

CENTRALE
L Y O N

Introduction au Génie Logiciel

Définition
Evolution
Cycles de vie
Différentes vues

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Approches de développement (1/3)

- Approche classique

Approche classique

SA/SADT

Diag d'Archi

LP

Spécifications

Conception

Programmation

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Approches de développement (2/3)

- **Approches mixtes**

The diagram illustrates mixed development approaches. It is divided into two categories: 'Approche classique' and 'Approche Objet'. The process flow is as follows: SA/SADT (under Approche classique) leads to COO (under Approche Objet). LP (under Approche classique) also leads to COO. COO then leads to POO. The phases are labeled as Spécifications (SA/SADT), Conception (COO), and Programmation (POO).

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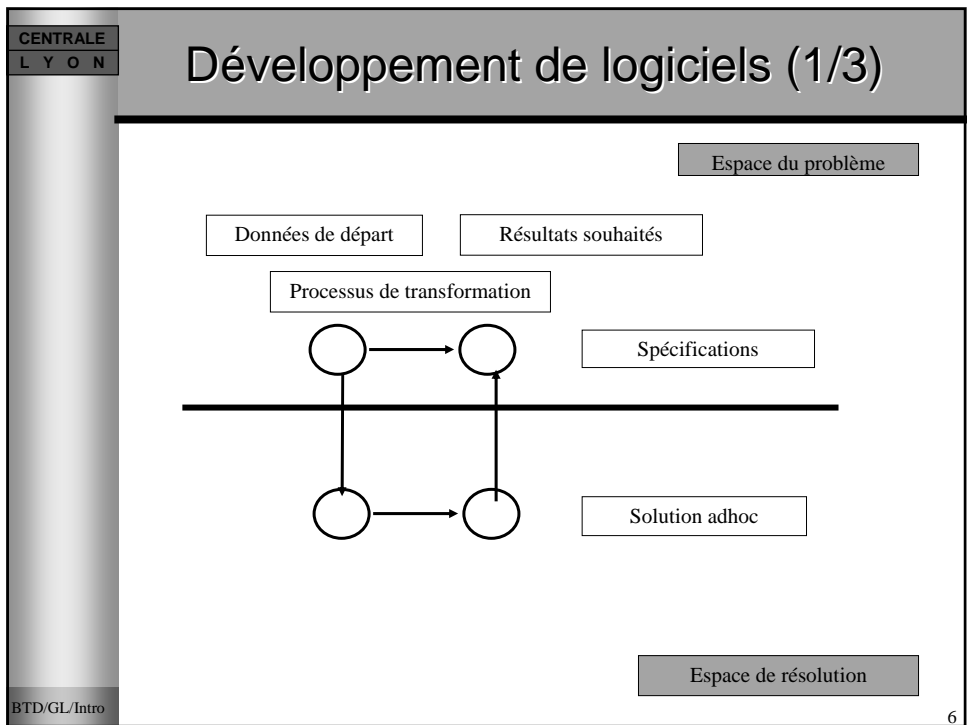
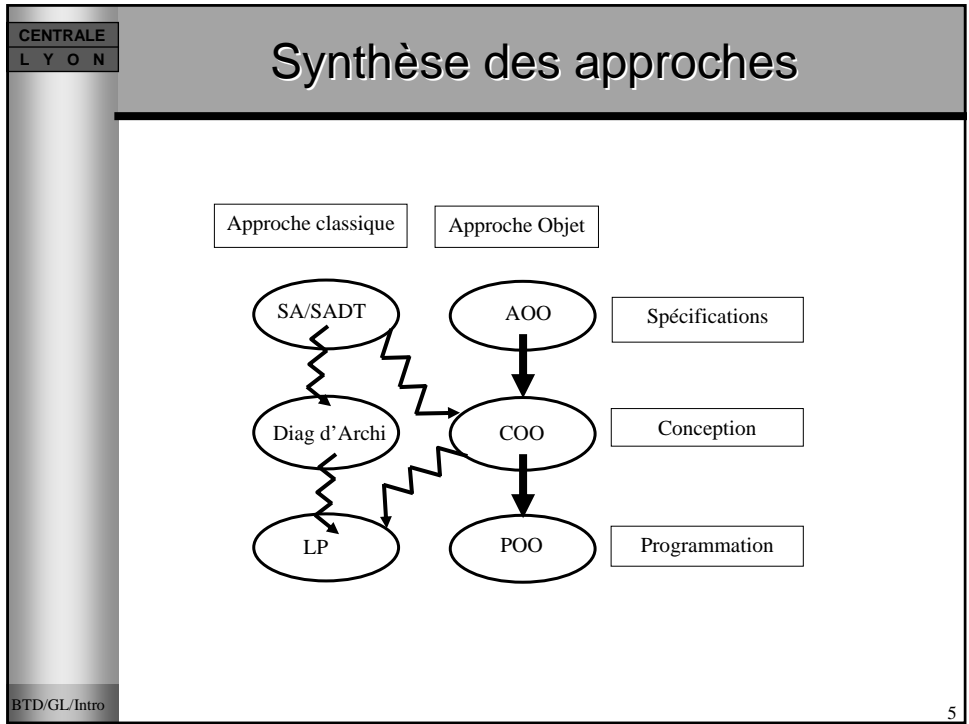
Approches de développement (3/3)

