

# Semi-Automated Data

Using Power Query in Excel to Append files from a folder to refresh reporting  
Prep

Season	Distance	View	Export	Certificate
2022/2023	744,154m	<a href="#">View Season</a>	<a href="#">CSV</a>	<a href="#">Download</a>
2021/2022	674,028m	<a href="#">View Season</a>	<a href="#">CSV</a>	<a href="#">Download</a>
2020/2021	1,000,105m	<a href="#">View Season</a>	<a href="#">CSV</a>	<a href="#">Download</a>

Note: Seasons run from May 1 through to April 30.

## Catchup Meters

Catchup meters are for when you are starting your Logbook or if you are returning to it after an absence. You can either

LIFETIME METERS	TOTAL TIME
430	124,852
WORKOUTS	CALORIES

## Meters By Season



# How to use Power Query in Excel to make refreshable reports

## 1 | Find your data

XLS or CSV formats

## 2 | Download it into a folder

Consistent naming convention

## 3 | Use Power Query for data prep and cleaning

Append files into a single table

## 4 | Make a report in Excel

Validate that formulas reference refreshable ranges

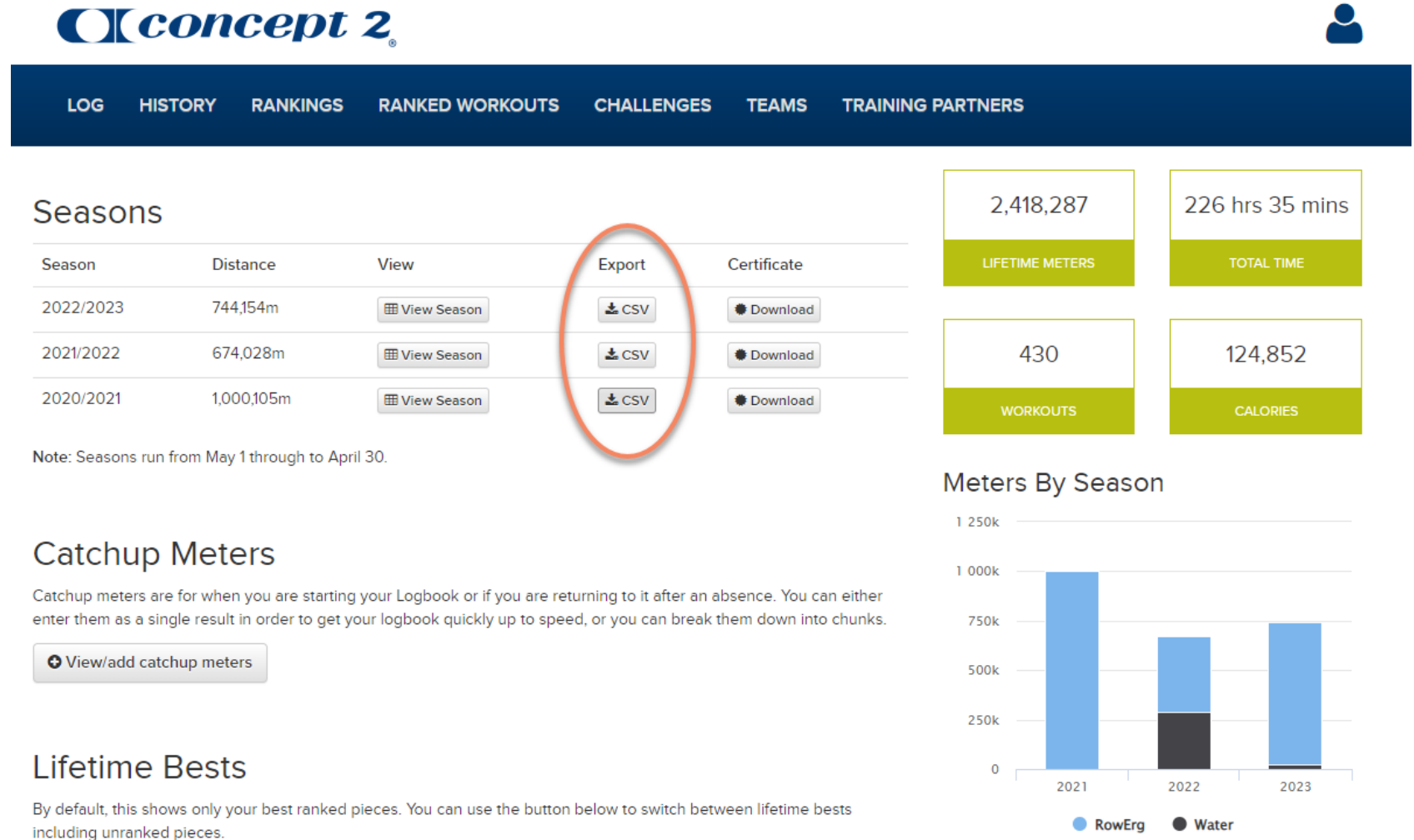
## 5 | Refresh your data as necessary

Ad hoc or scheduled downloads into your source folder

# 1. Find your data

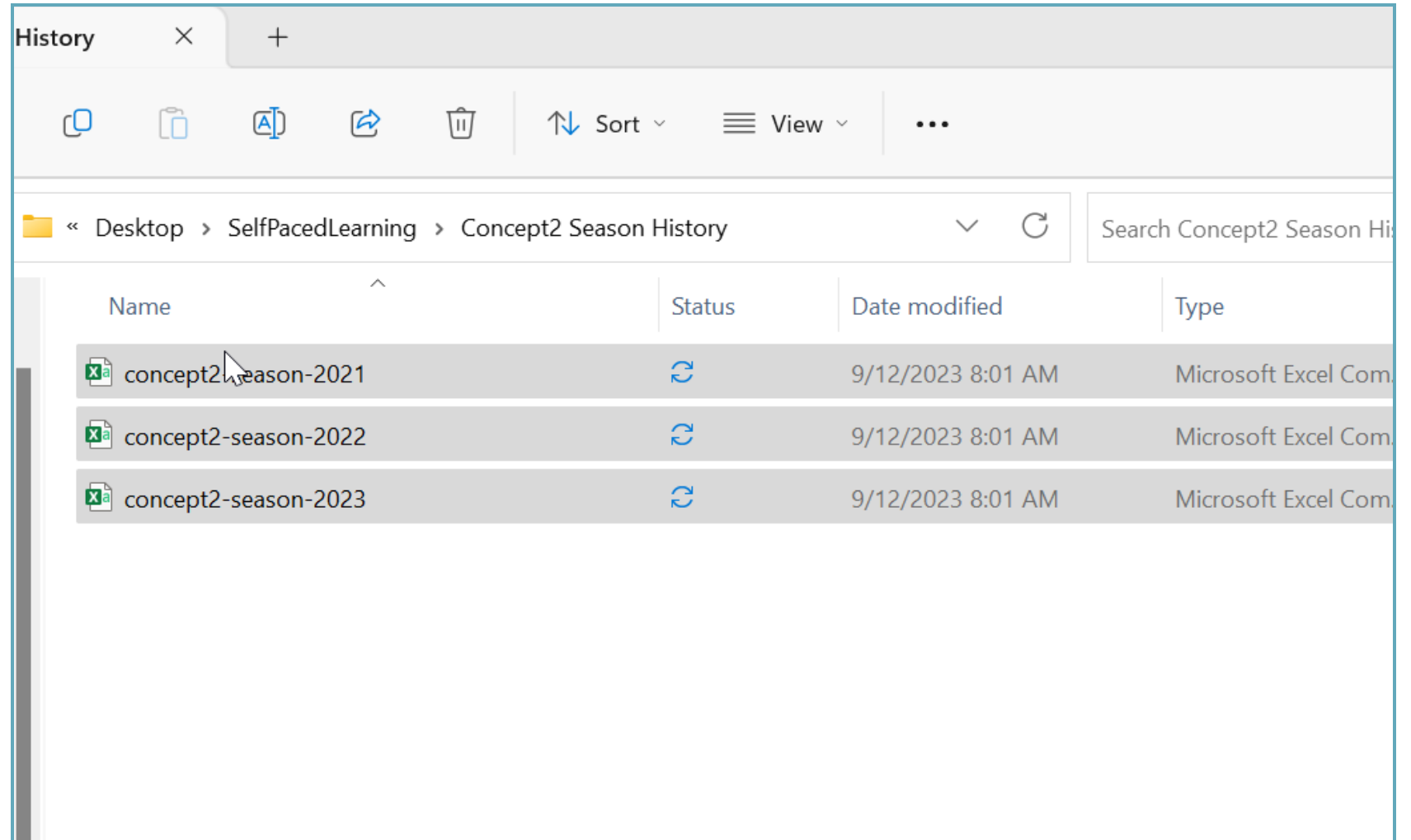
Lots of websites and apps produce predefined reports that don't quite meet all your needs.

