

PRINCE2 – An Overview

COMP6204: Software Project Management and Secure Development

Dr A. Rezazadeh (Reza)

Email: ra3@ecs.soton.ac.uk or ar4k06@soton.ac.uk

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Overview

- We'll go over the main components of the PRINCE2 project management methodology, which are:
 - PRINCE2 Principles
 - PRINCE2 Themes
 - PRINCE2 Processes
 - PRINCE2 Roles and Responsibilities
- But before we dive into that, let's define what PRINCE2 is.

What Is PRINCE2?

- **PRINCE** stands for: **P**ROjects **I**N **C**ontrolled **E**nvironments ,
While 2 stands for the version.
- PRINCE2 is a structured project management method,
- PRINCE2 emphasises dividing projects into manageable and controllable stages.
 - This method focuses on managing resources and risks by dividing projects into smaller stages, defining clear roles & responsibilities and using seven processes to manage the project life cycle.
- PRINCE2 is mostly used in the UK, Australia and European countries.

PRINCE2 Formation

- PRINCE2 is a principles-driven project management methodology.
- PRINCE2 is based on **seven principles, seven themes and seven processes**.

PRINCE2 – The 7 Principles

- There are seven principles and unless all of them are applied, it is not a PRINCE2 project. These seven principles are:
 1. Continued Business Justification
 2. Learn from Experience
 3. Defined Roles and Responsibilities
 4. Manage by Stages
 5. Manage by Exception
 6. Focus on Products
 7. Tailor to the Environment

PRINCE2 – The 7 Principles

1. Continued Business Justification

Justify every project otherwise it could be a waste of time and/or resources.

The most important document in PRINCE2 is the **business case**, which is reviewed and revised throughout the life cycle of the project.

This is done to make sure the project remains viable. If not, the project ends.

2. Learn From Experience

Enables organisations to improve their project management abilities. Avoid repeating bad things from previous projects. Repeat the good things.

There is a **lesson log** attached to every project that acts as a repository for **lessons learned** in **previous projects** to avoid repeating past mistakes.

PRINCE2 – The 7 Principles

3. Roles and Responsibilities Are Defined

Every decision-maker must understand their responsibilities. This avoids 'passing the buck'.

Project members can take on multiple roles or share a role.

There are four levels that make up the structure of people in a project: corporate, project board, project manager and team.

4. Manage by Stages

PRINCE2 is planned ahead and follows a stage-by-stage process.

Break down the project into 'management' stages. These form 'go or no-go' decision points. If the project is still worthwhile, proceed to the next stage. Otherwise close the project.

When transitioning between stages the business case, risk and project plan are all updated.

PRINCE2 – The 7 Principles

5. Manage by Exception

There are what are called **tolerances** for each project objective. In PRINCE2 Senior management delegates day-to-day responsibility to a project manager. It delegates authority by setting permitted 'tolerances' – e.g. 10 days +/- 2 days.

This creates limits and defines how authority is delegated.

If a plan will exceed tolerances, it's an 'exception' to be escalated for a decision.

6. Focus on Products

The quality requirements of deliverables are of paramount concern.

7. Tailor to Suit Project Environment

All projects are different. Adapt the PRINCE2 methodology to suit the project's needs. The amount of **oversight** and **planning** should fit the size of the project, number of people involved, complexity, importance, time, risk, etc.

PRINCE2 – The 7 Themes

- Themes in the PRINCE2 method are project management areas which must be managed throughout the project. In the PRINCE2 methodology themes equate to Knowledge Areas in the PMBOK Guide®. These seven themes are:
 1. Business Case
 2. Organisation
 3. Quality
 4. Plans
 5. Risk
 6. Change
 7. Progress

PRINCE2 – The 7 Themes

1. Business case

Document the project's justification. Maintain the justification in the form of a business case. It should contain a cost-benefit analysis to weigh up the benefits versus costs, times and risks.

2. Organization

The highest level of decision-making is the **project board**. It delegates to a **project manager** who delegates to **team managers**. It “*manages by exception*” and doesn’t need regular progress meetings with the project manager.

Project assurance monitors the project’s **performance** and **products**. It advises the project board and project manager.

A **change authority** decides about changes. **Project support** assists project and team managers.

PRINCE2 – The 7 Themes

3. Quality

The users must get the right products. Otherwise, they won't get the outcomes and benefits expected. Products must be delivered to user specifications.

