SATURN Commodities Positions Reporting – Detailed Functional Specifications – Euronext Derivatives Market Preface Saturn

Document title

# SATURN COMMODITIES POSITIONS REPORTING – DETAILED FUNCTIONAL SPECIFICATIONS – EURONEXT DERIVATIVES MARKET

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# **PREFACE SATURN**

#### **ABOUT THIS DOCUMENT**

This client specification document is related to the Euronext Saturn Web Services, part of the Euronext Global Reporting Solution dedicated to answer the MiFID II reporting and publication requirements.

Saturn offers a REST API which can be used to access the reporting services.

The purpose of this document is to describe the technology and the supported messages for Commodity Position Reporting requirements under MiFID II

#### TARGET AUDIENCE

This document is targeted to clients of the following Euronext Reporting Service:

MiFID II Commodity Positions Reporting

Euronext Global Reporting solution through Saturn covers the additional services below:

- Transaction Reporting on Euronext Markets conducted directly by Euronext members.
- Transaction Reporting on Euronext Markets conducted by Euronext members not subject to MIFIR (non-MiFID members);
- Short Code Long Code Management (SLC);

These services are described in separate documents.

#### ASSOCIATED DOCUMENTATION

The following lists the associated documents, which either should be read in conjunction with this document or which provide relevant information to user regarding the other services:

Saturn User Guide

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# **TERMS AND ACRONYMS**

Term/Acronym	Description				
NCA	National Competent Authorities				
<ul> <li>An XML element is everything from (including) the element's start tag to (inclue element's end tag</li> <li>Attributes are designed to contain data related to a specific element</li> </ul>					
Client	An application, i.e. a system that accesses the services in Saturn through the API gateway.				
HTTPS	Hypertext Transfer Protocol Secure				
Function	A specific action in the Saturn REST API gateway, for example, Logon, Logoff, Submit Trades etc.				
REST	REST, or Representational State Transfer, relies on a stateless, client-server, cacheable communications protocol. REST is an architecture style for designing networked applications. Rather than using complex mechanisms such as CORBA, RPC or SOAP to connect between machines, simple HTTPS is used to make calls between machines. REST is a lightweight alternative				
SSL	Secure Sockets Layer (cryptographic protocol)				
STP	Straight-through processing				
User	A person accessing the Saturn services the Web user interface				
XML	Extensible Markup language				
Financial Information Exchange protocol (FIX) is an open specification designed to stand and streamline electronic communications in the financial securities industry supporting formats and types of communications between financial entities for trade allocation, or submissions, order changes, execution reporting and advertisements					

# HISTORY

<b>REVISION NO.</b>	DATE	CHANGE DESCRIPTION			
1.0	03/08/2017	<ul> <li>Initial version</li> </ul>			
1.06	25/11/2017	<ul> <li>Adding service Get instrument</li> <li>Change Amsterdam MIC</li> <li>Add technical detail &amp; examples section</li> <li>Add some comments in the functional section</li> </ul>			
1.07	05/02/2018	<ul> <li>cisin replaced isin has to be used in filterlist instead of cisin</li> <li>expiry_date_offset lower case</li> <li>All filter list fields must be lower case</li> <li>Additional comments in the functional section</li> </ul>			
1.08	10/04/2018	<ul> <li>Adding new value "CONCAT" in the "Ultimate Parent ID Type" field for \$5.1 Upload CSV</li> <li>Modified \$6.1Get instruments resource name</li> <li>Additional comments in the functional section on Spot Month and Risk Reducing</li> </ul>			
1.09	18/04/2018	Additional comments in section \$1.4 Content of Commodity Position			

