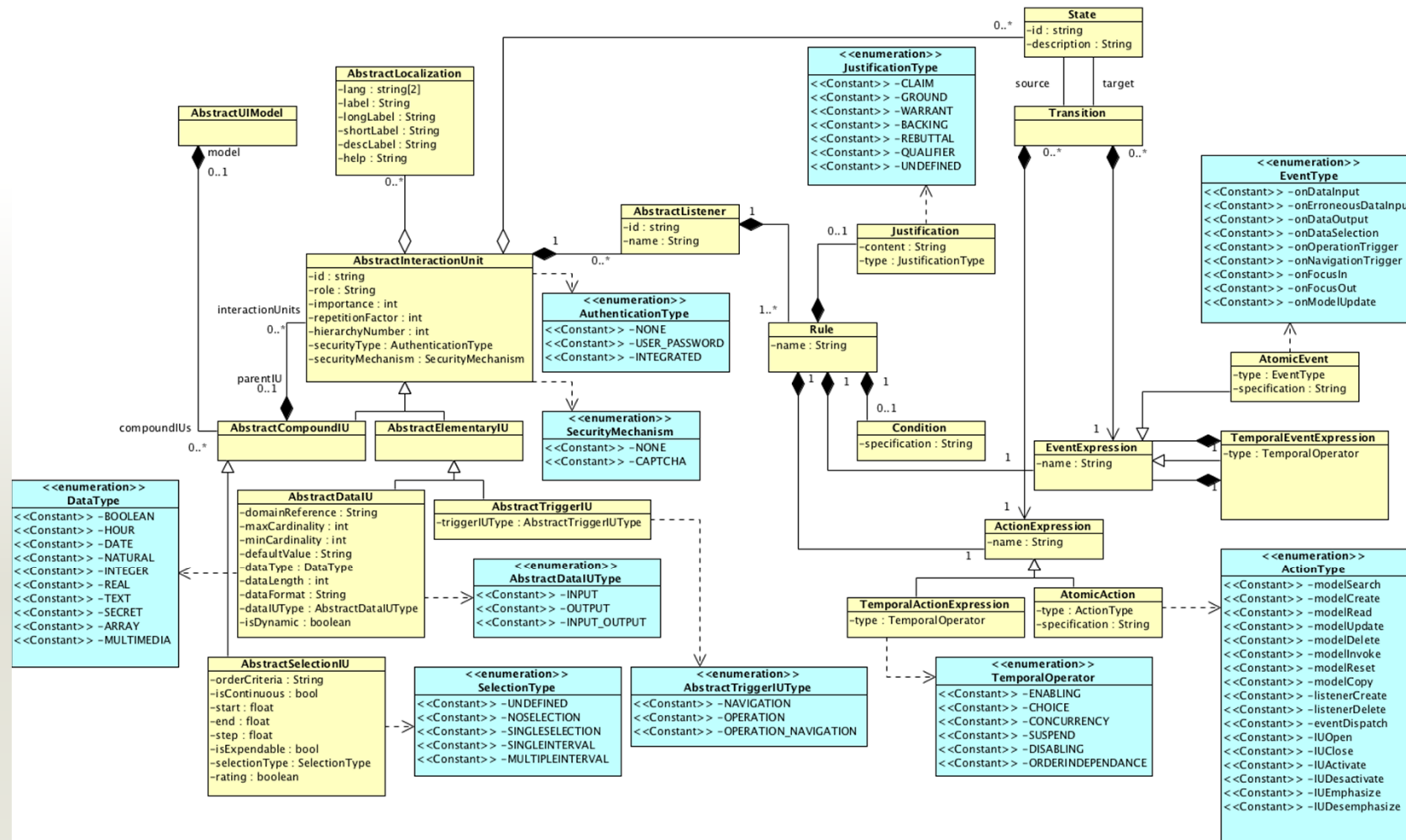


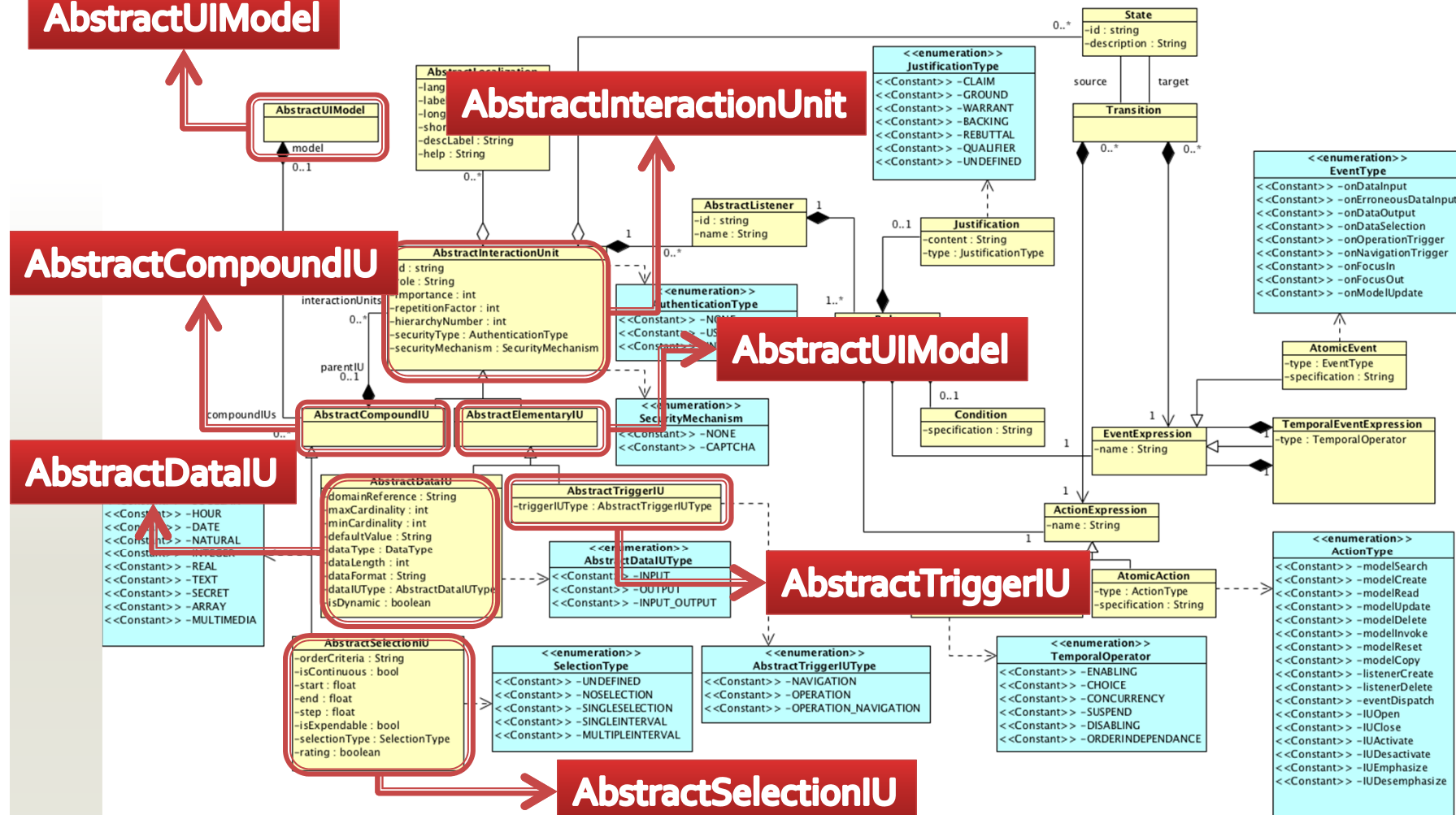
UsiXML – Abstract User Interface

- Abstract Interaction Object (AIO): ACM CHI'93
- Interaction Unit: IFIP Interact'95

