



EPEX SPOT Info – 26 February 2025

MATS February Update #4 SIMU release planned on 27 February

Important information – Action required

- **Next SIMU release planned for 27 February, first Auction date:**
 - MATS planned on 27 February 2025 as of 09:00 CET until 12:00 CET
 - HU-SIDIDA3 will not be run
- **MATS API & Web client – New features**
 - Market result report (CSV)
- **MATS API – Breaking changes**
 - Result status
 - Trade report – Change in API response content
 - New field “submittedVolume” in Retrieve Block Order results
- **MATS PUSH – New features**
 - Auction session event
 - Additional subscription filter for order event
- **MATS Web client – New features**
 - Result status
 - Sum row for Linear orders
- **Issues and improvements**
 - More details in the documentation
- **MATS documentation update**
- **Member readiness form**

Dear EPEX SPOT customer,

We are pleased to announce the **next release in MATS SIMU environment from 27 February**. In order for our trading participants to prepare for this change, we have prepared comprehensive documentation with all necessary key information.

Our Expert team remains available should you have any questions related to MATS and the SIMU environment, mats-support@epexspot.com.

Kind regards,

The EPEX SPOT Team



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1. SIMU Release

Next MATS SIMU release will be deployed on 27 February 2025 between 9am and 12pm CET in MATS SIMU environment. Morning auction (HU-SIDIDA3) will not be run.

1.1 MATS API & Web Client – New features

1.1.1 Market result report (CSV)

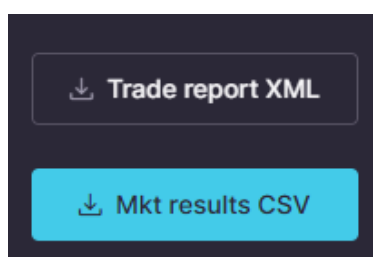
Following the publication of results, users will be able to retrieve market result report (csv). API users will have a dedicated endpoint to retrieve the Market Result file:

Accessible by Resource	TRADER
	auction-sessions/{auctionSessionId}/market-result-report
HTTP method	GET
(Optional) query parameter	participant={participantShortName} - Per default, this is an optional query parameter - The query parameter is mandatory only if the corresponding user has active read or write permissions on third party portfolio(s); otherwise optional
{auctionSessionId}	Technical id of the auction session
{participantShortName}	Short name of the participant related to the portfolios

Hereunder, provided an example of the JSON API Response:

```
{
  "_data": {
    "fileName": "20250201110000_MarketResult_MEMBER_AUCTION_PWR-MRC-D+1.csv",
    "fileContent": "EEsDBBQABgAIAABBIQDXuUAi3AEAAM00AAATAAgCW0Nvbn"
  }
}
```

Web Client users will have a new button on the Indexes / My results screens (see below).





For more details on the structure of the Market result file and comparison to existing ETS file, please consult MATS Fundamentals and MATS & ETS – Changes overview documents, respectively.

1.2 MATS API – New features

1.2.1 Client Order ID

The new field “**clientOrderId**” available in below API end points will allow the API customers map client and MATS internal order ids for linear orders and block orders.

For block order submission, when sending several blocks at once, customers can map/link each “**clientOrderId**” they sent with the “**orderId**” provided by MATS especially in case of family or group. Please check the *MATS REST API Client Application Design Guide* for more details.

Life cycle:

- The field “**clientOrderId**” is an optional field. Customers who do not wish to use this new field do not have to include it in the API request body when submitting linear order or block order.
- If a user sends a “**clientOrderId**” via the MATS API, then the trading system stores this information: it is provided in the response but can be retrieved later on as well.
- A user can modify the “**clientOrderId**” value during an order life cycle if required (e.g. when modifying the order, to match customers’ systems order Id logic).