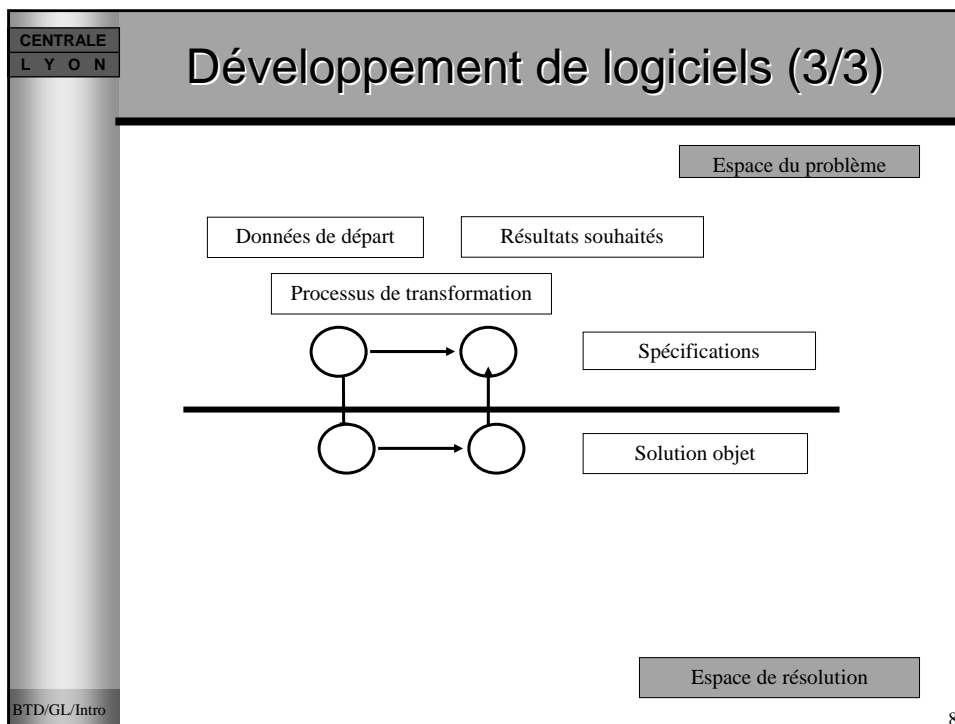
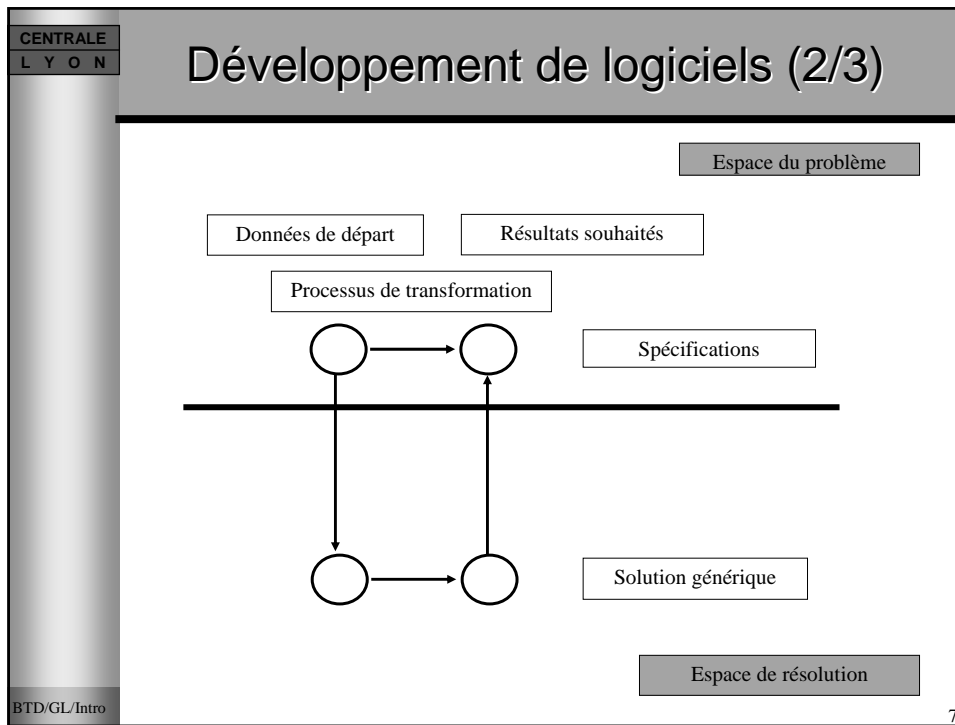
- **Approche tout objet**

