Assumptions
- Bottom-up Estimate
- Work Plan (via export to MS Project)

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# Monitoring and controlling are necessary to initiate measures at the right time of the project lifecycle

### **Project Monitoring & Controlling**

Definition: "...the monitoring a project's proceedings along an as-is vs. to-be comparison. In case of any occurring problems adequate corrective measures have to be initiated."

#### **Project Monitoring**

The Monitor process involves the following activities and deliverables:

ACTVITIES	DELIVERABLES				
Daily 'Touch-Points' with Team	N/A				
Weekly Status Meetings	<ul><li> Meeting Minutes</li><li> Status Report</li><li> Issue Log</li><li> Risk Register</li></ul>				
Reviews and QA of deliverables	Quality Assurance     Report				
Tracking against Project Work Schedule	Milestone Report     Risk Register				
Identifying Risks and Issues	Risk Register     Issue Log				

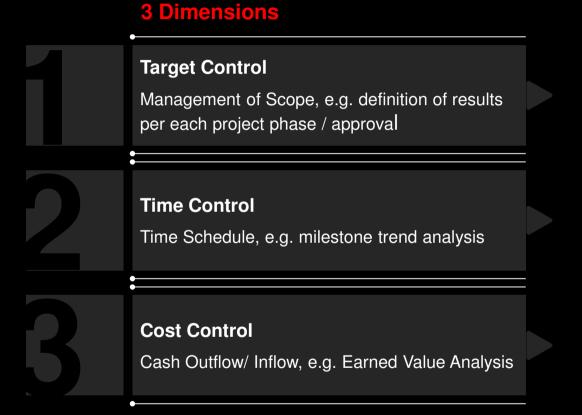
#### **Project Controlling**

The Control process involves the following activities and deliverables:

ACTVITIES	DELIVERABLES				
Management of changes to project scope	Change Request Form				
Escalation of issues and risks that require intervention from roles higher in the project structure	The following is in dashboard format: Status Report Issue Log Risk Register Minutes from ad hoc Meetings				

# During the project lifecycle adaptions in the project triangle (SQERT) can be necessary

### Three Dimensions of Project Controlling







has to be adapted as precisely as it was created

**Time** 

(in time)

Cost

(in budget)

## In order to monitor a project's progress it is recommended to define and evaluate SMART goals

### Target Control – SMART Goals



#### **Accenture Additions:**

#### Quality

What is the required quality?

Unambiguous
Are all addressees on the same page?

#### **Prioritized**

Prioritization possible for planning / releases?

#### Traceable

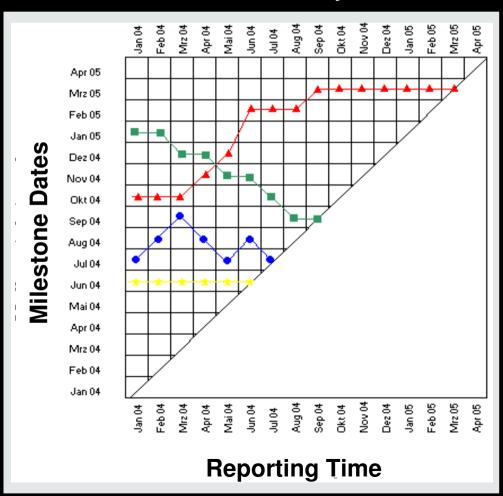
Where does the objective/ request come from?

## Examples: Milestone Trend Analysis / Gantt-Chart

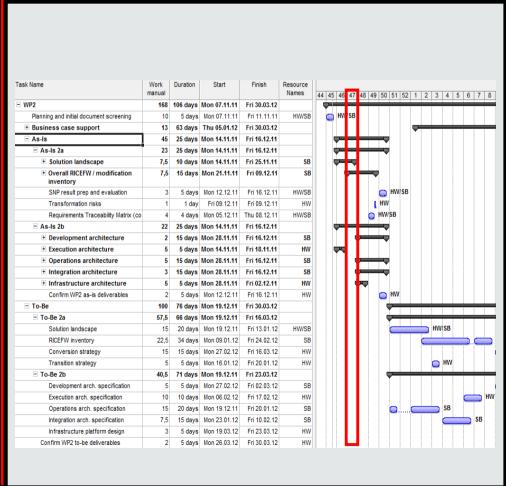
### **Time Control**

**Real Life** 

**Example 1: Milestone Trend Analysis** 



## **Example 2: Progress Control via Gantt-Chart**



# There are three types of earned value metrics: base, summary, and forecast metrics

### **Cost Control**

#### **Basics**

- Industry standard to measure the project progress:
  - Forecasting of the date of completion and final costs.
  - Shows time and budget deviations.
- Three different types of earned value metrics exist:

#### Base

- Provides the basis to calculate all other metrics.
- Used in conjunction with summary and forecast metrics.

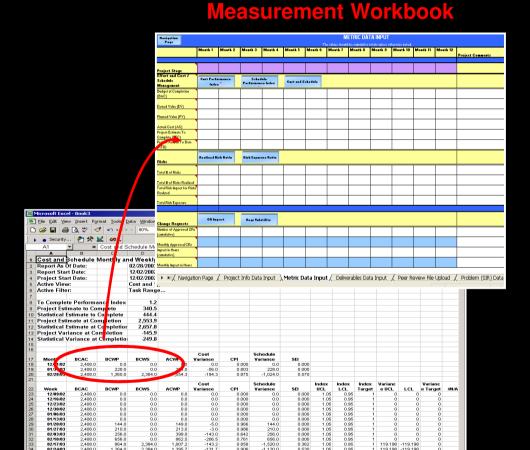
#### Summary

- Provide information to assess the current state of the project
- Based on the Earned Value (EV) base metric.

#### Forecast

- Forecasts project status at completion.
- Derived from a combination of base and summary metrics.

#### **Example**



**Cost & Schedule Macro Results** 

## There are different types of base metrics in place – the 0/100 formula is recommended for EV calculation

### **Base Metrics**

Metric	Definition and Formula						
Budget at Completion (BAC)	<ul> <li>Budget for the task, summary task, phase or other WBS component</li> <li>BAC = Baseline budget expressed in days or hours, not dollars</li> </ul>						
Actual Cost (AC)	<ul> <li>Actual cost of any work that has been performed</li> <li>AC = Amount of effort already spent or "burned" expressed in terms of days or hours not dollars</li> </ul>						
Earned Value (EV)	<ul> <li>Total amount of effort, in hours or days, for tasks that are 100% complete</li> <li>EV = 0 if task is NOT complete, EV = BAC, if task is complete</li> </ul>						
Planned Value (PV)	<ul> <li>Budgeted amount of effort, measured in hours for tasks scheduled to be 100% complete</li> <li>PV = BAC if task is due prior to status date</li> <li>PV = 0 if task is due after status date</li> </ul>						

#### **Earned Value Calculation Methods:**

0/100 formula

**Accenture Recommendation** 

- Tasks must be 100% complete, then earned value equals Budget at Completion (BAC)
- Other methods for calculating Earned Value include:
  - 50/50 formula
  - Ratio to earned standards
  - Milestones
  - Percent complete
  - Milestones / Percent complete

## There are different types of summary metrics – therefore variances and indices are calculated

### **Summary Metrics**

Metric	Definition and Formula						
Cost Variance (CV)	<ul> <li>The difference between the actual costs and the budgeted (baseline) costs</li> <li>CV = Earned Value – Actual Cost (EV-AC)</li> </ul>						
Schedule Variance (SV)	<ul> <li>Determines whether the project is on, ahead, or behind schedule</li> <li>SV = Earned Value – Planned Value (EV-PV)</li> </ul>						
Cost Performance Index (CPI)	<ul> <li>The ratio of budgeted cost to actual cost used to predict the magnitude of a possible cost overrun or under-run at a given point in time</li> <li>CPI = Earned Value/Actual Cost (EV/AC)</li> </ul>						
Schedule Performance Index (SPI)	<ul> <li>The ratio of budgeted cost to planned cost used to predict the magnitude of a possible cost overrun or under-run at a given point in time</li> <li>SPI = Earned Value/Planned Value (EV/PV)</li> </ul>						