This information is always included in the API response of the following requests:

- order submission/modify
- order retrieval
- order deletion

API Name	API End Point
Submit/Modify Linear Orders	api/auction-sessions/{auctionSessionId}/linear-orders
Retrieve Linear Orders	api/auction-sessions/{auctionSessionId}/linear-orders
Retrieve Linear Order	api/auction-sessions/{auctionSessionId}/linear-orders/{linearOrderId}
Delete Linear Order	api/auction-sessions/{auctionSessionId}/linear-orders/{linearOrderId}
Delete All Linear Orders	api/auction-sessions/{auctionSessionId}/linear-orders/all
Submit/Modify Block Orders	api/auction-sessions/{auctionSessionId}/block-orders
Retrieve Block Orders	api/auction-sessions/{auctionSessionId}/block-orders
Retrieve Block Order	api/auction-sessions/{auctionSessionId}/block-orders/{blockOrderId}
Delete Block Order By BlockCodePRM	api/auction-sessions/{auctionSessionId}/block-orders?block-code-prm={blockCodePRM}



Delete Block Orders	api/auction-sessions/{auctionSessionId}/block-orders/{blockOrderId}
Delete All Block Orders	api/auction-sessions/{auctionSessionId}/block-orders/all

1.2.2 Optional query parameters for participant information

An (optional) query parameter “participant” will be available for the below API end points. This query parameter is mandatory only if the user has third party portfolio permissions (i.e., trading permissions defined on different participant than the one the user belongs to) defined in the trading system.

This query parameter will allow users to retrieve order results related to all portfolios related to a participant. Data is provided based on user’s trading permissions defined in the trading system.

API Name	API End Point
Retrieve Linear Order Results	api/auction-sessions/{auctionSessionId}/linear-order-results
Retrieve Block Order Results	api/auction-sessions/{auctionSessionId}/block-order-results
Retrieve Trade Results	api/auction-sessions/{auctionSessionId}/trade-results

Please note that this additional query parameter will not impact the already developed API applications if the API user account does not have third party portfolio permissions.

1.2.3 Restriction on maximum JSON size limit

In MATS, there will be a restriction on the maximum size of JSON content which can be included in the API request body. This maximum limit is 4 MB.

If API request body exceeds 4MB, system will return an error message. Please see below list of dedicated error messages.

Order Type	Error Code	Message
Linear Order	OLSIF0053	Maximum size of the JSON cannot exceed 4 MB
Block Order	OBSIF0126	Maximum size of the JSON cannot exceed 4 MB

Please find below the list of impacted API end points with this restriction.

API Name	API End Point
Submit/Modify Linear Orders	api/auction-sessions/{auctionSessionId}/linear-orders
Submit/Modify Block Orders	api/auction-sessions/{auctionSessionId}/block-orders



1.3 MATS API – Breaking changes

1.3.1 Result status

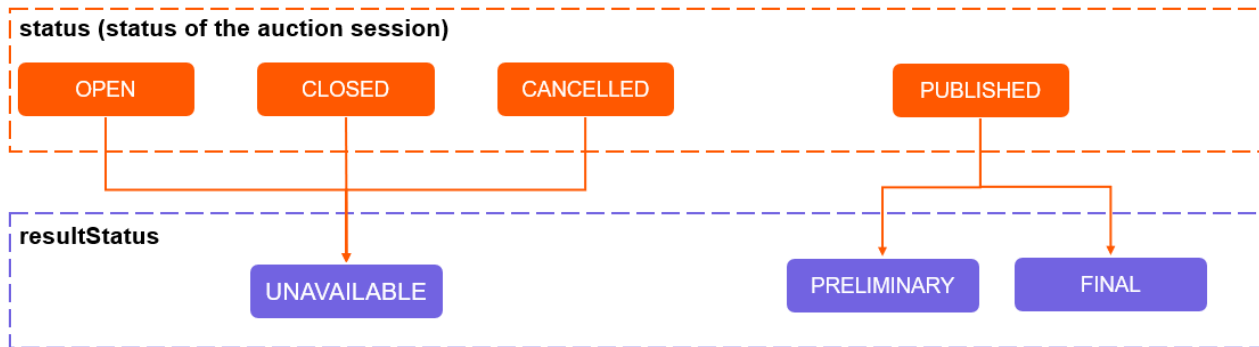
API users will be able to retrieve the “**resultStatus**” via below API end points. The new field “**resultStatus**” has possible values: **UNAVAILABLE | PRELIMINARY | FINAL**.

As this is a mandatory field included in the API response of the above listed API end points, all customers must adapt their current MATS API application to parse the JSON response with the inclusion of this new field.