If you can extract data into consistently formatted XLS or CSV files you can use power query to append data together for timeseries or benchmarking analysis.



## 2. Download your data into a folder

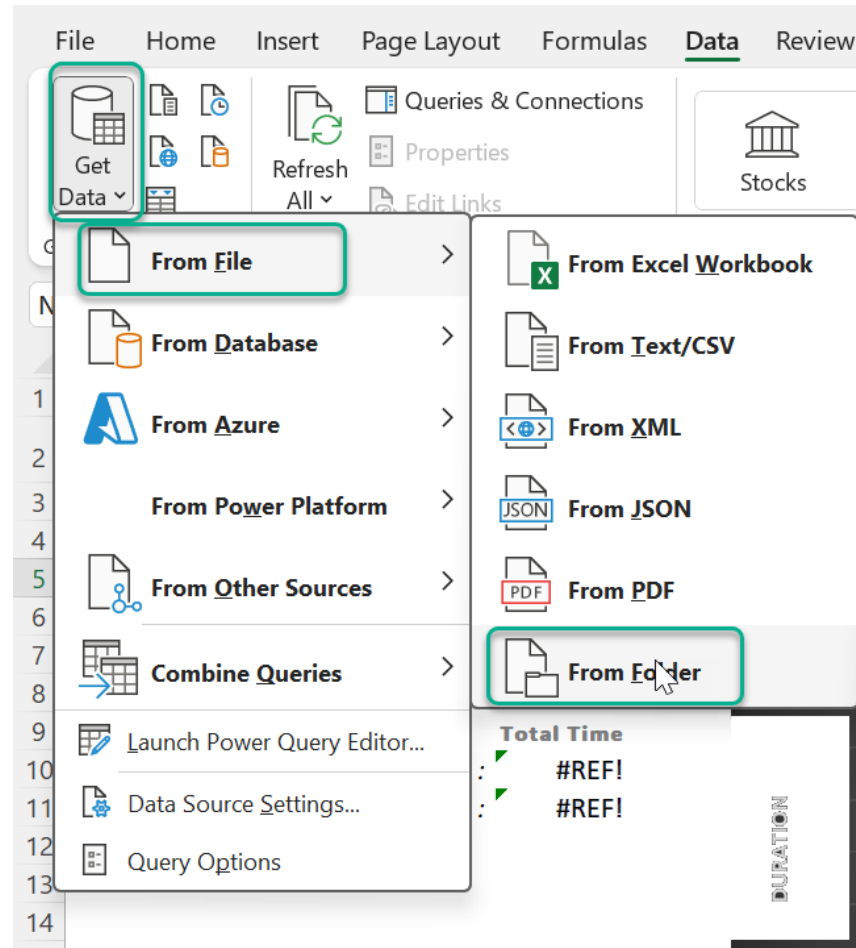
- Use a consistent naming convention for your files
  - Include the date of extract or descriptive information to help tell them apart at a glance
- Put them into a dedicated folder
  - Dropbox, OneDrive, GoogleDrive or your desktop are all fine
- Manage the access permissions to this folder carefully



