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Part IV

Declarations
Management

Objects
Publication and
Subscription

Interactions
Publication and
subscription

Values Refresh

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Declarations Management

Objects Publication and Subscription

Interactions Publication and subscription

Values Refresh

Declarations:

Declaration Management

- ◆ Declarations Management serves the purpose of coordinating data exchange between federates.
- ◆ Specifies the data a federate will send and receive
- ◆ Controls where data are distributed basing on external request

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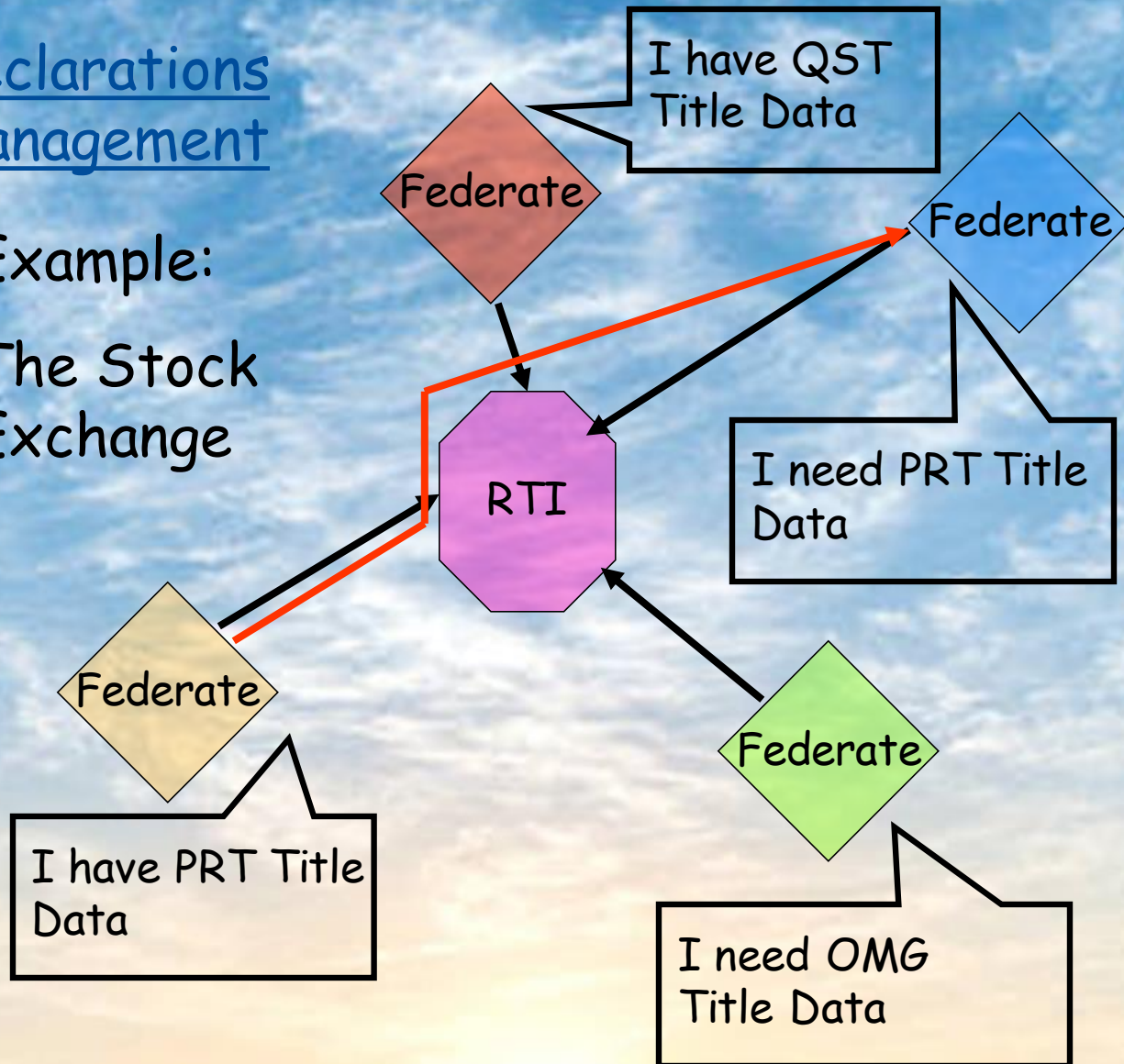
Values Refresh

