Spot Websocket API v2 ■ Market Data ■ Book (Level 2)

Book (Level 2)

CHANNEL `wss://ws.kraken.com/v2` `book`

The `book` channel streams level 2 (L2) order book. It describes the individual price levels in the book with aggregated order quantities at each level.

Subscriptions to this channel can be made for multiple symbols at once by specifying a list of pairs in the `symbol`.

For more detail on maintaining the order book and generating a checksum, see guide.

Subscribe Request

`Subscribe Schema` `Subscribe Ack Schema` `Example: Subscribe` `Example: Subscribe Ack`

MESSAGE BODY

method string — REQUIRED

Value: `subscribe`

params object

- **channel** string — REQUIRED

  Value: `book`

- **symbol** array of strings — REQUIRED

  Example: ["BTC/USD", "MATIC/GBP"]

  A list of currency pairs.

- **depth** integer

  Possible values: [`10`, `25`, `100`, `500`, `1000`]
  Default value: `10`

  The number of price levels to be received.

- **snapshot** boolean

  Possible values: [`true`, `false`]
  Default value: `true`

Request a snapshot after subscribing.

- **`req_id`** integer

  Optional client originated request identifier sent as acknowledgment in the response.

Snapshot Response

`Snapshot Schema` `Example`

The returned snapshot data contains the specified number of bids and asks for the symbol including a CRC32 checksum of the top 10 bids and asks.

MESSAGE BODY

- **`channel`** string

  Value: `book`

- **`type`** string

  Value: `snapshot`

- **`data`** array [
  - `[0] book` object

    The book element is always the first and only item in the data payload.

    - **`asks`** array [
      - `[many] level` object
        - **`price`** float

          The ask price.

        - **`qty`** float

          The ask quantity.

      ]
    - **`bids`** array [
      - `[many] level` object
        - **`price`** float

          The bid price.

- **qty** float

  The bid quantity.

  ]

- **checksum** integer

  CRC32 checksum for the top 10 bids and asks.

- **symbol** string

  Example: "BTC/USD"

  The symbol of the currency pair.

]

Update Response

The data contains the updates of the bids and asks for the relevant symbol including a CRC32 checksum of the top 10 bids and asks.

Note, it is possible to have multiple updates to the same price level in a single update message. Updates should always be processed in sequence.

`Update Schema` `Example`

MESSAGE BODY

- **channel** string

  Value: `book`

- **type** string

  Value: `update`

- **data** array [
  - `[0] book` object

    The book element is always the first and only item in the data payload.

    - **asks** array [
      - `[many] level` object
        - **price** float

          The ask price.

- **qty** float

  The ask quantity.

]

- **bids** array [
  - [many] level object
    - **price** float

      The bid price.

    - **qty** float

      The bid quantity.

  ]

- **checksum** integer

  CRC32 checksum for the top 10 bids and asks.

- **symbol** string

  Example: "BTC/USD"

  The symbol of the currency pair.

- **timestamp** string

  Format: RFC3339

  Example: 2022-12-25T09:30:59.123456Z

  The book order update timestamp.

]

Unsubscribe Request

Unsubscribe Schema   Unsubscribe Ack Schema   Example: Unsubscribe   Example: Unsubscribe Ack

MESSAGE BODY

- **method** string — REQUIRED

  Value: unsubscribe

- **params** object
  - **channel** string — REQUIRED

Value: `book`

- `symbol` array of strings **REQUIRED**

  Example: ["BTC/USD", "MATIC/GBP"]

  A list of currency pairs.

- `depth` integer

  Possible values: [`10`, `25`, `100`, `500`, `1000`]

  The number of price levels to be unsubscribed.

`req_id` integer

Optional client originated request identifier sent as acknowledgment in the response.