Aptem Basics: Reporting, OData & APIs

Holly Thompson

Implementation Consultant

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Welcome to Aptem's product briefing webinar

To help you make the most of this session:

1. We will be recording this session and uploading the recording and Q&A to the Aptem Help Centre, so you can share it with colleagues.

2. You are muted, so if you need assistance during the webinar, please use the chat function.

3. There will be an opportunity to ask questions throughout this session, please submit your questions using the question function.

4. If we don't have an opportunity to answer all questions during the session, we will follow up individually afterwards.

Today's hosts

Holly Thompson
Implementation Consultant

Holly is an Implementation Consultant at Aptem and has worked within the education sector for the last 12 years. She has experience working with colleges, HEIs and ITPs, including the development of new systems and processes.

James Lett
Solutions Consultant

James is a Solutions Consultant at Aptem, working with customers to provide best practice and product support. He has 7 years' experience working in ITPs, managing all aspects of apprenticeship delivery.

Session agenda

Overview

- Overview of reporting in Aptem.

- Connecting OData via Excel.

- Basic queries in OData.

- Connecting OData in Power BI.

- OData FAQs.

- Working with our API Documentation.

- Q&A.

Aptem reporting

Overview

There are two generic reporting tiles available in Aptem:

- Users Generic Report – any administrator can access it via the 'Users Generic Report' tile.

- Organisations Generic Report – available for administrators with the *Manage Organisations* permission via the 'Organisations Generic Report' tile.

- These reports are based on OData feeds.

- They are split into separate reports due to the permissions required to get data from the relevant data feeds.

Creating a User Report

Overview

- To create a new report, click 'Add'.

- When you first create a new report, the two fields you will be able to see are 'Id' and 'Edit'.

- To get started with adding useful fields, click the 'gear' icon, circled in the image below.
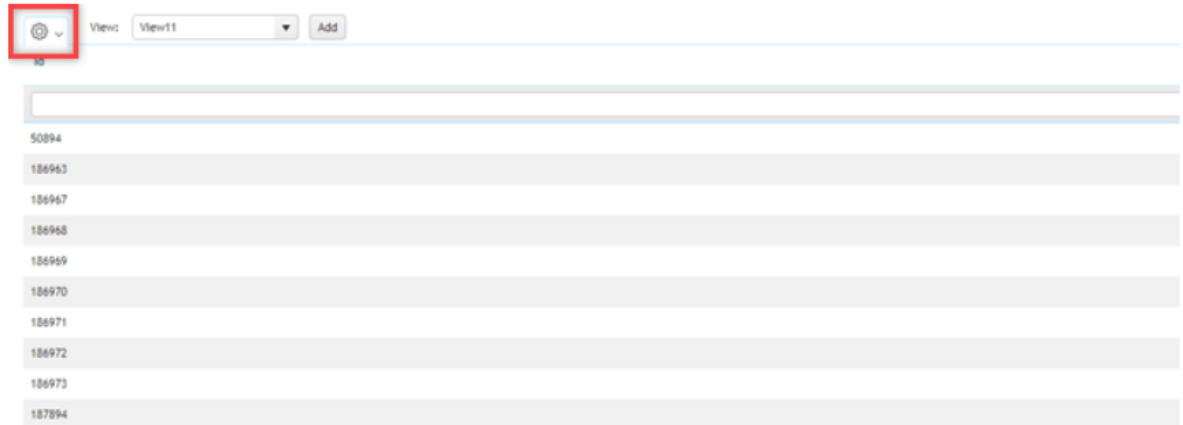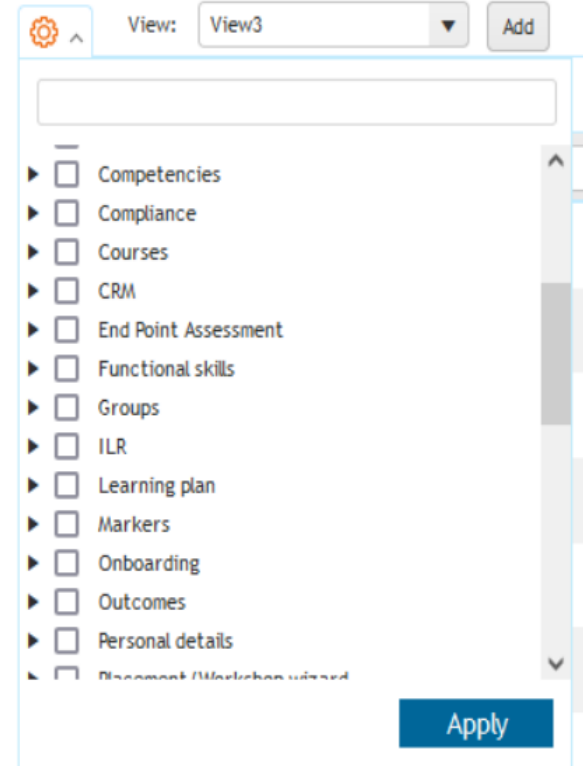
Creating a User Report

Overview

- The list displays all available fields against each category of data.