Declarations:

Declarations Management

Example:

The Stock
Exchange



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Declarations:

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Objects
Vocabulary

◆ Object Classes

The class comprises attributes and describes types and things that persist in the time

◆ Interaction Classes

The class includes parameters and describes events types□

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Declarations:

Declarations
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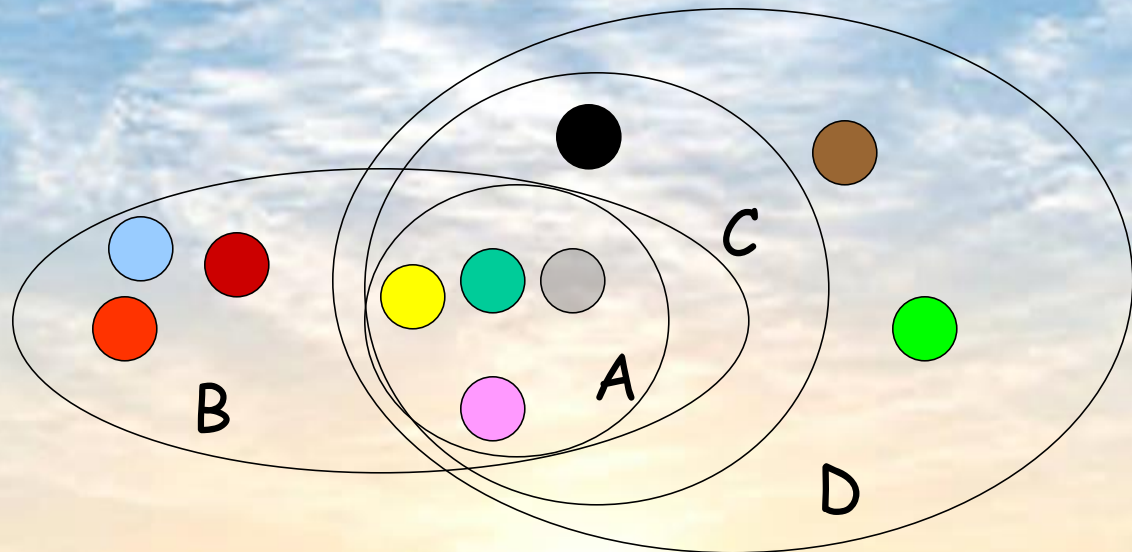
Objects
Vocabulary

A =    

B =       

C =     

Venn diagram D = C +   =       



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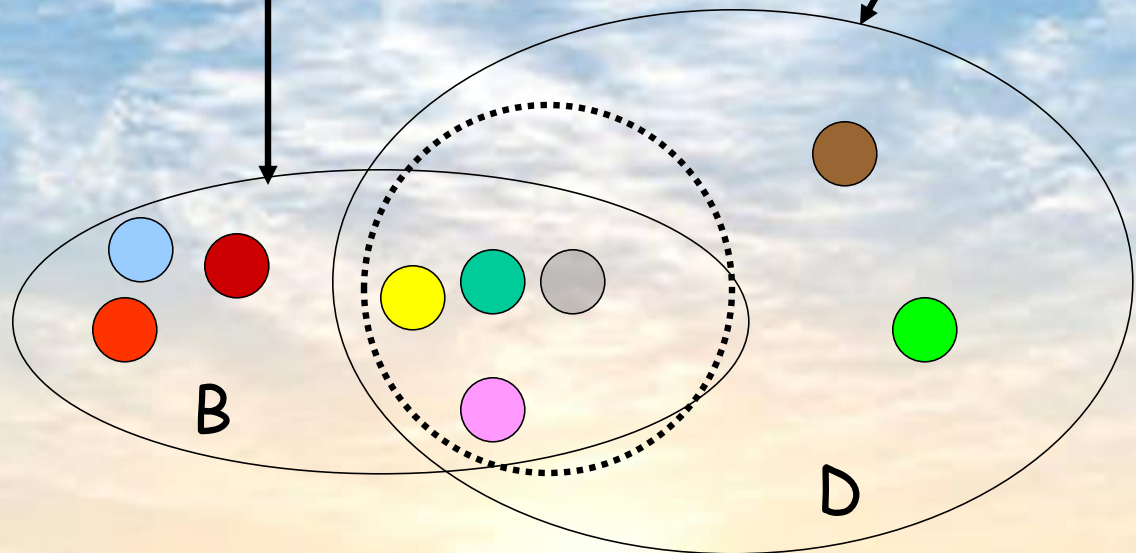
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P&S of Objects:

The federate B
publishes the
attributes:



The federate D
subscribes the
attributes:



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P&S of Interaction:

Interactions Publication

- ◆ As with Object Classes, each federate must declare explicitly which Interaction Classes it wants to produce
- ◆ Interactions are produced as “all or nothing”. It isn't possible to specify which parameters in an interaction will be published in an interaction.