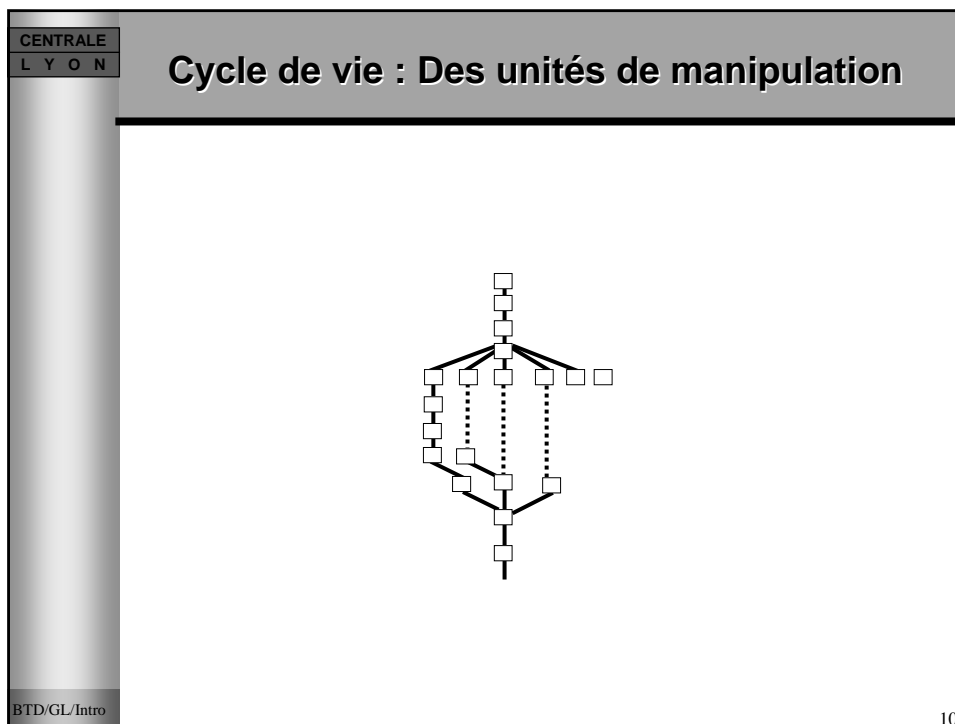
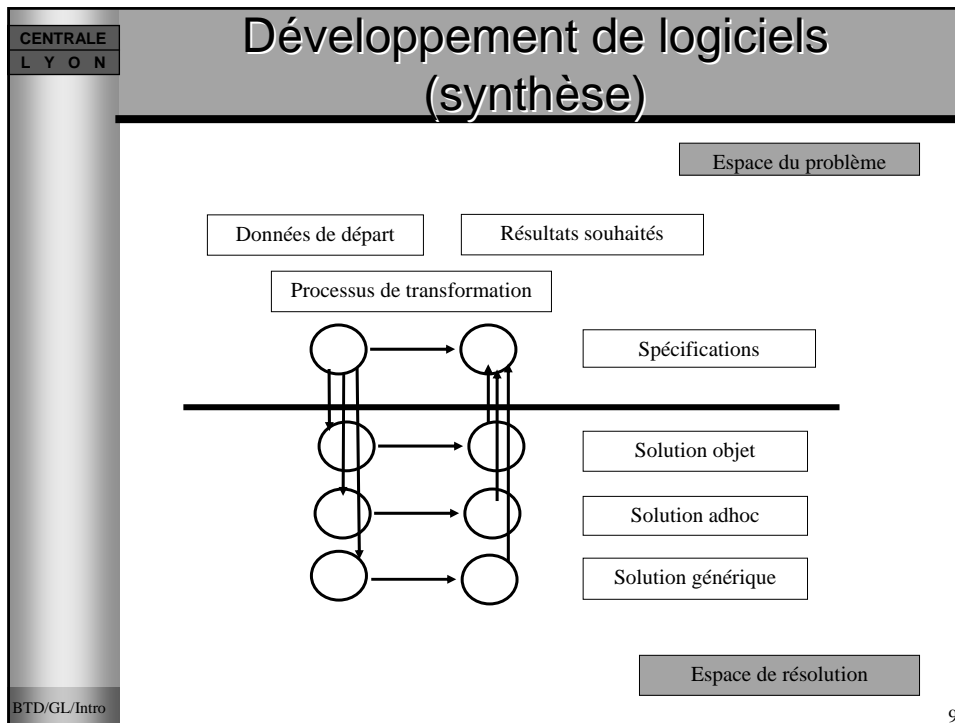
The diagram illustrates a pure object-oriented development approach. It is labeled 'Approche Objet'. The process flow is vertical: AOO (under Approche Objet) leads to COO, which leads to POO. The phases are labeled as Spécifications (AOO), Conception (COO), and Programmation (POO).