- Data categories can include subscription details, contact details, onboarding data, learning plan progress, review progress and custom fields etc.

- For example, the Reviews category in the list contains the most recent date (where available) for each type of review for that user.

- The search box can be used to find a specific data point.

- Under the 'gear' options, 'Previously used' group appears once the very first report view is created by the logged-in administrator, and it contains all fields which have ever been used for report creation by the logged-in administrator.

Creating a User Report

Overview

- To add columns, please click the desired data and then the 'Apply' button.

- The columns can be freely added, removed, or reordered at any point. To move a column, simply drag it into the desired location.
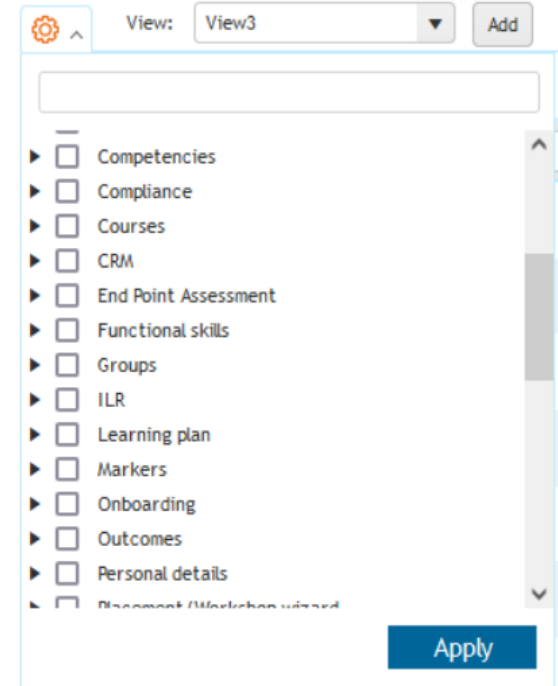
Example Report

Overview

- The Users Generic Report only returns one line per user, administrator, or employer record in Aptem.

- Only summary information can be provided, for example the status of the latest reviews or current main learning aim.
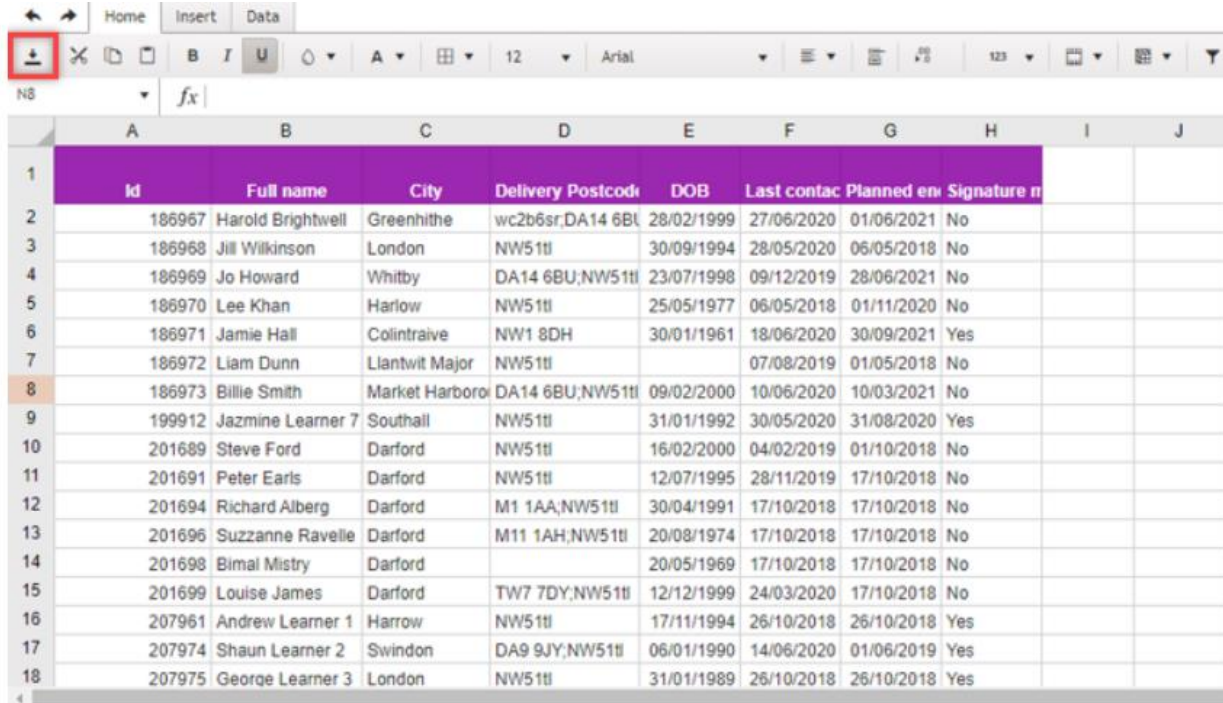
Full name	Email	Registration date	Groups	Last login date	City
			Demo Import 1 (198957)		
Harold Brightwell	john@m-stechnology.com	6/05/2017	Demo Import 1	3/07/2020	Greenhithe
Liam Dunn	john.r.brightwell+demouser6@gmail...	6/05/2017	Demo Import 1	25/06/2019	Llantwit Major
Steve Ford	john.r.brightwell+ms4@gmail.com	17/10/2017	Demo Import 1		Darford
Richard Alberg	john.r.brightwell+ms6@gmail.com	17/10/2017	Demo Import 1		Darford
Suzzanne Ravelle	john.r.brightwell+ms8@gmail.com	17/10/2017	Demo Import 1		Darford
Bimal Mistry	john.r.brightwell+ms10@gmail.com	17/10/2017	Demo Import 1	24/01/2018	Darford
Louise James	john.r.brightwell+ms11@gmail.com	17/10/2017	Demo Import 1		Darford
John Wayne	earlspeter+jw@gmail.com	26/01/2018	Demo Import 1	26/01/2018	Bristol