## Different types of forecasting metrics can be used for project performance and completion estimations

### **Forecast Metrics**

Metric	Definition and Formula					
To-Complete Performance Index (TCPI)	(BAC-EV)/(BAC-AC) (Budget at Complete – Total Earned Value)/(Total Budget at Complete – Actual Cost)					
Statistical Estimate to Complete (STAT ETC)	(BAC – EV)/CPI (Budget at Complete – Earned Value)/Cost Performance Index					
Statistical Estimate at Completion (STAT EAC)	AC + STAT ETC Actual Cost + Statistical Estimate to Complete					
Statistical Variance at Completion (STAT VAC)	BAC – STAT EAC  Budget at Complete – Statistical Estimate at Completion					

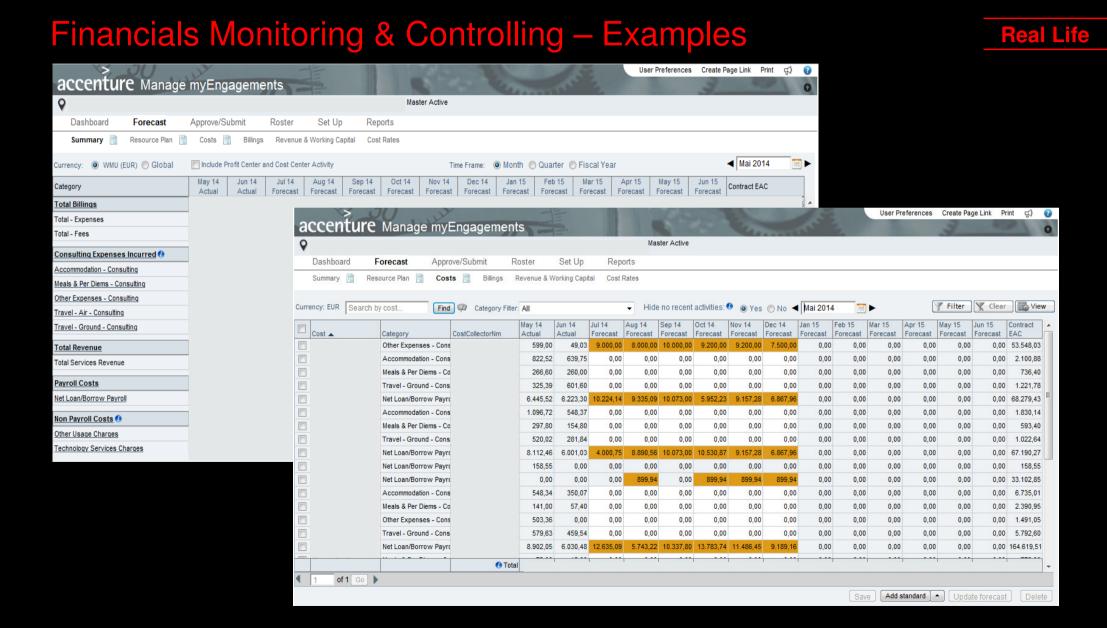
# There are various further tools and methods that can be used for the monitoring and controlling of a project

## Further Project Monitoring & Controlling Dimensions

**Extract** 

FINANCIALS	<ul> <li>Supplier / Consultantancy Margin Targets</li> <li>Control of Contingency</li> <li>Control of Travel Expenses</li> <li>Business Case Monitoring</li> </ul>
RISKS	<ul> <li>Qualitative Risk Assessment</li> <li>Quantitative Risk Assessment</li> <li>Includes Opportunities and Threats</li> </ul>
COMMUNICATION	<ul> <li>Communication Plan</li> <li>Stakeholder Management (Key Stakeholder Matrix)</li> <li>Change Management Instruments (Workshop)</li> <li>Target Group Refinement</li> </ul>
QUALITY	<ul> <li>Quality Assurance (Interviews, Surveys,)</li> <li>Quality Management and Configuration</li> <li>Management as a Planning Function</li> <li>Test Statistics</li> </ul>
HR	<ul> <li>Employee / Project Survey</li> <li>Control of Overtime</li> <li>Individual Development / Motivation and Performance Evaluation</li> </ul>
SOURCING	<ul> <li>Monitoring of Supplier Contracts</li> <li>Cost Control</li> <li>Regular Check of Conditions</li> <li>Spend Management</li> </ul>

