



UNIVERSITÉ  
DE MONTPELLIER

# Soutenance de projet

Mercredi 31 Mai 2017

## Éditeur de Comportement

Warbot sous Unity

Groupe Losh'Dora  
Édouard BREUILLE  
Célia ROUQUAIROL

**Sous la direction de Jacques FERBER**

**Année universitaire 2016 - 2017**

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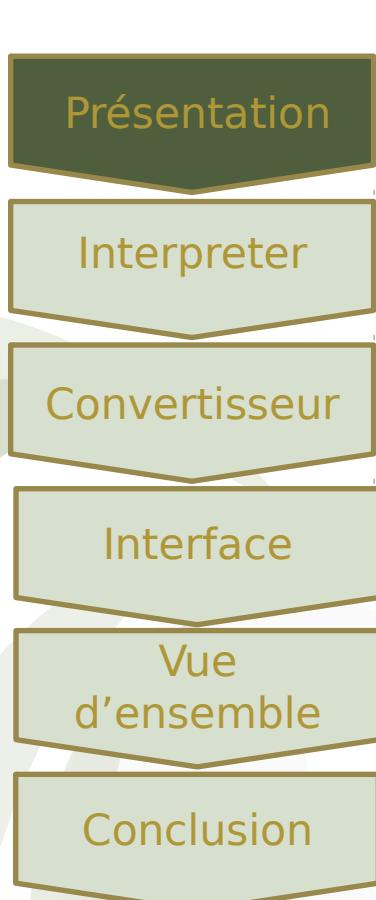
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# Présentation de Warbot



# Présentation de Warbot

Présentation

Interpréter

Convertisseur

Interface

Vue  
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Conclusion



Amasser des ressources

# Présentation de Warbot

Présentation

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Conclusion



Créer des unités

# Présentation de Warbot

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Détruire la base adverse

# Présentation de Warbot

Présentation

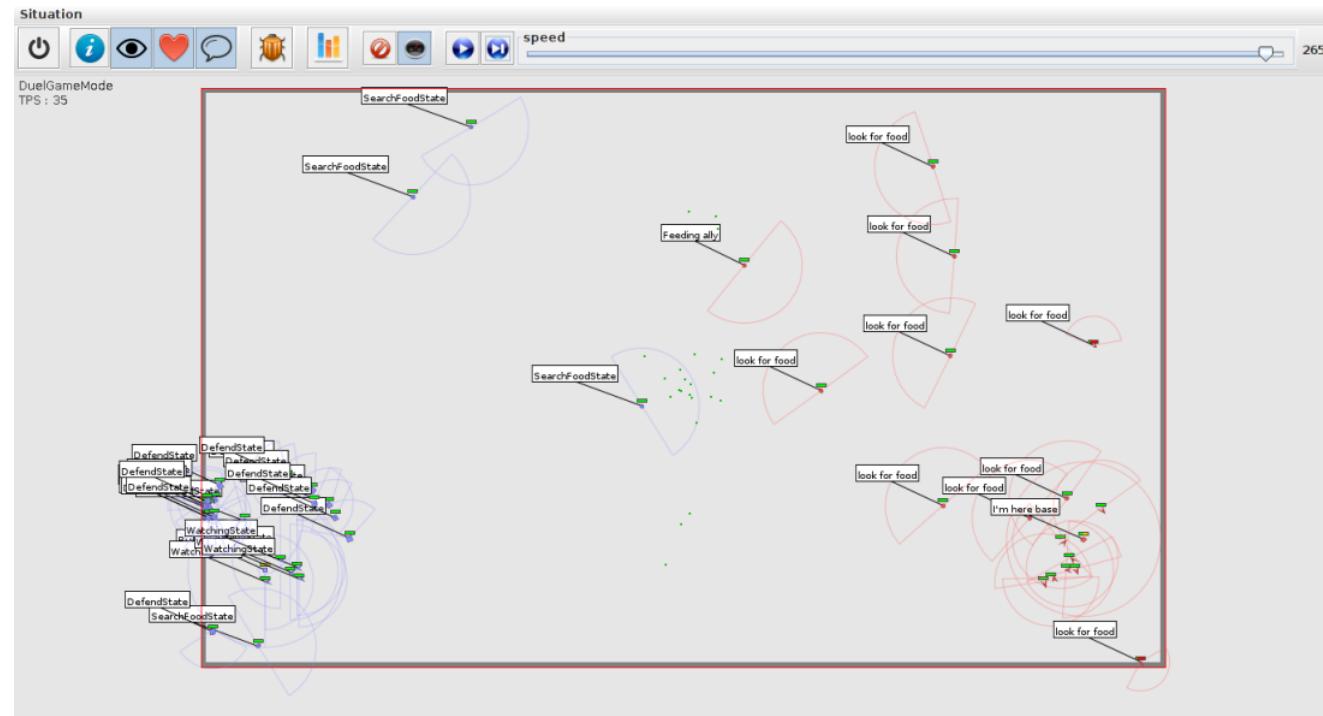
Interpréter

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Interface

Vue  
d'ensemble

Conclusion



# Présentation de Warbot

Présentation

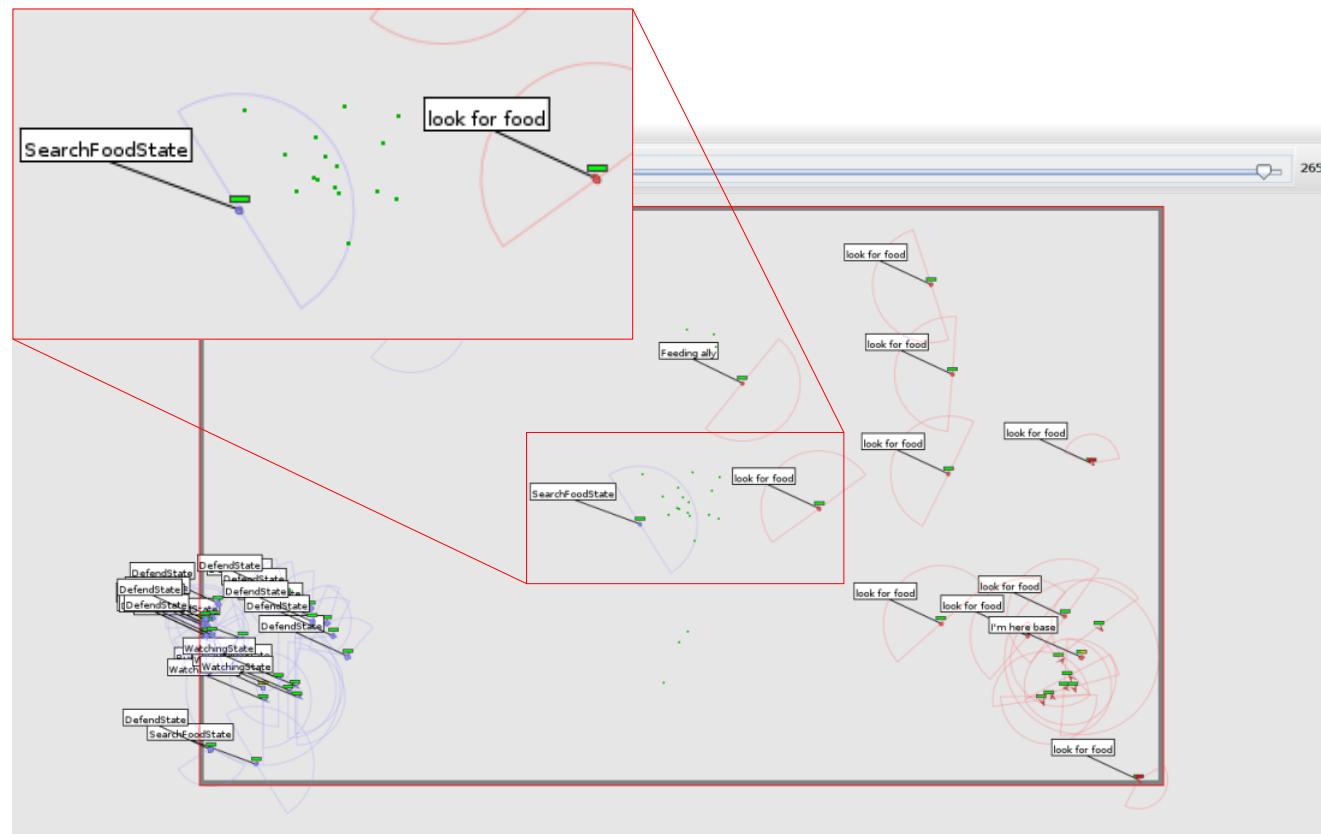
Interpréteur

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Conclusion



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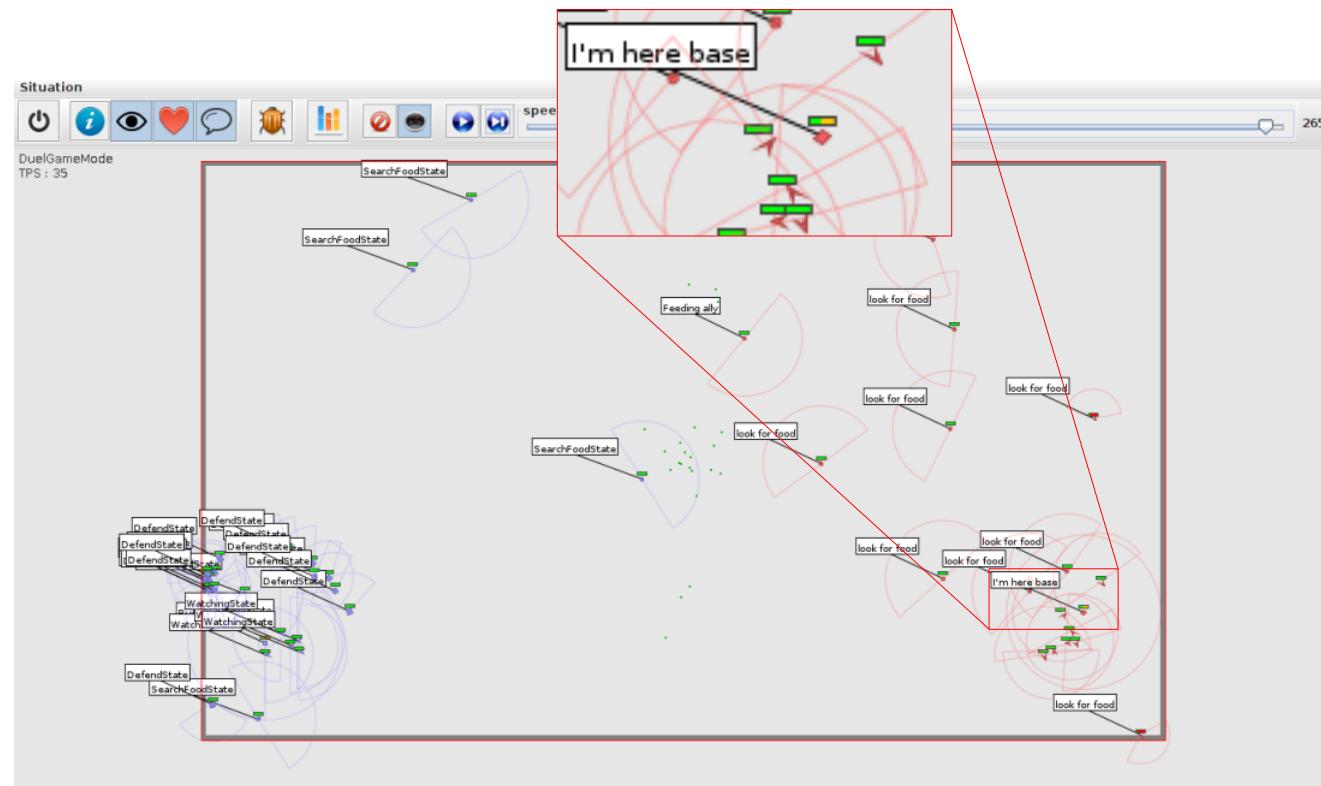
Interpréteur