Quicksheet

- The Quicksheet button, located in the top right, will export the current view into a web-based Microsoft Excel format.

- You are fully able to manipulate and interact with your data using Excel formulas and functions.

- Please note, this function may not be available to all administrator accounts depending on company data policy.

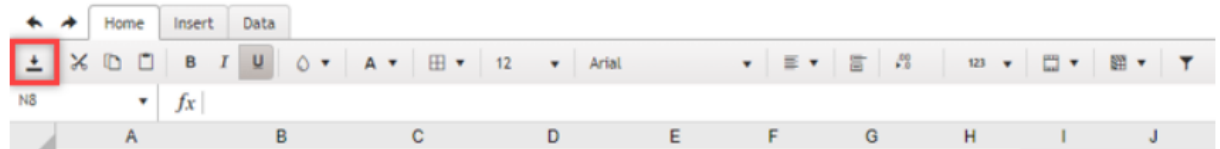- If you cannot see this button, please talk to your Aptem Champion.

Quicksheet

Export

- You can see the 'Export' button if you have the Data Export permission.

- To export data from Quicksheets, either into Excel or as a PDF, you can click the 'Export' button.

- Simply choose a file name, a data format and click 'Save' to download it.

OData

OData dictionary

- The latest copy of our OData dictionary can be found here [OData dictionary – Aptem Help Centre](#).
- This provides a list of all the fields currently available to be exported from your OData feed.
- The OData dictionary is regularly updated so please save this link and check back regularly particularly after a product release to ensure you are using the latest copy.
- To view the list of fields in your account, use the url: https://your_tenant_name.aptem.co.uk/odata/1.0/$metadata.
- Aptem is Microsoft Azure hosted and each Aptem customer has its own separate database.
- You will require Excel 2016 or newer to extract your OData into excel. If not, you will need a plugin called Power Query.
- [Connecting your organisation's live data to Excel via an API – Aptem Help Centre](#).

Demonstration: Connecting to OData via Excel Complex Queries in Excel – Table Joins

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Sample queries

Excel queries

- [Connecting your organisation's live data to Excel via an API – Aptem Help Centre](#).

Connecting OData via Power BI

Overview

- Aptem is Microsoft Azure hosted and each Aptem customer has its own separate database.
- Microsoft Power BI is a powerful visual reporting tool and is a part of the Office 365 suite.
- Therefore, you can use Power BI to create your own Aptem dashboards.

Security and GDPR warning

- This method allows you to create a file which provides direct read-only access to the live data in your Aptem system.
- The data in your Aptem system cannot be altered.
- Anyone with access to the Power BI file will have access to personal data regardless of which computer they use.
- The Power BI file you create must only be shared with those who are authorised to use the data in your Aptem system.
- Not following secure procedures could result in a breach of GDPR regulations.