Abstract UI Meta-Model: Overview



AUI: core entities



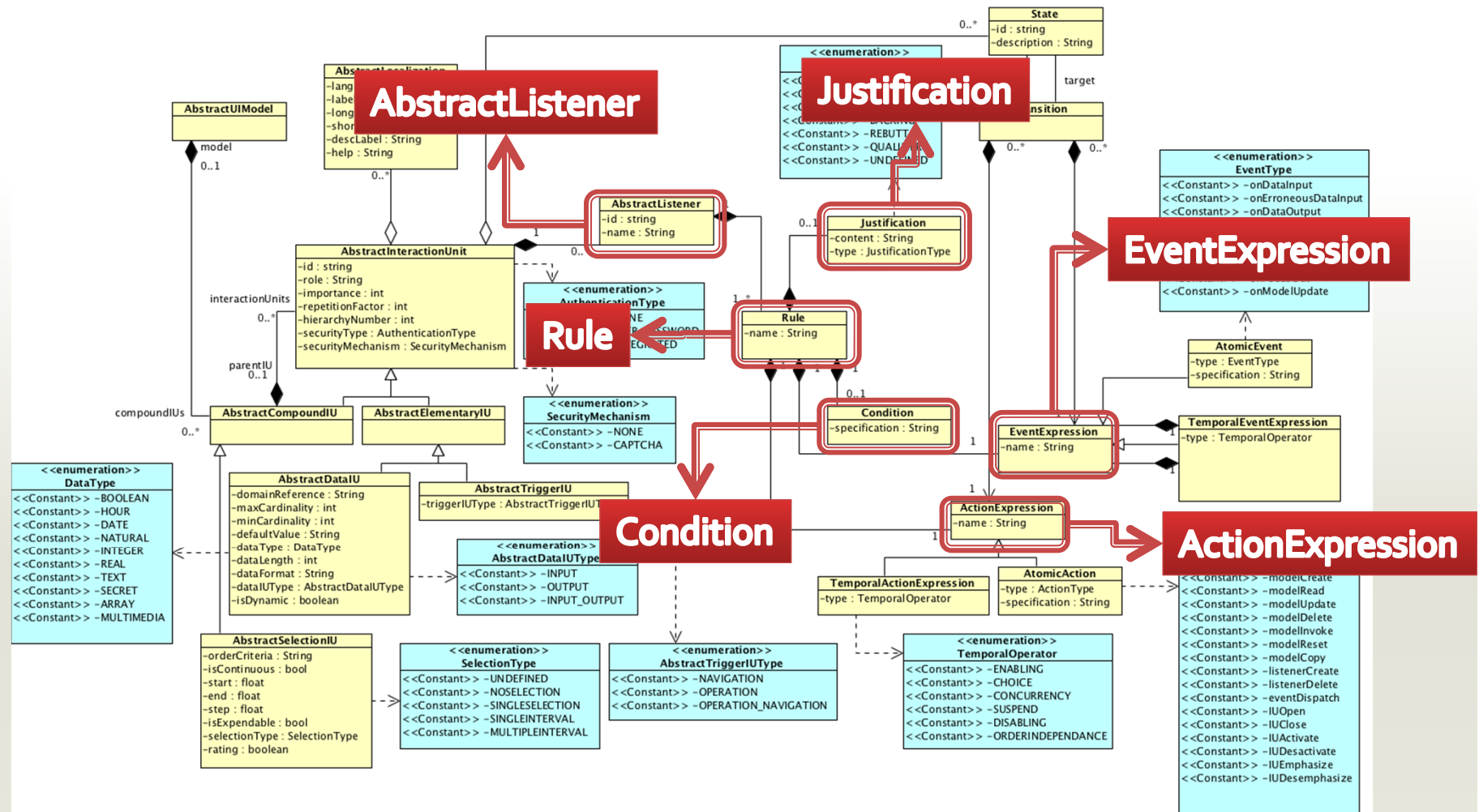
AUI: core entities

- AUIModel
 - Parent entity of the model
 - Contains an *AbstractCompoundIU* as the root component
- AbstractInteractionUnit
 - Represents any abstract entity in the model
 - May be compound or elementary
- AbstractElementaryIU
 - Atomic abstract entity
- AbstractCompoundIU
 - Container gathering *AbstractElementaryIUs* and/or other *AbstractCompoundIUs*

AUI: core entities

- AbstractDataIU
 - Entity representing a data element of the domain model
- AbstractTriggerIU
 - Allows triggering an action (navigation, operation, or both) when activated
- AbstractSelectionIU
 - Special type of *AbstractCompoundIU* representing a way of selection among different choices
 - e.g., an entity that may be concretized as a combobox (for graphical modality)

AUI: behavior



AUI: behavior

- **AbstractListener**
 - Behavior of *AbstractInteractionUnit* is described through the *AbstractListener*, which defines many rules
- **Rule**
 - Represents a JECA rule (justification – event – condition – action)
 - JECA rule stands for a rule of the form:
AccordingTo JUSTIFICATION
On EVENT
if CONDITION
then ACTION
 - Justification gives motivation for the ECA rule

AbstractLocalization



Transition

AUI: SCXML compliance and localization

- State
 - Possible state for an *AbstractInteractionUnit*
- *Transition*
 - Describes the transition (events and actions) between a source state and a target state
- *AbstractLocalization*
 - Allows describing the different translation depending on the localization