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Conclusion



# Présentation de Warbot

Présentation

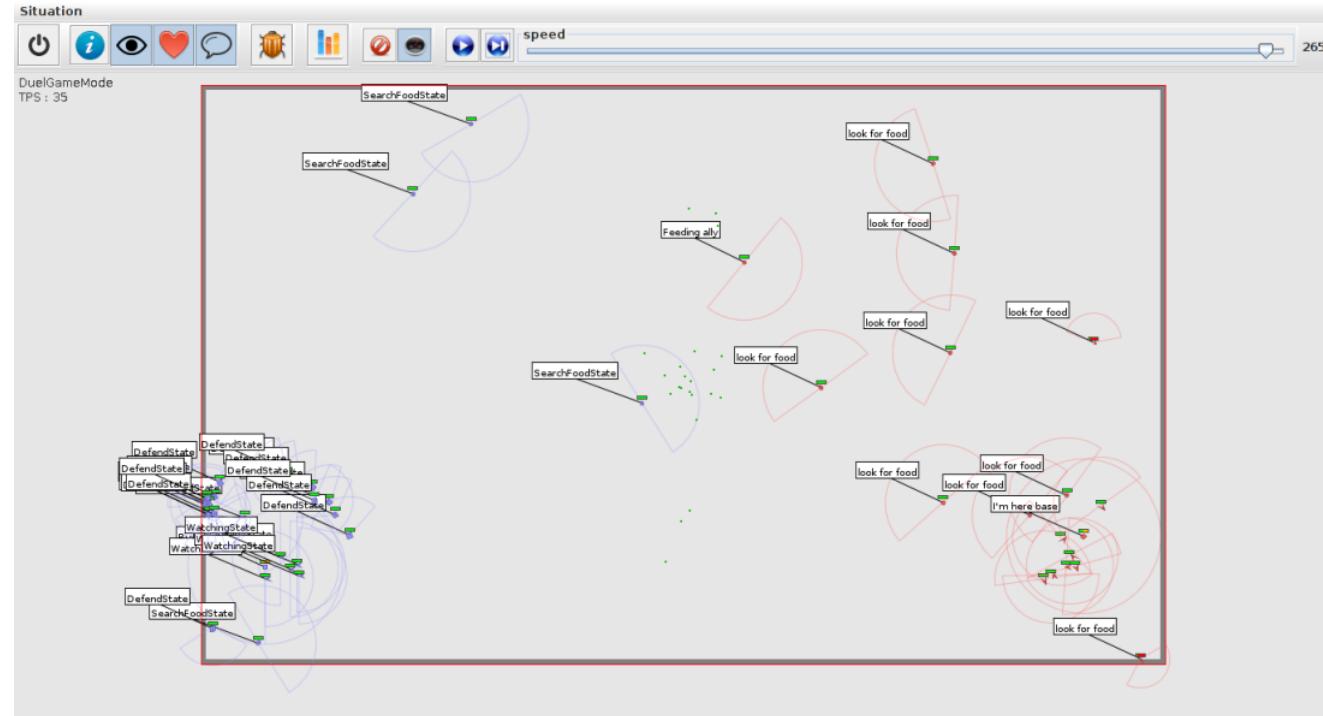
Interpréter

Convertisseur

Interface

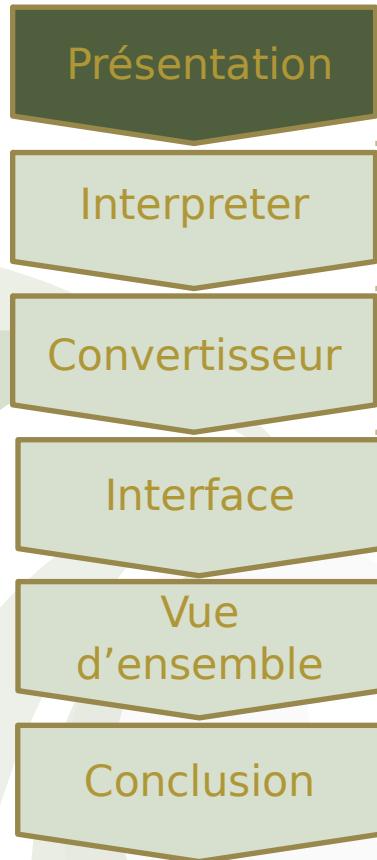
Vue  
d'ensemble

Conclusion



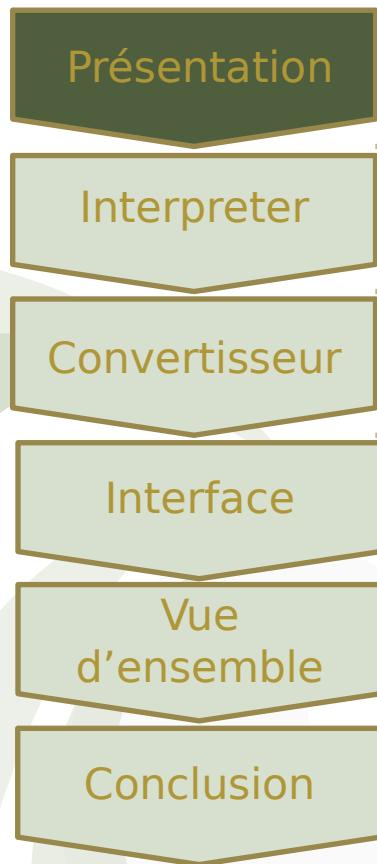
Réflexion plutôt que réflexes

# Présentation de Warbot



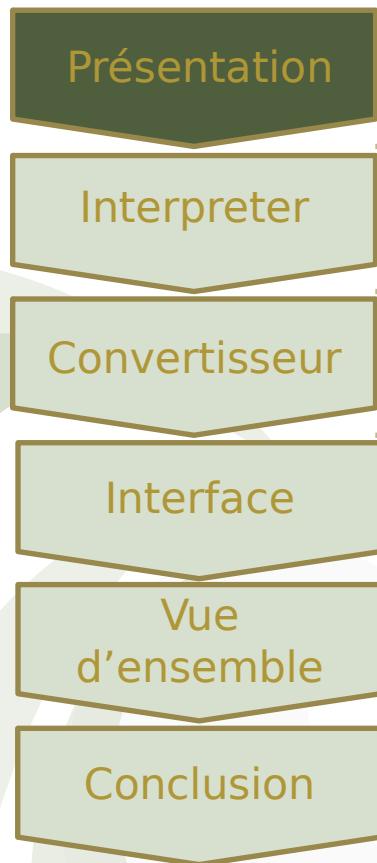
- Création en 2002

# Présentation de Warbot



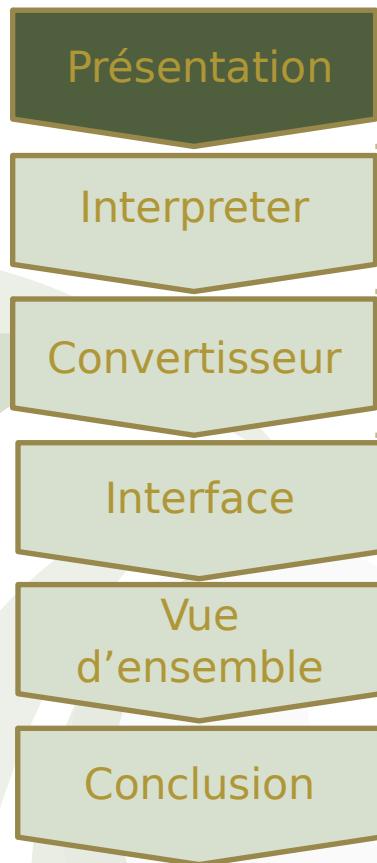
- Création en 2002
- Système multi-agents

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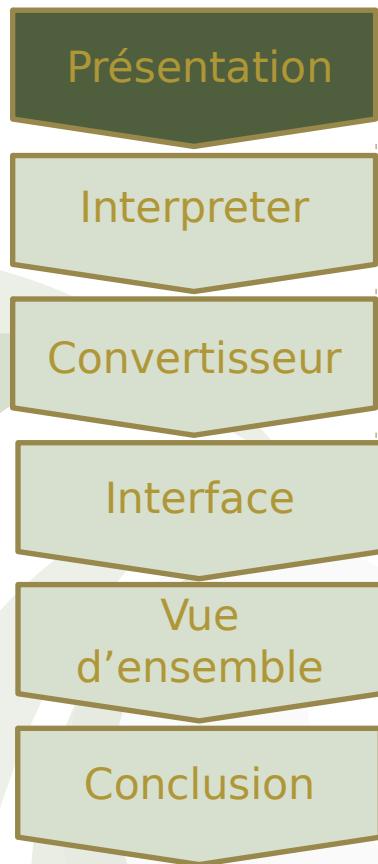
- Création en 2002
- Système multi-agents
- NetLogo / Java

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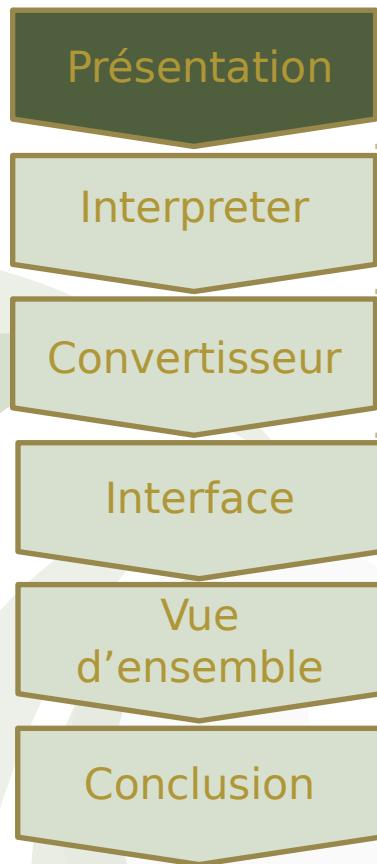


- Création en 2002
- Système multi-agents
- NetLogo / Java
- MadKit / TurtleKit

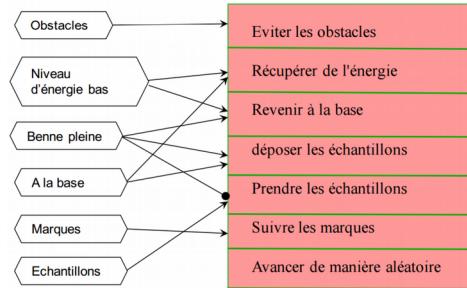
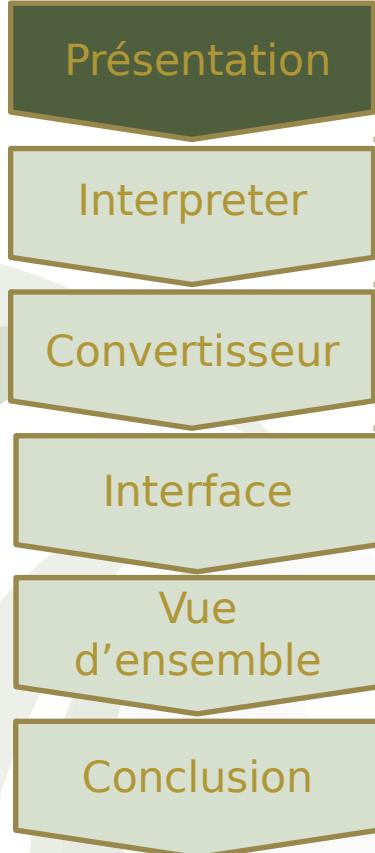
# Objectif



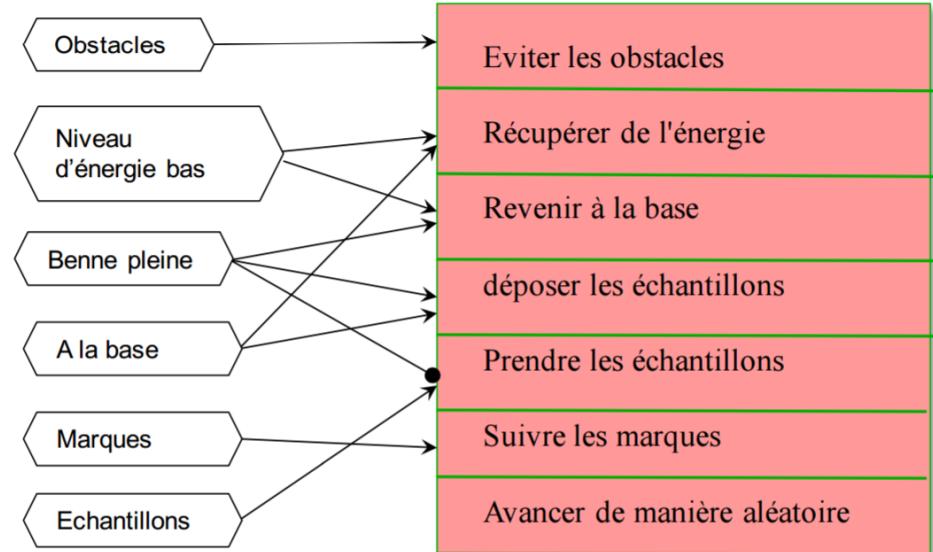
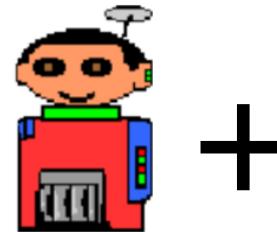
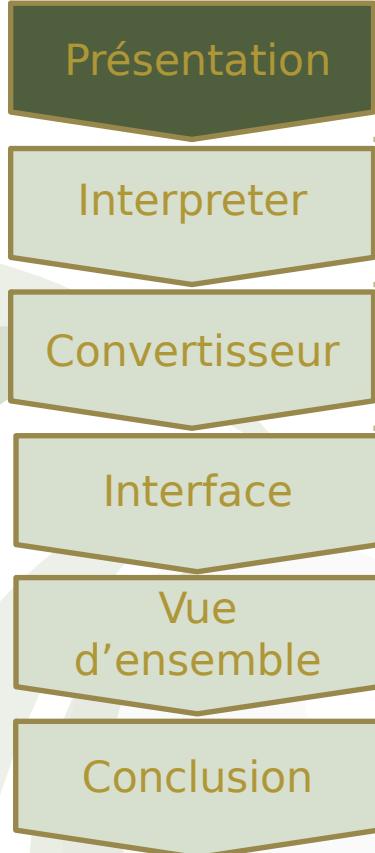
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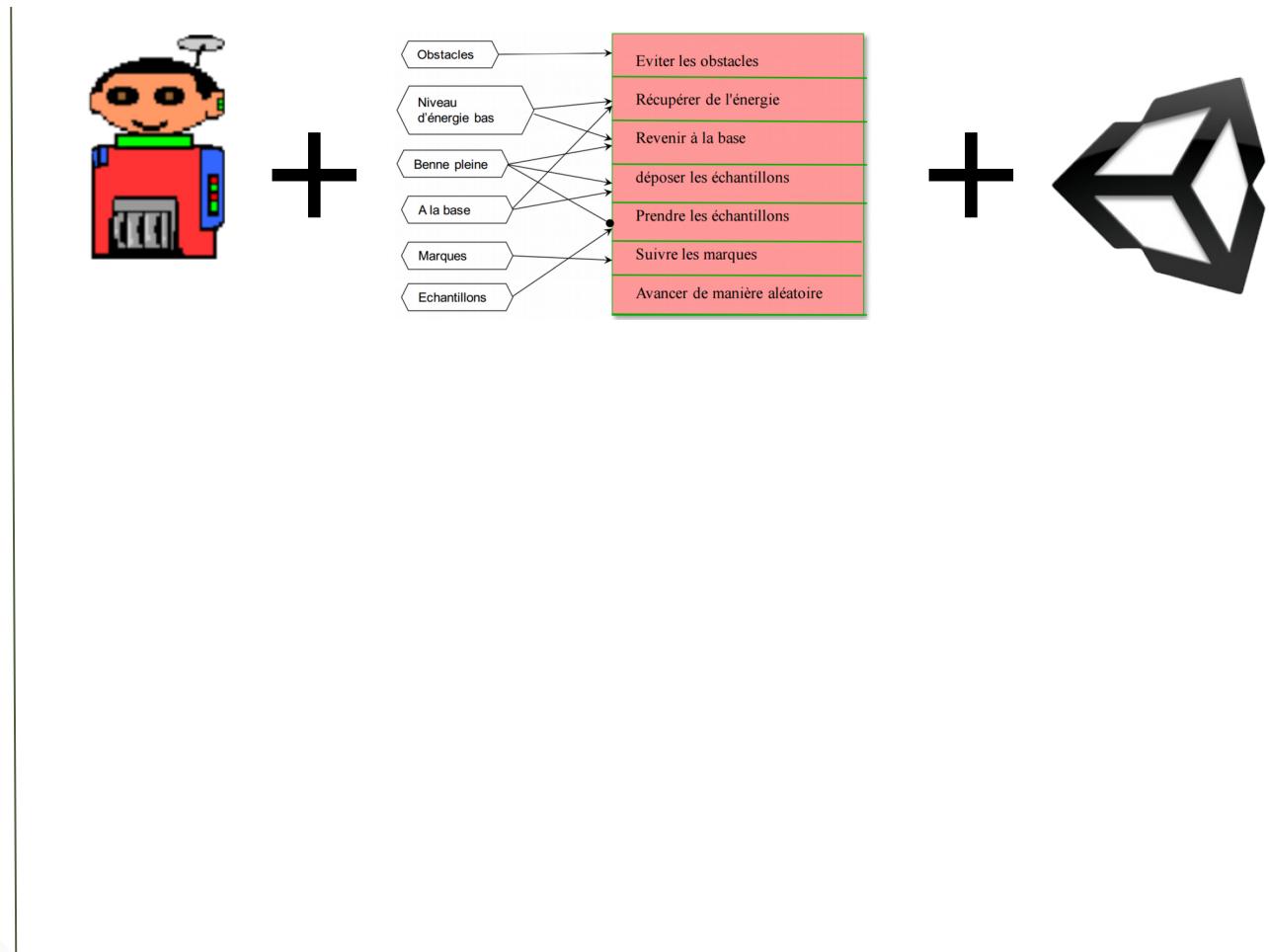
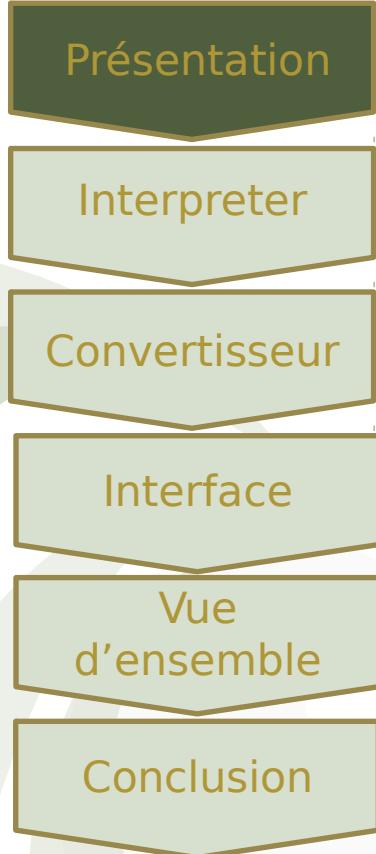
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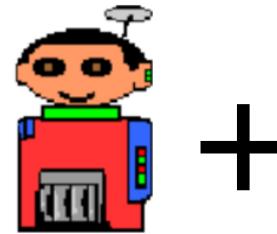
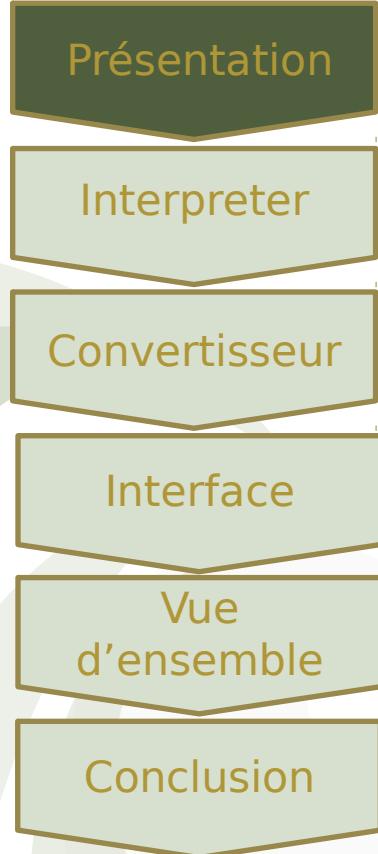
# Objectif