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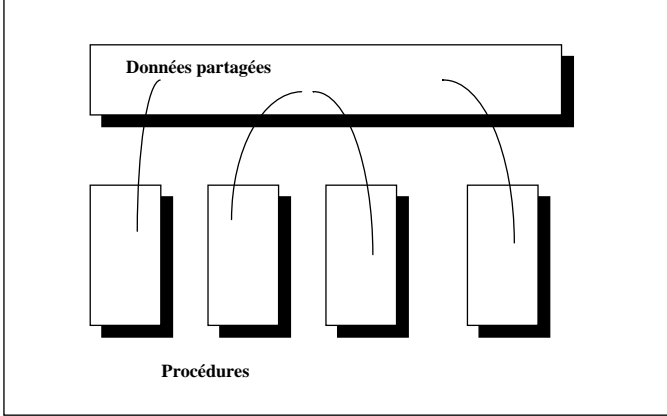




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Architecture classique

- procédures
- données globales partagées



The diagram illustrates a classical architecture. At the top, a horizontal bar labeled "Données partagées" (Shared Data) is connected by curved lines to four vertical rectangular blocks below, each labeled "Procédures" (Procedures). This indicates that the shared data is accessible to all procedures.

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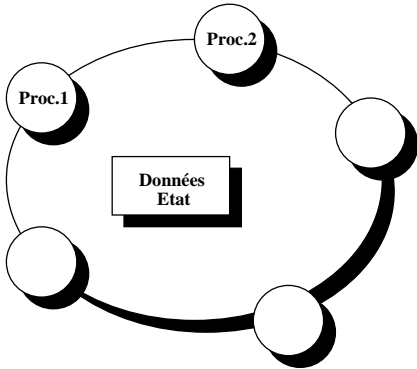
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Approche objet

Objet: Données + Traitements
Etat + Comportement

- Protection : encapsulation des données



The diagram illustrates an object-oriented approach. It features a central box labeled "Données Etat" (Data State). Surrounding this box are five circular nodes. Two of these nodes are labeled "Proc.1" and "Proc.2". The nodes are connected by a thick, curved line that forms a circle around the central data state, representing the encapsulation of data within objects.

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Bases théoriques de l'approche objet

Les types abstraits :

- signature
- préconditions
- axiomes

Interface

Corps

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Relations entre objets

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Architectures objet

- Les objets proposent et utilisent des « services »
- Le fonctionnement découle de l'enchaînement d'évocation des services

The diagram illustrates an object-oriented architecture with six rectangular objects, each divided into two horizontal sections. Arrows indicate the flow of service calls between these objects. A top object calls a middle object, which in turn calls a right object. The middle object also calls a left object. The left object calls a bottom object, and the right object calls a bottom-right object. This shows a complex, interconnected network of service dependencies.

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Architectures prédéfinies

- Architecture pré-processeur - noyau - post-processeur
- Architecture Client-Serveur

The diagram shows two predefined architectural models. The first model, 'Architecture pré-processeur - noyau - post-processeur', consists of three rectangular boxes labeled 'Pré-processeur', 'Noyau', and 'Post-processeur' arranged horizontally. Arrows point from 'Pré-processeur' to 'Noyau', and from 'Noyau' to 'Post-processeur'. The second model, 'Architecture Client-Serveur', consists of two rectangular boxes labeled 'Client' and 'Serveur' arranged horizontally. A double-headed arrow connects them, indicating bidirectional communication.

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Architecture de convergence

- A la fois prédéfinie et objet

Interface Homme-Machine
Objets métier (du domaine applicatif)
Infrastructure (base de données, gestion distribuée,...)

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