<b>REVISION NO.</b>	DATE	CHANGE DESCRIPTION
		<ul> <li>Report</li> <li>Add new "Position Holder Type" field in section \$5.1 Upload CSV</li> <li>Add new "Position Holder Type" field for section \$13 Fields description</li> <li>Add new check 7024 for \$8.Rejection codes</li> </ul>
1.10	21/06/2018	<ul> <li>Added new fields in section \$6.1 Get Instruments</li> <li>Example amended in section \$6.1 Get Instruments</li> <li>Added 2 operators in section \$9.2 Operators</li> </ul>
1.12	01/04/2020	<ul> <li>the freetext4 field updated into freetext 4</li> <li>Added in section \$1.3.1 Direct Reporting: Brokers should also fill the freetext 4 field with 'REPORT_MYSELF' in case of direct reporting.</li> </ul>
1.13	09/03/2021	• Typo correction for " <b>Position holder ID type</b> " file header in section \$5.1 Upload for the csv file.
1.14	21/12/2022	• Definitions Long Position Delta Quantity, Short Position Delta Quantity: Descriptions and conditions corrected.
1.15	15/01/2025	<ul> <li>The following changes have been made to this version of the document:</li> <li>Section <u>1.2 Which Instruments need to be reported</u> -&gt; updated to remove reference to Securitized Derivatives</li> <li>Section <u>1.3.1 Onboarding process for direct reporting clients</u> -&gt; renamed from "The on-boarding" to "Onboarding", added additional explanation on how the user can request access to direct reporting</li> <li>Section <u>1.4 Reporting Deadline</u> -&gt; added to explain the existing deadlines for position reporting</li> <li>Section <u>1.5 How to Report</u> -&gt; added to explain how users can report their position. Subsection <u>1.5.1 Entering a New Position</u>, <u>1.5.2 Amending a Position</u>, <u>1.5.3 Cancelling a Position</u> added to reflect the steps to be followed by the user</li> <li>Section <u>1.6 The content of the commodity Positions Report</u> – updated to add table with the mapping between SATURN fields RTS-21 obligatory fields, and clarification of reporting being done on a net basis.</li> </ul>
5.354.0	05/03/2025	<ul> <li>The following changes have been made to this version of the document:</li> <li>Corrected title from "Mifid II Commodity Reporting" to "Saturn Commodities Positions Reporting - Detailed Functional Specification - Euronext Derivatives Markets";</li> <li>Adding new controls at the Commodity Position <u>declaration</u> to manage position declarations in Net within Saturn (fields Long/Short Position Quantity, Long/Short Position Delta Quantity);</li> <li>In <u>Field Description</u>: updated Long/Short Position Quantity, to manage position declarations in Net.</li> </ul>

# **IMPORTANT NOTE :**

This document will be updated as required based on additional regulatory clarifications as well as additional features. Users must refer to the document history to get a precise description of updates.

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# 1. EURONEXT MIFID II APPROACH ON COMMODITY POSITIONS REPORTING

### 1.1 WHAT IS MIFID II COMMODITIES POSITIONS REPORTING?

Under Article 58(3) of MiFID II, members and participants of trading venues must report to the trading venue on a daily basis a complete breakdown of their positions in commodity derivatives, emission allowances, and derivatives of emission allowances, as well as those of their **clients** and the clients of those clients until the **'end client'** is reached.

The trading venue must then provide those reports to their NCAs.

Under Article 4(1)(9) MiFID II defines a 'client' as a natural or legal person to whom a MiFID-regulated investment firm provide investment or ancillary services.

- If that 'client' is not an investment firm, then that client will also be considered as the "the end client" as it will not provide investment or ancillary services.
- If the client is an investment firm, but does not provide investment or ancillary services to another person, then the client will also be the 'end client'.

Such an approach limits the reporting obligation down the chain of intermediaries.

### Weekly Commitment of Traders (CoT) report

As per Article 58, trading venues should also make public a weekly Commitment of Traders (CoT) report with the aggregate positions held by the categories of persons for the different commodity derivatives or emission allowances or derivatives therefore traded on their trading venue, specifying the number of long and short positions by such categories, changes since the last report; the percentage of total interest represented by each category as well as the number of persons holding a position in each category.