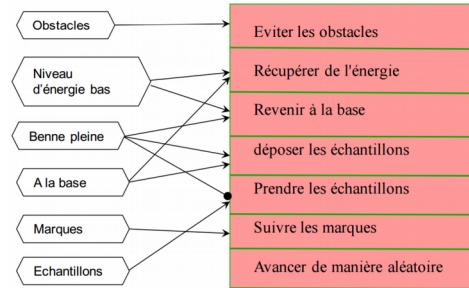
# Objectif



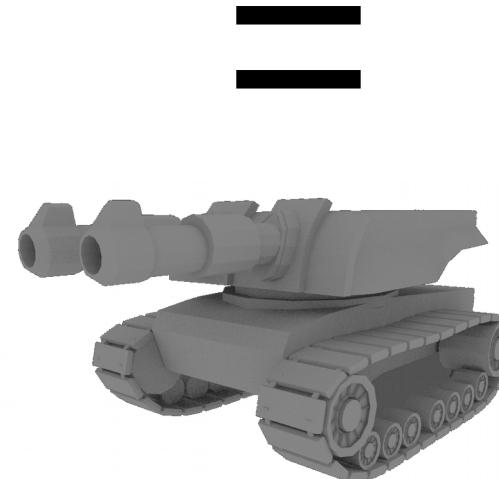
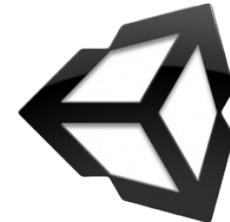
# Objectif



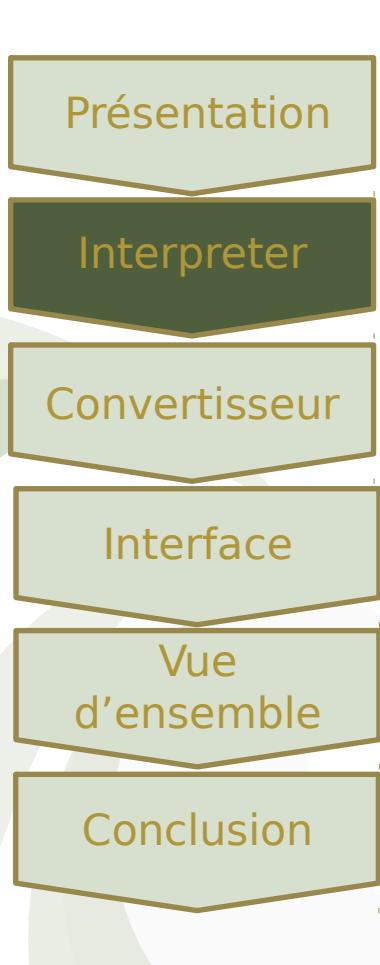
+



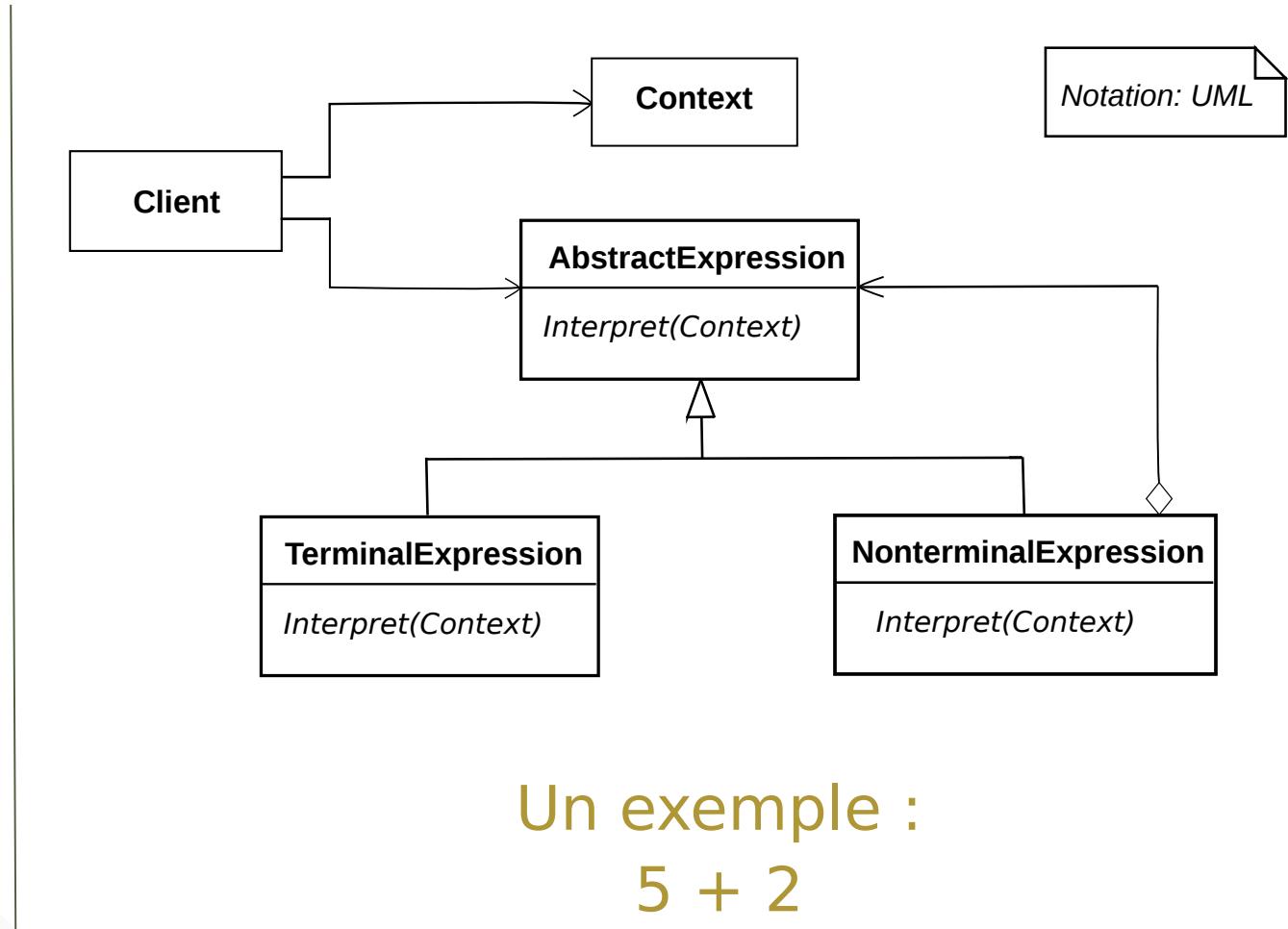
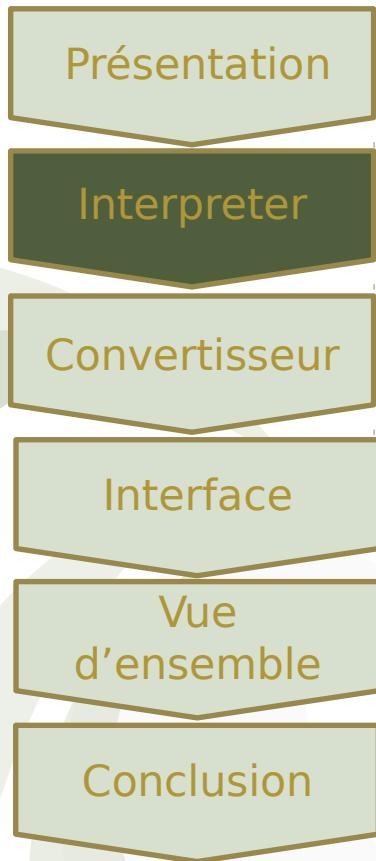
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# Design Pattern Interpreter

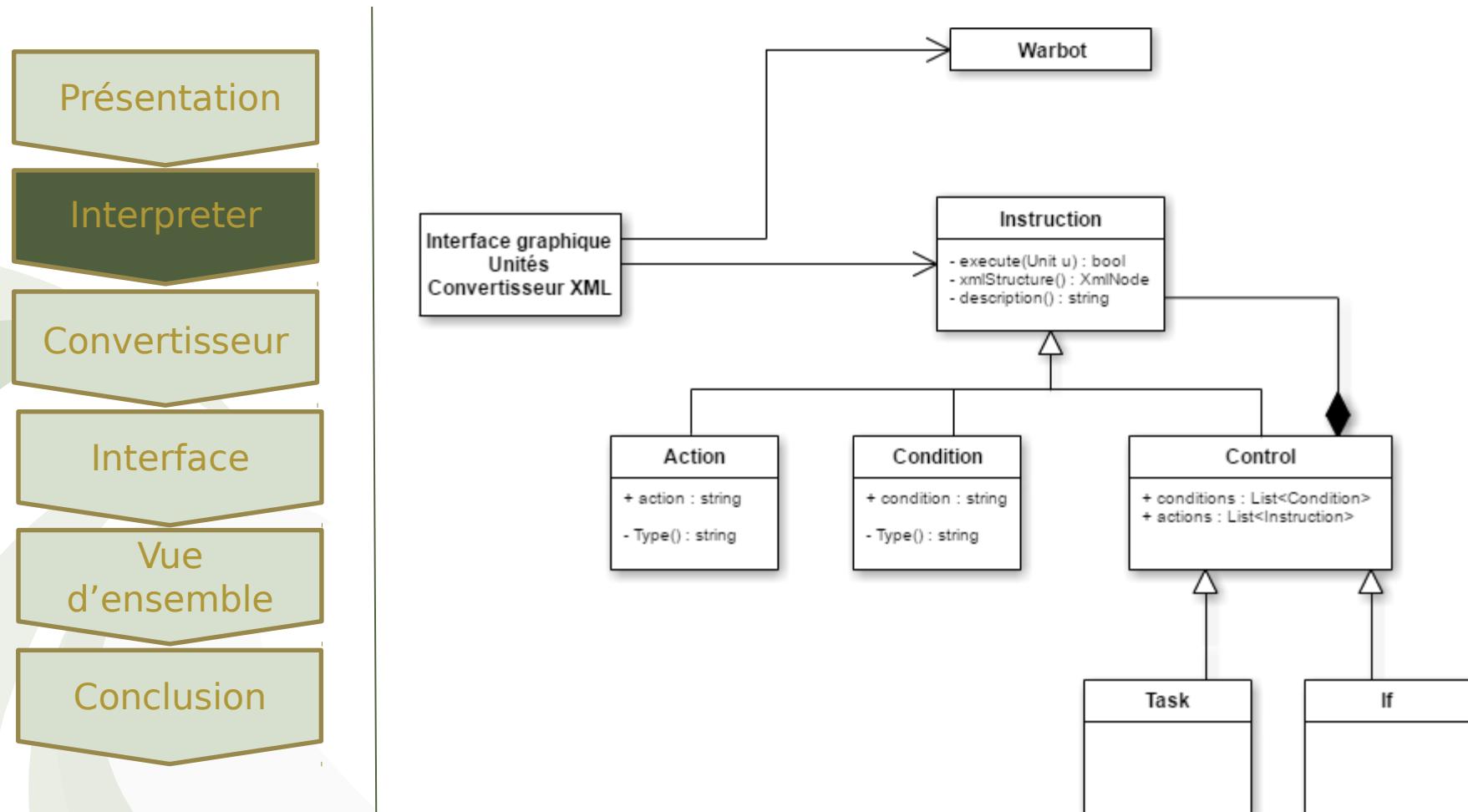


# Design Pattern Interpreter



Un exemple :  
 $5 + 2$

# Design Pattern Interpreter



# Design Pattern Interpreter

Présentation

Interpréteur

Convertisseur

Interface

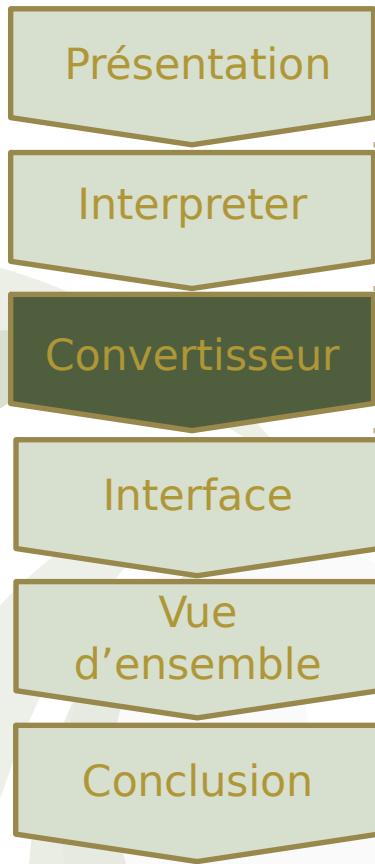
Vue  
d'ensemble

Conclusion

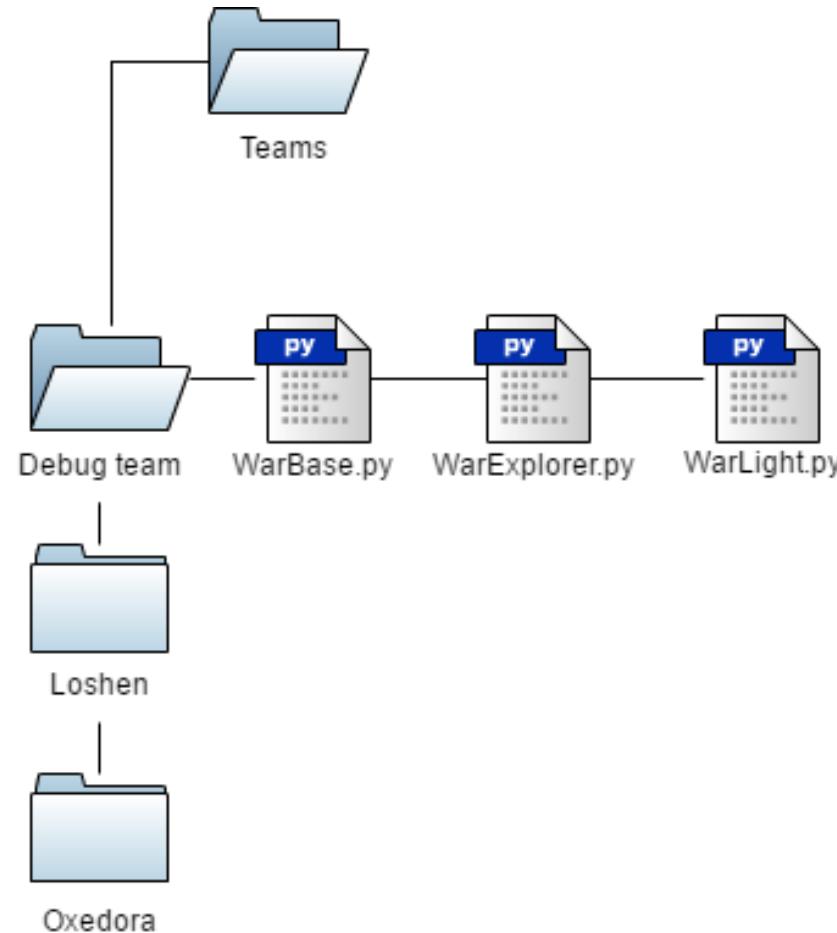
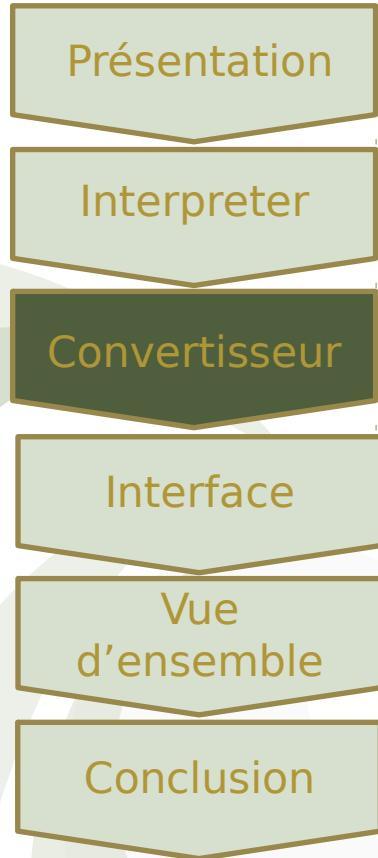
```
// Specifie le type de primitive (action ou condition)
[PrimitiveType(PRIMITIVE_TYPE.ACTION)]

// Liste des unités pouvant utiliser cette primitive
[UnitAllowed(WarBots.BotType.WarHeavy)]
[UnitAllowed(WarBots.BotType.WarExplorer)]
[UnitAllowed(WarBots.BotType.WarEngineer)]
[PrimitiveDescription("Fait avancer l'unité (termine l' action si réussi)")]
    public bool Walk()
{
    // ...
}
```

