

Bracket calibration

Cal sets around samples, per-bracket curves.

Bracketing splits the sequence by acquisition time. Each **cal set** gets its own curve. Each **stretch of samples** is read from the cal set before it and the cal set after it.

Bracketing □ a curve for each stretch of the sequence

Ordered by acquisition time. A cal block uses itself. A sample block uses the cal set before it and the cal set after it.

Cal set A

C1

C2

C3

C4

Samples 1

UNK-01

UNK-02

QC-01

Cal set B

C1

C2

C3

C4

Samples 2

UNK-03

UNK-04

BLK

1

Samples 1 use Cal A + Cal B

2

Cal set A and Cal set B each also get their own curve (the cal bottles themselves).

Method Calibration mode = Bracketing. Same multi-level doses as initial calibration. Works with ESTD or ISTD.

A leading or trailing sample block with only one neighboring cal set uses that set alone.

Cal set A, samples, cal set B, more samples

When to use it

- Long sequences where the instrument drifts.
- You already run opening and closing multi-level sets (and maybe mid-sequence sets).
- You want a bad cal in set B to stay off set A.

Method **Calibration mode** = **Bracketing**. Levels and ISTD links are the same as [ESTD](#) or [ISTD](#).

How Quanto cuts the sequence

Samples are ordered by **Acquired**. Contiguous calibration bottles form a cal set. Everything else (Sample, QC, Blank) forms a sample block.

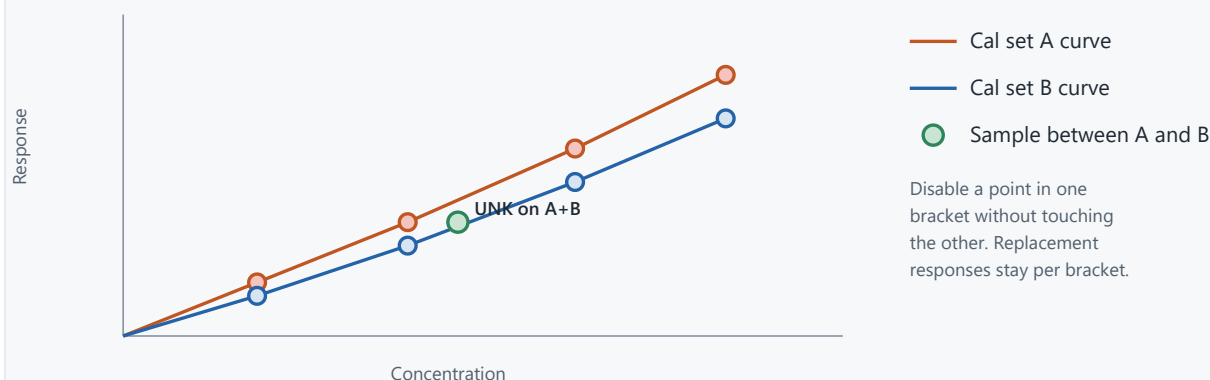
Block	Curve points
Cal set	That set only
Sample block	Immediately preceding cal set and immediately following cal set
Leading samples (no cal yet)	The first cal set only
Trailing samples (no cal after)	The last cal set only

QC and blanks ride with the sample block they sit in. They do not start a new bracket.

Independent fits

Each bracket keeps its own fit

Instrument drift moves Cal B off Cal A. Samples between the two sets share both point clouds.



Two slightly different curves from cal set A and cal set B

Each bracket stores:

- Its own **Use** flags
- Its own replacement responses
- Its own coefficients, R^2 , and residuals

Turn a point off in bracket 2 and bracket 1 is unchanged. The calibration plot for a sample shows the points of **that** sample's bracket.

Set it up

1. Build the method as ESTD or ISTD, multi-level.
2. Set **Calibration mode** to **Bracketing**.
3. Add the sequence in run order (or trust **Acquired**).
4. Mark every standard Type **Calibration** and Dose C1...Cn. Repeat the same dose names in every cal set.
5. **Analyze**.

If a sample block has no neighboring calibrations at all, that block is not quantitated.

What bracketing does not do

- It does **not** reuse responses saved in the method. Only live batch calibrations are fitted. Partial method update is an **initial-calibration** feature.
- It does not average two curves into one. A sample between A and B is fitted on the **combined** A+B point cloud as one bracket.

Open the result's calibration rows to see which files belong to the current bracket.