# 3a. Use Power Query for Data Prep

Append your files into a single table

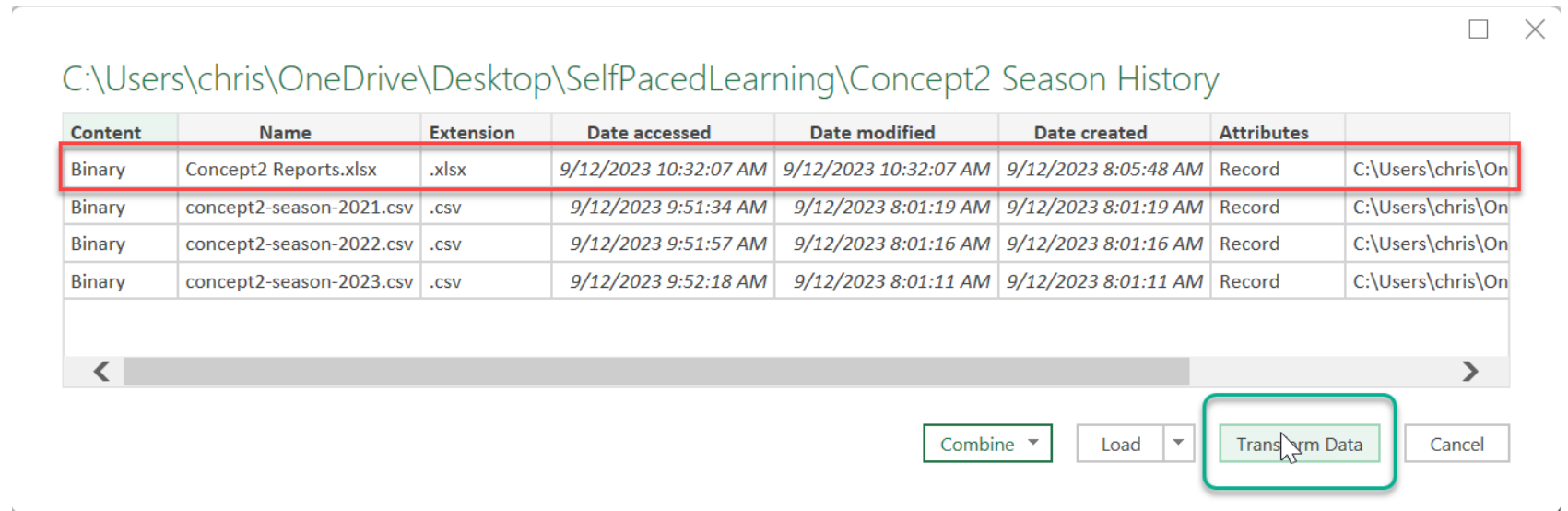
From the Data menu, select  
Get Data>From File>From  
Folder



## 3b. Use Power Query for Data Prep

Append your files into a single table

Select Transform Data (don't skip to combine)



C:\Users\chris\OneDrive\Desktop\SelfPacedLearning\Concept2 Season History

Content	Name	Extension	Date accessed	Date modified	Date created	Attributes	
Binary	Concept2 Reports.xlsx	.xlsx	9/12/2023 10:32:07 AM	9/12/2023 10:32:07 AM	9/12/2023 8:05:48 AM	Record	C:\Users\chris\On
Binary	concept2-season-2021.csv	.csv	9/12/2023 9:51:34 AM	9/12/2023 8:01:19 AM	9/12/2023 8:01:19 AM	Record	C:\Users\chris\On
Binary	concept2-season-2022.csv	.csv	9/12/2023 9:51:57 AM	9/12/2023 8:01:16 AM	9/12/2023 8:01:16 AM	Record	C:\Users\chris\On
Binary	concept2-season-2023.csv	.csv	9/12/2023 9:52:18 AM	9/12/2023 8:01:11 AM	9/12/2023 8:01:11 AM	Record	C:\Users\chris\On