API Name	API End Point
Retrieve Auction Sessions	api/auction-sessions
Retrieve Auction Session Information	api/auction-sessions/{auctionSessionId}

Please find below a short description of different possible **resultStatus** values:

- UNAVAILABLE: Results are not yet published or results are cancelled
- PRELIMINARY: Preliminary results are published
- FINAL: Final results are published



Hereunder provided an example of the API response structure with new field **"resultStatus"**.

```
{
  "_data": [
    {
      "id": 1,
      "auctionName": "CORE",
      "status": "OPEN",
      "currency": "EUR",
      "timeZone": "CET/CEST",
      "scopeDefinition": {
        "displayName": "PWR-MRC-D+1"
      },
      "resultStatus": "UNAVAILABLE",
      "schedule": {
        "auctionSessionDateTime": "2025-02-16T13:00:00.000Z",
        "orderEntryStartDateTime": "2025-01-02T13:00:00.000Z",
        "orderEntryEndDateTime": "2025-02-16T13:00:00.000Z",
        "publicationDateTime": "2025-02-16T13:45:00.000Z",
        "deliveryPeriodStartDateTime": "2025-02-16T23:00:00.000Z",
        "deliveryPeriodEndDateTime": "2025-02-17T23:00:00.000Z",
        "horizonDateTime": "2025-02-22T23:00:00.000Z",
        "maxCancellationDateTime": "2025-02-16T16:40:00.000Z"
      }
    }
  ]
}
```



1.3.2 Trade report – Change in API response content

In order to harmonize all responses (data and warnings/errors), the API response content for API: Retrieve Trade Report (XML) is changed. With the change, the API response will be in JSON.

Already developed API applications which uses the API end point: Retrieve Trade Report (XML) must adapt to parse the JSON API response and parse the trade report file content returned in Base64 encoded format.

Hereunder provided an example of the changed API response.

```
{
  "_data": {
    "fileName": "20250201110000_TradeReport_MEMBER_CORE_PWR-MRC-D+1",
    "fileContent": "UESDBBQABgAIAAAAIQDXuUAi3AEAAM0OAAATAAgCW0Nvbn"
  }
}
```



1.3.3 New field “submittedVolume” in Retrieve Block Order results

For more flexibility and having the possibility to retrieve all necessary information in one single request to have a side by side comparison of individual block order results, we will introduce a new field **“submittedVolume”** in the API response of the below listed API end point.

API Name	API End Point
Retrieve Block Order Results	api/auction-sessions/{auctionSessionId}/block-order-results

Hereunder provided an example of the changed API response.

```
{
  "_data": [
    {
      "auctionSessionId": 1,
      "portfolioName": "PORTFOLIO-T01",
      "biddingLevelName": "NL-TENNETNL",
      "duration": 60,
      "orderId": 1000000000000001,
      "blockCode": "C01",
      "blockCodePRM": 1,
      "minimumAcceptanceRatio": 1,
      "comment": "classic block order",
      "settlementCurrency": "EUR",
      "price": 34.3,
      "weightedAveragePrices": [
        {
          "price": 33.3,
          "currency": "EUR"
        }
      ],
      "status": "Rejected",
      "paradoxically": "No",
      "actualAcceptanceRatio": 0.6,
      "periodResults": [
        {
          "orderPeriodId": 1000000000000001,
          "deliveryStartDateTime": "2025-02-14T22:00:00.000Z",
          "deliveryEndDateTime": "2025-02-14T23:00:00.000Z",
          "executedVolume": 12.1,
          "submittedVolume": 12.1
        }
      ]
    }
  ]
}
```

1.4 MATS PUSH – New features

1.4.1 Auction session event

Below new events will be available which allows the Push client users to receive notifications about different auction session life cycle status transitions. These life cycle status transitions comprises of:

- Order book open
- Order book close
- Results publication with the possibility to derive the resultStatus [UNAVAILABLE | PRELIMINARY | FINAL]
- Auction cancellation



Category	Event Name	Push client		Push Server	
Subscribe Event	subscribeAuctionSession	Yes	N/A	N/A	Yes
Listening Event	auctionSession	N/A	Yes	Yes	N/A
Unsubscribe Event	unsubscribeAuctionSession	Yes	N/A	N/A	Yes

Hereunder an example of push notification structure when emitted by the Push server to the Push client when order book is OPEN and results is UNAVAILABLE (i.e., results not yet published).

```
[
  {
    "notificationId": 1005,
    "notificationDateTime": "2025-01-01T11:00:00.000Z",
    "auctionSessionId": 1,
    "auctionSessionDateTime": "2025-02-15T11:00:00.000Z",
    "auctionName": "CORE",
    "auctionSessionStatus": "OPEN",
    "resultStatus": "UNAVAILABLE"
  }
]
```

Refer to **01b - MATS Push Client Application Design Guide.docx** included in the **MATS API Package** for more details.