Euronext will generate a weekly Commitment of Traders (COT report) for all its commodity contracts.

### **1.2 WHICH INSTRUMENTS NEED TO BE REPORTED?**

The instruments covered include both exchange-traded commodity derivatives and economically equivalent OTC commodity contracts, including:

- Energy derivatives, metal derivatives, agricultural derivatives and other food derivatives;
- Derivatives on intangibles such as climate derivatives;
- Derivatives with flow-based delivery e.g. electricity and gas;
- Both cash-settled and physically-settled derivatives;
- Derivatives on any of the other instruments covered e.g. baskets, indexes, swaps.

An OTC derivative shall be considered economically equivalent to a commodity derivative traded on a trading venue where it has identical contractual specifications, terms and conditions, excluding different lot size specifications, delivery dates diverging by less than one calendar day and different post trade risk management arrangements.

#### **1.3 WHO NEEDS TO REPORT?**

From Article 58(3), reporting obligations apply only to **members** of trading venues and **MiFID-regulated investment firms**.

As a standard regulatory approach, where General Clearing Members are also members of Euronext, they must report their own positions as well as the ones of their clients (NCMs).

In addition, the Euronext solution has been designed to allow a participant – even non-MiFID regulated – to report **directly to Euronext**, without going through any intermediary, its positions and the positions of its clients.

Although intermediaries (usually GCMs) will be made aware of list of their clients reporting directly, no filtering is required, i.e. GCMs must report the positions of all their clients with the level of information that they have for these clients.

### **1.3.1** Onboarding process for direct reporting clients

Clients willing to report directly must as an initial step inform their intermediary, member of Euronext. Direct Reporting entities are not required to fill any on-boarding document.

Access to Saturn will be granted to direct reporting clients upon declaration of the client's intermediary through the Position Holder form.

Direct Reporting clients must also fill a Position Holder file indicating the list of their own clients.

In order to access Saturn, user account(s) must be requested to market-access@euronext.com.

Direct reporting clients are required to fill an additional field in their daily reports, the "Free Text4" / "FreeText 4" (GUI/.CSV) field with the following string: 'REPORT\_MYSELF'.

Brokers should also fill the "Free Text4" / "FreeText 4" (GUI/.CSV) field with 'REPORT\_MYSELF' in case of direct reporting.

#### **1.4 REPORTING DEADLINE**

Clients must ensure to abide the defined timeline and report their positions for the previous day before 14:00 CET. In other words, on Day D clients must report their positions of the previous day before 14:00 CET.

Euronext submits Commodity Position Reporting once per day at 17:00 CET (Paris time) to the respective regulator.

#### 1.5 HOW TO REPORT

Clients can report positions their positions in the following way:

- Saturn GUI (manually)
- File Upload (GUI or API)

Clients can refer to *Saturn - User Guide - Euronext Cash and Derivatives Markets - External* section 11 Commodity Reporting Services for explanation on how to use the GUI.

For .CSV File Upload via API refer to section 11 and onwards.

The kinematic is different between the French & Dutch Commodity markets

### IMPORTANT:

Positions on French Commodities (XMAT) should always be reported as LOTS.

Positions on Dutch Power Derivatives (XEUC) should always be reported in megawatt hours (MHWO).

#### 1.5.1 Entering a New Position

French Commodities & Nordic Power Futures

• Enter a position through GUI or File Upload (GUI or API) with Report status=1.

### 1.5.2 Amending a Position

Amending a "Failed" position

- French Commodity Contracts:
  - Cancel & then amending the position (using GUI or .CSV file upload with Report status=3 first, then amendment with Report status=2 using the same Report reference number).
     Or
  - Cancel & enter a new position (using GUI or .CSV file upload with Report status=3, then entering Report status=1 with a new report reference number).
- Nordic Power Futures:
  - Amend position (using GUI or .CSV file upload with Report status=2).