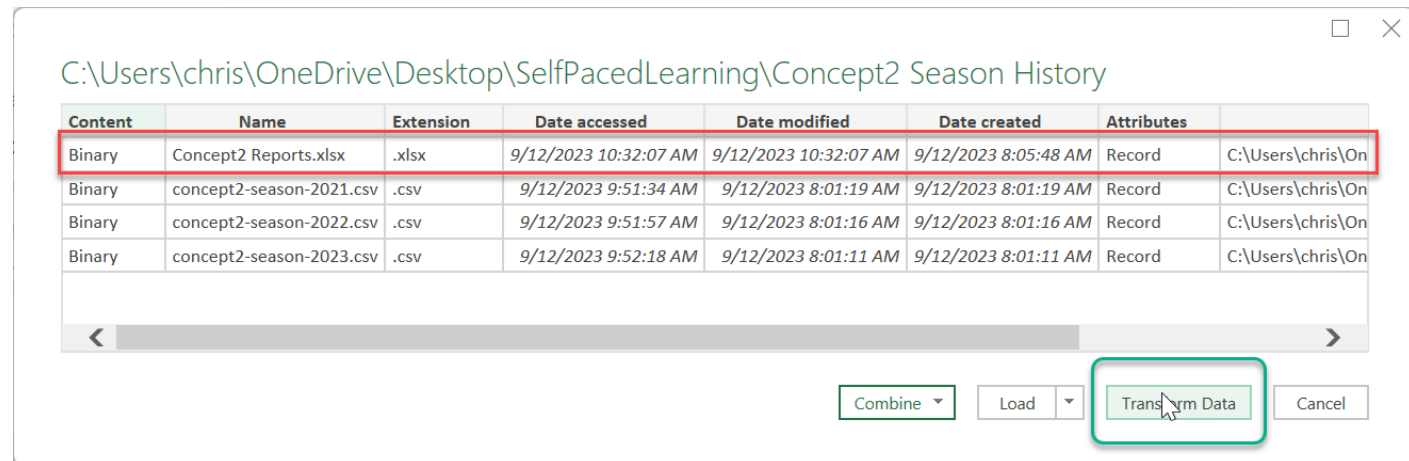
< >

Combine Load Transform Data Cancel

## 3c. Use Power Query for Data Prep

Filter the file names you want to include

- in this case I used a text filter for "concept2-season" which removes the Concept2 Report file



# 3d. Use Power Query for Data Prep

1. Expand the files to be appended by clicking the double down arrows on Content, then click OK
2. Check the date field to see that all years have been successful appended together
3. Do any data types changes, column reordering and data transformation you need for your Excel report on the combine dataset

The screenshot displays the Microsoft Power Query Editor interface. At the top, the formula bar shows the query definition: `= Table.SelectRows(Source, each ([Name] <> "Concept2 Reports.xlsx"))`. Below this, a table with columns 'Content', 'Name', 'Extension', 'Date accessed', and 'Date modified' is shown. A green box highlights the 'Content' column, and a green arrow points to the double down arrow icon next to it, indicating the expansion step.

The main workspace shows a table with columns 'Source.Name', 'Log ID', 'Date', 'Description', and 'Work Time (Formatted)'. The formula bar for this table is: `= Table.TransformColumnTypes("#Expanded Table Column1",{{"Source.Name", type text}, {"Log ID",`. The table contains 12 rows of data, including file names like 'concept2-season-2021.csv' and their corresponding log IDs and dates.

