CityGML 3.0 WP-06

Time Series in WaterML

Two Styles = Two Legacies

- Lists of Time-Value Pairs
  - $Time_1$ – $Value_1$
  - $Time_2$ – $Value_2$
  - $Time_3$ – $Value_3$
  - …
  - $Time_n$ – $Value_n$
- Domain – Range Lists
  - $Time_1$ $Time_2$ $Time_3$ … $Time_n$
  - $Value_1$ $Value_2$ $Value_3$ … $Value_n$

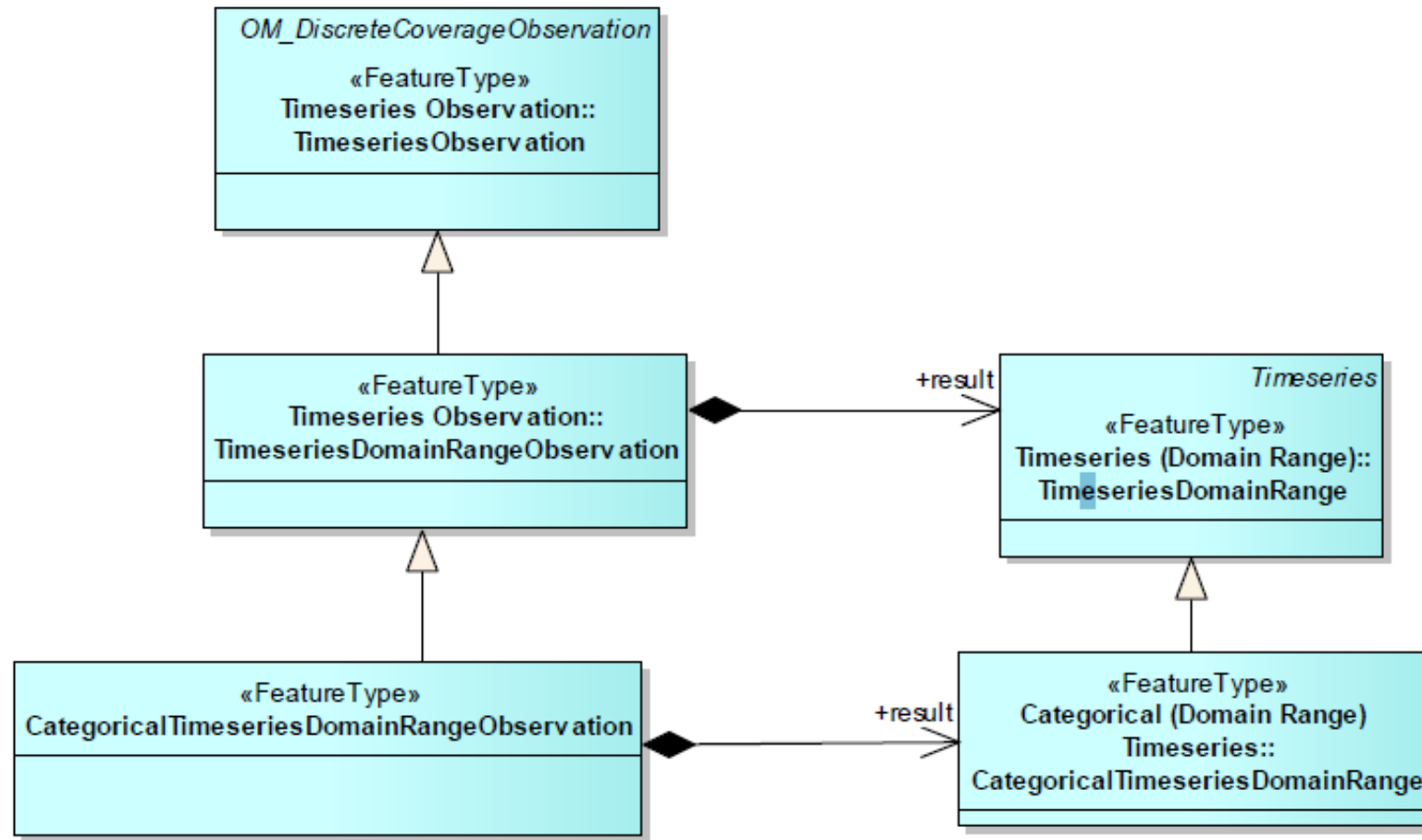- ISO 19156 – Observations and Measurements