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P&S of Interactions:

Interactions
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- ◆ Each federate subscribes Interaction Classes that it wants to receive
- ◆ It is not possible to subscribe only some parameters of an Interaction Class
- ◆ A federate is informed about a new interaction instance if: the federate has subscribed Interaction Classes of the instance

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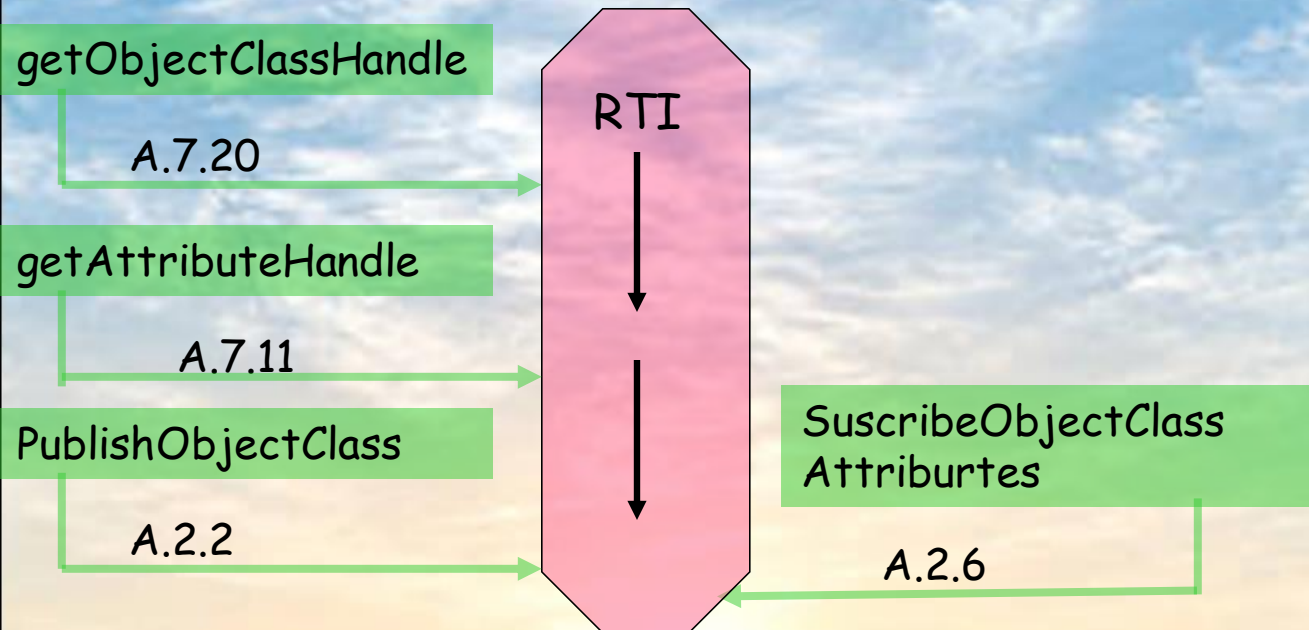
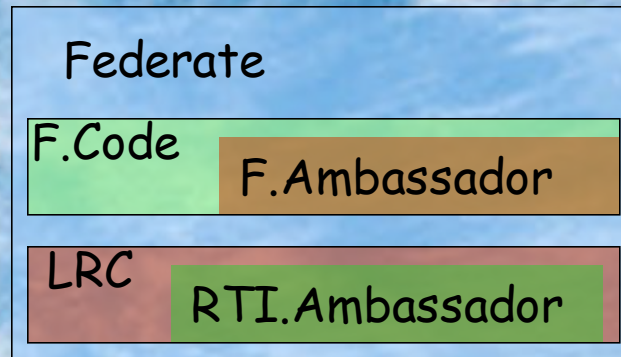
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Refresh:

Management of Objects Declarations



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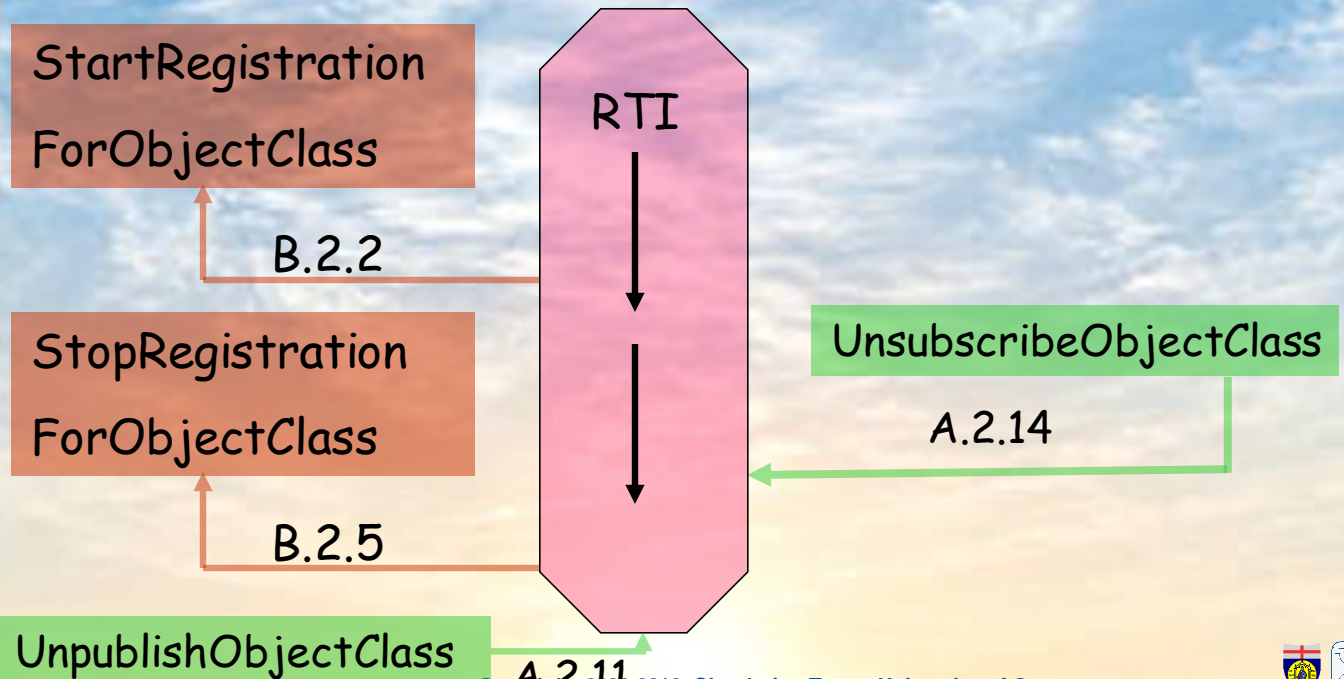
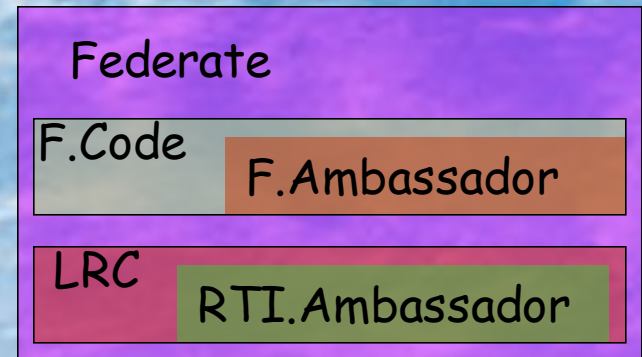
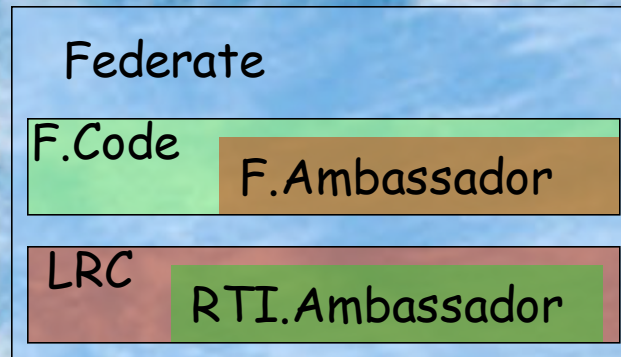
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Refresh:

Management of Objects Declarations



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Refresh:

Management of Objects Declarations

Objects

- ◆ To create an object, the federate must before publish its class
- ◆ The federate registers the new instance of the object
- ◆ To discover this object, other federates must have subscribed to that object class
- ◆ Those federates then will discover the object instance

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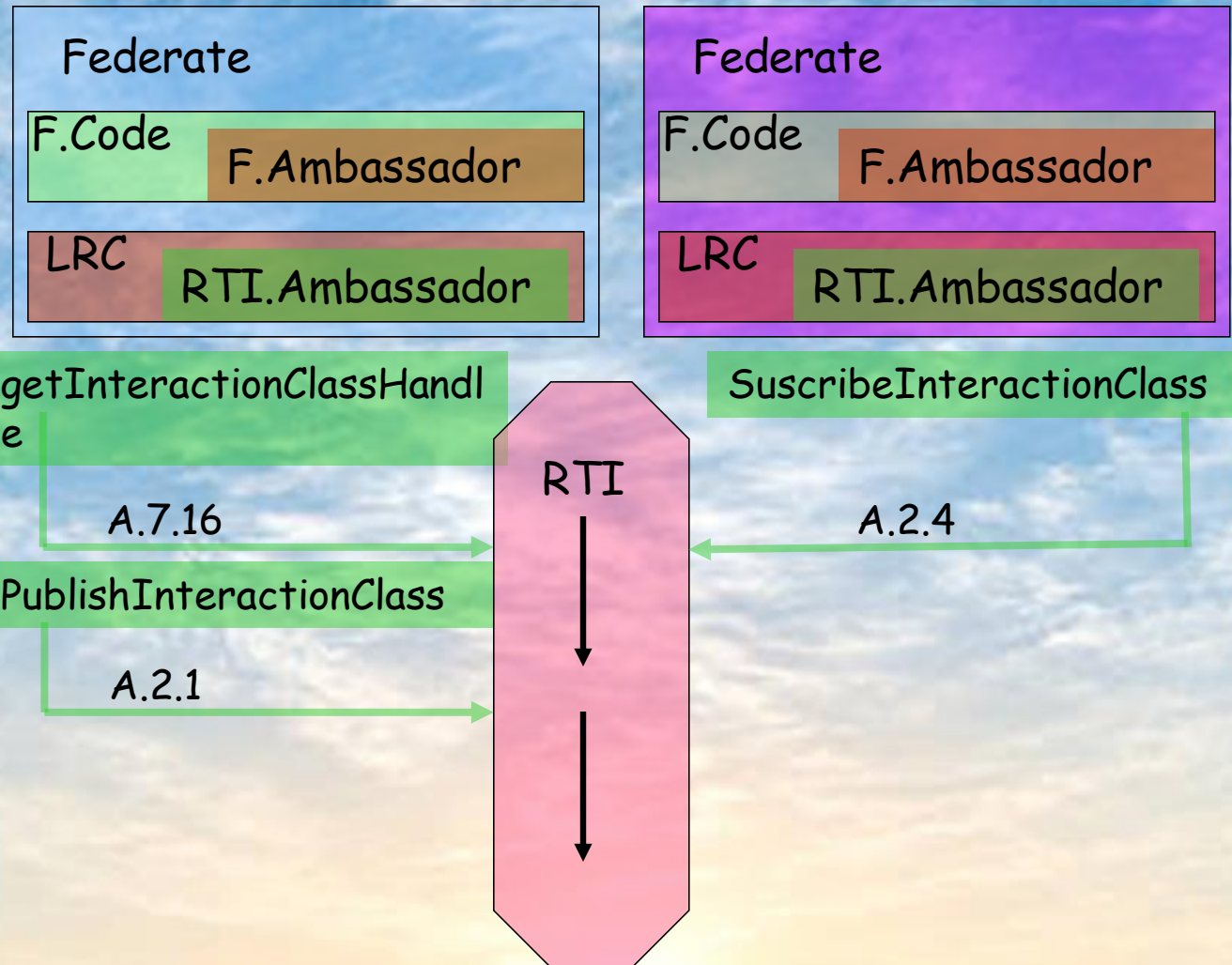
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Refresh:

