**🧱 Chapter 9: Monitoring & Controlling Projects**

**🔍 Why Monitoring & Controlling Matters**

Imagine flying a plane without checking your altitude, fuel, or navigation system. That’s what managing a project without monitoring and control looks like.

This phase ensures the project:

* Stays on track (scope, schedule, and budget)
* Delivers quality outputs
* Responds to change effectively
* Manages risk continuously

You’re no longer planning or executing—you’re steering.

**📡 What Is Monitoring and Controlling?**

Monitoring is about **tracking** the project’s progress.  
Controlling is about **adjusting** to ensure success.

Together, they help answer:

* Are we where we said we’d be?
* Are we spending more than we should?
* Is the work meeting expectations?
* Do we need to change course?

**📊 Key Performance Indicators (KPIs)**

KPIs help quantify how well the project is performing.

**Common KPIs:**

| **KPI** | **What It Measures** |
| --- | --- |
| **Schedule Performance Index (SPI)** | Progress vs. timeline |
| **Cost Performance Index (CPI)** | Budget efficiency |
| **Planned Value (PV)** | What we *should* have done by now |
| **Earned Value (EV)** | What we’ve *actually* accomplished |
| **Actual Cost (AC)** | What we’ve *actually* spent |
| **Defect Density** | Product quality and rework required |
| **Customer Satisfaction** | Stakeholder happiness and trust |

📌 *Example:*  
If SPI = 0.85, you’re behind schedule.  
If CPI = 1.1, you’re under budget and efficient.

**🧮 Earned Value Management (EVM)**

**EVM** is one of the most powerful techniques for integrating scope, schedule, and cost in a single view.

| **Metric** | **Formula** | **Tells You** |
| --- | --- | --- |
| **CV (Cost Variance)** | EV - AC | Budget status |
| **SV (Schedule Variance)** | EV - PV | Time status |
| **CPI** | EV / AC | Cost efficiency |
| **SPI** | EV / PV | Time efficiency |

💡 *CPI or SPI < 1 = red flag*

**🔄 Change Control Process**

Projects change. But uncontrolled change = chaos. That’s where **Change Control** comes in.

**Steps for Managing Change:**

1. **Submit a Change Request** – Documented and specific
2. **Evaluate Impact** – Cost, scope, schedule, risk
3. **Review with Change Control Board (CCB)** – If applicable
4. **Approve or Reject**
5. **Update Plans and Communicate**

📌 *All changes must be formally logged and traceable.*

**🛡️ Risk Monitoring and Mitigation**

Remember your Risk Register? Now’s the time to revisit and adjust.

**Best Practices:**

* Review risk status weekly
* Monitor for new risks that emerge
* Track effectiveness of mitigation strategies
* Escalate major issues early

🎯 Risk is a living element—treat it as such.

**📈 Using Dashboards and Reports**

Transparency builds trust. Use tools that make status updates visual and digestible.

**Tools for Real-Time Monitoring:**

| **Tool** | **Use Case** |
| --- | --- |
| **Power BI / Tableau** | Live KPI dashboards |
| **Asana / ClickUp** | Task and milestone tracking |
| **Smartsheet** | Integrated Gantt + reporting |
| **Excel / Google Sheets** | Custom tracking & calculations |
| **Weekly Reports** | Summary of progress, risks, issues |

**🧠 Common Issues and How to Fix Them**

| **Issue** | **Fix** |
| --- | --- |
| **Scope Creep** | Enforce formal change control |
| **Budget Overruns** | Re-forecast and review resource allocations |
| **Missed Milestones** | Reassess dependencies, adjust timeline |
| **Low Morale** | Celebrate wins, clarify goals, engage team |
| **Inaccurate Tracking** | Centralize updates and use automation tools |

**🧰 Templates & Tools You Can Use**

* **Change Request Log**
* **Weekly Status Report Template**
* **KPI Tracker (Excel/Sheets)**
* **Risk Register with RAG Status**
* **EVM Calculation Sheet**

📥 Download these from StarGlobal.Online/Resources

**✅ Quick Recap**

* Monitoring = tracking. Controlling = adjusting.
* Use KPIs, EVM, and risk tools to keep projects in control.
* Implement formal change control to stay aligned and accountable.
* Transparent, consistent reporting builds stakeholder trust.

**📘 Reflection Questions**

1. How would you explain CPI or SPI to a non-technical stakeholder?
2. What’s one change that derailed a past project you were part of?
3. What tool or process do you rely on most to monitor project progress?