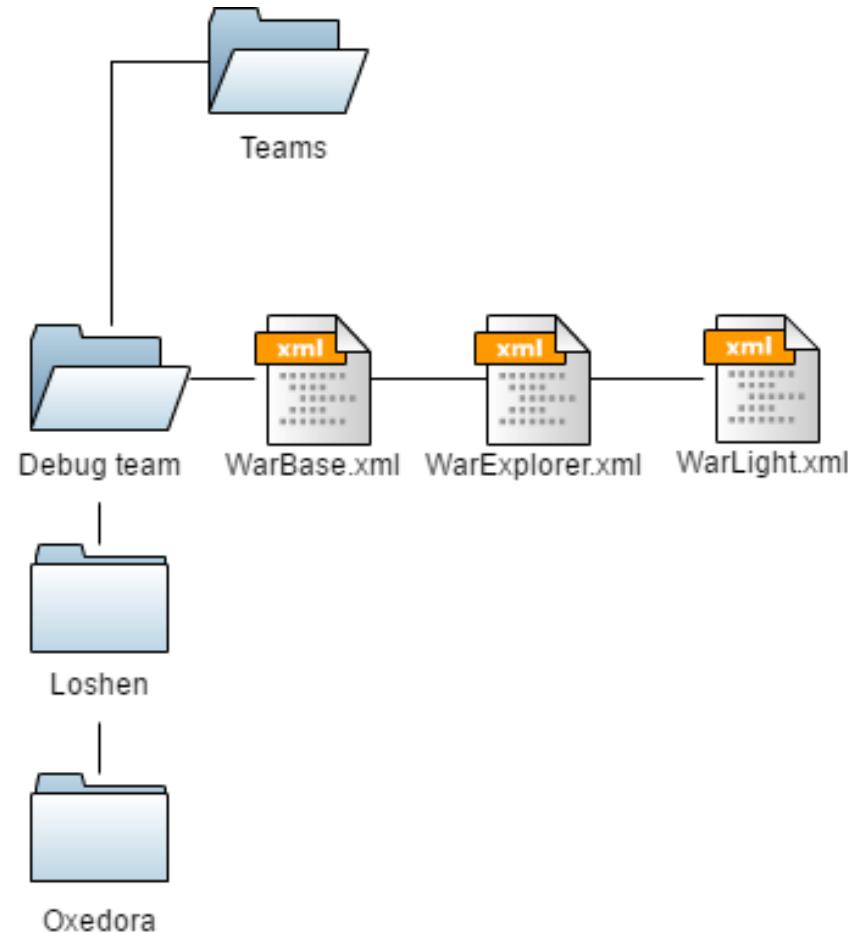
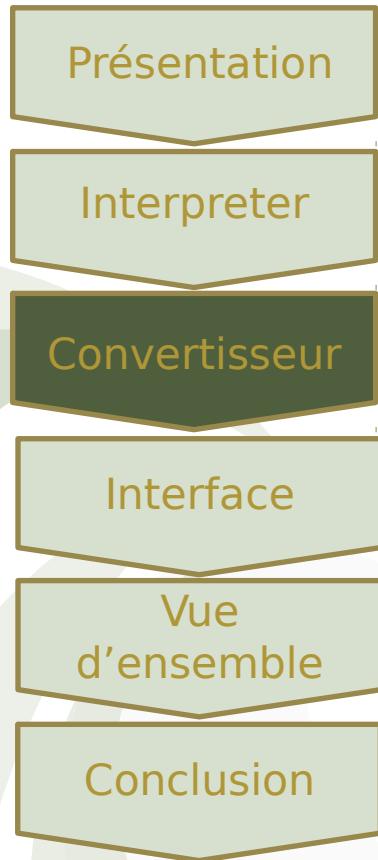
# Convertisseur XML



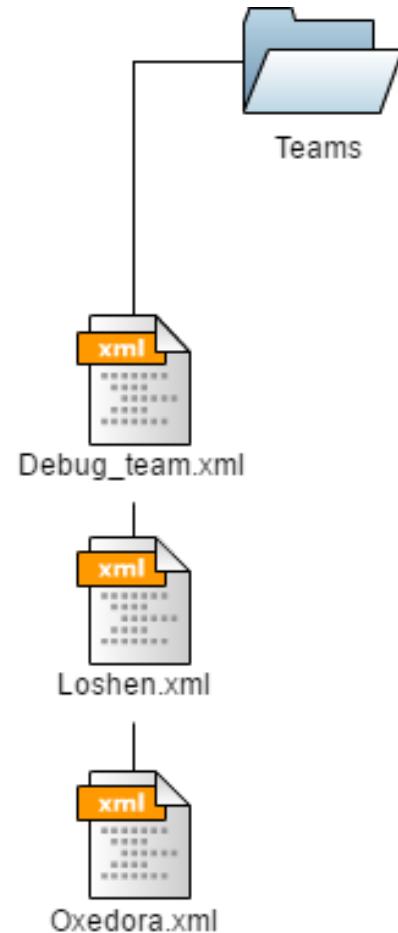
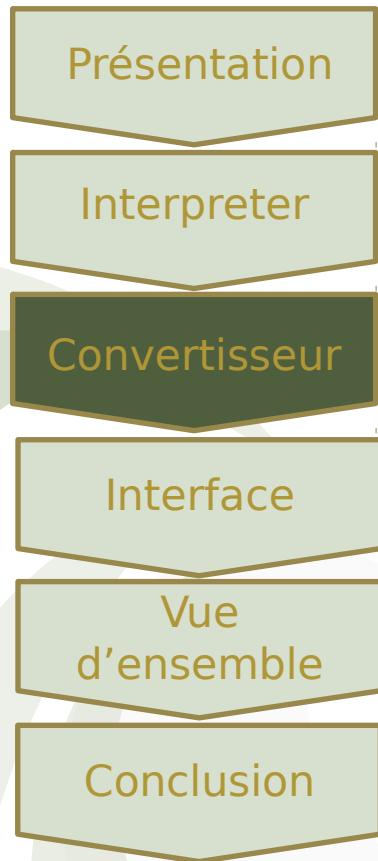
# Convertisseur XML



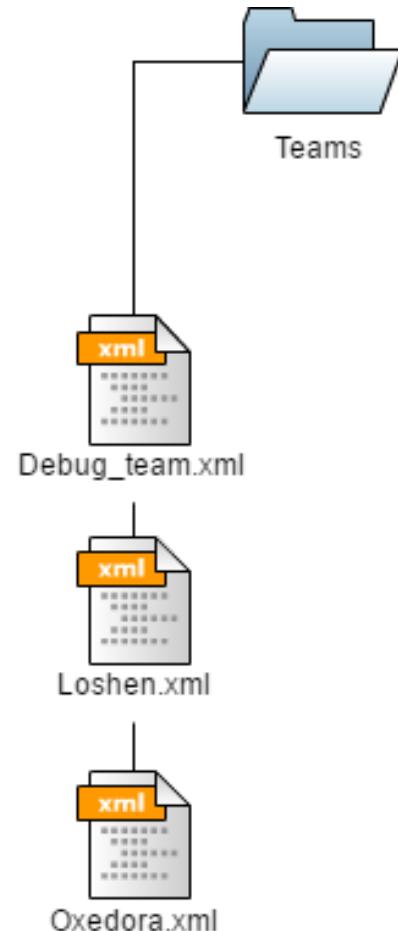
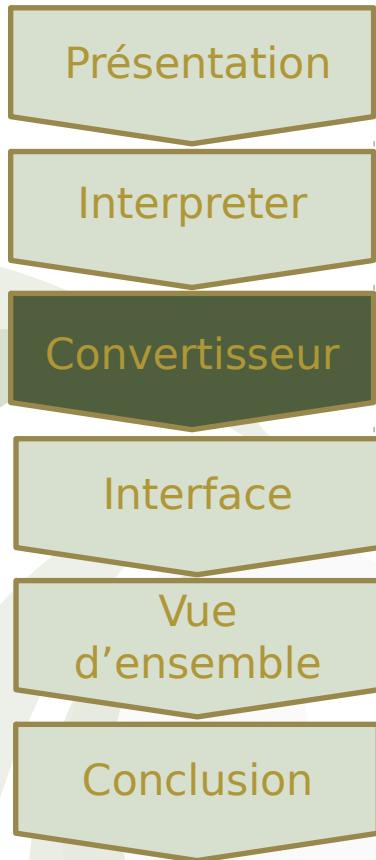
# Convertisseur XML



# Convertisseur XML

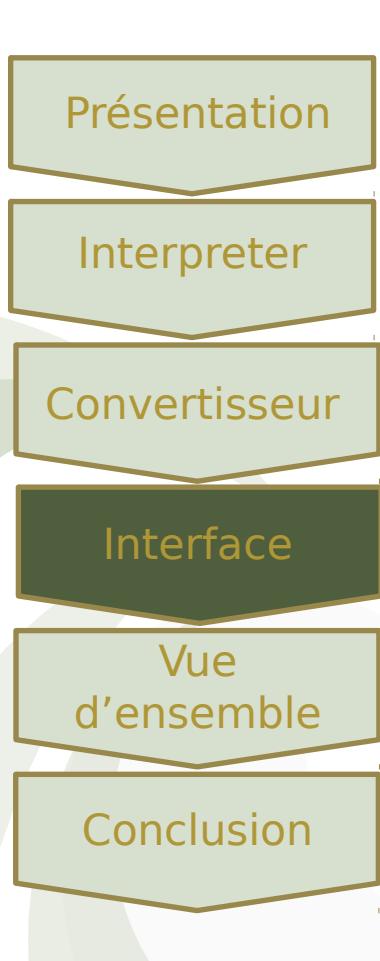


# Convertisseur XML



```
--<behavior>
  <teamName>Debug Team</teamName>
--<unit name="WarExplorer">
  -<Task>
    -<parameters>
      <NearRessources/>
    </parameters>
    -<actions>
      <TargetNearestRessource/>
      <Turn/>
      <Walk/>
    </actions>
  </Task>
  <Walk/>
</unit>
--<unit name="WarBase">
  -<If>
    -<parameters>
      <CanCreate/>
    </parameters>
    -<actions>
      <SelectRandomUnit/>
      <CreateUnit/>
    </actions>
    -<elseActions>
      <Idle/>
    </elseActions>
  </If>
  <Idle/>
</unit>
</behavior>
```