1.4.2 Additional subscription filter for order event

Push client users will be able to use additional filter “**module**” as part of the event: **subscribeOrders** to narrow down the scope of notifications which they wish to receive.

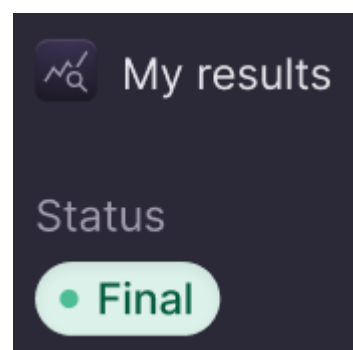
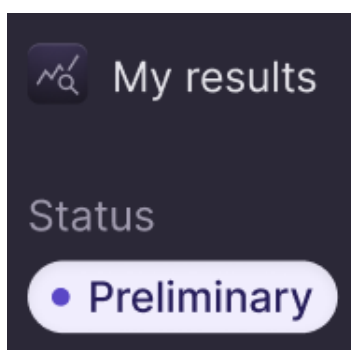
```
[
  {
    "auctionSessionId": 1,
    "module": "LINEAR_ORDER",
    "portfolio": "PORTFOLIO-T01",
    "biddingLevel": "NL-TENNETNL"
    "duration": 60
  }
]
```

Please note that this is an additional flexibility which will not impact the already developed Push client application(s). If the existing push clients users are listening to all notifications without any filters or using other possible filters such as auctionSessionId, portfolio etc. then they are not impacted.

1.5 MATS Web Client – New features

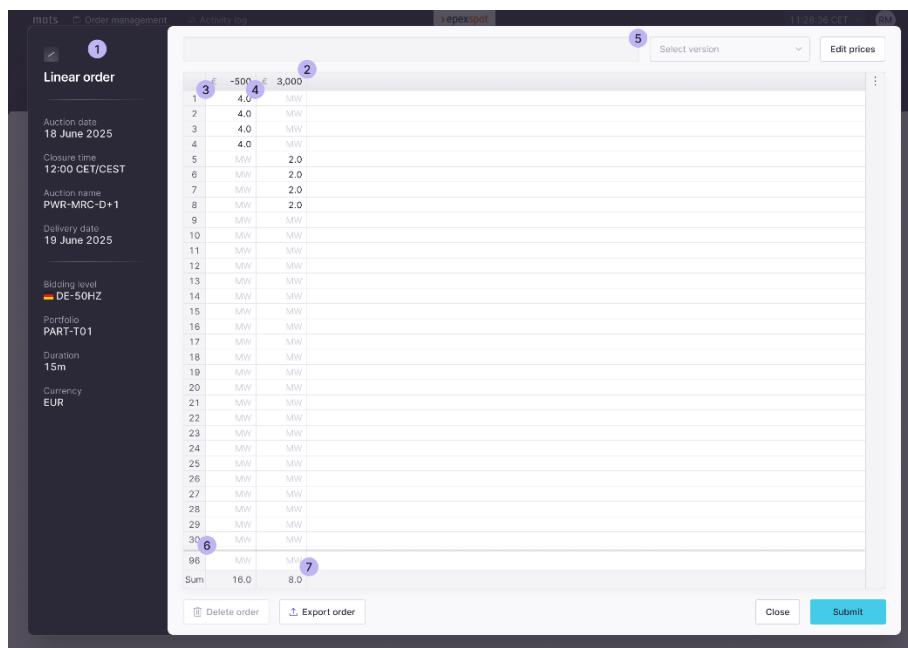
1.5.1 Result status

Following the publication of results, web client users will see the status in the Indexes and My results screens (see below).



1.5.2 Sum row for Linear orders

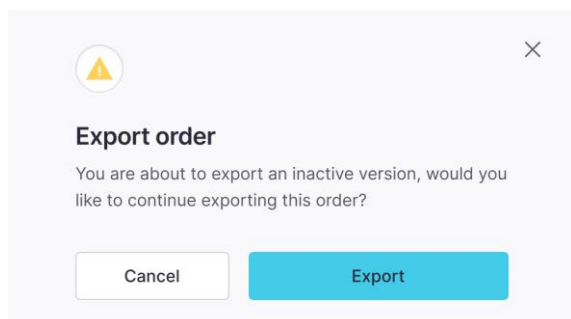
When using the Linear and/or Scalable complex order screens, users can now see a Sum row at the bottom of the grid, totaling the quantities (MW) for each price. In case of orders with duration 15 or 30, bottom row pinning is still applied, ensuring that 96th or 48th period remains visible (see example below).



