

1. Reconstructed Limit Order Book Data Derived from NASDAQ's Historical TotalView-ITCH

1.1. Flat Rate Access:

- a) Description:

The flat rate option allows unlimited access to reconstructed limit order book data for large research institutions. The option includes 10 individual accounts offering each user access to the request interface and a personal data management system. Also included is a total of 1'000 GB (100 GB per account) of storage on LOBSTER's servers for raw unzipped data.
- b) Access to reconstructed limit order book data:
 - No restrictions on tickers, periods, or, number of requests.
 - Up to 200 order book price levels available.
- c) Storage space:
 - 1000 gigabytes (GB) of storage space on LOBSTER's servers for raw unzipped data.
 - The storage space is shared equally among all accounts (master- and sub-account) under the contract, i.e. 100 gigabytes (GB) per account. Unused storage space cannot be reassigned between accounts.
 - Restriction:
 - New data can only be generated if enough storage space is available.
 - Should the generated data exceed the user's available storage space, users will be required to remove existing data before gaining access to new data.
- d) Accounts:
 - Types:
 - Master-account: A master-account grants access to the data request interface and includes a personal data management system. Further, the master-account includes administrative features. The data of all other users under the contract can be viewed and deleted from the storage space and individual sub-accounts can be deactivated.
 - Sub-accounts: Sub-accounts grant access to the data request interface and include a personal data management system. Sub-account users can only view and delete data requested by themselves.
 - Accounts included:
 - The flat rate access includes 1 master-account and 9 sub-accounts.
 - Additional sub-accounts:
 - Additional sub-accounts can be purchased. The storage space on LOBSTER's servers increases with each additional sub-account by 100 gigabytes (GB) of raw unzipped data. The period of validity of additional sub-accounts is matched with the remaining validity of the associated flat rate access.
 - Rules:
 - All accounts, both master- and sub-accounts, may only be used by the registered users and, under the conditions of NASDAQ OMX's academic waiver, may not be shared with colleagues or students. Each natural person is required to obtain an individual account. Further, each individual user is required to submit a signed copy of NASDAQ OMX's Global Subscriber Agreement before access to the data can be granted.
 - All accounts (master- and sub-accounts) must be associated with a university email address, which serves as login credentials.

- The user associated with an account (master- and sub-account) must inform LOBSTER immediately should his or her affiliation with the university under the contract expire. Further, LOBSTER reserves the right to demand proof of a user's affiliation with the university under the contract.
 - The natural person associated with an account (master- and sub-account) may be changed to the end of the next calendar month with 6 weeks' notice. With each reassigning of an account all reconstructed data and the request history of the previous user is deleted. The new assigned user must be covered by NASDAQ OMX's academic waiver and submit a signed copy of NASDAQ OMX's Global Subscriber prior to the account's re-activation.
- e) Contract length:
 - The flat rate access has a minimum contract length of 1 year.
 - Cancellation period: 1 month; Otherwise, automatic renewal.
- f) Price:
 - Flat rate access:
 - 3000 EUR excl. VAT per year, payable in advance.
 - Additional sub-accounts:
 - 100 EUR excl. VAT, payable in advance.
 - Price changes:
 - Price changes may only be made at the end of the contract's period with 6 weeks' notice.

1.2. Pay-Per-Use Access:

- a) Description:

The pay-per-use option allows access to reconstructed limit order book data via a credit system. Users buy credits which can be used to purchase reconstructed limit order book data. The number of credits required for individual requests depends on the request's details such as the ticker, period, and number of levels as well as the intraday time window. Before the processing of the request the required number of credits is displayed on the website and has to be confirmed by the user. Both pre-paid and post-paid options are available for obtaining credits. The registration to the pay-per-use option includes a block of credits.
- b) Access to reconstructed limit order book data
 - No restrictions on tickers, periods, or, number of requests.
 - Up to 20 order book price levels available.
- c) Storage space:
 - 100 gigabytes (GB) of storage space on LOBSTER's servers for raw unzipped data.
 - Restrictions:
 - New data can only be generated if enough storage space is available.
 - Should the generated data exceed the available storage space, users will be required to remove existing data before gaining access to new data.
 - Reconstructed data will be removed automatically from LOBSTER's servers 30 days after the request's completion.
- d) Account:
 - The pay-per-use option includes only one account which is associated with one user.
 - The account may only be used by the registered user and, under the conditions of NASDAQ OMX's academic waiver, may not be shared with colleagues or students. Each natural person is required to obtain an individual account. Further, each individual user is required to submit a signed copy of NASDAQ OMX's Global Subscriber Agreement before access to the data can be granted.
 - The account must be associated with a university email address, which serves as login credentials.

