Data Model

The Rally Lookback API stores the history of work items from Rally's ALM in a format suitable for a broad range of queries.

Each work item has one or more snapshots that represent the state of the item at different periods in the past. Each snapshot is made up of:

* \_id that uniquely identifies the snapshot
* ObjectID equal to the item's ObjectID in the Rally ALM
* \_ObjectUUID equal to the item's \_refObjectUUID in the Rally Web Service API
* \_ValidFrom and \_ValidTo dates that indicate the time period which the snapshot represents
* the state of the item including the values of all its fields
* \_PreviousValues of fields that were changed
* \_SnapshotNumber a sequentially increasing number snapshot number for each work item

#### **Indices**

When designing queries, it is important to be aware of the available indices. Queries that utilize indices will respond much faster and place less load on the system.

The Rally Lookback API has indicies on the following fields:

* \_id
* ObjectID
* \_ItemHierarchy
* \_ProjectHierarchy
* \_TypeHierarchy
* \_UnformattedID
* \_ValidFrom
  + When querying by \_ValidFrom, an index is also available on \_ValidTo
* Iteration
* PortfolioItem
* Project
* Release
* ScheduleState
* State
* Tags

### **Additional Available Fields**

The following fields are also available if specified with the fields parameter:

* \_UnformattedID (If FormattedID="DE2345", then \_UnformattedID=2345)
* Revision information
* \_Revision. OID of revision record
* \_RevisionNumber
* \_User. User who made the edit
* \_SnapshotNumber
* Name
* Custom string fields
* DragAndDropRank
* All foreign key ObjectIDs (Workspace, Iteration, Release, Parent, Requirement, etc.)
* All numeric fields (PlanEstimate, TaskActualTotal, TaskEstimateTotal, etc.)
* All booleans
* All date fields
* Child Collections as lists of foreign key ObjectIDs: Tags, Tasks, Defects, Children, Duplicates, Predecessors, Successors
* Attributes for Iteration and Release (see [Hydrating Iteration and Release](https://rally1.rallydev.com/analytics/doc/#hydratingiterationandrelease) for more details)
* Project name (see [Hydrating Project](https://rally1.rallydev.com/analytics/doc/#hydratingproject) for more details)

### **Unavailable Fields**

The following fields are not available through the Rally Lookback API.

* Big/rich text fields (Description, Notes, etc.)
* Attachments
* Weblink fields
* LastBuild, LastRun, LastVerdict on TestCases
* Iteration or Release on Tasks
* Attributes for all unsupported entities (Workspace, Requirement)
* HasParent on HierarchicalRequirement

Finally: the following link is a demo for all the fields that we can fetch from LookBack servers ([https://rally1.rallydev.com/analytics/v2.0/service/rally/workspace/1952235451/artifact/snapshot/query.js?find={%22ObjectID%22:26450110719}&fields=true&start=0&pagesize=10&removeUnauthorizedSnapshots=true](https://rally1.rallydev.com/analytics/v2.0/service/rally/workspace/1952235451/artifact/snapshot/query.js?find=%7b%22ObjectID%22:26450110719%7d&fields=true&start=0&pagesize=10&removeUnauthorizedSnapshots=true))

Note: the values in the Result array is the snapshots