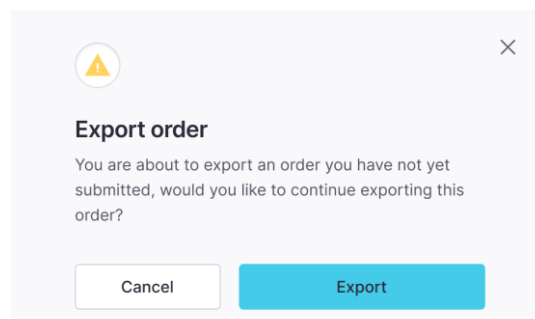
	Price	Quantity	Unit
1	4.0	3,000	MW
2	4.0		MW
3	4.0		MW
4	4.0		MW
5		2.0	MW
6		2.0	MW
7		2.0	MW
8			MW
9			MW
10			MW
11			MW
12			MW
13			MW
14			MW
15			MW
16			MW
17			MW
18			MW
19			MW
20			MW
21			MW
22			MW
23			MW
24			MW
25			MW
26			MW
27			MW
28			MW
29			MW
30			MW
96			MW
Sum	16.0	8.0	

1.5.3 Export inactive order warning

When exporting orders that are either inactive or not submitted yet, the user will be prompted with a notification to confirm this choice (see below).



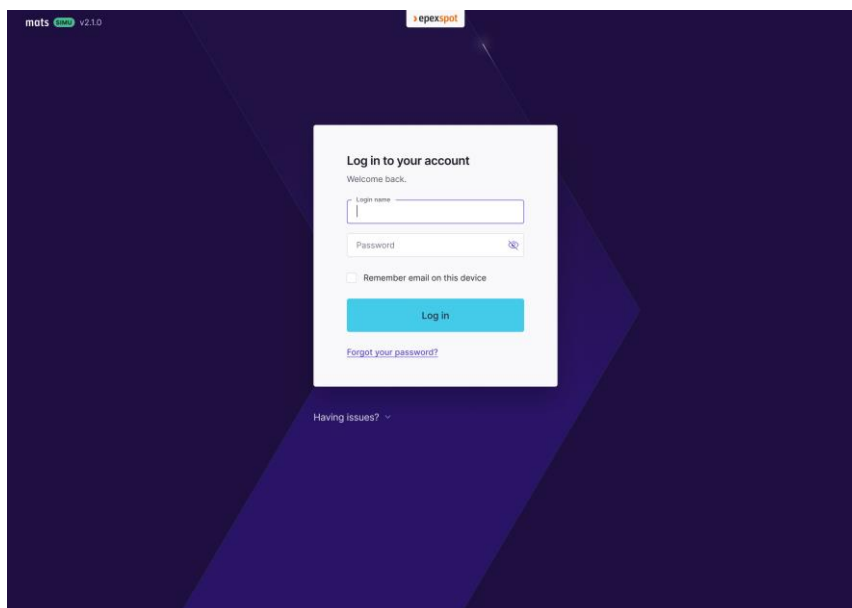
Export inactive order (previous version)



Export order not yet submitted

1.5.4 Environment label

When accessing and using the web client, users will be able to see the label to help them distinguish the environment they are using.



1.6 Issues and improvements

1.6.1 API and Web Client

1.6.1.1 DST23 Incorrect period sequence number

In case of DST23, i.e. short clock change day, the numbering used for periods was incorrect. We have updated this in the system, as well as the supportive documentation.