- The user associated with an account must inform LOBSTER immediately should his or her affiliation with the university under the contract expire. Further, LOBSTER reserves the right to demand proof of a user's affiliation with the university under the contract.
- The natural person associated with an account may be changed to the end of the next calendar month with 6 weeks' notice. With each reassigning of an account all reconstructed data and the request history of the previous user is deleted. The new assigned user must be covered by NASDAQ OMX's academic waiver and submit a signed copy of NASDAQ OMX's Global Subscriber prior to the account's re-activation.

e) Credit system:

- Number of credits per request:
 - The number of credits per request is set to reflect the workload the request puts on LOBSTER's servers. In particular, the number of credits reflects the request's expected time of processing.
 - Inputs:
 - Number of trading days
 - Number of levels
 - Liquidity of the ticker
 - The liquidity of a ticker is measured for each day by the size of the raw message file in bytes.
 - Intraday time window requested
 - Standard: Regular trading hours from 09:30:00 to 16:00:00.
 - Potential future extension to time windows outside regular trading hours.
 - The number of credits per request is rounded to 2 decimal places.
 - The minimum number of credits per request is set to 1 credit.
- Number of credits per request examples:

Ticker	Name	Period (YYYY-MM-DD)	Levels	Number of Credits
GOOG	Google	2012-07-18	1	[...]
MSFT	Microsoft	2012-03-28	1	[...]
APPL	Apple	2012-03-28	1	[...]
ORCL	Oracle	2012-04-05	2	[...]
INTC	Intel	2012-03-13	3	[...]
AMZN	Amazon	2011-01-27	5	[...]

- Payment options:
 - LOBSTER offers two payment options for credits: Pre-paid and post-paid. For price information refer to the section below.
 - Remarks:
 - The balance of post-paid credits cannot be balanced with pre-paid credits.
 - Pre-paid credits have priority over post-paid credits.
 - The number of credits per request is displayed on the website's request form once the request's details have been entered. By submitting the request, the user accepts the number of credits due and commits to their payment.
The following payment scenarios are available: (i) Deduction from a positive pre-paid credit balance. (ii) Adding to a post-paid credit balance. (iii) Should the positive pre-paid credit balance not be sufficient for the request, the remainder is added to the post-paid credit balance.
- Changes to credit calculation:
 - LOBSTER reserves the right to redefine the formula determining the number of credits per request, with 6 weeks' notice. This includes the influence of the number of levels, the term liquidity and its influence as well as the intraday time window.
 - Changes to the formula determining the number of credits per request affects the amount of data obtainable with a positive credit balance.

f) Prices:

- Registration:
 - Registration to the pay-per-use option includes XX credits. After the first credits have been consumed, the user may purchase additional pre-paid credit blocks or choose to rely on post-paid credits.
 - XX EUR excl. VAT, payable in advance.
- Pre-paid credit blocks:
 - XX credits for XX EUR excl. VAT, payable in advance.
 - XX credits for XX EUR excl. VAT, payable in advance.
 - XX credits for XX EUR excl. VAT, payable in advance.
- Post-paid credits:
 - X EUR excl. VAT per credit, invoiced at least once per year, or to the end of the next quarter if the amount due exceeds 50 EUR excl VAT.
 - Restrictions:
 - The maximum balance of credits to be invoiced (credits of type B) is set to the credit equivalent of 1000 EUR excl. VAT. LOBSTER reserves the right to (a) immediately issue an invoice for the EUR equivalent of the maximum credit balance to be invoiced and (b) temporarily deactivate the user's ability to request data via post-paid credits until the credit balance has been settled.
 - LOBSTER reserves the right to temporarily deactivate a user's account in case an invoiced bill is not paid within 20 days.