# Interface graphique



# Interface graphique

Présentation

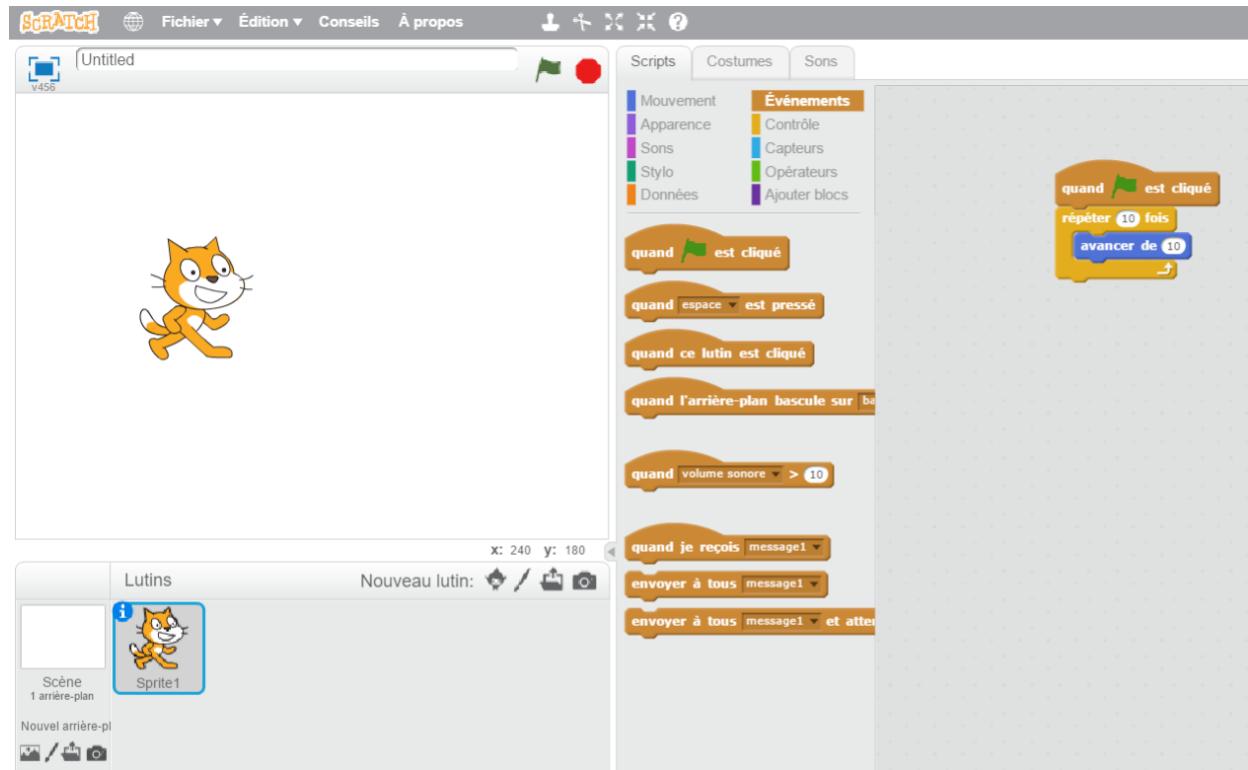
Interpréter

Convertisseur

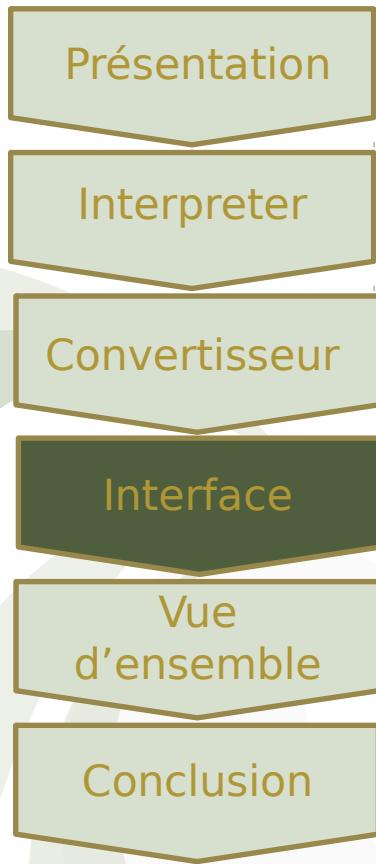
Interface

Vue  
d'ensemble

Conclusion

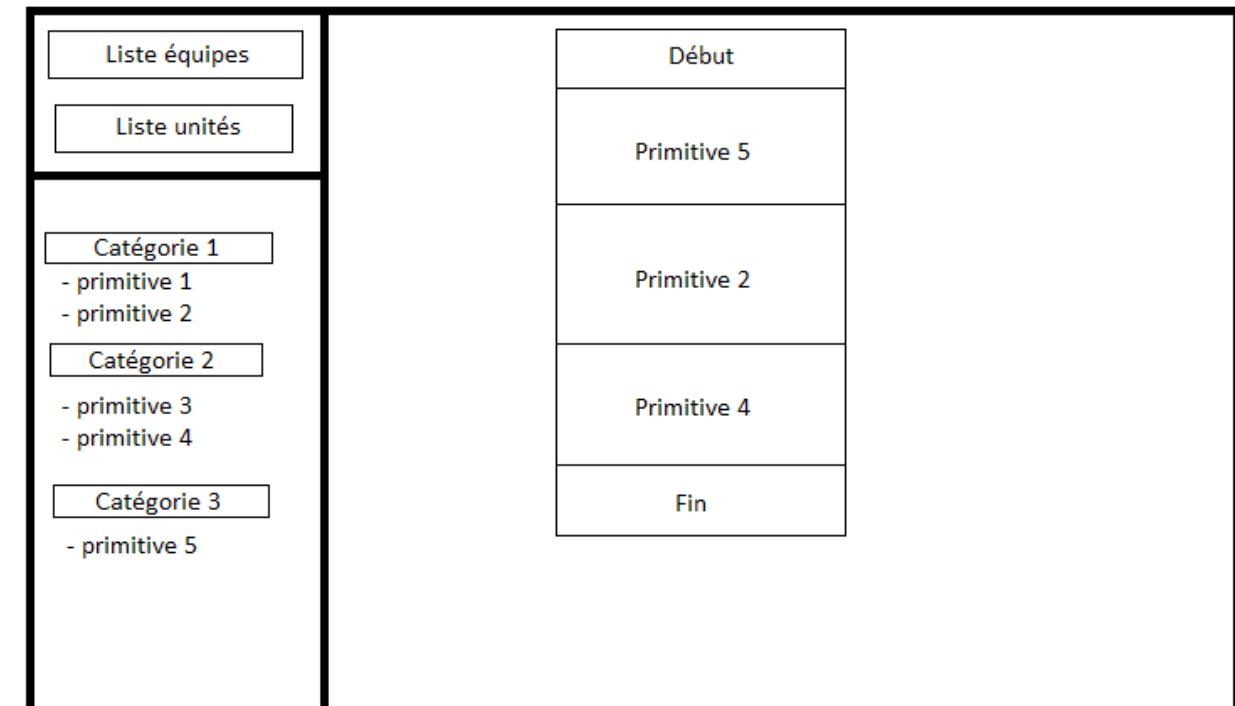
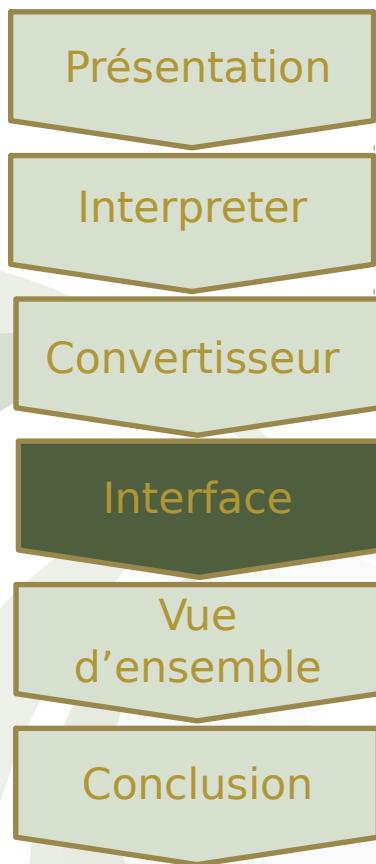


# Interface graphique

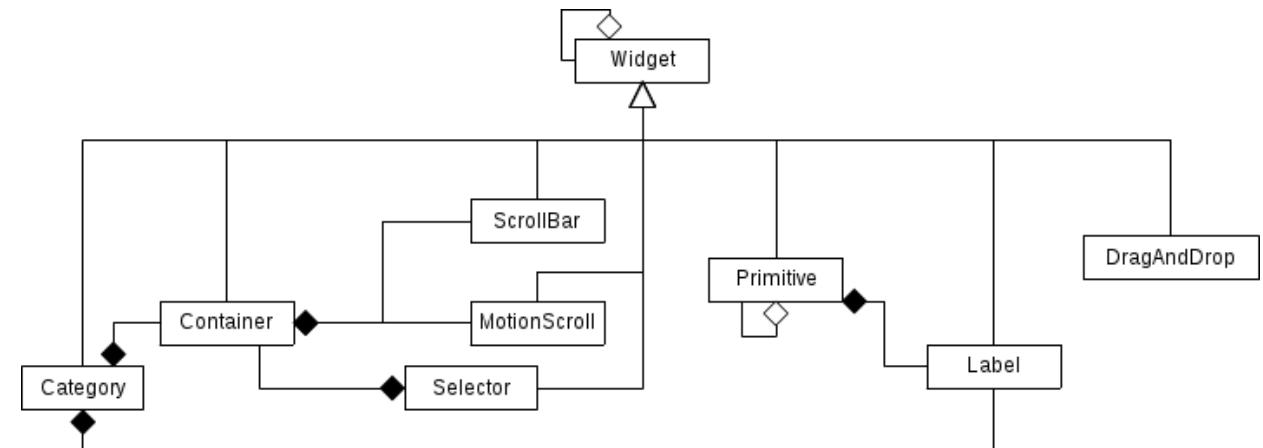
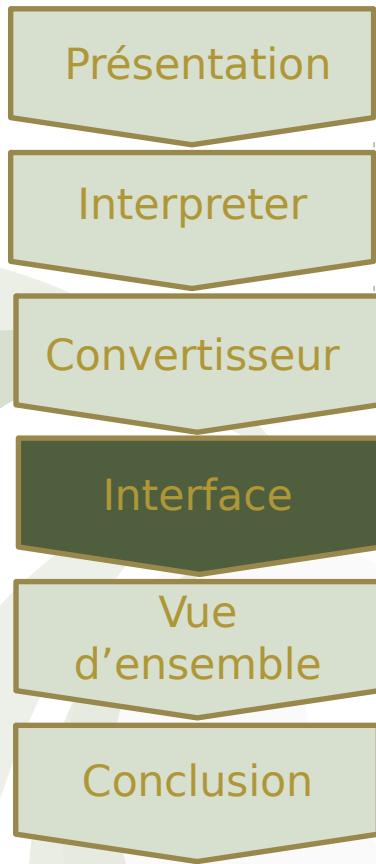


Liste équipes	Catégorie 1 Catégorie 2 Catégorie 3 Catégorie 4 ...	
WarBase WarHeavy WarExplorer WarEngineer WarTurret	Primitive 1 Primitive 2 Primitive 3 ...	