Domain Range

Figure 12 - categorical timeseries (domain range) observation
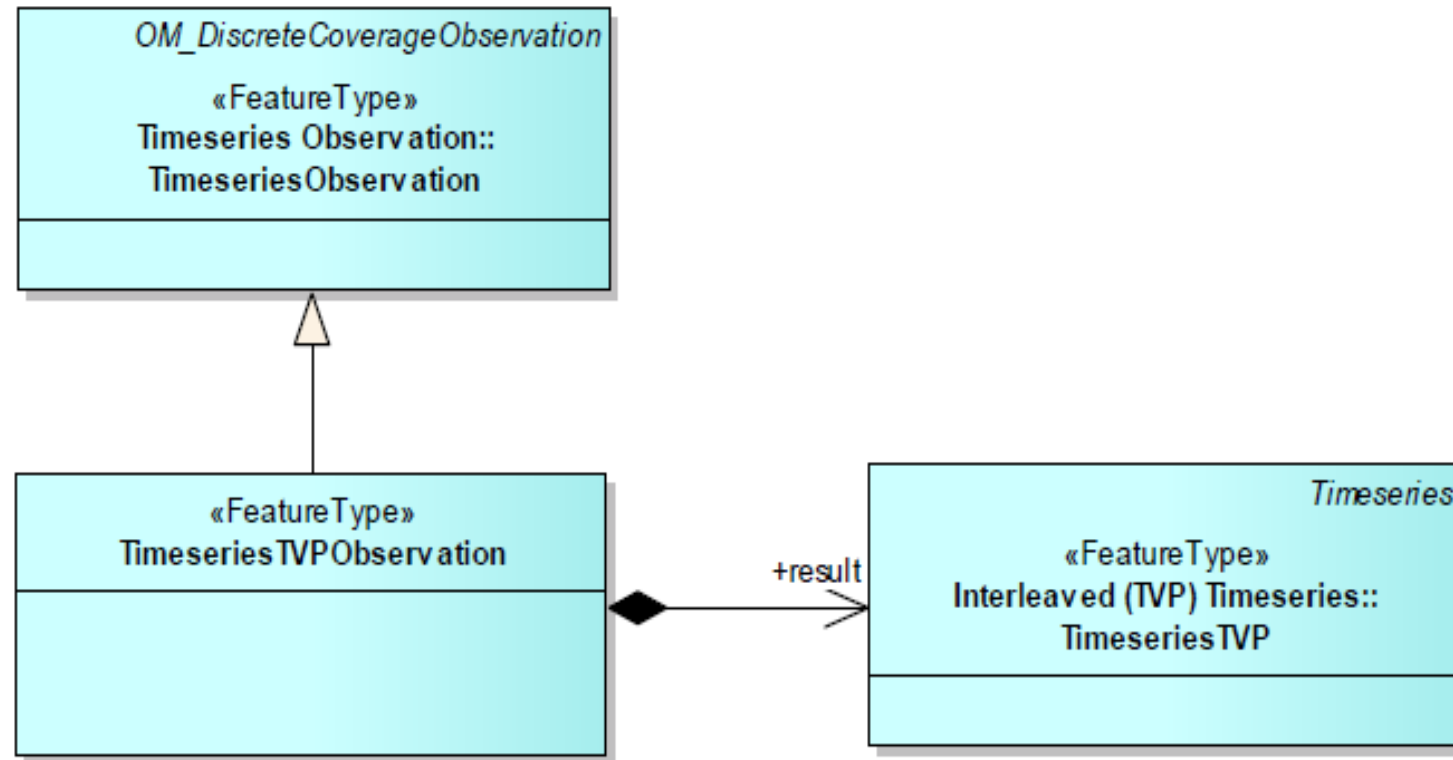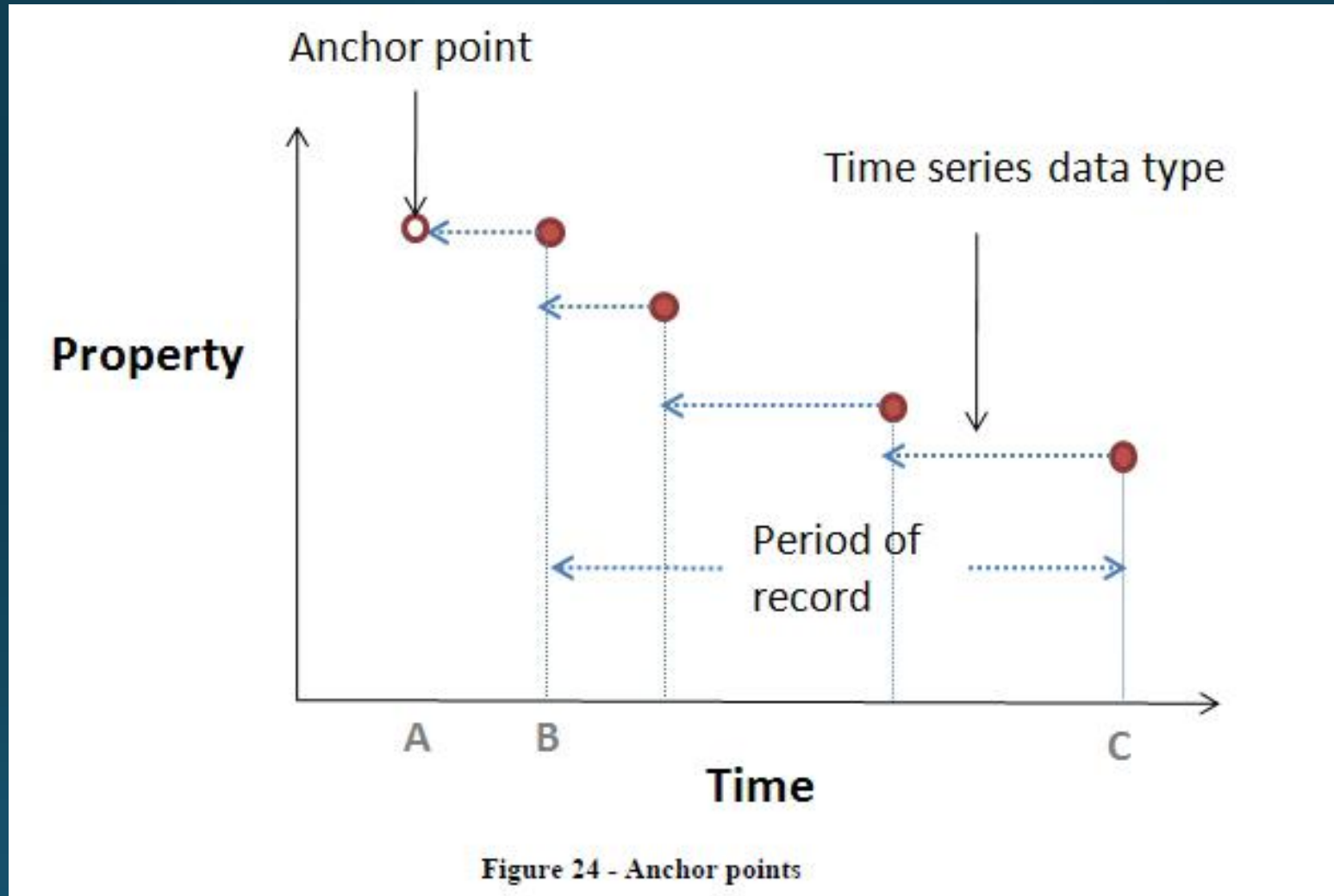
Time-Value Pair (TVP)

