University of Mosul

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Project Management
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What Is Traditional Project Management?

- Software project management is an essential primary of software engineering. Projects need to be managed because professional software engineering is always subject to organizational budget and schedule constraints.
- The project manager's job is to ensure that the software project meets and overcomes these constraints as well as delivering high-quality software.
- Good management cannot guarantee project success. However, bad management usually results in project failure: The software may be delivered late, cost more than originally estimated, or fail to meet the expectations of customers

Project Management

The success criteria for project management Different from project to project, but, for most projects, important goals are:

- Deliver the software to the customer at the agreed time;
- Keep overall costs within budget.
- Deliver software that meets the customer’s expectations.
- Maintaining a cohesive and well-performing team.

Traditional Project Management

In this lecture, you will learn at a very detailed level the kinds of projects that lend themselves to TPM approaches. These are the approaches that satisfy the management needs of projects whose goal and solution are clearly and completely documented.

1- Linear Project Management Life Cycle.
2-Incremental project management life cycle

Linear Project Management Life Cycle (PMLC) Model

- Linear project management life cycle
  - Definition
  - Characteristics
  - Strengths/Weaknesses
  - When to use a Linear Approach
  - Variations to the Linear PMLC Model
  - Adapting & Integrating the Toolkits for Maximum Effectiveness

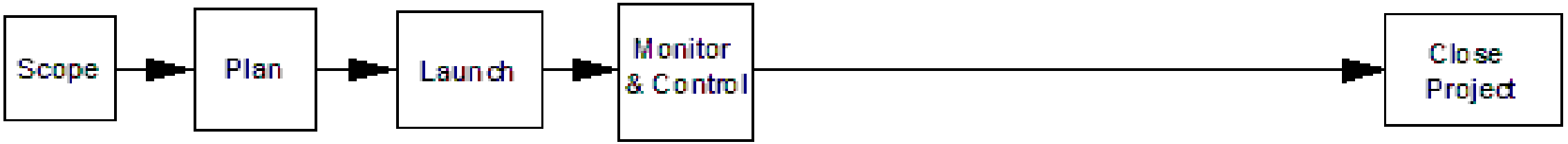
➢Incremental project management life cycle

- ➢Incremental project management life cycle
  - ➢Definition
  - ➢Characteristics
  - ➢Strengths/Weaknesses
  - ➢When to use an Incremental Approach
  - ➢Adapting & Integrating the Toolkits for Maximum Effectiveness

Linear Project Management Life Cycle (PMLC) Model

➢**Definition**

The Linear PMLC model is the simplest and most intuitive of the five major models in the project management landscape. It assumes that you have as nearly perfect information about the project goal and solution as can reasonably be expected. The Linear PMLC model is based on that assumption and does not easily accommodate any deviations. Deviations such as scope change requests can cause major upheavals in the project schedule.



Linear Project Management Life Cycle (PMLC) Model

Characteristics

To be used effectively, the Linear PMLC model works best with projects that

have the following:

1. **Complete and clearly defined goal, solution, requirements, functions, and features**
2. **Few expected scope change requests**
3. **Routine and repetitive activities**
4. **Use of established templates**

Linear Project Management Life Cycle (PMLC) Model

1. **Complete and clearly defined goal, solution, requirements, functions, and features**

You first have to have a clear understanding of what the project is trying to accomplish. That originally led to a statement of the project goal, which you and your client developed together. With the goal firmly established, you and the client were able to define exactly what had to be done to achieve the goal.

The statement of what had to be done was detailed through a requirements gathering process that listed and documented the functions and features that spelled out the details of what had to be done. If you and the client were convinced of the completeness of the requirements document, then a Linear PMLC model was chosen for the project.

Linear Project Management Life Cycle (PMLC) Model

2. Few Expected Scope Change Requests

You are not likely to encounter a project that turns out to be totally free of any scope change requests. It will be hard of you and your client to expect that your project will be safe from any changes.

If you have any doubt, add a management reserve task to the end of the project schedule and explain to the client how it will be used.

If you successfully manage the project according to the initial plan and there are no scope change requests that impact the schedule, the project will end on its originally planned date. If not, you will have a contingency to handle the changes. If you feel there will be numerous changes, but you meet all other conditions for using a Linear PMLC model, you should probably choose some other model.

