

Type System Unification

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Type System Unification

Unification of type systems and expression languages (Peter, Lutz, Alexey, Brian, Serban)

- Alisa ReqSpec et.al.: types, assign once variables, computed variables., property types, Resolute types, Java type mapping
- Property language V3
- Constraint language
- BLESS
- Data Model annex
- Resolute, Scripting languages (Python, Ease)



Type System Unification

Types

- Data types, property types, constraint language variable types
 - Property types available as data types
 - Data types available as property types
- Base types: integer, real, string, Boolean
 - No more **aadlinteger** keyword
 - Real without .0 is accepted
- Handling of units: part of value, association via property
 - Integration of proposed Units system (ISO, SysML)
- Sequences & sets: Set with unique element semantics
- Union of types
- Type conversion
- Types like time: when to limit to integer vs. allowing real



Unification

Reference types

- References to model elements

Expressions

- Currently not part of property sublanguage
- Operators
- Built-in functions
- User definable functions

- Behavioral & temporal specifications