Figure 13 - Timeseries (TVP) Observation

Anchor Points

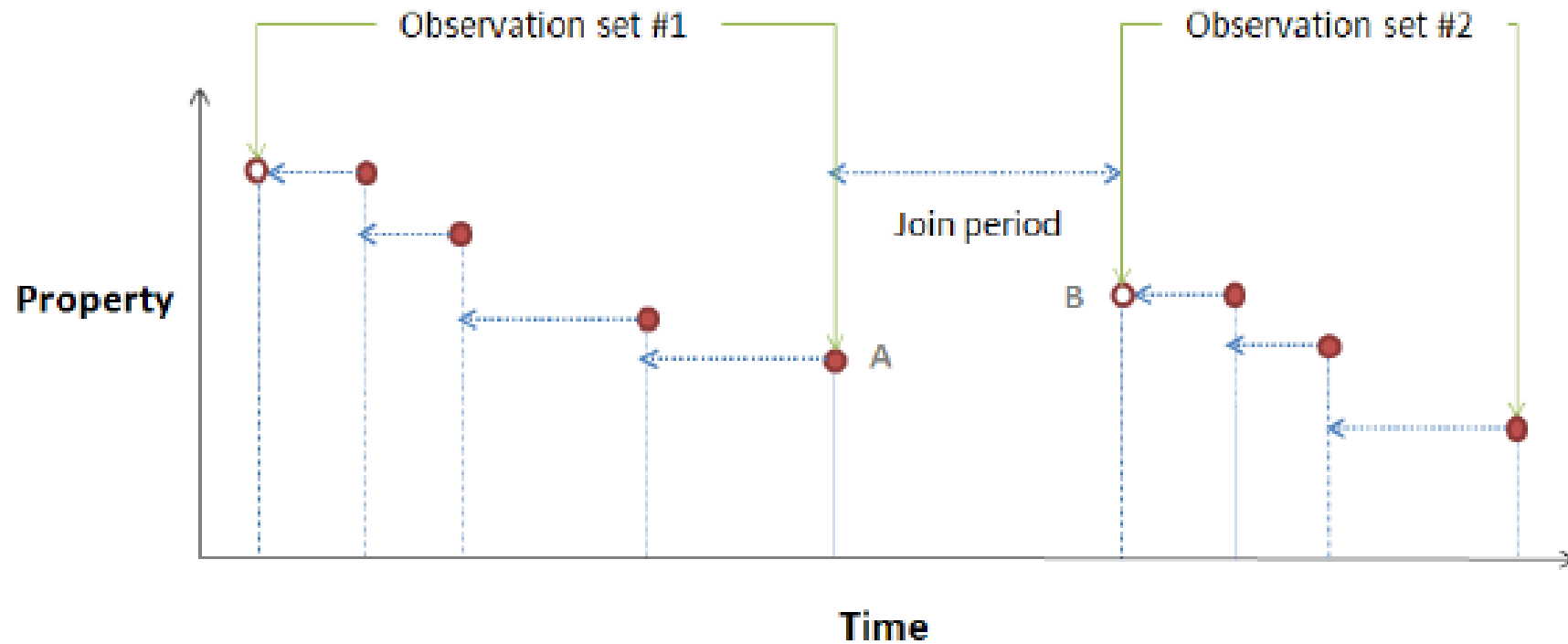Figure 24 - Anchor points

Disjoint Time Series of Same Property

Figure 25 - Connecting two time series

Cumulative Time Series

Accumulation interval
Length (24 hours)