Behavior before the fix		
deliveryStartDateTime	deliveryEndDateTime	seqNb
2025-03-29T23:00:00.000Z	2025-03-30T00:00:00.000Z	1
2025-03-30T00:00:00.000Z	2025-03-30T01:00:00.000Z	2
2025-03-30T01:00:00.000Z	2025-03-30T02:00:00.000Z	3
2025-03-30T02:00:00.000Z	2025-03-30T03:00:00.000Z	5
2025-03-30T03:00:00.000Z	2025-03-30T04:00:00.000Z	6
Behavior after the fix		
deliveryStartDateTime	deliveryEndDateTime	seqNb
2025-03-29T23:00:00.000Z	2025-03-30T00:00:00.000Z	1
2025-03-30T00:00:00.000Z	2025-03-30T01:00:00.000Z	2
2025-03-30T01:00:00.000Z	2025-03-30T02:00:00.000Z	4
2025-03-30T02:00:00.000Z	2025-03-30T03:00:00.000Z	5



2025-03-30T03:00:00.000Z	2025-03-30T04:00:00.000Z	6
--------------------------	--------------------------	---

1.6.2 API

1.6.2.1 IP address restriction

There was restriction at IP address level for the API customers. This restriction was that the IP address when sending any API request must be same as the one which is used to send “Connect” API request. If the IP address were different API users were receiving error: “CNTIT0010”.

The IP address restriction is removed from the MATS trading system. API users will be able to send any MATS API requests irrespective of the source IP address.

1.6.2.2 Improvement on JSON semantic checks

Previously, if the API user data in the API request as a “single object” (i.e., encapsulated in {}) while system was expecting data as a “collection of array” (i.e. encapsulated in []), misleading technical error (for ex: OLSIT0000) with HTTP status code 500 was raised.

Such cases are purely related to semantic checks and to align with API standards, we improved the system behavior. Now, system will raise a dedicated functional error with HTTP status code 400 for such case.

Please find below the list of dedicated functional error code and messages.

API	Error Code	Message
Submit/Modify Linear Order	OLSIF0032	Incorrect value or unexpected data format
Submit Modify Block Order	OBSIF0048	Incorrect value or unexpected data format

1.6.2.3 Updates in error messages

Below error messages corresponding to the error codes has been rephrased for more clarity and transparency.

Error Code	(Rephrased) Message
OLSIF0032	Incorrect value or unexpected data format
OBSIF0048	Incorrect value or unexpected data format

1.6.2.4 Removal of existing error codes

Please find below the list of error codes which has been removed from the system. These error codes are removed as these validations will be covered under the JSON semantic validation: OBSIF0048.



API customers, who build logic based on the below error codes should be adapted.

Error Code	Validation
OBSIF0066	Error if <MAR> is not an increment of 0.01 (example: MAR value = 0.765)
OBSIF0111	Error if user tries to submit a block order with Order Id = 0
OBSIF0112	Error if user tries to submit a block order with BlockCodePRM = 0

1.6.3 Web Client

1.6.3.1 Price decimal handling

When pasting full prices into the system, the screens showed full numbers without any decimals (e.g. 5,10, etc.). As this caused some confusion, we updated the order tables to include the decimals.

1.6.3.2 Duplicate delivery period pasting

In case the user tries pasting an order with duplicate delivery period numbers (e.g. instead of having 10 and 11, use 11 twice in the grid), the system will reject this pasting and ask the user to update their order (see example below).

✖ Period 11 appears multiple times. Each period must be unique. Please remove duplicates.

1.6.3.3 Price step not allowed / visible more than two times

In case the user wants to use the same price step more than two times, the system was not displaying them (even if the order went through successfully). This has been fixed as part of the upcoming release. As a reminder, minimum and maximum prices cannot be duplicated.

1.6.3.4 Order import improvements

Technical improvements

We have identified and implemented a few improvements in the way how MATS handles order import. This improvement will support a few reported cases where a linear order would be correctly pasted, while the same order would lead to 'invalid monotonous HYBRID curve' error message.

Template improvements

Considering the remarks received by some of our customers, we are updating the import template (and consequently specific screens). Please see below for illustration as reference.

Auction	AUCTION1			
Portfolio	PART-T01			
Bidding level	BL-ABC			
Duration	60			
Order ID				
Currency	EUR			
Comment	Period	-500	1000	4000
	1			
	2			
	3			
Hydro1	4	8	6	4
Hydro1	5	12	8	8
Hydro1	6	12	10	8
Hydro1	7	8	4	4
	8			
	9			
	10			
	11			
Hydro2	12	1	0	-16
Hydro2	13	1	0	-16
Hydro2	14	1	0	-16
Hydro2	15	1	0	-16
	16			
	17			
	18			
	19			
	20			
	21	20	16	12
	22	20	16	12
	23	20	16	12
	24	20	16	12

N.B. We have also received comments for introducing auction or delivery date in the template, which we are still investigating.