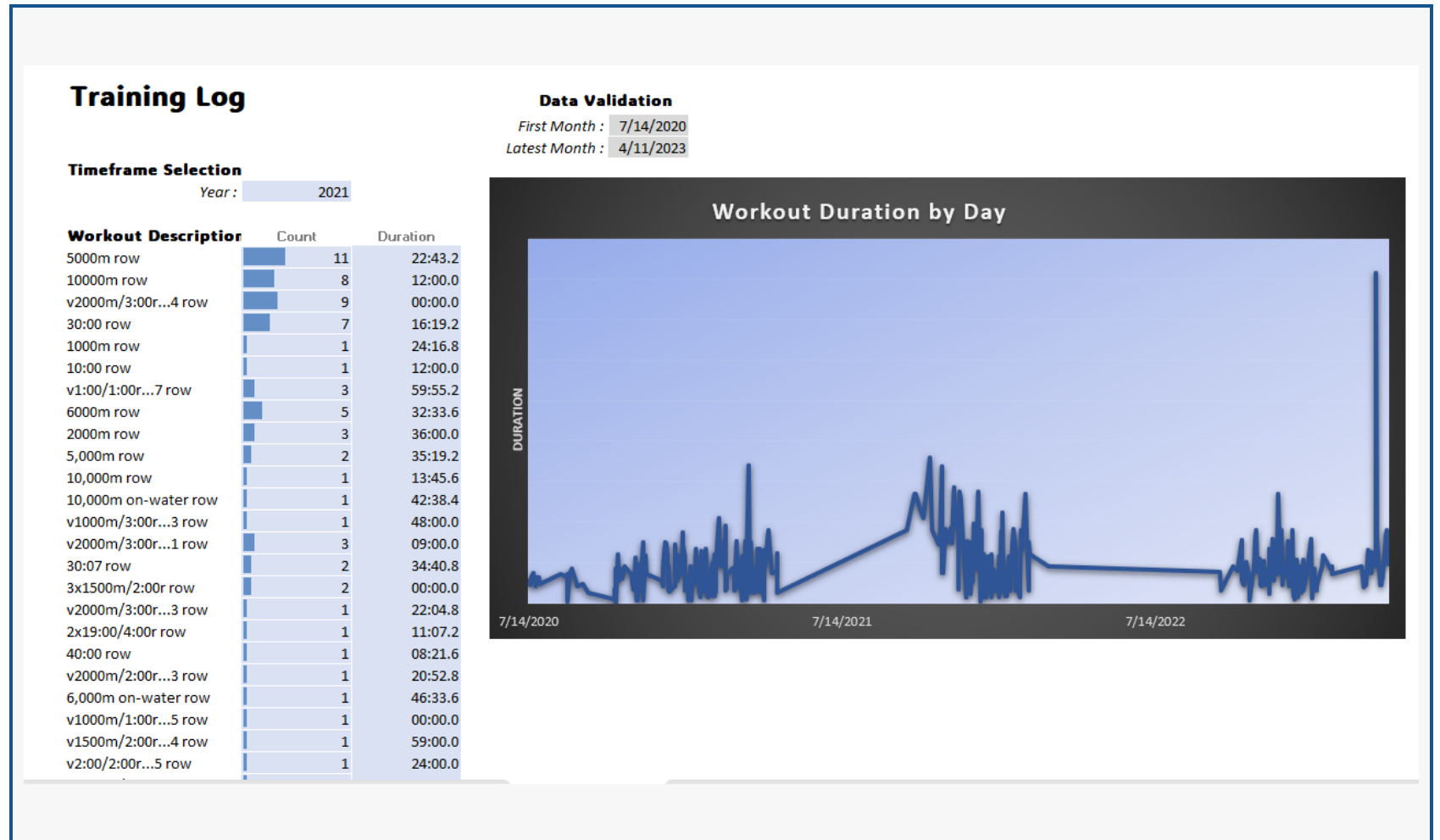
On the right side, the 'Query Settings' pane is open, showing the 'PROPERTIES' section with the query name 'Concept2 Season History (2)' and the 'APPLIED STEPS' section, which lists the transformations applied to the data, including 'Expanded Table Column1' and 'Changed Type'.