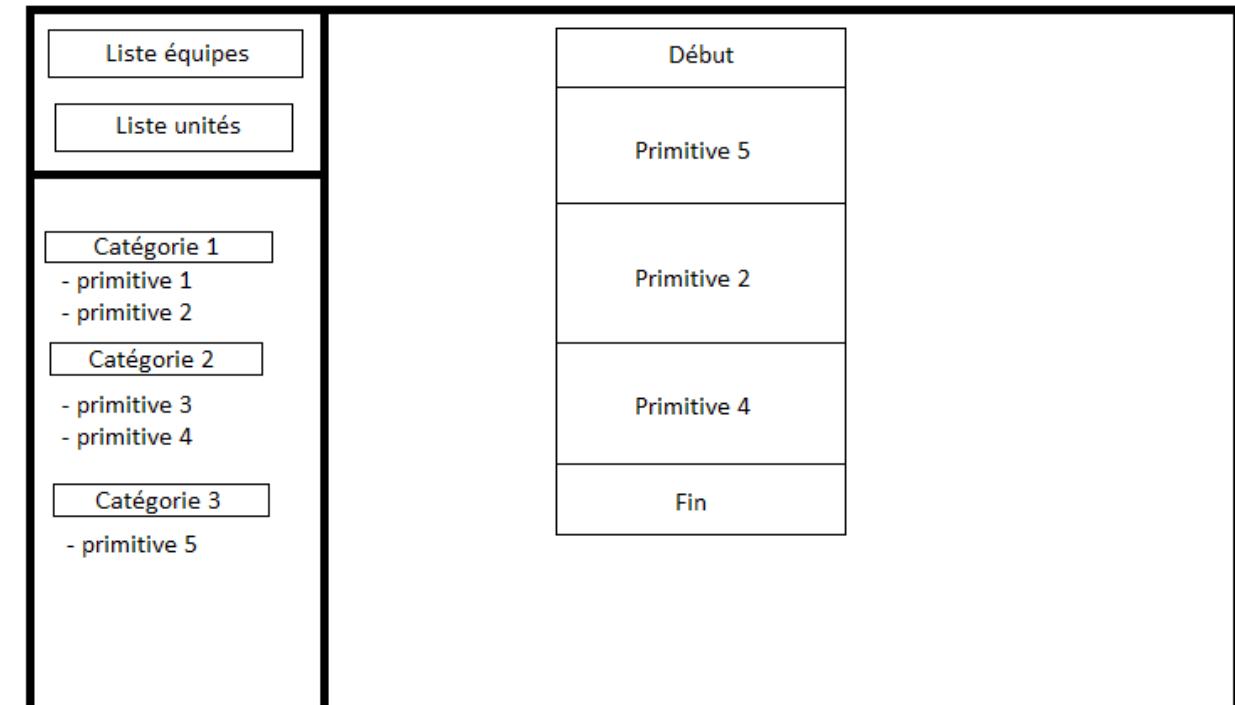
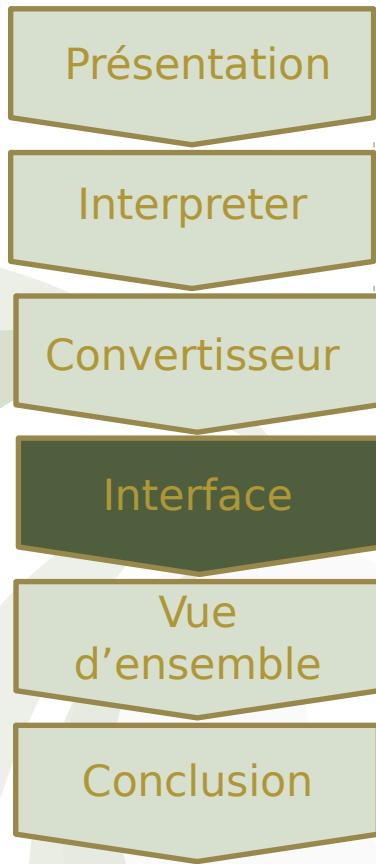
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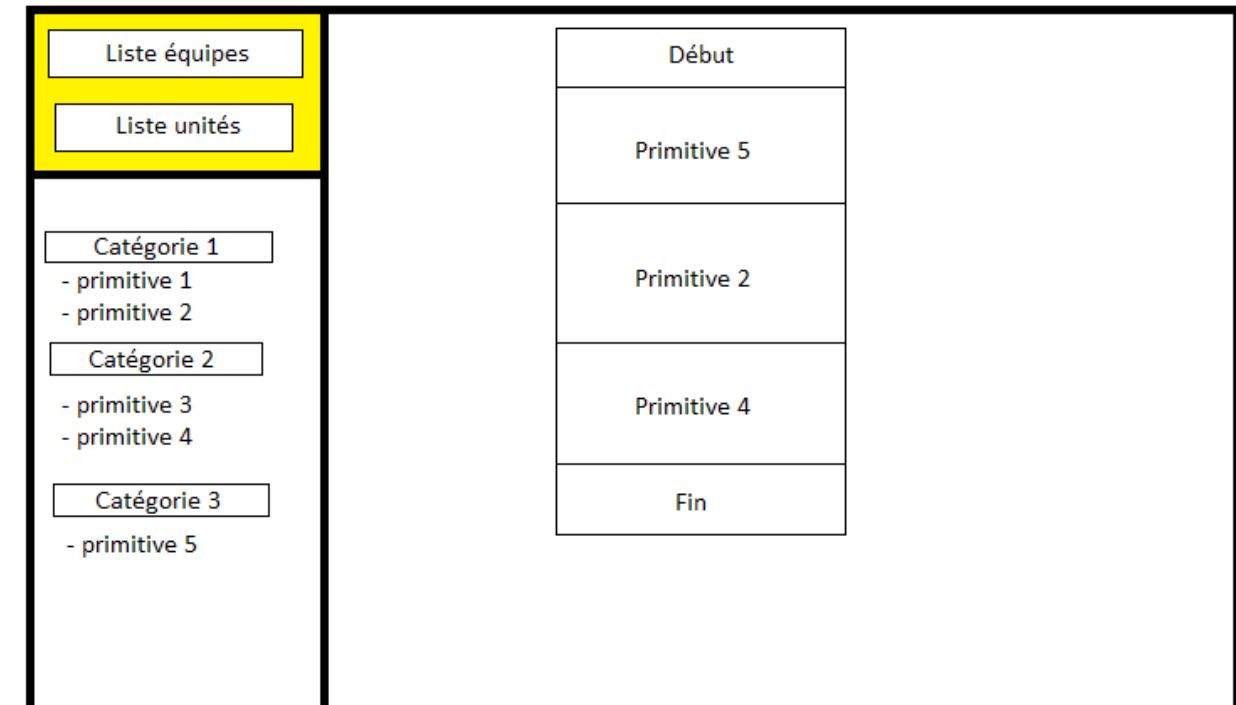
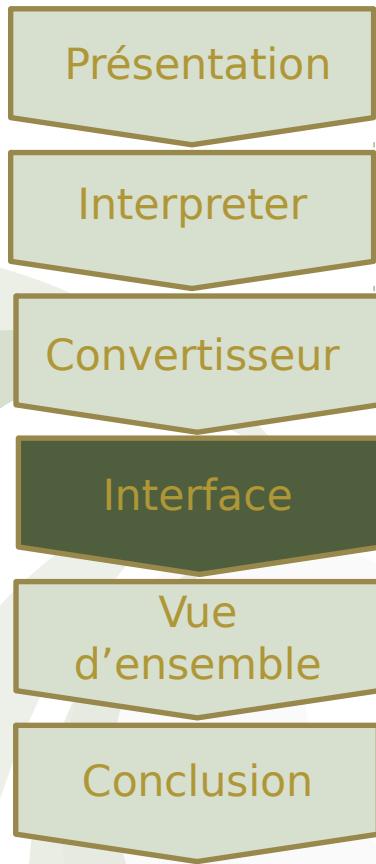
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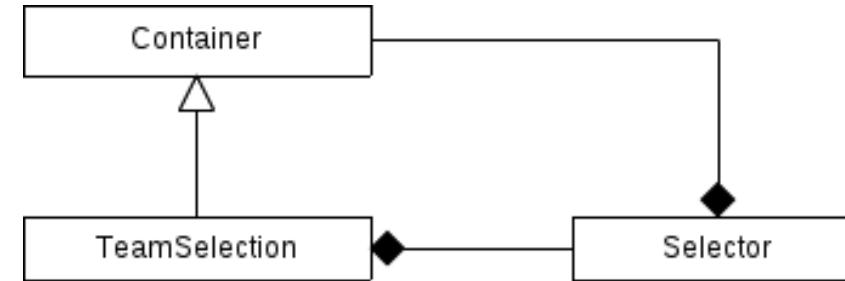
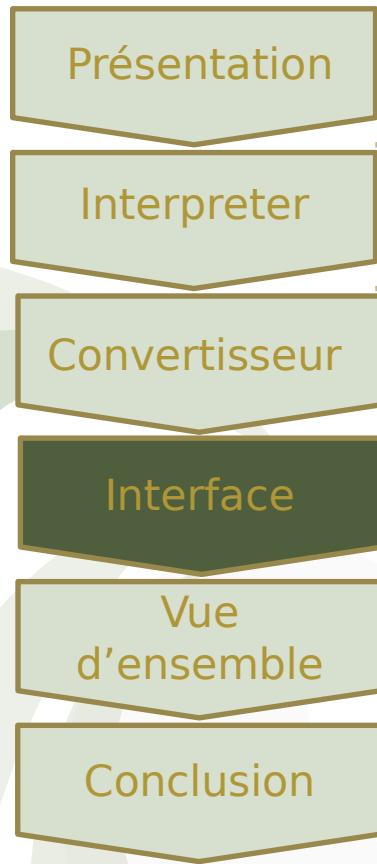
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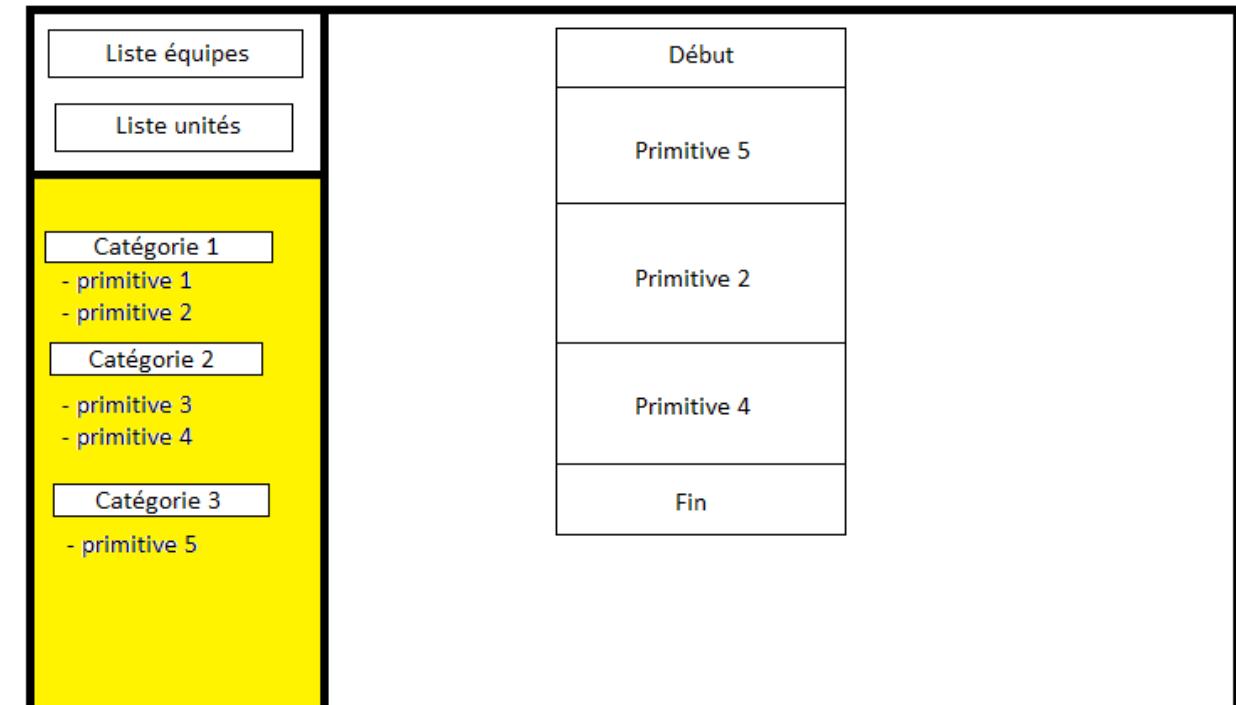
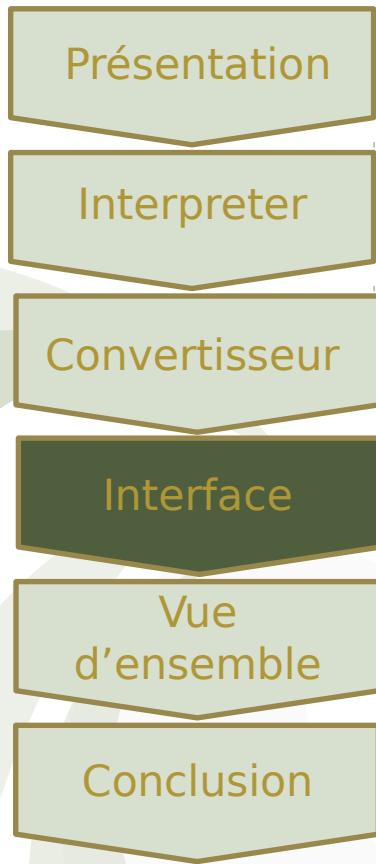
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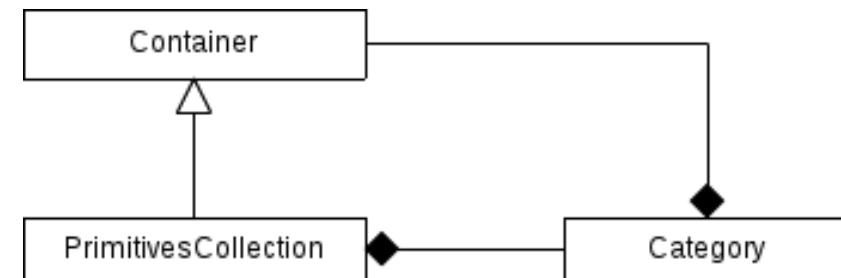
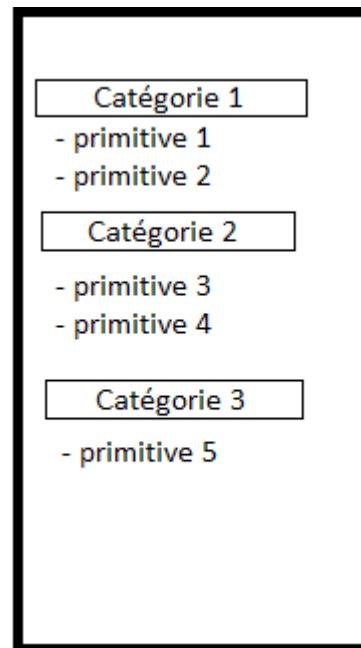
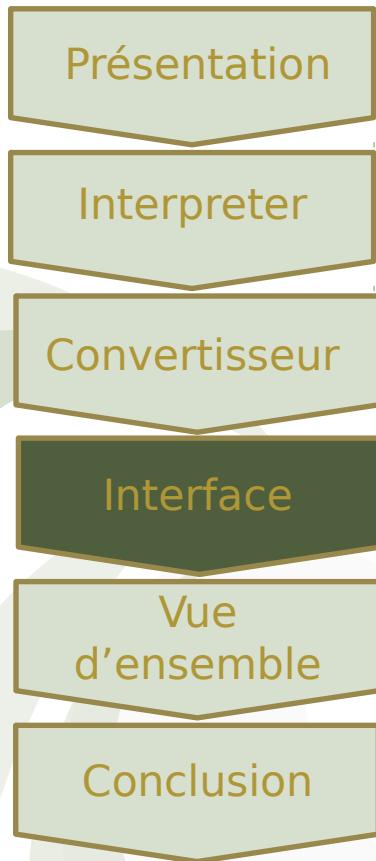
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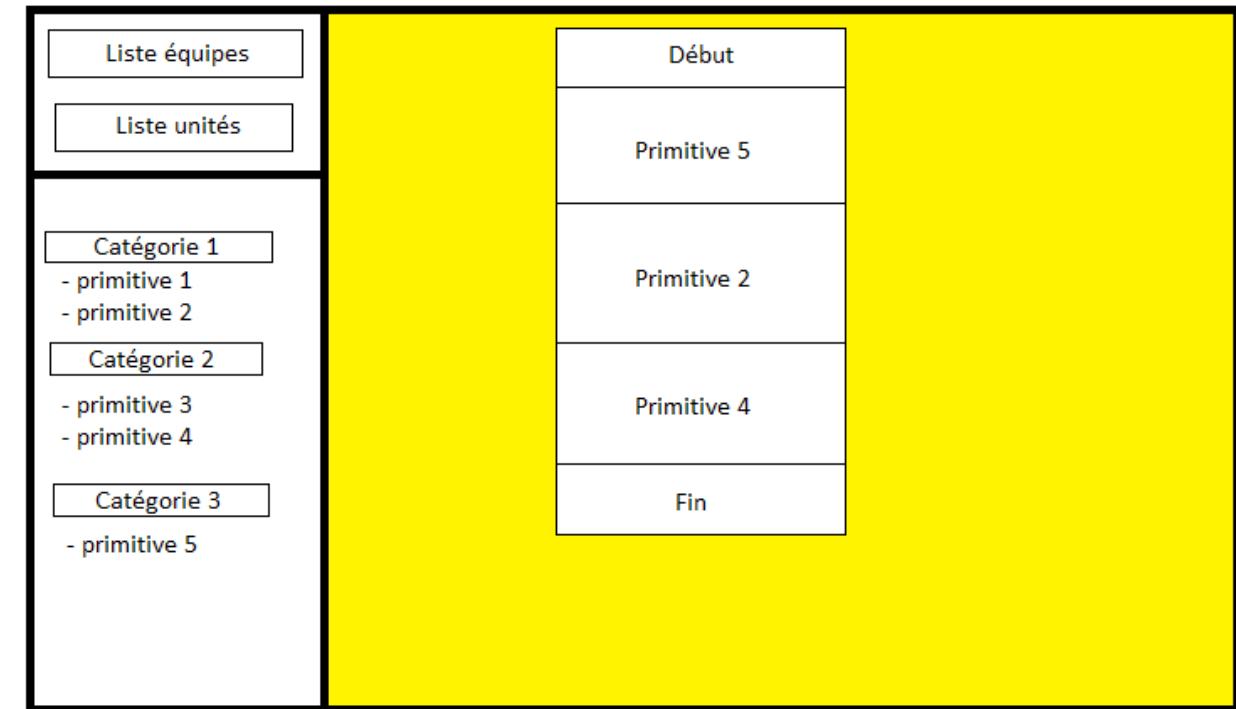
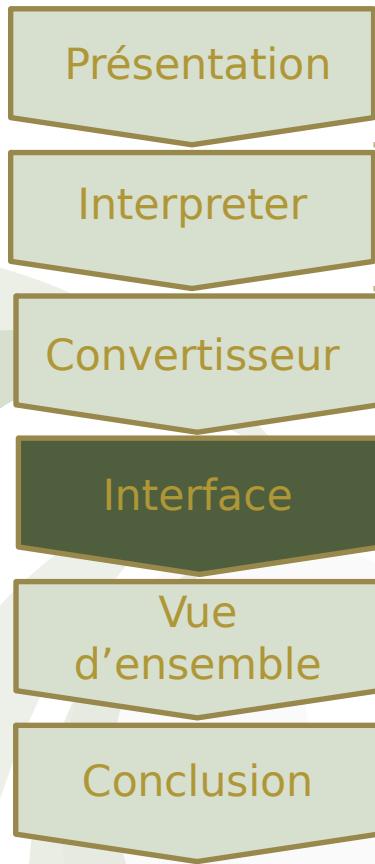
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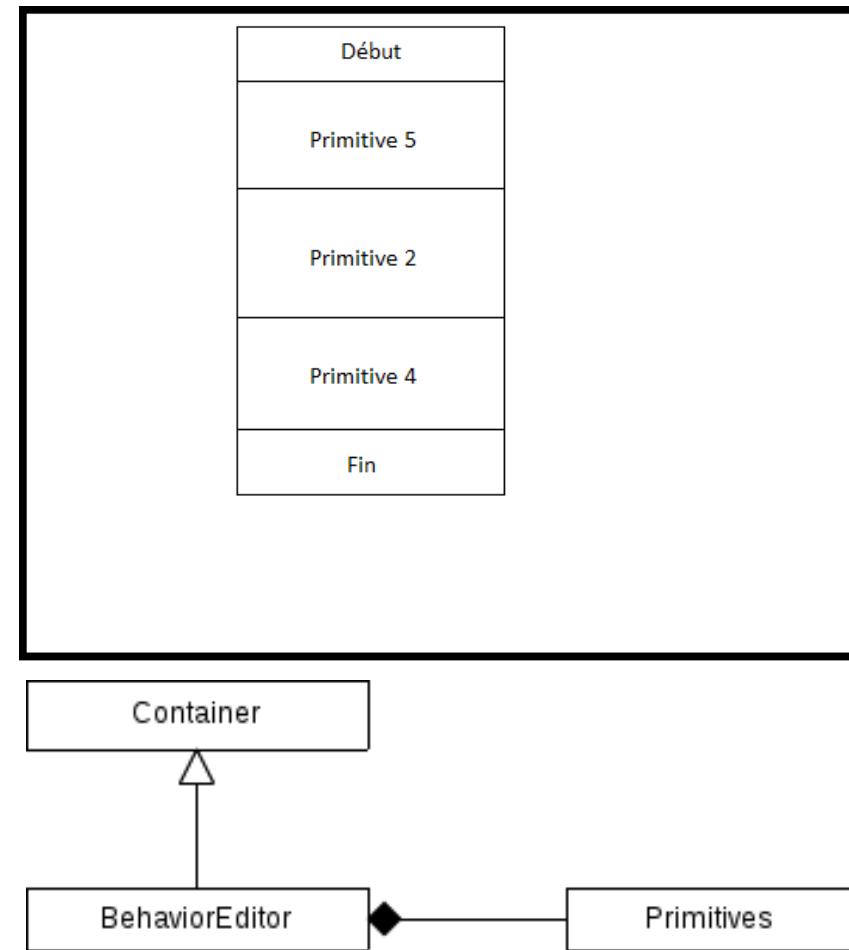
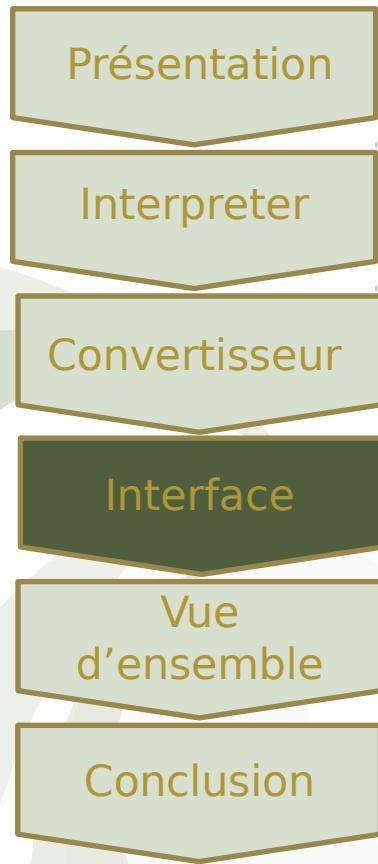