1.7 Future improvements

1.7.1 Block order template inconsistency

Block order template and block order screen have an inconsistency in the layout of the columns, namely in the order of 'MAR' and 'Comment' columns (see below).

Block order template

Block Code	Block ID	BlockCodePRM	MAR	Comment	Price	1	2	3	4	5	6	7	8	9	10	11	12	13
------------	----------	--------------	-----	---------	-------	---	---	---	---	---	---	---	---	---	----	----	----	----

Block order screen

Block code	Block ID	BlockCodePRM	Comment	MAR	Price	Total	1	2	3	4	5	6	7	8	9	10	11	12	13
------------	----------	--------------	---------	-----	-------	-------	---	---	---	---	---	---	---	---	---	----	----	----	----

We will correct this in the upcoming releases, but for the time being, we kindly ask you to rely on the provided templates.



2. MATS Documentation update

2.1 Functional package

Functional package documentation has also been updated with additional details, sample files, etc. Please check the Member area / Market data web share for the latest versions.

In addition, MATS Web Client User guide has been updated to reflect the changes stemming from this release.

2.2 API portal updates – already published

API Portal has been updated as of **14th Feb 2025**. An overview about these changes are provided below:

- Data type fixes/changes for fields: duration, orderId, date
- Alignment of some objects/elements same as the actual system response
 - `_data` element is indicated as mandatory as this field is always returned in the response
 - `_notification` is defined as a single object
- Correction of typo mistakes
 - Field name: “period~~s~~Results” corrected to “periodResults”
 - Enum value: “Accepted” corrected to “Executed”

These changes were strictly to API schema definition. System behavior were not changed or impacted.

More elaborative details about the changes are available in [MATS API](#) (*refer to details mentioned under v1.2.0*).

2.3 API package

2.4 New 1.4 package version

Please find below a comprehensive overview of MATS API Package updates due to the planned SIMU release.

REST API Client App Design Guide:

- › Functional elaboration about auction session status and result status
- › Timeout and recovery procedure

PUSH Client App Design Guide:

- › Details of new event: "auctionSession"
- › Technical guidance on Push connection for C# customers

MATS REST API Errors & Warnings:

- › Extension of list with errors
- › Removal of few existing error codes

NEW - MATS Push Errors:

- › Introduce new dedicated document with list of errors related to Push

NEW - MATS Environment Details:

- › Introduce new dedicated document with environment details

API Portal:

Change	Impacted API calls
New field "clientId"	- Retrieve Linear Orders - Submit/Modify Linear Orders - Retrieve Linear Order - Delete All Linear Orders (Applicable for Block Orders & Scalable Complex Orders)
New field "resultStatus"	- Retrieve Auction Sessions - Retrieve Auction Session Information
New field "submittedVolume"	Retrieve Block Order Results
New optional query param: "participant"	- Retrieve Linear Order Results - Retrieve Block Order Results - Retrieve Scalable Complex Order Results
New API endpoint to retrieve Market Results Report (CSV)	Retrieve Market Result Report (CSV)
Update of API response content from raw XML to JSON format	Retrieve Trade Report (XML)
Additional properties such as minLength, maxLength, minimum, maximum, pattern	- Submit/Modify Linear Orders - Submit/Modify Block Orders - Submit/Modify Scalable Complex Orders

Additional improvement on API portal:

For the below API end points, the object "blockPeriods" were defined in each API resource individually. To avoid high maintenance and avoid generation of classes with same objects and same names which are same in principle and functional perspective, a common model is used and linked these API resources using the keyword \$ref

- Impacted API end points:
 - Retrieve Block Orders, Submit/Modify Block Orders, Retrieve Block Order, Delete Block Order, Delete Block Order By BlockCodePRM, Delete All Block Orders



3. Member readiness

As communicated during MATS GoTo Session #3, MATS Support team has already started reaching out to members to discuss their readiness levels. We kindly ask all our members to start filling in the readiness form, which you can access on this [LINK](#).

Since we will be delivering new features throughout SIMU, members will be able to update their readiness status as we go along, allowing them to track their own progress and us to gain a better understanding of where you are on the journey.

Kind reminder that the SIMU environment is open and running every working day. Scheduled member testing will start from March with more details to follow.