Rainfall

21st, 9:00AM   22nd, 9:00AM   Time
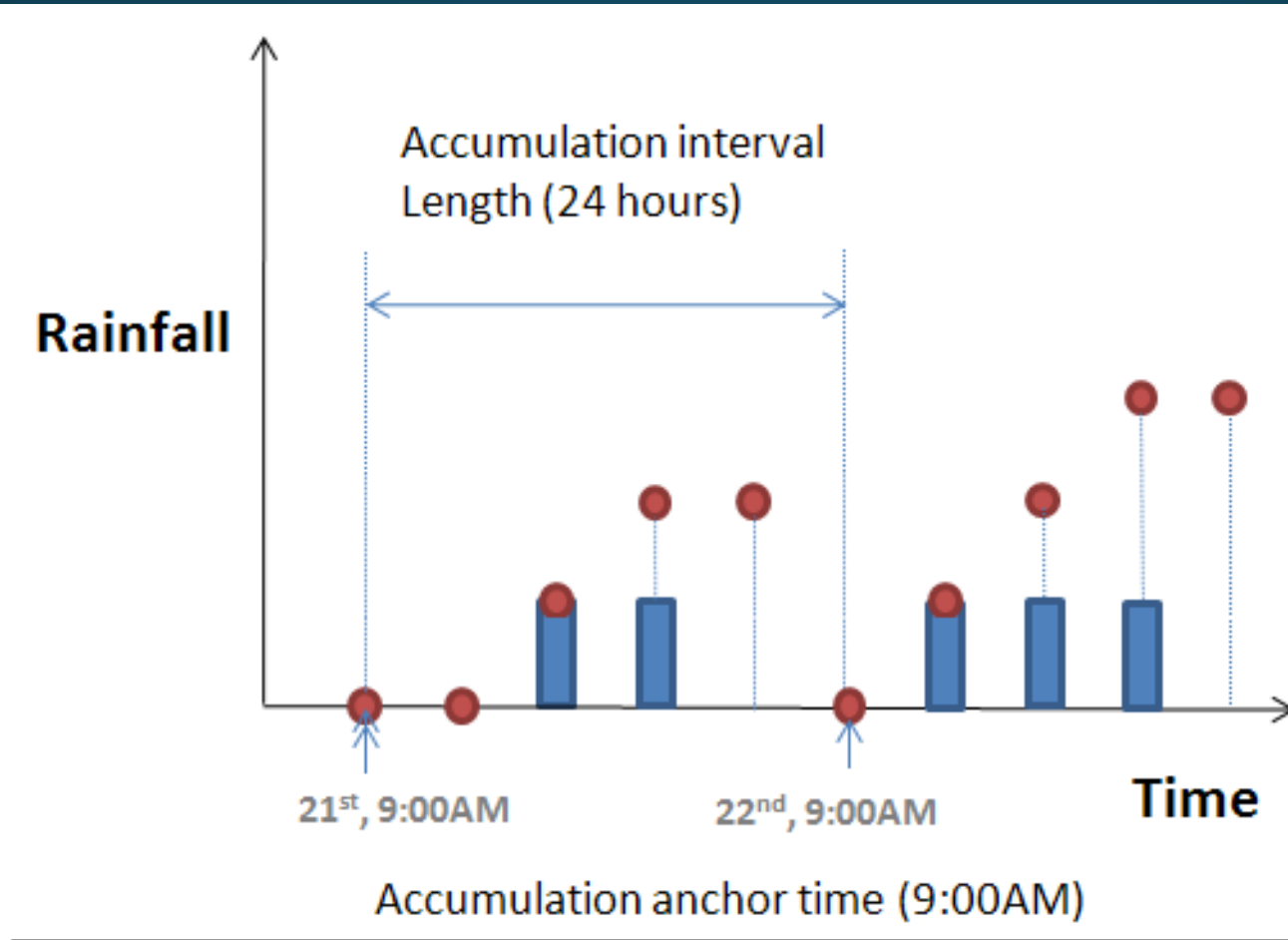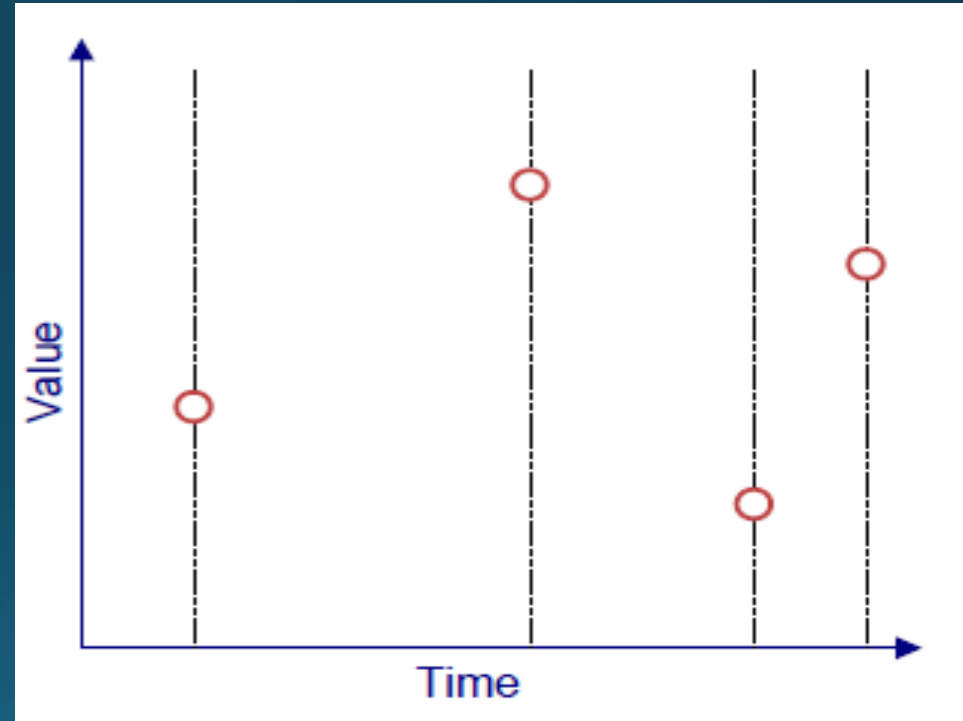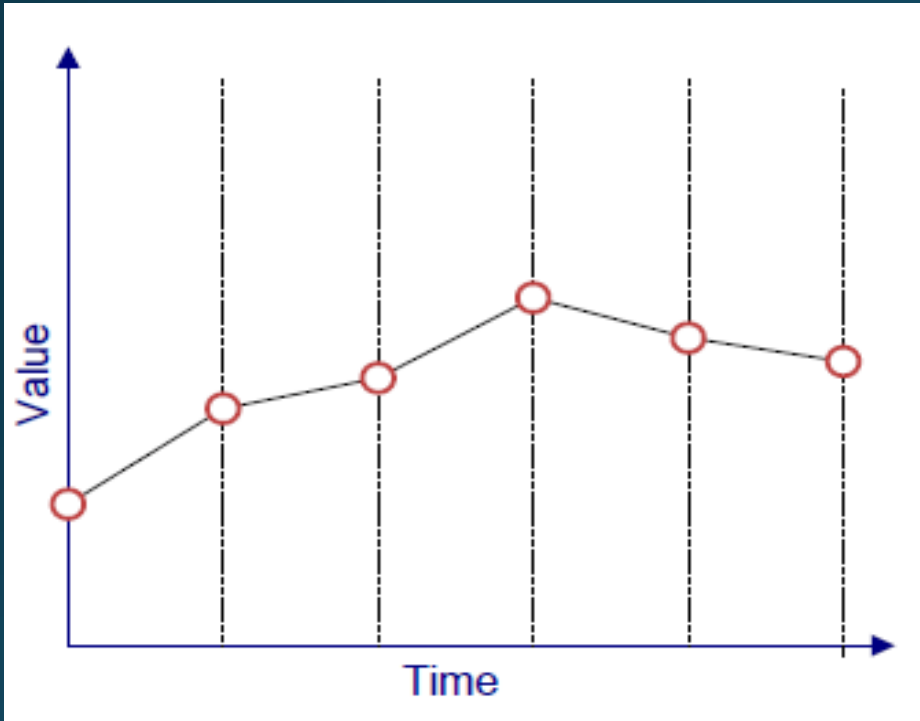
Accumulation anchor time (9:00AM)

Figure 27 - Example accumulated series

Continuity in Time Series

Interesting But Slightly Off-Topic

- **phenomenonTime** – when it happened in the world

- **resultTime** – when sensed or computed measurement value is available

- **validTime** – *when the observation should be used*