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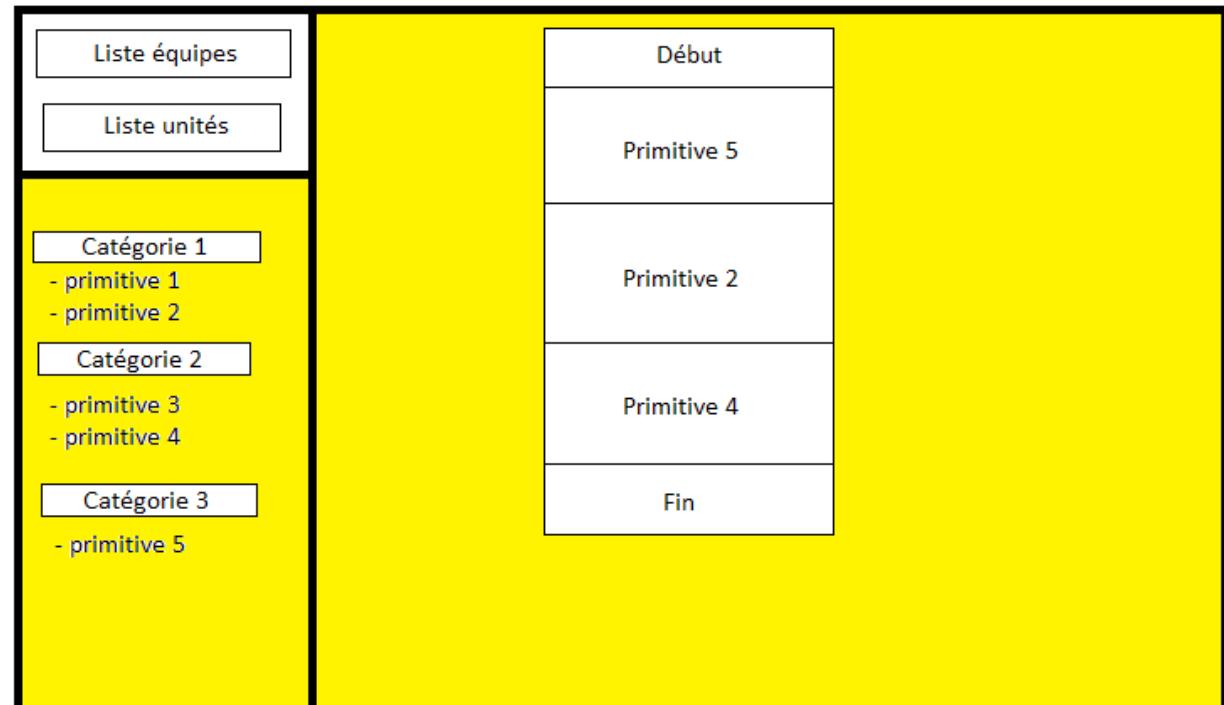
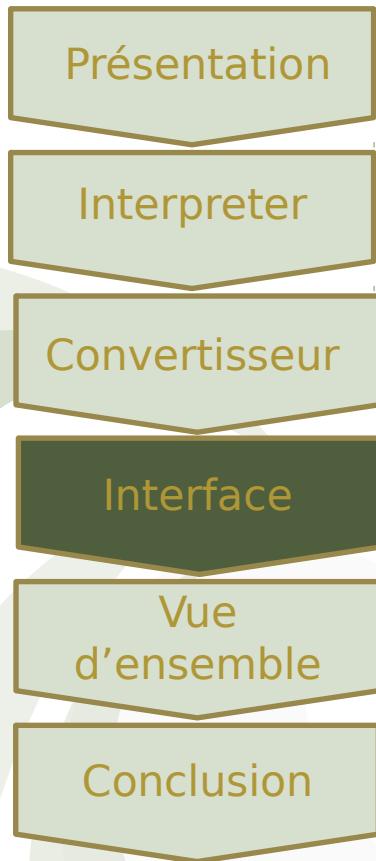
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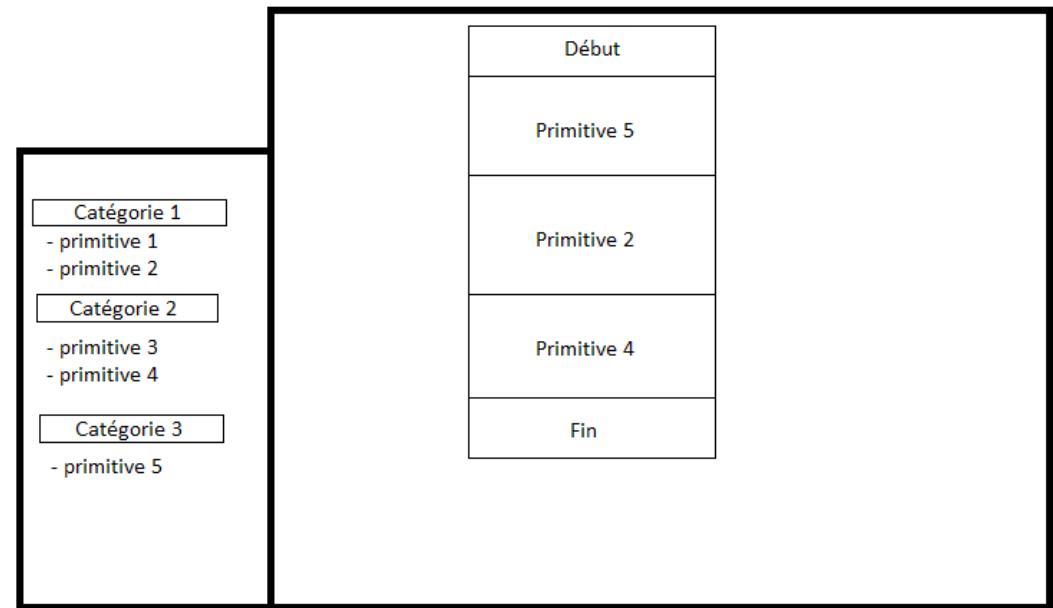
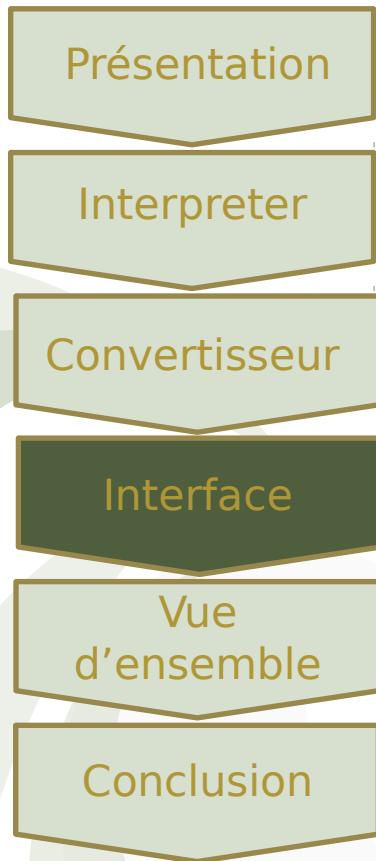
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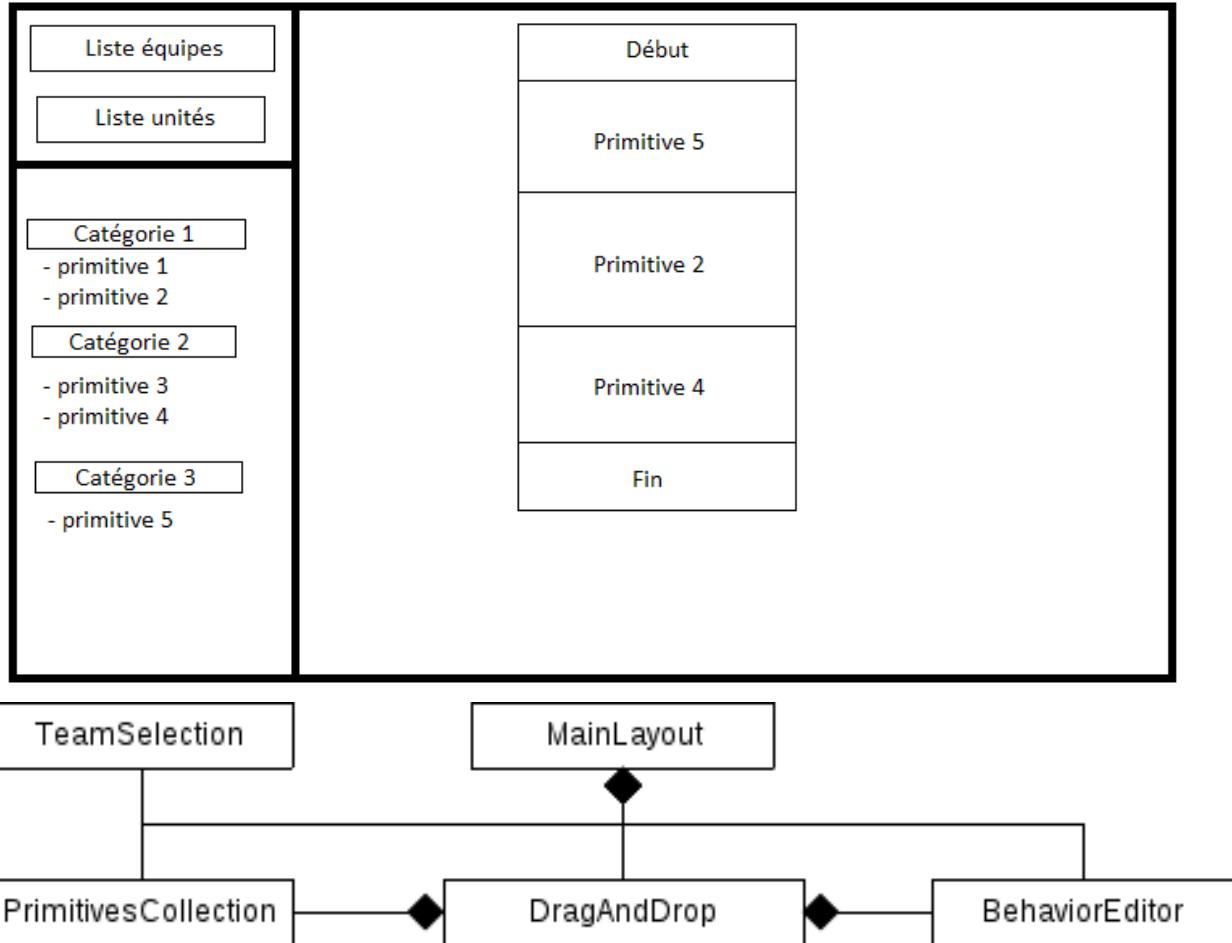
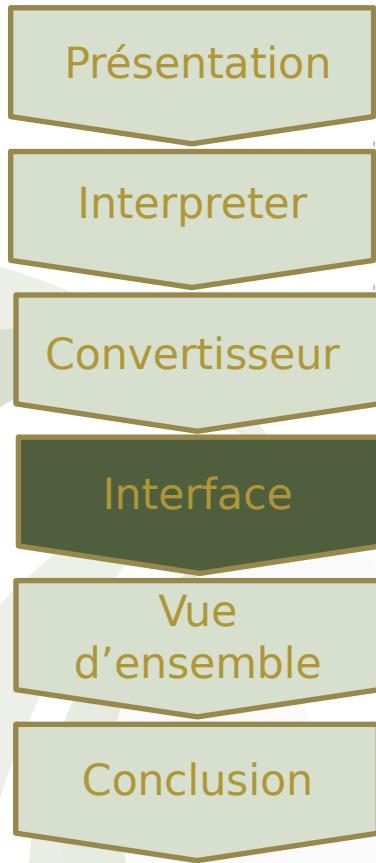
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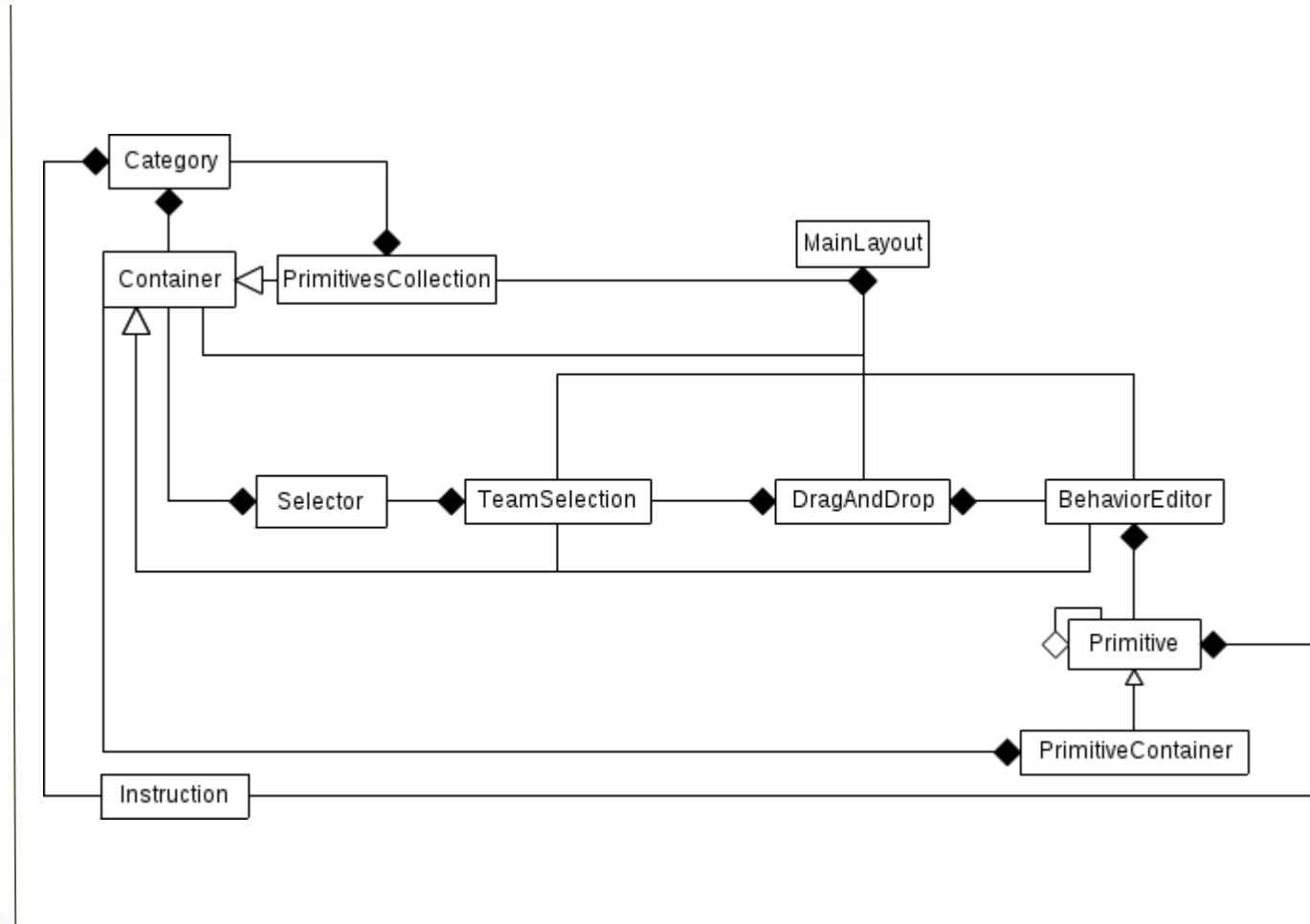
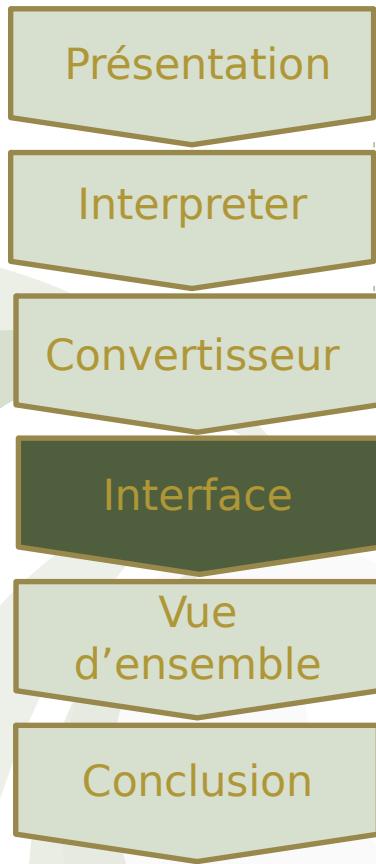
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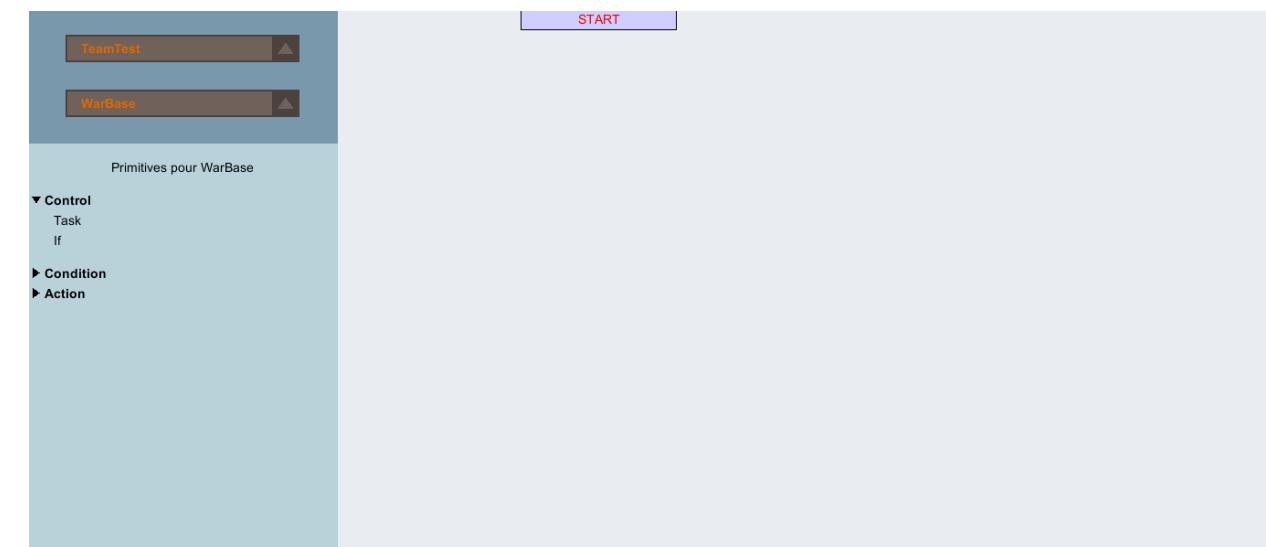
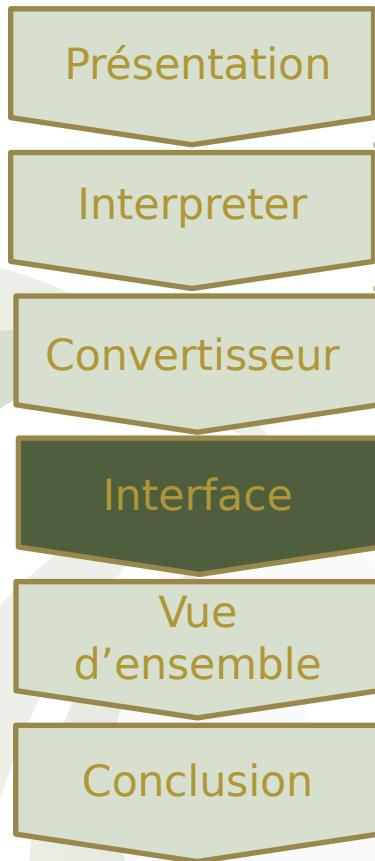
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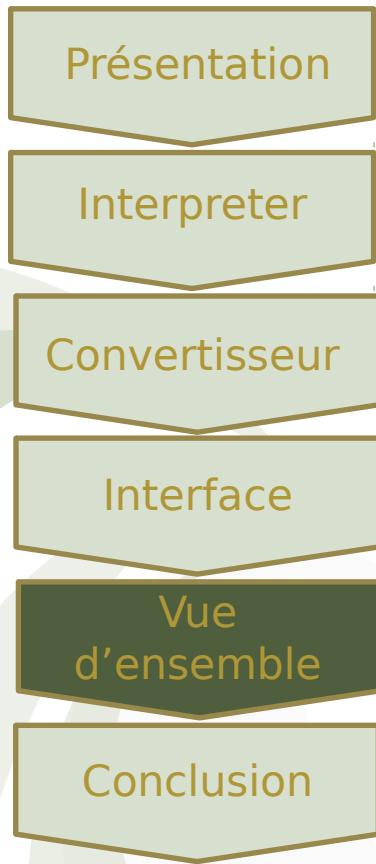
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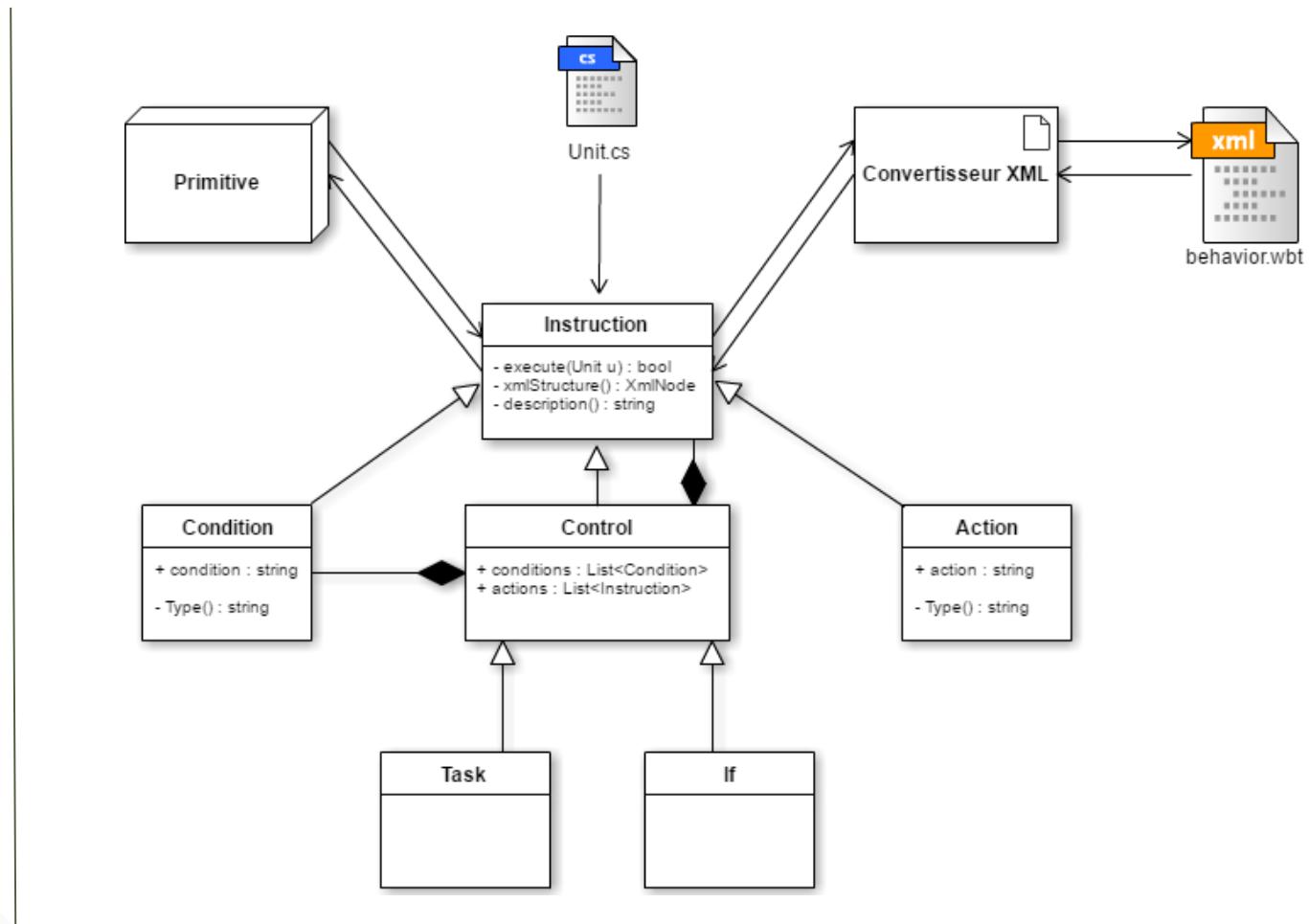
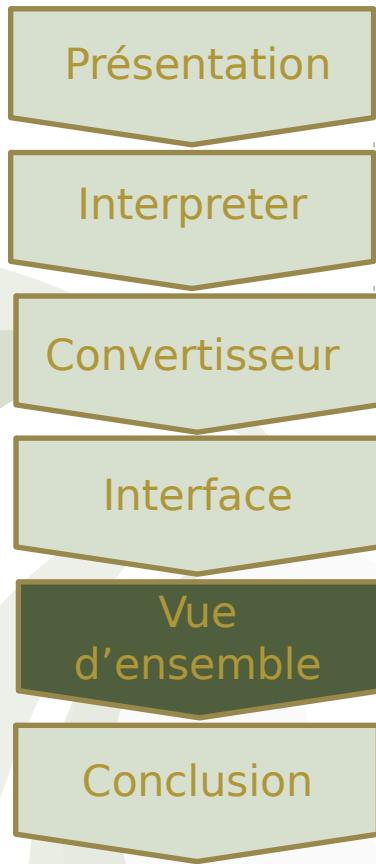
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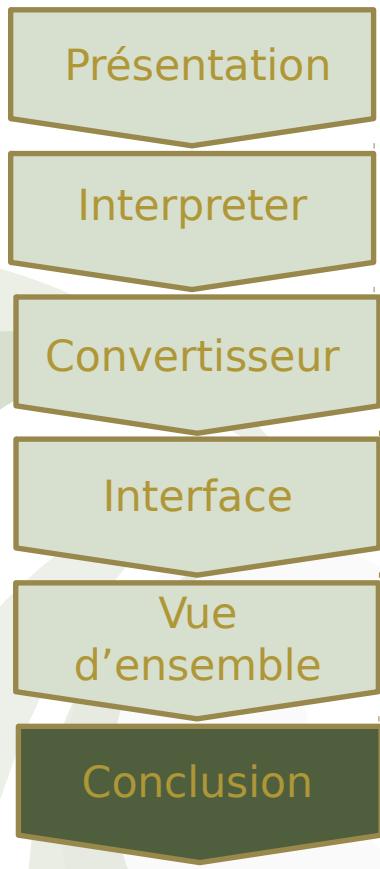
# Vue d'ensemble



