

White Paper

Dynamic Data

Dynamic Data – why?

Besides static fund data, which is suitable for submission of current fund information, there is also the need to process another type of data, so-called “dynamic data”. The main characteristic of dynamic data is the ability to store and transmit periodically changing or historical values. Application scenarios for dynamic data are not only fund prices, but also MiFID ex-post cost data or other information requiring time periods.

Dynamic Data – different code category “OFDY000XXX”

The most significant characteristic of dynamic data is the relation of each value to a specific date or a specific period. Due to this concept, which is different to static data, openfunds has introduced a new code category, starting with “OFDY”. The concept of dynamic data covers two subsets, the “as of” data and the “period” data. Only the combination of “Value” and “Date” clearly defines a data set in the historical context. For “as of” data, each value is linked to a “Reference Date”, whereas each value of a time period is connected to a “Period Start Date” and “Period End Date”

“As of” vs. “period” data

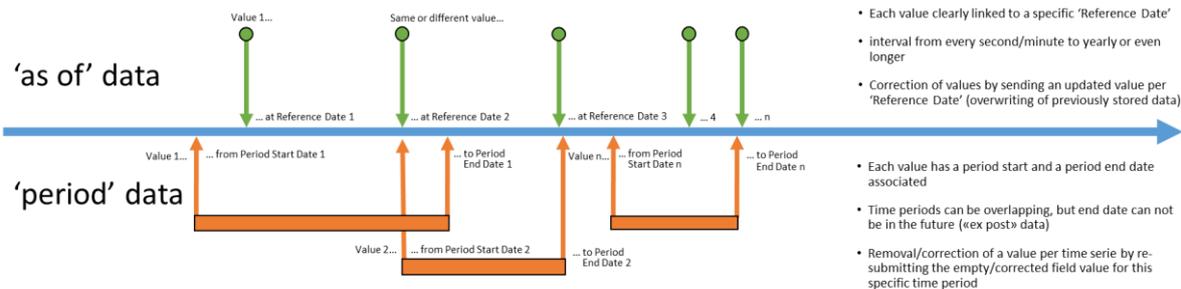
“As of” data

Typical data fields of this category are dynamic data values such as Net Asset Values (“NAV”), Asset under Management, Total Shares Outstanding and Dividends etc. A mandatory relation between the actual value and the corresponding date (“Reference Date”) defines all these data fields. To correct values or to provide deletion instructions, openfunds recommends resubmission of the data field with the corrected/empty value and its corresponding date.

“Period” data

Data fields of this type do have a precise period they are valid for. Typical examples are ex-post cost-related data fields (e.g. required by MiFID II). These fields do not use one “Reference Date”, but do have two corresponding date fields, the period start- and end-dates. Please note that generally all period start and end dates of dynamic data, e.g. ex-post data, are in the past.

In theory, “period” data could consist of overlapping or not adjacent periods; nevertheless, in practise most data fields will use the time line to have adjacent sequences. In case of corrections or deletions, resubmission of the corresponding time period with corrected/empty value is recommended.



“OFDY100000 General Reference Date” – lean approach for “as of” data

As a fundamental condition, each “as of” data field is linked to a corresponding “Reference Date”, defining when the corresponding value applies (see following table for some examples).

Dynamic Data Field Name (and OFID)	Corresponding Date Field Name (and OFID)
Valuation NAV (OFDY000035)	Valuation NAV Date (OFDY000036)
Dividend Gross (OFDY005020)	Dividend Ex Date (OFDY005010)
Split Ratio (OFDY005062)	Split Reference Date (OFDY005060)

In a regular dynamic data submission, several data fields usually refer to the same “Reference Date”. In the proper meaning of this concept, each data point could be submitted with its corresponding date. Given the fact that this results in redundancy, openfunds has introduced the “OFDY100000 General Reference Date”. It replaces the “Reference Date” information of each data point. Therefore, please keep in mind to use the “General Reference Date” with great care when providing both: “General Reference Date” and the specific “Reference Date” of some fields.

It is possible to mix the “OFDY100000 General Reference Date” and specific Reference Dates. If both dates are used in a submission, the specific date overrules the “OFDY100000 General Reference Date” wherever it is applied (see the following table for an example).

OFDY100000	OFST020000	OFST020540	OFDY000035	OFDY000070	OFDY005010	OFDY005020
General Reference Date	ISIN	Share Class Currency	Valuation NAV	AuM Share Class	Dividend Ex Date	Dividend Gross
2017-01-01	CH0008899764	CHF	14.23	34000	2017-01-12	0.23

This example shows a use case, which is common practice. Here, the “OFDY100000 General Reference Date” is used as a reference for all values except for the dividend information, because dividends usually do not apply every day and information is often submitted in advance of the “OFDY005010 Dividend Ex Date”). As you may note, the fields “OFDY000036 Valuation NAV Date” and “OFDY000071 AuM Share Class Date” do not need to be provided as the “OFDY100000 General Reference Date” indicates the required reference date.

Due to the complexity of “period” data, the “OFDY100000 General Reference Date” does NOT apply for any data field requiring period start and period end date. All those data fields have to be accompanied by their specific OFDY-fields for period start and period end date information.

Level reference – Fund level vs. Share Class level

Similar to the openfunds static data field range (OFST...), dynamic data can refer to different levels of a fund (fund-, share class- or listing field level). The majority of the dynamic data fields defined by openfunds are on share class level (mostly prices, but also MiFID ex-post cost data) and require the submission of the corresponding “OFST020000 ISIN”. For certain price data fields on fund level (e.g. “OFDY000060 AuM Fund”), additional static data fields are mandatory (e.g. “OFST010410 Fund Currency”).

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Similar to static data, values of fund level fields must be consistent for all share classes within the same fund or sub fund.

Currency related dynamic data

Certain dynamic data points on fund and share class levels are not only linked to a “Reference Date” or a “Time Period”, but are also directly linked to currency information. Similar to the concept of using a “General Reference Date” to avoid unnecessary redundancies, the data fields “OFST020540 Share Class Currency” and “OFST010410 Fund Currency” are used once per line but apply for all currency related values in this line.

In case there is the need to submit additional, currency converted data, openfunds offers the option to apply a suffix to the openfunds field identifier which specifies the currency in which the value is expressed. The suffix consists of an underline (“_”) and the currency code (ISO 4217) (see sample below).

OFDY100000	OFST020000	OFST020540	OFDY000035	OFDY000070	OFDY000035_EUR	OFDY000070_EUR
General Reference Date	ISIN	Share Class Currency	Valuation NAV	AuM Share Class	Valuation NAV in EUR	AuM Share Class in EUR
2017-01-01	CH0008899764	CHF	14.23	34000	12.45	29740.00

Template samples for ‘as of’ data and ‘period’ data

To download an Excel template for ‘as of’ data please click [here](#).

To download an Excel template for ‘period’ data please click [here](#).

These templates are just for illustration purpose as one can combine these two files to one single file.

Empty field means: “delete”

For transmission of dynamic data, the same concept as for all openfunds transmissions apply: Empty fields means “delete”. For more information, please read the white paper [“The Ambiguity of Empty Fields”](#).

Joining openfunds

If your firm has a need to reliably send or receive fund data, you are more than welcome to use the openfunds fields and definitions free-of-charge. Interested parties can contact the openfunds association by sending an email to: businessoffice@openfunds.org

openfunds.org

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