Demonstration: Connecting to OData via Power BI

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Sample queries

Power BI queries

[Connecting your organisation's live data to Power BI via an API – Aptem Help Centre](#).

FAQs

Some columns in my imported data are empty. Why?

- By default only the first ten columns of an OData feed are imported.
- Although the column headers are visible, no data will be imported.
- You need to use the 'Select Columns' icon to edit the query for each table and select (tick) the columns which you wish to use.
- Click 'Refresh Preview' to confirm that the data has been imported. Next, click 'Close and Apply'.

- Note that some fields or columns will be empty depending on the information your organisation collects.

FAQs

Some dates from the ILR aims table are shown as a day earlier when imported into Excel/Power BI during the summer months. Why?

- When daylight saving is active on your local computer the server providing the OData feed can be in a different time-zone to the current time zone on your local computer.

- The result is that date-time value set at midnight can be reinterpreted as minus one hour resulting in the previous day being recorded in your Excel/Power BI file.

- This behaviour occurs automatically in Excel and Power BI – and we have no control over it.

- The sample queries (Users table, ILR aims table) overcome this issue by converting the date-time fields to text format and then returning just the correct date.

FAQs

Why am I unable to read data from OData feeds?

- This may be caused in cases where the request URL length exceeds 8060 characters. Currently, the maximum supported URL length is 8060 characters.

- You can modify your request to accommodate this limitation and try again.

Integrating with Aptem's third-party APIs

Overview

- Aptem has been developed to open-API standards making integrations with other systems easy to achieve.

- Many of our customers integrate with third-party systems such as CRMs, student record systems and HR systems.

- Using the APIs, customers can ensure that systems are consistent, and that their data is accurate and easy to maintain.

Integrating with Aptem's third-party APIs

How it works

If you wish to integrate with Aptem:

- Aptem provides a series of API endpoints which allow you to perform certain read/write functions.
- Connecting to the API endpoints must be done securely using an API token for authentication.
- API tokens can be created within Aptem, each containing a unique scope and level of access.
- Integration with our APIs should be completed against an integration tenant which can be provided upon request.
- Any integration work is completed by the provider or third-party.

Integrating with Aptem's third-party APIs

1. Provision of an integration tenant

- Development of an integration with Aptem should not be carried out against a production tenant.

- Aptem can provide an integration tenant for you to develop against – this eliminates the risk of affecting existing customer data.

- You can request an integration tenant by contacting the Support Team.

- Please note that an integration tenant will not contain any existing customer data such as: programmes, groups, organisations, administrator or user accounts.

- If you require a clone of your existing production tenant, there will be additional charges for the work to clone the tenant.

Integrating with Aptem's third-party APIs

2. Create a service account

- A service account is essentially an administrator account purely for the purpose of connecting to the Aptem APIs from a third-party system.

- The benefit of using a service account is that it allows you to control what actions the service calling the API endpoint is allowed to perform – read/save/etc. and what records the service is able to return.

Integrating with Aptem's third-party APIs

3. Request an API token

- Any call to an API endpoint must be authenticated to ensure that the service making the request has the permission to perform the action associated with the endpoint.

- To do this, an API token must be passed in the headers of the request with the key 'X-API-Token'.

- You must raise a request to the Support Team when you would like an API token to be generated.

- When making the request, please provide the following information:
1. The website URL of your tenant, e.g. https://{customer-name}.aptem.co.uk.
2. The username of the service account.
3. The scope(s) you would like set for the API token.

Integrating with Aptem's third-party APIs

Understanding scope

- Setting the scope determines which API endpoints are available to the service account.

- This allows you to ensure that a service is only able to perform the actions that are appropriate for that service.

The following scopes are available:
- Groups
- Jobs
- Users
- Organisations
- OData
- Admins

Integrating with Aptem's third-party APIs

4. Calling API endpoints

- Any call to an API endpoint must be authenticated to ensure that the service making the request has the permission to perform the action associated with the endpoint.

- To do this, an API token must be passed in the headers of the request with the key 'X-API-Token'.

- Calling an API endpoint with an invalid token i.e., an incorrect token or a token that does not include the scope of the endpoint you are calling, will result in a 403 unauthorised error response.

- The API endpoints are divided into two main areas: REST and OData.

- The REST API endpoints provide the ability to Create, Read, Update and Delete certain types of records. Aptem API.

Demonstration:
API Documentation

Aptem API

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Thank you

Holly.thompson@aptem.co.uk

3 Harmood Grove, London, NW1 8DH

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