Models through an example

- Car rental example
- UI requirements:
 - Providing user information
 - Identity: name, gender, email and birthdate
 - Address: street, city, code and country
 - Preferences:
 - Category: economy, break or van
 - Colors, options, engine and price
 - Add some comments
 - Submit the request for renting the car

Models through an example

OutFirstName

GetFirstName

OutLastName

GetLastname

OutSelectGender

SelectGender

OutEmail

GetEmail

OutSelectBirthday

SelectBirthday

OutStreet

GetStreet

OutCity

GetCity

OutZipCode

GetZipCode

OutCountry

SelectCountry

OutCategory

SelectCategory

OutColor

SelectColor

OutOption

SelectOption

OutEngine

SelectEngine

OutBudget

GetMaxBudget

OutComments

GetComments

OutAgreeConditions

SelectAgreeConditions

Reserve

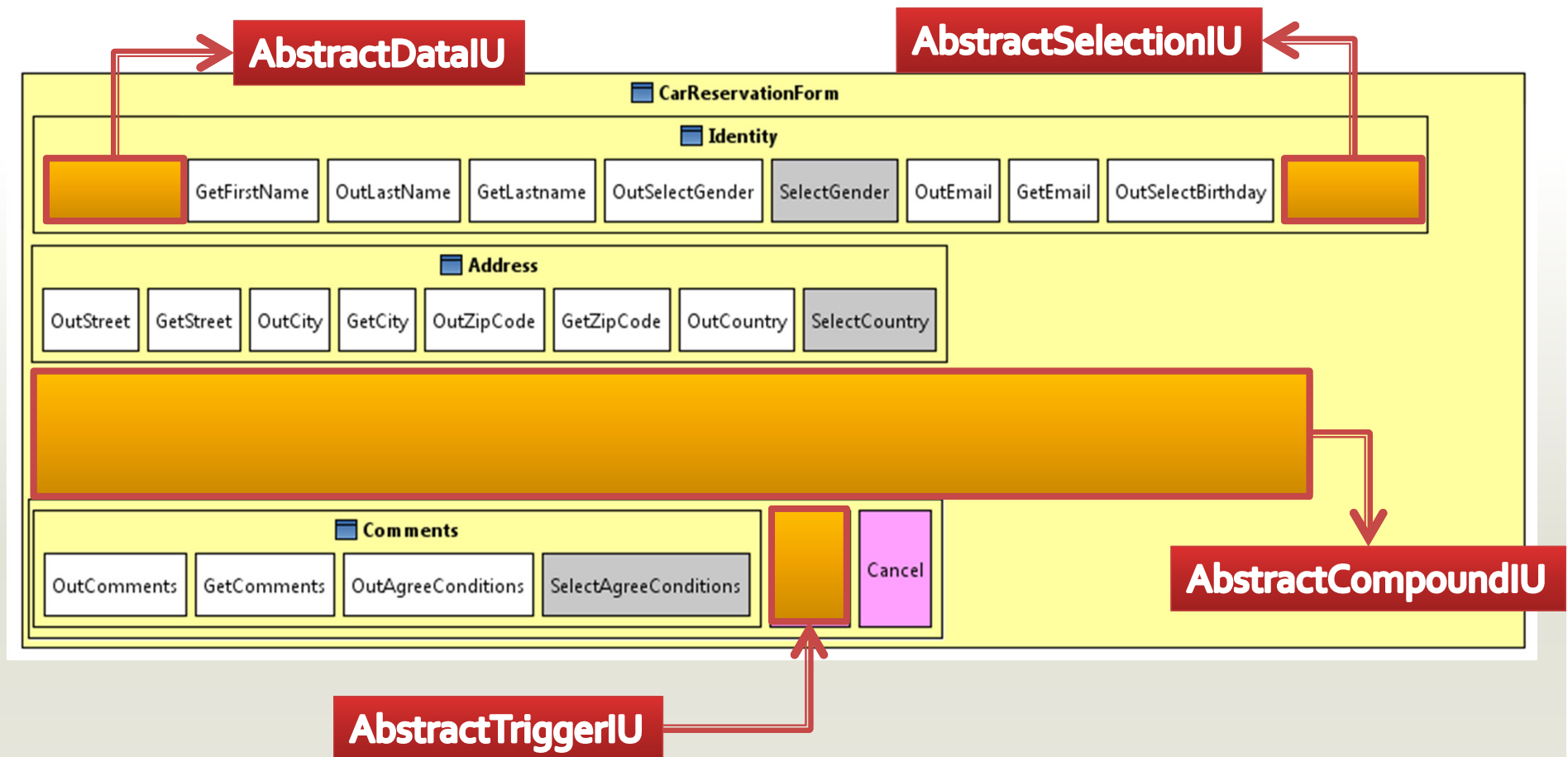
Cancel

Models through an example

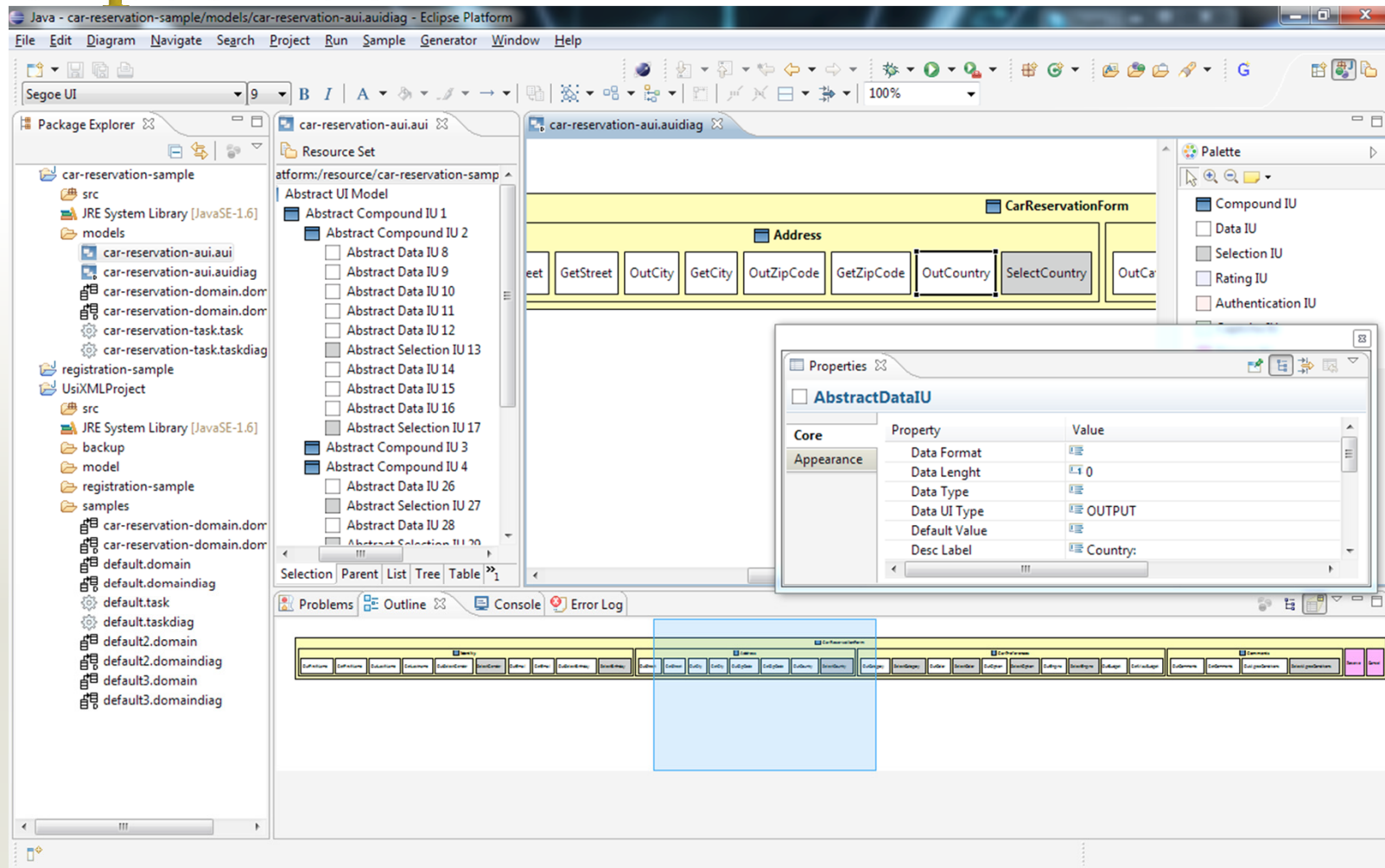
AbstractCompoundIU



Models through an example



Eclipse Tool



Videos

- [Car Reservation: startup](#)
- [Car Reservation: comments](#)