

# PREMIS OWL binding to Workflow Engine for Digital Long-Term Preservation

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**Abstract.** A lot of cultural heritage institutions face the obligation to preserve their digital objects for the long-term. In Belgium, a distributed platform will be developed conform the OAIS reference model to cope with the technical and organisational challenges, inherent to digital long-term preservation. This platform elaborates on a layered, semantic metadata model, which is responsible for minimising the risks of digital long-term preservation. This model is based on Dublin Core, holding the descriptive metadata, and the preservation standard PREMIS 2.0, which holds the preservation metadata. For this, PREMIS defines four interrelated classes: Objects, offering a technical description of the digital objects, Events, describing all the events altering an object, Rights, describing the rights of an object, and Agents, which trigger events on objects or hold rights for an object. This model must be used in combination with preservation strategies, which ensures the accessibility of the digital objects for the future. These preservation strategies consist of several workflows for each file format, accepted by the preservation platform. These workflows put the digital object on a trajectory of certain actions, like validation, virus checking, normalisation, ingest, migration, emulation, etc., to ensure the future access to the digital object. These actions can be modelled perfectly as PREMIS events. For this reason, we made a binding of our workflow engine, which executes the preservation strategies, to our developed metadata model. This way, the workflow engine can be used in any digital repository turning it into a digital long-term archive, assuring the digital preservation.