4. Plans

Different plans (project, stage, team) are needed by the project board, project and team manager.

Plans define the **what, when, who** and **how much**? After approval manage **baseline plans** under change control.

5. Risk

Risk is any uncertain event which could have a **negative** or **positive** impact on the project. Manage risks regularly. Escalate risks to senior management if necessary.

PRINCE2 – The 7 Themes

6. Change

Change always happens - either from outside (e.g. new laws) or inside (e.g. users' requirements change).

In PRINCE2 a change authority uses a change budget to pay for changes.

7. Progress

Track progress using regular time-driven reports. Take decisions using ad-hoc reports. Send reports to the next highest management level.

Compare what's happened against what should have happened. Adjust the plan to get things 'back on track'.

PRINCE2 Methodology – Processes

- Processes in PRINCE2 describe:
 1. What decisions are required?
 2. Who takes decisions?
 3. What management products (e.g. plans or reports) support decision-making?
 4. When decisions are taken?
- The PRINCE2 processes are where the *principles* and *themes* within the *methodology* get applied.
- Processes within the PRINCE2 methodology equate to ‘*Process Groups*’ in the PMBOK Guide®.
- The PRINCE2 method has 7 processes.

PRINCE2 – The 7 Processes

- These describe a **step-wise progression** through the **project lifecycle**, from getting started to project closure. Each process provides **checklists** of recommended **activities**, **products** and related **responsibilities**. These seven processes are:
 1. Starting up a Project
 2. Directing a Project
 3. Initiating a Project
 4. Controlling a Stage
 5. Managing Product Delivery
 6. Managing a Stage Boundary
 7. Closing a Project

PRINCE2 – The 7 Processes

1. Starting up a project

Here a customer submits a request for a new project which is called a project mandate. This mandate is then evaluated and it is determined whether or not the company can take up the project.

Once approved, the customer submits a detailed proposal regarding the resources, actions, and other information about the project.

2. Directing the project

Now the viability of the project is analysed and the project is assigned to a project manager.

3. Project initiation

The project manager prepares a plan in which different parameters such as the cost, time required, quality, advantages, risk, and project scope are covered.

PRINCE2 – The 7 Processes

4. Stage control

The project is subdivided into stages and teams are assigned for each stage. The project manager tracks the performance and issues of each stage.

5. Product delivery management

The project manager makes sure that there is no gap between deliverables and quality expectations. The project board makes a final evaluation and either approve the product or request revisions.

6. Managing stage boundaries

At the closing of each stage, the manager and the board will review the outcomes of that stage to ensure that the project is on the right track.

7. Project closing

Project closing marks the closing of the outcomes, documentation, and reporting.

The roles in PRINCE2

- There are *3 principle roles* for PRINCE2:
 1. the project board,
 2. the project manager,
 3. and the project team.
- But there are many supplemental roles that help ensure requirements and standards are met and that work runs smoothly.

The 7 roles in PRINCE2 – Cont.

- ▶ **The customer** is the person paying for the project to be completed.
- ▶ **The user** will either use the project deliverables or will be impacted by the project's outcome. (For some projects, the customer and user may be the same person.)
- ▶ **The supplier** is a subject matter expert who provides the knowledge needed to complete the project by designing or building the end result.
- ▶ **The project manager** is responsible for organizing, planning and overseeing work on the project. They select and manage the people who complete project tasks, and they're responsible for making sure work is done correctly and on time.
- ▶ **The project team and team manager** actually roll up their sleeves and get project tasks done. Team managers oversee the detailed aspects of daily work and report directly to the project manager.
- ▶ **The administrator** sets up meetings, keeps everyone updated, tracks documentation, etc. On small projects, project managers will often take over this responsibility, but if there are multiple projects running at once or the project is large/complex, a project support office is typically set up to manage these duties.

The roles in PRINCE2 – Cont.

- One of the 3 main roles, the *project board* typically includes multiple people: the **customer** (typically a senior executive), the **end user** (or a representative), and the **supplier**.
- It checks for project assurance from three unique perspectives:
 1. The customer ensures the project is still viable financially, typically through cost benefit analysis.
 2. The user ensures user needs are being met.
 3. The supplier checks whether the project is working towards a realistic, practical solution.
- On some projects, PRINCE2 assurance is done by an unbiased, third-party team.