# Vue d'ensemble

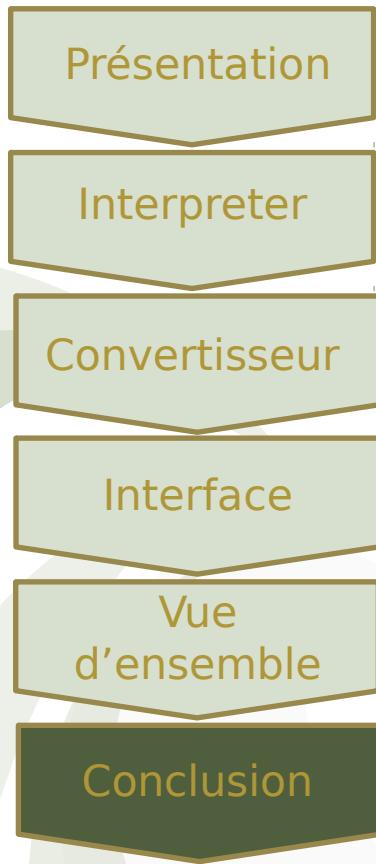


# Conclusion

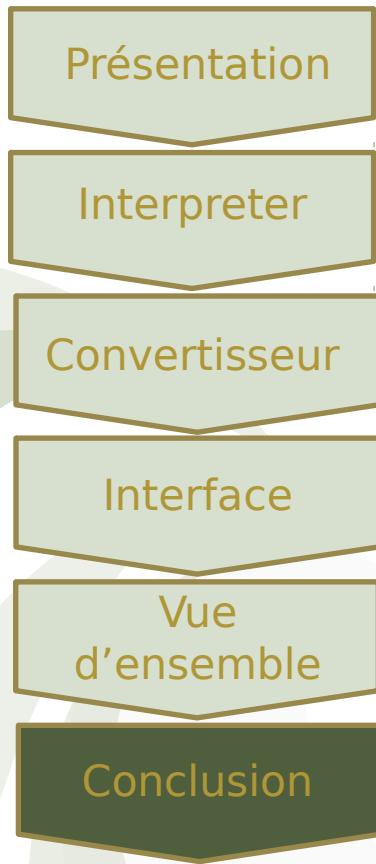


# Conclusion

- Choix d'OpenGL plutôt qu'Unity

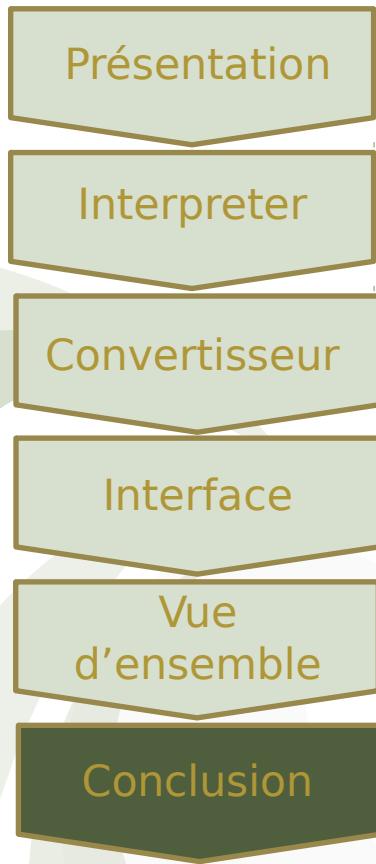


# Conclusion



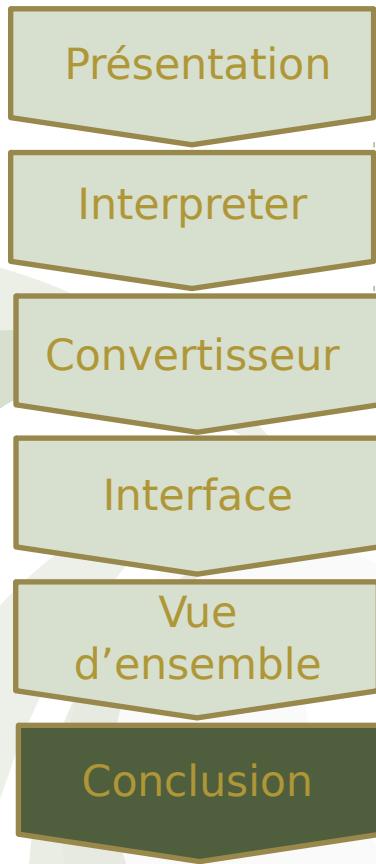
- Choix d'OpenGL plutôt qu'Unity
- Développement et maintenance plus souples

# Conclusion



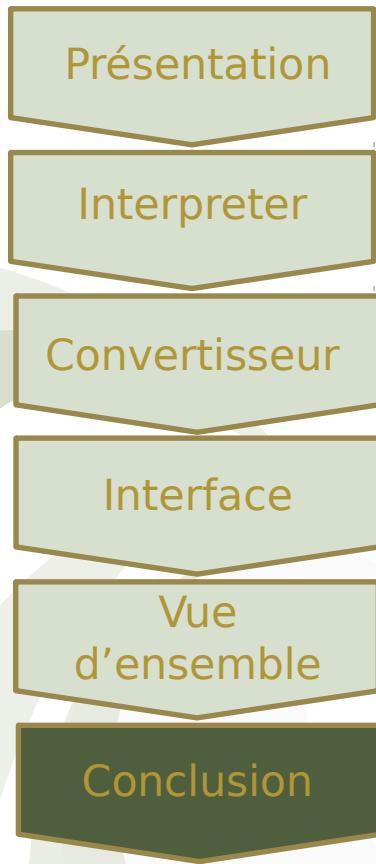
- Choix d'OpenGL plutôt qu'Unity
- Développement et maintenance plus souples
- Structure plus légère

# Conclusion



- Choix d'OpenGL plutôt qu'Unity
- Développement et maintenance plus souples
- Structure plus légère
- Intégration au projet Warbot réussie

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- Éditeur accessible directement depuis le jeu



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Merci de votre attention

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# Éditeur de Comportement

Warbot sous Unity

Groupe Losh'Dora  
Édouard BREUILLE  
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Sous la direction de Jacques FERBER

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