Linear Project Management Life Cycle (PMLC) Model

3. Routine and Repetitive Activities

Even though projects are unique, they can still be repeated. Their uniqueness comes from external factors acting on the project, your client, your team, and your organization. If you manage projects that are routine and repetitive, here are some suggestions to make life a bit easier for you and to increase the effectiveness of your management of those projects.

Linear Project Management Life Cycle (PMLC) Model

Strengths

- Entire project is scheduled up front
- Resource requirements are known
- Does not require the most skilled resources
- Team members can be geographically distributed

Linear Project Management Life Cycle

Weaknesses

- **Does not accommodate change very well**
- **Costs too much**
- **Takes too long**
- **Requires complete and detailed plans**
- **Must follow a defined set of processes**
- **Is not focused on delivering client value**

Linear Project Management Life Cycle

When to use a Linear Approach

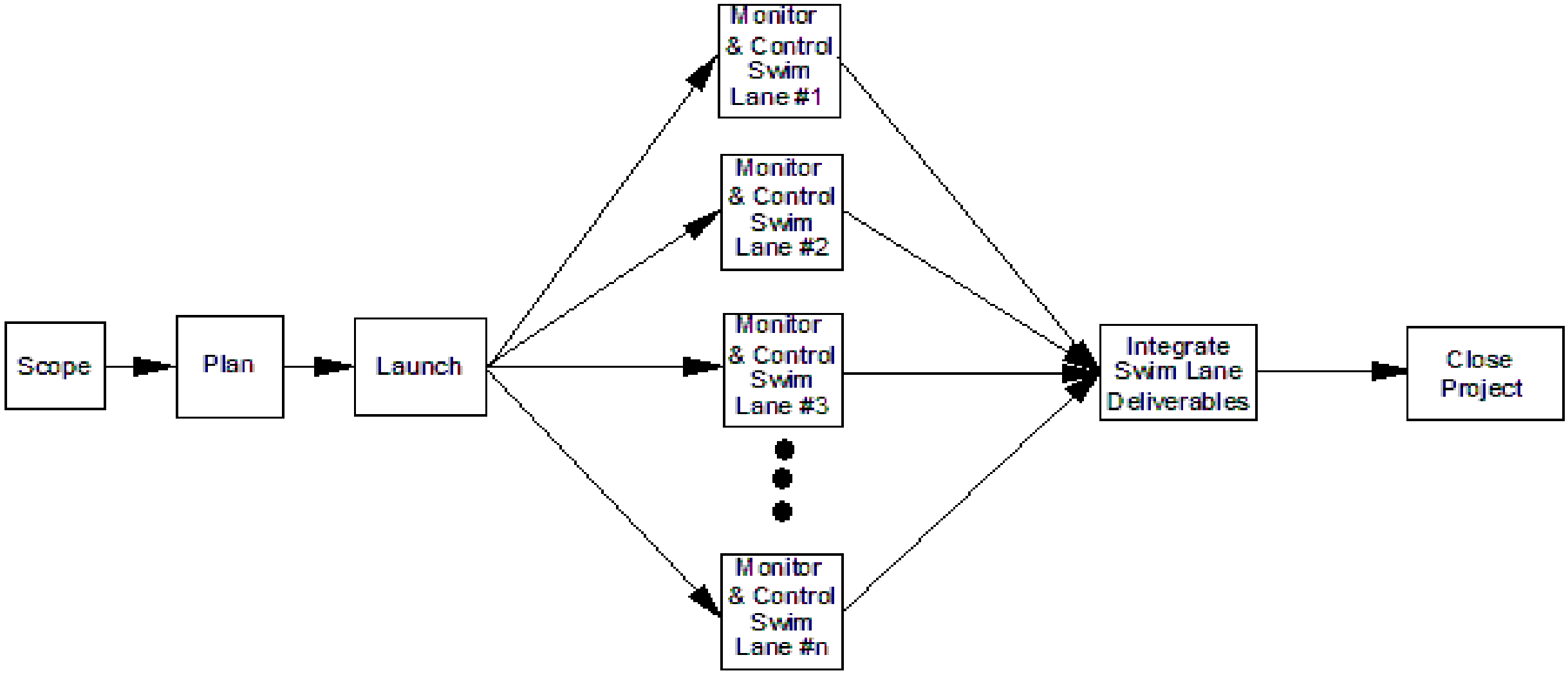
- Projects that are repetitive
- Simple, short duration projects
- Projects contained totally within a single department and use no outside resources