#### Amending a "Checked & Ready" / "Sent" position

- French Commodity Contracts:
  - Cancel & then amending the position (using GUI or .CSV file upload with Report status=3 first, then amendment with Report status=2 using the same Report reference number).
     Or
  - Cancel the position & enter a new position (using GUI or .CSV file upload with Report status=3, then entering Report status=1 with a new report reference number).
- Nordic Power Futures:
  - Amend position (using GUI or .CSV file upload with Report status=2). Or
  - Cancel the position & enter a new position (using GUI or .CSV file upload with Report status=3, then entering Report status=1 with new report reference number).

### **1.5.3** Cancelling a Position

#### French Commodities & Nordic Power Futures

• Cancel a position through GUI or File Upload (GUI or API) with Report status=3.

# **1.5.4** How to properly report a position (NET)

#### **Futures**

When submitting/entering a position for a Future, the client should only populate **Long Position Quantity** field or the **Short Position Quantity** field (never both at the same time (as was expected for gross)).

		Field						
				SHORT POSITION DELTA QUANTITY				
LONG POSITION	100	N/A (futures)		N/A (futures)				
SHORT POSITION		N/A (futures)	100	N/A (futures)				

# **Options**

When submitting/entering a position for an Option, the client should populate the combination of fields (depending on whether they are long or short on a call or put).

	LONG POSITION QUANTITY	LONG POSITION DELTA QUANTITY	SHORT POSITION QUANTITY	SHORT POSITION DELTA QUANTITY
LONG CALL	50	20	0	0
SHORT CALL	0	0	50	20
LONG PUT	50	0	0	20
SHORT PUT	0	20	50	0

### 1.6 THE CONTENT OF THE COMMODITY POSITIONS REPORT

The format of the Euronext daily commodity positions report follows as a general approach the specifications of ITS4.

Reporting entities should pay attention that positions have to be reported on a **net** basis. Such an approach is aimed at providing more transparency on the Commitment of Trader (COT) reports that will be issued each Wednesday at end of day.

Saturn GUI Field	.CSV File field	RTS21 Field #	RTS21 Field Name
N/A	N/A	1	Date and time of report submission

Report reference number			Report reference number
Holding Position Trading Day	Holding Position Trading Day	3	Date of the trading day of the reported position
N/A	Report status	4	Report Status
Reporting Entity ID	Reporting Entity ID	5	Reporting entity ID
Position holder ID	Position holder ID	6	Position holder ID
Position holder email	Position holder email	7	Email address of position holder
Ultimate Parent entity ID	Ultimate parent entity ID	8	Ultimate parent entity ID
Ultimate Parent entity email	Ultimate parent entity email	9	E-mail address of ultimate parent entity
Investment Firm Indicator	Investment Firm Indicator	10	Parent of collective investment scheme status
Security Id	SecurityId	11	Identification code of contract traded on trading venue
N/A	N/A	12	Venue product code
Trading Venue	Trading venue identifier	13	Trading venue identifier
Position Type	Position type	14	Position type
Position Maturity	Position maturity		Position maturity
Long Position Quantity & Short Position Quantity	Long Position quantity & Short Position quantity	16	Position quantity
N/A	N/A	17	Notation of the position quantity
Delta Equivalent Long Position & Delta Equivalent Short Position	Delta Equivalent Long Position Delta Equivalent Short Position	18	Delta equivalent position quantity
Risk Reducing Indicator	Risk reducing indicator	19	Indicator of whether the position is risk reducing in relation to commercial activity
N/A	N/A	20	not used
Position holder ID type	Position holder ID type	N/A	N/A
Free Text1	FreeText 1	N/A	N/A
Free Text2	FreeText 2	N/A	N/A
Free Text3	FreeText 3	N/A	N/A
Free Text4	FreeText 4	N/A	N/A
Free Text5	FreeText 5	N/A	N/A
N/A	Business Unit	N/A	N/A

### Delta equivalent of options positions

Positions on options should be converted into delta equivalent positions on futures.