# 4. Make a report in Excel

Validate that formulas reference refreshable ranges

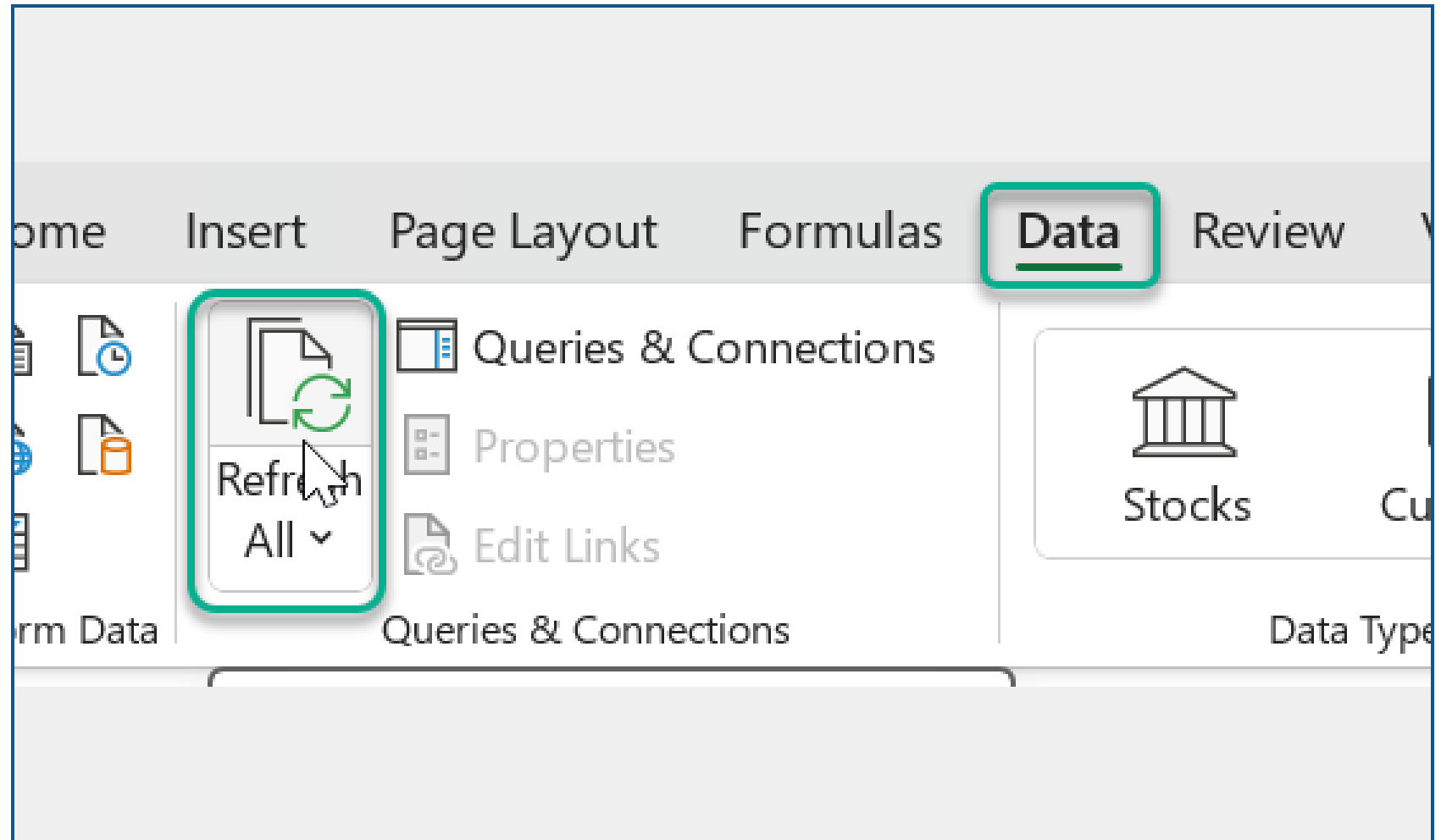
1. Include a data validation field to ensure full data set range is being used in calculations
  - Record count
  - Max Date
2. Format for end users
  - Hide raw data sheet if desired
  - Password Protect sheet if desired
  - Hide formula bar and gridlines in report view if desired



## 5. Refresh your data as necessary

If you design the report or pivot table properly all your user needs to do is hit refresh!

1. Ensure the data folder is shared with the right audience
2. Add files to the folder when incremental data becomes available
3. Teach users to check the validation date field and refresh all regularly





Applied common sense for pricing and analytics

 [CarrageeConsulting.com](https://CarrageeConsulting.com)