PRINCE2 manages six key variables

- A *PRINCE2* project identifies six aspects or areas that need to be managed in every project. Project managers need to use **Key Performance Indicator** – KPIs to measure performance goals and project tolerances:
 1. *Costs*
 2. *Timescales*
 3. *Quality*
 4. *Scope*
 5. *Risk*
 6. *Benefits*

Six Aspects of PRINCE2

1. Scope

What's the work needed to complete the project? The details of the **project scope** should be explained in the project plan.

2. Costs

How much does your project cost? The **project costs** are detailed in the project plan as well.

3. Timescales

How long will it take to complete your project?

Each project **phase** is explained in the project plan, as well as the **project duration**.

Six Aspects of PRINCE2 – Cont.

4. Risk

What are your project risks? You'll need a risk management approach to determine the mitigation strategies that will be used.

5. Quality

What are the quality requirements of your clients or stakeholders?

You'll need to have quality control and assurance procedures in place to meet quality standards.

6. Benefits

What are the expected benefits of your project?

Every project needs a **business case** and a cost-benefit analysis to explain its purpose and financial or strategic benefits.

Types of PRINCE2 documentation

- **Business case:** Detailed description of why the project is needed and its expected benefits to users and the business.
- **Risk register:** Lists the probability and potential impacts of risks and opportunities.
- **Quality register:** A running log of quality checks that ensure deliverables meet expectations.
- **Issues register:** A list of problems and concerns from project team members.
- **Lessons log:** Notes on lessons learned to apply to the next work stage and/or future projects.
- **Daily log:** A daily diary written by the project manager that reports activity and progress.

Summary – Principles

Principles

These are the foundations of the method. Everything else is based on them. They can be universally applied.



There are 7 principles:

- Continued business justification
- Learn from experience
- Define roles and responsibilities
- Manage by stages
- Manage by exception
- Focus on products
- Tailor to the project environment

Summary – Themes

Themes

These are typical areas of the project which must be managed during the whole project.

There are 7 themes:

- Business case
- Organisation
- Quality
- Plans
- Risk
- Change
- Progress

PRINCE2 Methodology



Summary – Processes

Processes

PRINCE2 Methodology

These describe what decisions need to be taken, who takes them and when.



There are 7 processes:

- Starting up a project
- Directing a project
- Initiating a project
- Controlling a stage
- Managing product delivery
- Managing a stage boundary
- Closing a project

Summary – Tailoring

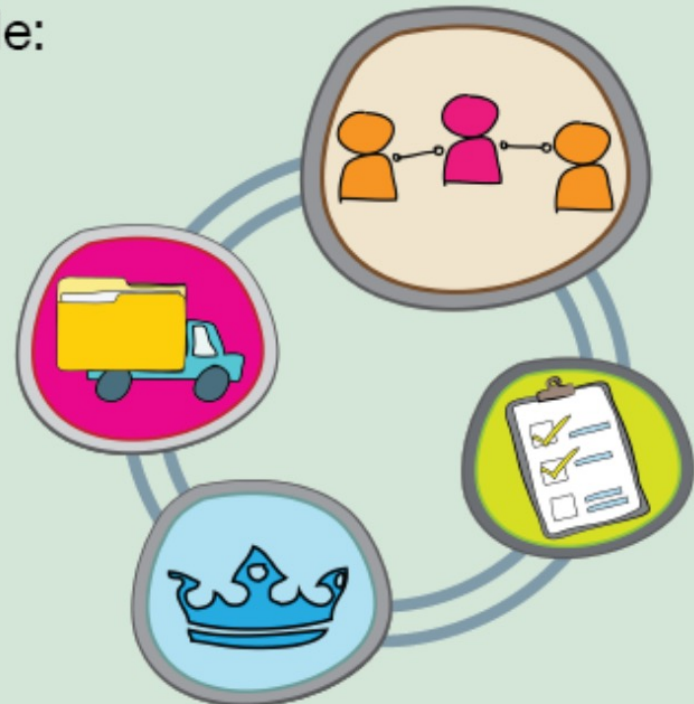
Tailor to the project management

No two projects are the same. Therefore apply PRINCE2 sensibly according to the needs of each project's specific environment.

Things which can be tailored include:

- Themes
- Processes
- Management products
- Project management team roles and responsibilities

PRINCE2 Methodology



References/Resources

- [8 Books to Read for a PRINCE2 Certification](#)
- [Passing the PRINCE2 Foundation exam e-book](#)
- [PRINCE2 Download Centre](#)