As a reminder, daily reporting of Euronext listed commodities contracts applies also to the positions in options on commodity futures. For each option series, members have to report, following the same principles of net basis as in the futures contracts, both the quantity of option contracts and its equivalent quantity in futures as expressed by the delta of the position (please refer to question 9 of ESMA Q&A on commodity derivatives topics). As the individual delta of one option is always less than or equal to 100% in absolute value, members are expected to include in their checks that, for a given line of option series

reporting, the delta equivalent position is therefore, in absolute amount, less than or equal to the option position.

Euronext intends to make delta on Commodity Options public for reporting purpose. Until the solution is in place post MIFID II go-live, reporting entities must use their own delta or delta available from their back office system. More information about the solution for distributing the delta publicly will be provided in due course.

### The categories of market participants

The different categories of persons should be classified in the Weekly CoT Report according to the nature of their main business:

- Investment firms (as defined in MIFID 2) or credit institutions;
- Investment funds, either undertaking for collective investments in transferable securities or alternative investment fund manager;
- Other financial institutions including insurance undertakings, reinsurance undertakings and institutions for occupational retirement provision;
- Commercial undertakings (commercial activities are defined in ESMA guidelines on key concepts of the AIFMD, Ref. 2013/611).
- **Operators with compliance obligations** under Directive 2003/87/EC

The category of participants is now considered as a new field provided by member and included in the Euronext specifications. It is included in the output files sent to the NCAs based on the value of the 'Position Holder type' provided in the Position Holder file.

Euronext reminds reporting entities when assigning category of participants to their Position Holders that only Position Holders of type "Commercial Undertakings" have the possibility to declare positions with the "Risk Reducing ' indicator.

For further guidance, reporting entities can refer to:

- **MiFID II Level 1 Article 57.1**: "Position limits shall not apply to positions held by or on behalf of a non-financial entity and which are objectively measurable as reducing risks directly relating to the commercial activity of that non-financial entity"
- **MiFID II Level 2 Article 7 of RTS 21** that provides information on criteria and methods to determine whether a position can be considered as risk reducing. The article also limits the use of the risk reducing indicator to non-financial entities.

### The Venue Product Code

The Venue Product Code is not included in the Euronext specifications.

As per ITS 4, reporting entities must report their positions on a per instrument basis. The Venue Product Code is in place automatically determined par Euronext based on the ISIN code of the contract and included in the output file sent by Euronext to the NCAs. It corresponds to the Contract Code attached to the instrument, e.g. EBM for the Milling Wheat Future contract.

### Reporting of OTC equivalent contracts

MiFID II requires all Investment Firms trading in commodity derivatives outside a trading venue to provide NCAs with daily position reports on economically equivalent OTC contracts, including a breakdown of proprietary positions and any client positions.

A report on commodity OTC economically equivalent contracts is due by any investment firm, exchange member or not, and this report has to reach the authority in charge of monitoring the corresponding listed commodity contract positions.

The Euronext solution has been designed in accordance with ITS4 standards to accommodate, on an optional basis, reporting of EEOTC contracts and that all information contained in the position reporting files will be transmitted to the authority supervising our relevant listed commodity contracts.

# **1.7 SPOT MONTH / OTHER MONTHS**

Positions must be segregated between positions in *Spot Month* vs positions in *All Other Months*.

In relation to Euronext agricultural commodity contracts listed on MATIF, Euronext confirms that the spot month for the purposes of MiFID II daily reporting is **always the first maturity immediately available for trading**.

For example, on the rapeseed contract, February is the spot month for the whole period starting from the first day following the last trading day of the previous November maturity until the last trading day of that February maturity, i.e. from 1 November 2017 to 31 January 2018, inclusive.

