A meta model for the IEEE AR standard

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Agenda

1 IEEE AR standard
   What is it ?
   Why is it relevant ?
   How can we improve it ?

2 Project
   scope
   Goals
   Schedule

What is IEEE AR standard ? - Global

- Uniforms the Augmented and Mixed reality (AR&MR) learning experience systems.
- Liberating from constraints of medium or container.
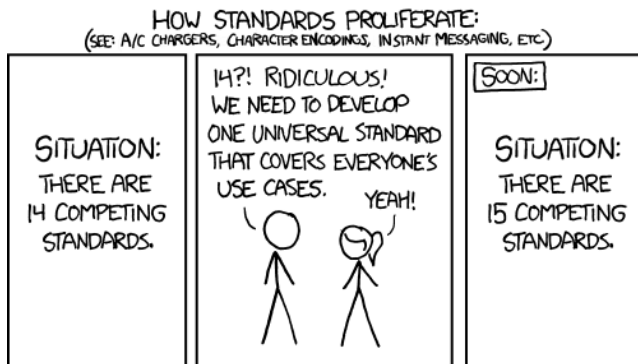- Prepare once, distribute any time in parallel.

Figure: Relevant XKDC

What is IEEE AR standard ? - Technical details

Two linked description languages:

Activity description defines:

- Branching actions
- Events (can be entered and exited)
- (De)activated content augmentation

Workplace description defines elements present in the experience that can be:

- Real object, person, place in the environment
- Hardware like sensors, devices
- Detectable, virtual augmentation

Why is IEEE AR standard relevant ?

- Visualize and create complex AR training experiences that can be illustrated and explained easily.
- Inter-operable (i.e. uniform) produced data can be exchanged between applications.

How can we improve IEEE AR standard ?

Automating the creation of the uniform data representing the training experience, by using graphical modelisation tool (ADOXX).

Project description

Construct the meta model to generate a XML file that represent an AR training experience using ADOXX. Load a XML file of an AR training experience into the ADOXX modeling toolkit to edit it.

Main goals and optional goals

Main goals

- Create a meta model on the AR standard using ADOXX.
- Export an AR training experience to an XML file.
- Import an XML file into ADOXX.
- Have the main functionalities covered.

Optional goals

- Integrate the process to the MIRAGE XR tool
- Full demonstration

Initial schedule

1. Requirements analysis and knowledge acquirement
2. Model definition
3. Implementation
4. Analysis and testing
5. Final presentation

The End

Questions? Comments?