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Management of Interactions Declarations



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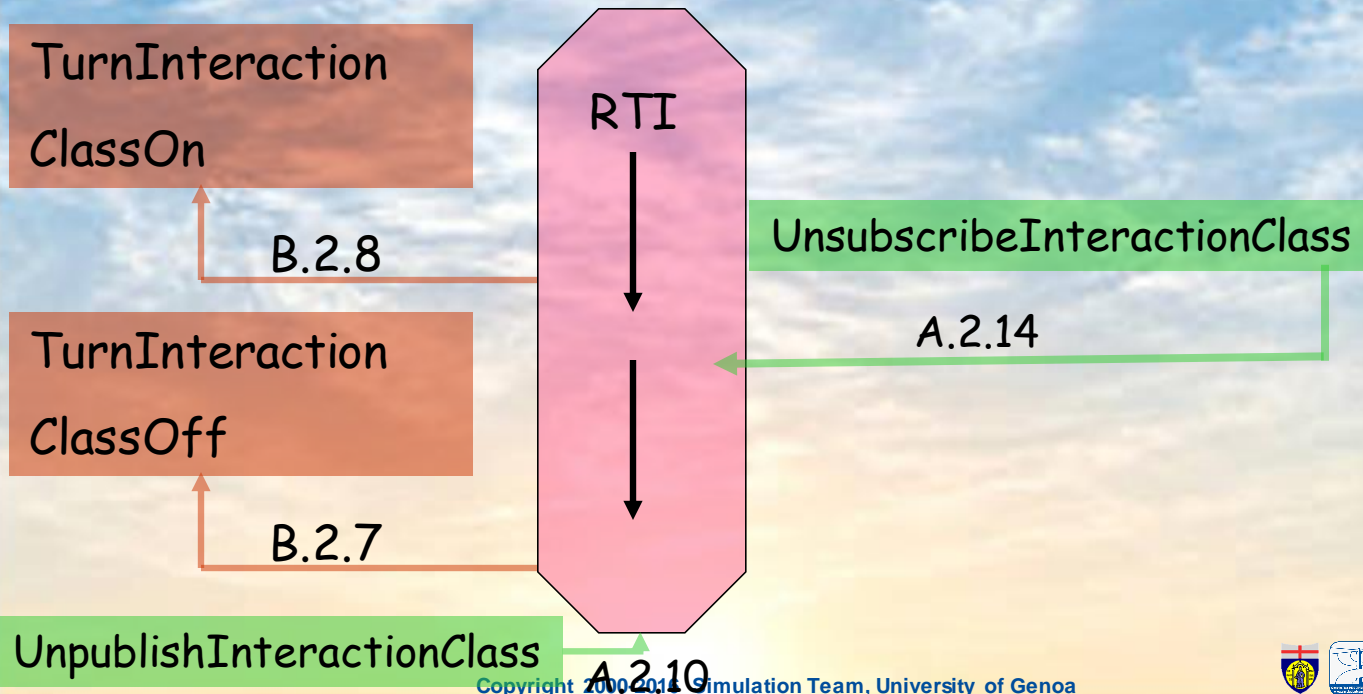
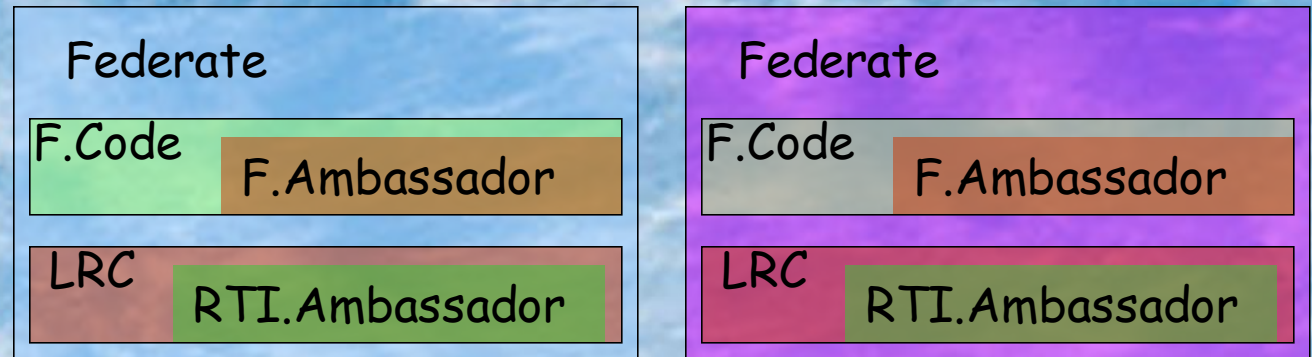
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Refresh:

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Management of Interactions Declarations



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Refresh:

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Interactions

- ◆ In order to send an interaction, the federate must publish its class
- ◆ To receive these interactions, other federates must subscribe to their class

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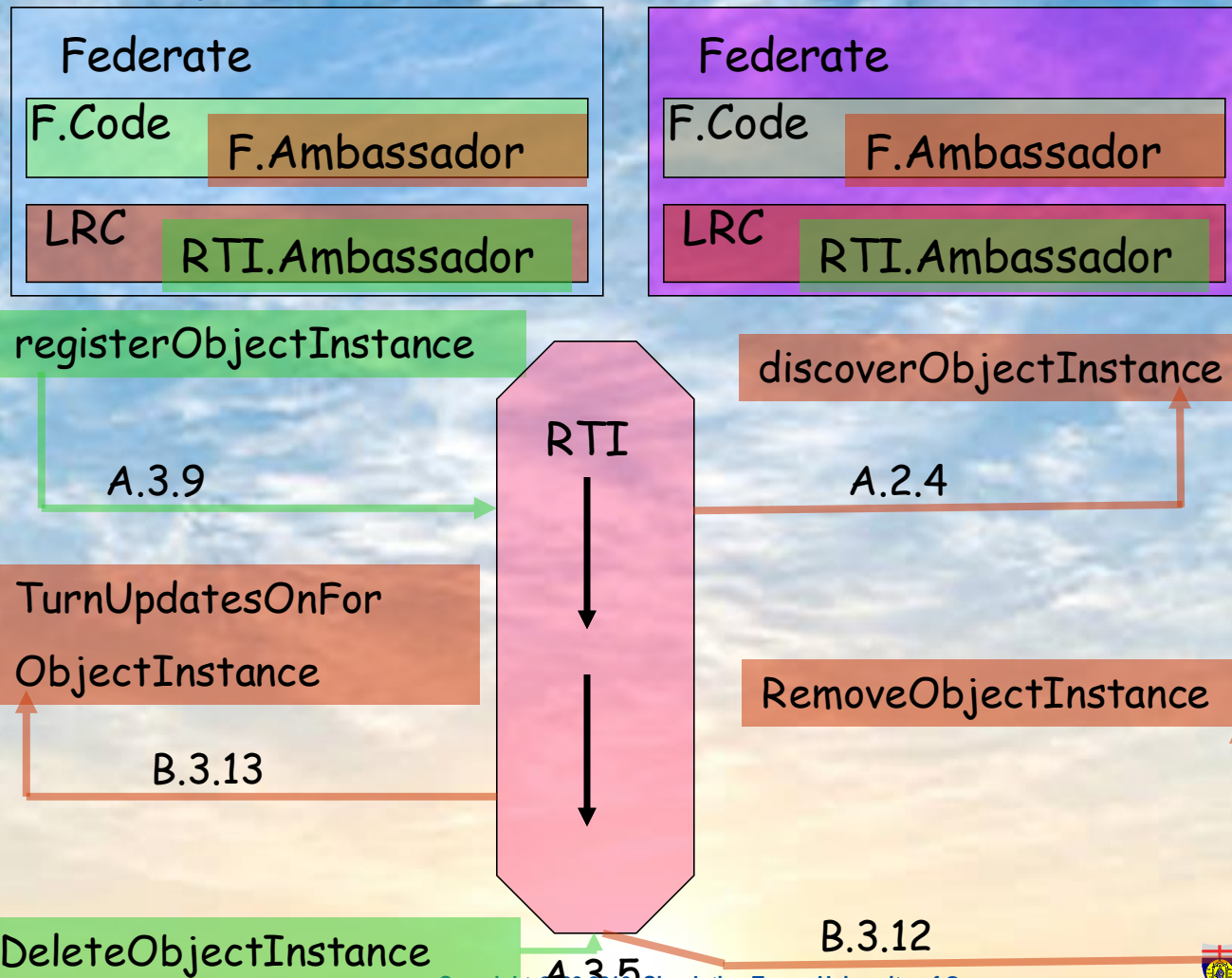
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Refresh:

Management of Objects Declarations
Management of Interactions Declarations
Objects Management Methodology



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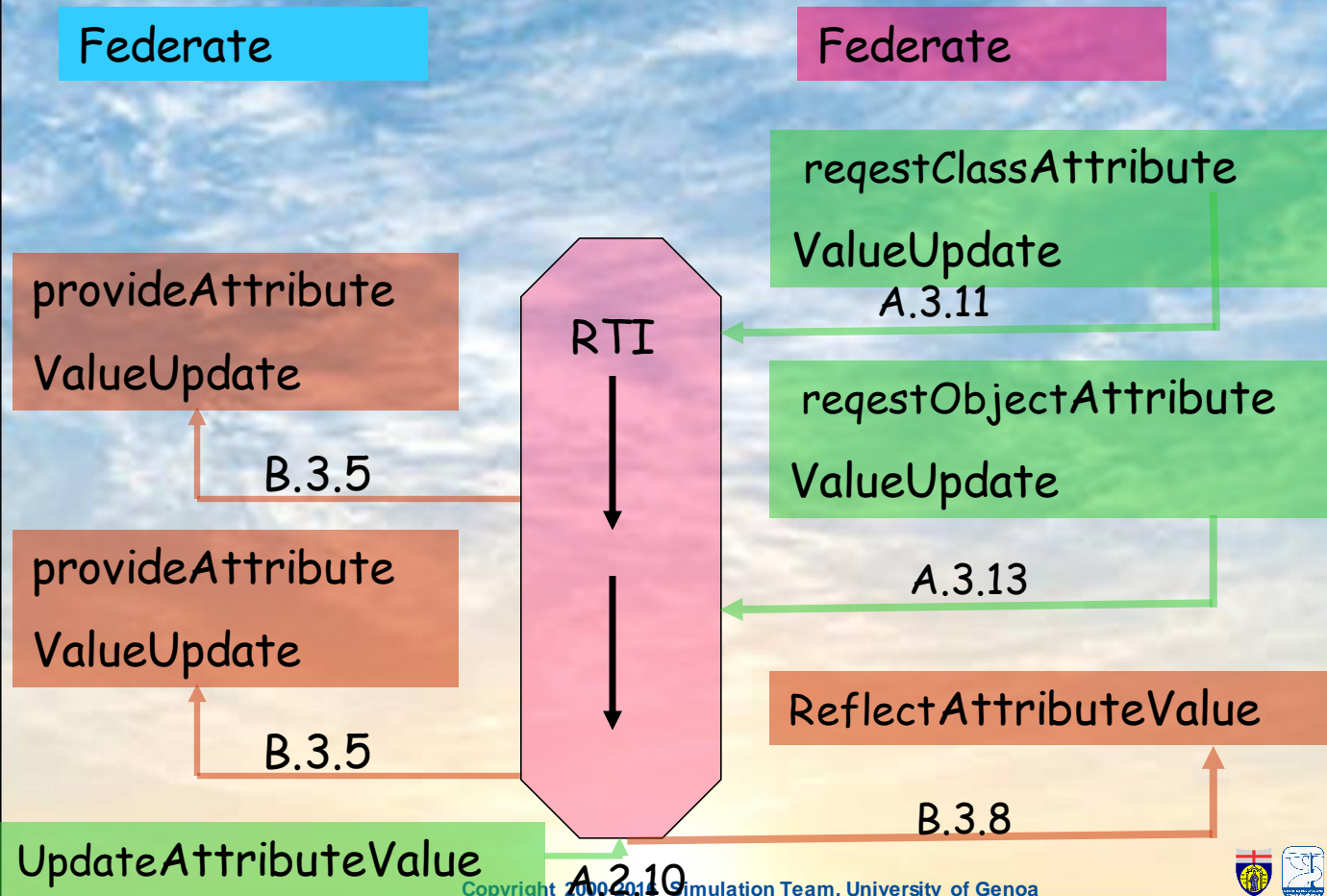
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Management of Interactions Declarations
Objects Management Methodology
Objects Management Refresh



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Management of Interactions Declarations
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Objects Management Refresh
Interactions Objects Management