Reporting of options on futures contracts follows the same logic as for their equivalent futures: options that have the spot month future as their underlying will also be classified as spot month options. (Note that this implies there is a period during which no option at all will classify as spot month options: since options on MATIF futures expire prior to the maturity of the future itself, over that specific period they will either have been converted into spot month futures or will have expired unexercised).

As a reminder, there are only expiries of a monthly nature on MATIF contracts and the issue of infra maturities as mentioned in the ESMA Q&As does not arise.

For complete background about this choice of organization by the AMF as the national competent authority for the MATIF, one may observe that this arrangement has been reflected in the setting of position limits by the national competent authority, which introduces a specific increased limit for the other months in the transitional period when liquidity gradually shifts from the spot month to the other months. However, this does not change the fact that the spot month is always deemed to be the first month open for trading until its last trading day.

The Spot Month indicator is available through the Saturn Web Service in the Get Instruments function.

SATURN Commodities Positions Reporting – Detailed Functional Specifications – Euronext Derivatives MarketTechnology

# 2. TECHNOLOGY

### 2.1 WEB SERVICE

The services in the Saturn API are exposed as Web Services:

- Message format: REST
- Transport mechanism: HTTPS

Saturn Rest API allows to upload only a CSV file format. The response of the upload request can be formatted in json or XML. *Please note that in order to use the Saturn API, systems must be capable of calling a REST Web service through HTTP over SSL, as well as being capable of generating and parsing XML documents.* 

# 2.2 SECURITY

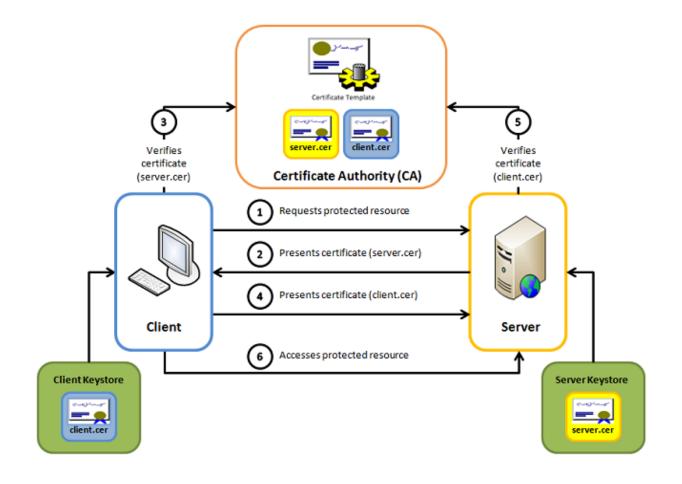
Services in Saturn are protected by authentication and authorization mechanisms. To access the services, a client is required to log on to the system.

The web services allow the customers to send commands and get reports to/from Saturn. The web services agents and the passwords are managed by the Saturn application. The passwords are stored encrypted in the Saturn MySql Database.

The agent sends first a logon request in HTTPS with his name and password encrypted. Then Saturn checks the credentials, assign a token and reply the token to the agent. Then the agent is allowed to communicate with Saturn in Rest API by using this token in each message. Tokens are valid for a defined period of time (parameter to be defined). If the agent sends a message with an expired token, then Saturn replies with an error message "Token expired". Passwords and tokens are transmitted in the Authorization fields of the HTTP header.

In addition, Saturn will use certificate based mutual authentication that refers to two parties authenticating each other through verifying the provided digital certificate so that both parties are assured of the others' identity. In other terms, it refers to a client (web browser or client application) authenticating themselves to a server (website or server application) and that server also authenticating itself to the client through verifying the public key certificate/digital certificate issued by the trusted Certificate Authorities (CAs). From a high-level point of view, the process of authenticating and establishing an encrypted channel using certificate-based mutual authentication involves the following steps. A client requests access to a protected resource:

- 1. The server presents its certificate to the client;
- 2. The client verifies the server's certificate;
- 3. If successful, the client sends its certificate to the server;
- 4. The server verifies the client's credentials;
- 5. If successful, the server grants access to the protected resource requested by the client.