Linear Project Management Life Cycle

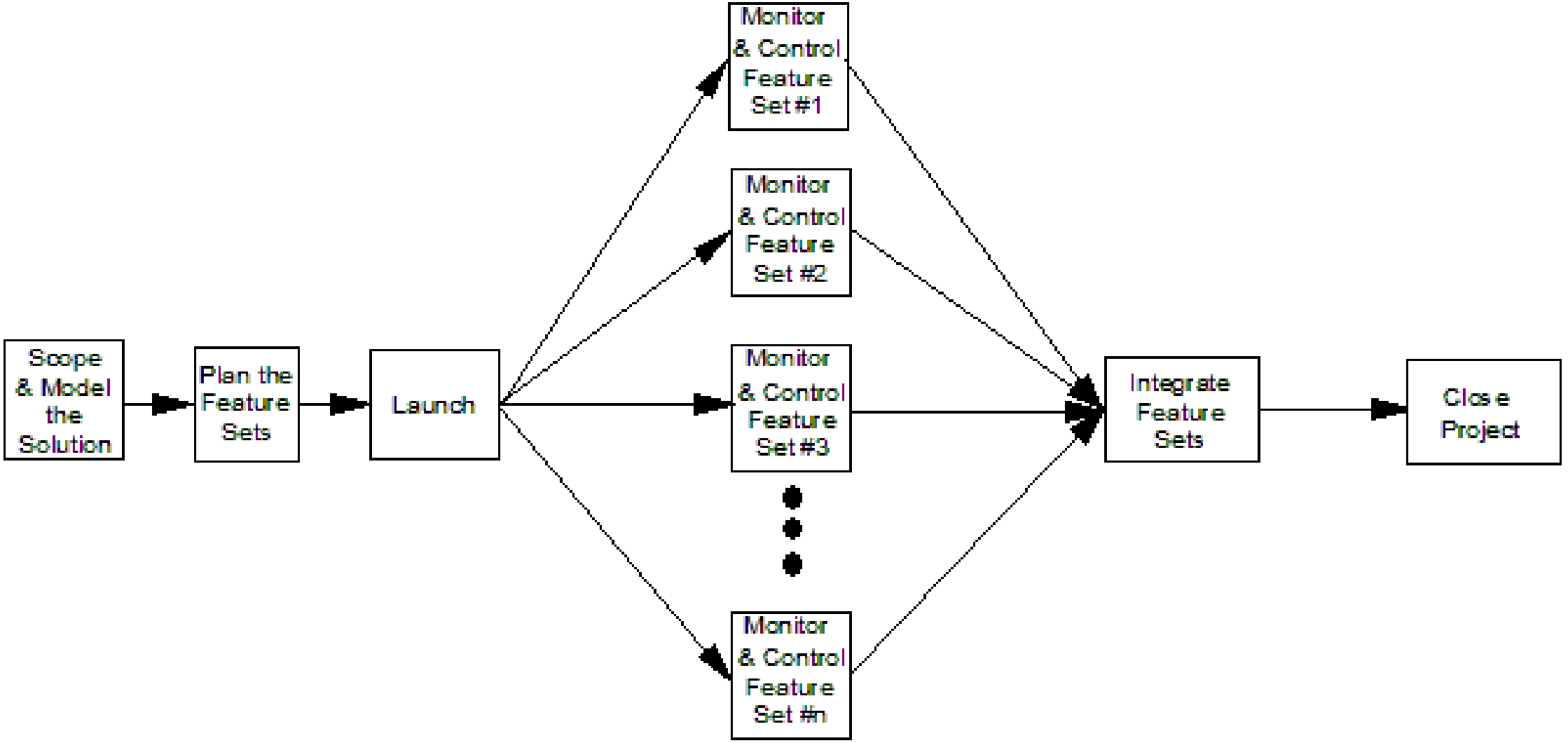
There are two variants of the linear PMLC model worth mentioning:

1. **The Rapid Linear PMLC Model**
2. **Feature-Driven Development Linear PMLC Model**

The Rapid Linear PMLC Model



Feature-Driven Development Linear PMLC Model



Thank you