GenericIO REST Web Service

Provides read-only access to collections of data entities within TeamWork. This RESTful service is based on the GenericIO web service that provides input/output access to data via SOAP web services. The data is returned as a JSON array.

Overview

Currently the services accept GET requests for fetching data. The data returned is defined in QueryString options passed in the URL.

The service endpoint depends on where your Instance is installed. For example:

Enterprise Instance URL:
https://www.schedulesource.net/Enterprise/teamwork/services/genericio.aspx

If your organization has a dedicated or self-hosted instance of TeamWork, you will need to adjust the URL accordingly.

Requests to the service must specify an **entitytype** and optionally a **Fields** list of values to return. You can filter the results by including additional fields in the QueryString.

Example Request – Get the full employee list with Hiredate and Termdate

```
genericio.aspx?token=mytoken&entitytype=Employee&Fields=LastName,First
Name,Hiredate,Termdate
```

Security

There are two options for secure access to the service. The first option is to establish a SessionId by passing credentials to the service. Subsequent requests must include the SessionId. The second option is to use an unchanging but secret Enterprise Token (provided upon request).

Method #1 – Establishing a Session & using SessionId

```
genericio.aspx?operation=authenticate&portal=mgr&code=mycode&username=
myuser&password=mypassword

        {"CookieId":"TWEnterprise",
        "SessionId":"16020222391830.85d25a3cc2ae443ba60626957b51b888"}
```

(Note: "mgr" indicates the Enterprise Portal. Only Enterprise-Level users can access this service.)

```
genericio.aspx?SessionId=16020222391830.85d25a3cc2ae443ba60626957b51b8
88&entitytype=Employee&Fields=LastName,FirstName,Hiredate,Termdate
```

Method #2 – Enterprise Token

Example Token: 9F64CE83-E8EF-4C1A-ACBB-DCC7132D0966

```
genericio.aspx?token=9F64CE83-E8EF-4C1A-ACBB-
DCC7132D0966&entitytype=Employee&Fields=LastName,FirstName,Hiredate,Term
date
```

Entity Types
The entitytype parameter determines the type of data to pull. This value is case-sensitive. Currently supported entitytype's are listed below.

• User • Business • Station • Employee • Skill • LocalUser • LocalEmployee • LocalSkill	• Schedule • ScheduleShift • Template • TemplateShift • Credential • EmployeeCredential • StationCredential	• PayPeriod • PaySheet • TimeProject • TimeTask • TimeActivity • TimeEntry • TimeAccrualBalance • LeaveType • LeaveEntry

A listing of the fields available for each entity type can be found in the GenericIO Web Service documentation. You can see all supported fields simply by fetching them without the Fields parameter to limit the data. Please note, some fields might be depreciated or currently unused in the system. Field names are **case-sensitive** when passed in the Fields parameter or as a filter.

Selecting Fields
A special built-in filter value named "Fields" exists to specify the fields you want returned. The value should be a comma-separated list of the fields to return (case-sensitive).

Filtering
Any field on an entity can be used to filter the data returned. A few entity types support (and may require) filtering by dates. For example a request for ScheduleShift data must include two date filters: MinDate and MaxDate.

Example #1 – Fetch an employee by ExternalId

```
genericio.aspx?token=mytoken&entitytype=Employee&ExternalId=12345
```

Example #2 – Fetch ScheduleShift's for 12/6/2015 (all locations)

```
genericio.aspx?token=mytoken&entitytype=ScheduleShift&MinDate=12/6/201
5&MaxDate=12/6/2015&Fields=Date,ShiftStart,ShiftEnd,EmployeeExternalId
```

Filtering Operations

The operations available for filtering generally correspond to those available within a SQL environment. The following operations are currently supported:

- **=** (equal)
- **<** (less than)
- **>** (greater than)
- **<=** (less than or equal)
- **>=** (greater than or equal)
- **<>** (not equal)
- **NULL** (has no value. Note: will not match zero-length strings "")
- **NOT NULL** (has a value)
- **IN** (matches one of the values in comma-separated list)
- **LIKE** (matches pattern with wildcards)
  - **%** - Any string of zero or more characters.
  - **_** - Any single character.
  - **[]** - Any single character within the specified range ([a-f]) or set ([abcdef]).
  - **[^]** - Any single character not within the specified range ([^a-f]) or set ([^abcdef]).

For equality, simply include the Field name and value in the URL:

```
&FirstName=Scott
```

Special operators must be included in the URL between the "=" and the value. For example, to return Employees with LastName >= 'R' the following would be included in the URL:

```
&LastName={>=}R
```

More examples

```
&Termdate={NULL}

&LastName={IN}Hallberg,Dokken

&LastName={LIKE}_a%
```

Support

For questions or issues related to the GenericIO REST Service, please contact support@schedulesource.com or open a ticket at https://helpdesk.schedulesource.com