

Legend Notes

Units are omitted for simplicity sake. APE, Abstract Parent Entity

AnnotationRef: This element always refers to a Comment/ Annotation element as described for Channel. However for simplicity sake most Comment/Annotation elements have been omitted and the AnnotationRef has been inserted in

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This is a graphical representation of a possible extension of the OME data model developed by members of the Imaging Working Group of the 4D Nucleome consortium. The graph utilizes the Entity-Relationship formalism. In this formalism information about a real world situation/thing (in our case a Microscope and an image acquired using that instrument) are represented by three types of model elements:

1) Entities = Boxes; 2) Relationships = lines connecting boxes; 3) Attributes = fields within boxes When describing a real life situation/thing:

1)ENTITIES corresponds to NOUNS = the things we want to collect information about.

2) RELATIONSHIPS corresponds to VERBS = actions/state/occurrence that connect Entities with each other  $\parallel$  3) ATTRIBUTES corresponds to ADJECTIVES = the actual information about each Entity we want to collect

In order to read the schema please start from INSTRUMENT and from and IMAGE for the Specifications and Settings section respectively. Then follow the lines to the connected boxes and think something like: 1) An Instrument has a Microscope\_Body, might rest on a Microscope\_Table, and has a Light\_Source etc.; 2) An Image was produced as part of a specific Experiment, was collected in a specific Imaging\_Environment, was collected using specific Microscope\_Settings etc.

