

v2.1-4

Last updated: Aug 13, 2008 2:49 PM



Database revision number 33.

Draft Data Model for Scheduling

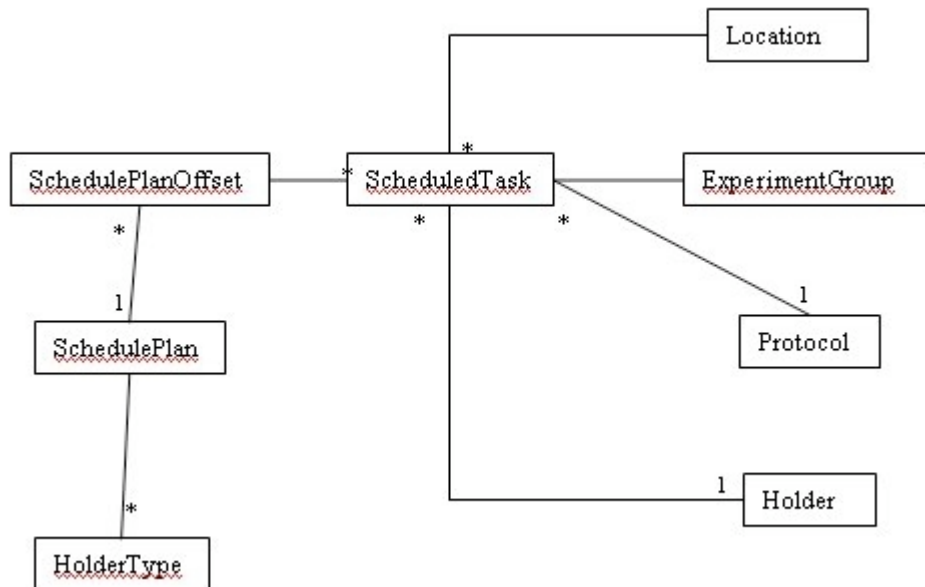


Fig. 1: Class diagram summarizing the data model for scheduling.

Aim

To produce a data model that allows:

- The description of a scheduled task consisting of:
 - A Holder (which should contain one or more relevant Samples at run time)
 - A Protocol
 - The ExperimentGroup that results from performing the task (i.e. running the Protocol on the relevant Samples)
 - The Instrument on which the task is to be run
- The description of a set of abstract scheduled tasks as offsets from time zero, for use as a reusable plan
- The association of a HolderType with a plan, to be used as the default plan for that HolderType

HolderType

Add optional Many-1 link (**DefaultSchedulePlan**) to **SchedulePlan**, to indicate the default **SchedulePlan** for the specified **HolderType**

SchedulePlan

Description: A pre-defined plan for scheduling consisting of a name, description and list of offsets from time zero.

- Optional 1-Many link (**HolderType**) to HolderType – the HolderTypes that have this plan as their default plan
- Optional 1-Many link (**SchedulePlanOffset**) to SchedulePlanOffset – the offsets for this plan
- Mandatory attribute **name** – the name of the plan, which should be unique within the impl_project
- Optional attribute **description** of Java type String – human-readable description of the plan

SchedulePlanOffset

Description: An offset from time zero for a particular SchedulePlan. Typically we create all the Schedule records for a SchedulePlan in one go. Time zero is typically the creation date of the Holder that is being scheduled.

Mandatory Many-1 link (**SchedulePlan**) to SchedulePlan – the SchedulePlan to which this offset belongs

Optional 1-Many link (**list**) to **ScheduledTask** – the Scheduled task that refer to this offset

Mandatory attribute **offsetTime** of Java type Long – the offset in milliseconds from time zero, unique to the SchedulePlan

Optional attribute **priority** of Java type Integer – the default priority that should be assigned to Schedules created for this offset

ScheduledTask

Mandatory M-1 link to **Protocol** – the protocol that is being scheduled

Mandatory M-1 link to **Holder** – the holder that is being scheduled

Optional 1-1 link to **ExperimentGroup** – the experimentGroup that will be created as a result of running the protocol on the relevant samples in the holder

Optional Many-1 link to **Location** – the location that should be used to enact this scheduled task

Optional Many-1 link to **SchedulePlanOffset** – the point on a SchedulePlan to which this Schedule relates

Mandatory attribute **ScheduledTime** of java type Calendar – the point in time that the scheduled task should be enacted

Optional attribute **state** of java type Integer – available for use as a state flag

Optional attribute **priority** of java type Integer – available for use to indicate the priority of this scheduled task relative to others