## Special tools are used for the calculation of cost and revenues



## Additional examples exist for the monitoring and controlling of risks

### Risk Monitoring & Controlling – Example

**Real Life** 

#### **Risk Register**

= High Risk after Mitigation = Medium Risk after Mitigation

Low Risk after Mitigation

Nr.	Risk	Risk name	Project	Date	Source	Damage entry	before				Mitigation strategy, Remarks
	Risk Description	Short name of risk	•	Evaluation Date		Damage will occur	-	•	Risk Classification	Dependency to stream	
						• •			value RCV1		
						*	4:100%	4: 100 - 300 T€ 5: > 300 T€			
	▼	~	▼	▼.	▼	▼		▼	▼	▼	▼
1	asdf	Parallelise IT concept (R2) and template (R1)		19.11.08	rad	Mrz. 09	3	3	9		Detailed resource planning of both project phases
2	asdf	Less ressources for run SAP in futur	Π	19.11.08	rad	Jun. 10	2	5	10		Wait of detailed IT architecture information
3	asdf	Scope of divisional planning	ВМ	14.08.08	Unknown business requirements	Sep. 08	2	3	6		Scope has to be roughly defined in early stage of concept phase. Implementation is included in 2009.

## When planning and controlling resources if is important to keep some facts in mind

### Resource Monitoring – Recommendations

#### **Loading Resources**

- Assign & monitor experienced resources to critical path tasks to mitigate the risk of schedule slippage.
- If resource availability permits, assign the same resource to work on inter-related tasks in the work plan.
- Take advantage of the context the resource has specific to the work and increase efficiency.
- Avoid assigning multiple resources to a task.



Select and monitor the resource with the right experience and skills for the task.

#### Monitoring Resources

- Examples of over-utilization during planning:
  - Fulltime assignment on >1 task during the same time.
  - Assignment to a summary task and 1+ of the subtasks.
- Examples of over-utilization after project start:
  - Increased duration of tasks.
  - Increased assignment units for resources.
  - Decreased unit availability for resources.

A flexible project structure is required as from time to time there are likely to be resources that are over or under-utilized.

#### Levelling Resources

- Do not plan for an absolute 100% utilization of all resources.
- At Accenture it is important for resources to have time for nonproject activities important to our organization and to the morale of the resources (such as PTO, training, community meetings, etc.).
- Consider the morale of individuals.



Maximize resource utilization without exceeding their availability.

# Keeping a few rules in mind can help you to manage your daily project work in a successful manner

### 11 Golden Rules in Practice

- #1 Only completion is final.
- #2 Climb the wall. Problems are your business.
- #3 Escalate problems quickly.
- #4 Give managers a chance to manage.
- #5 Problems need owners.
- #6 Ask the right questions.
- #7 Issues and risks are different.
- #8 Always have a work plan.
- #9 Know your status KPIs (CV, SV, CPI, SPI).
- #10 Stay clear on scope.
- #11 Write it down.



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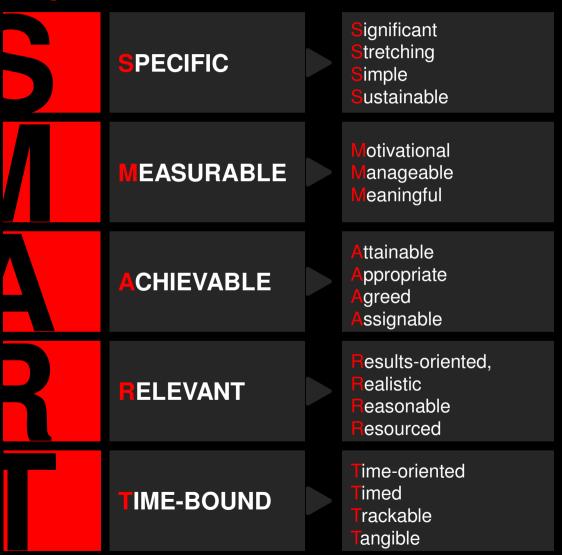
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## Backup

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### Target Control – SMART Goals



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