### 2.3 SESSION HANDLING



Euronext Members and Non-Members

To use some of the services provided by Saturn, the client must first logon to the system. After checking the credentials Saturn creates a token and assigns it to the client. The client then will be allowed to communicate with the Saturn REST API by using this token in each message. In addition, Saturn will memorise the client IP from the login request and will check that each message is sent by the same client IP.

Saturn, in each request, extracts the token from the authorization header and looks up the token / IP on its storage.

Tokens are valid for a defined period of time. If the client sends a message with an expired token, Saturn will reply with an error message "Token expired"

**Note:** A client is only allowed to have an active session at a time. The first session will be automatically invalidated, if a client logs on to the Saturn system already having an active session established.

### 2.4 AUTHENTICATION

ALL Euronext Members and Non-Members

Username and password are used to authenticate a client logging on to the system. These client credentials are stored in the Saturn database.

**Note:** The password is stored encrypted into the database

After a successful logon, a token is created by Saturn and is returned to the client.

2.5	LOGOFF	
	ALL	Euronext Members and Non-Members

If a client is logged-on to the system for more than a configurable number of minutes without performing any operation, the system will automatically log-off the client and terminate the session.

If the client invokes an operation when logged off, a REST error will be returned to the client. In this case, the client needs to log on to the system again to be able to perform any further operations.

# **3. FUNCTIONS SUMMARY**

ALL

Euronext Members and Non-Members

This section provides a summary of the functions available through the Saturn REST API. For detailed information on each message, please refer to section 4: <u>Function Details</u>.

Function	Description
AuthenticateUser	Log-in function. This function should be used by client to access to the Saturn Web service
Upload	This function allows reporting entities to automatically upload their daily Positions report files to Saturn

# 4. FUNCTIONS DETAILS

# 4.1 AUTHENTICATE USER

ALL

Euronext Members and Non-Members

The client must perform this function before any other. If successful, the function creates a session on the server and returns a token that a client needs to pass along with all subsequent functions during the ongoing session.

The token is used for session handling. The server returns the token in the HTTPS response header.

The client sends that token in each request using the "Authorization" header. Tokens are valid for a defined period (parameter to be defined). If the client sends a message with an expired token, then Saturn replies with the error message "Token expired". Passwords and tokens are transmitted in the Authorization fields of the HTTP header.

### **Function:**

Function name:AuthenticateUserRequest EndPoint:/SaturnWebServices/rest/Authentication/ AuthenticateUserMethod:POST

### **Request Parameters:**

Name	Value	Туре	Data Type	Required	Description
Authorization	Basic <username:password></username:password>	Attribute	string	Yes	Concatenate Saturn username and password (MD5 encrypted) – Concatenation is encrypted in base 64

### **Response Parameters:**

Name	Туре	Data Type	Required	Description
Token	Attribute	string	Yes	Token generated by Saturn and assigned to the above account. Each following function undertaken by the user shall contain this token
StatusCode	Attribute	int	Yes	The status code of the logon function. See below for description

### Possible returned **status** codes:

#### 200 – Success

401 – Access denied ! Check your login/password

### 504 - Session expired

#### 4.2 ENVIRONMENT

ALL Euronext Members and Non-Members

The following table provides the links to connect to the Saturn Web / API application in the EUA and Productions environments.

Environment	URL Saturn GUI	URL Saturn Web Services
VEUA	https://saturn-v.euronext-net.com	https://saturn-api-v.euronext-net.com
PEUA	https://saturn-h.euronext.com	https://saturn-api-h.euronext.com
PRODUCTION	https://saturn-p.euronext.com	https://saturn-api-p.euronext.com

# 5. UPLOAD

```
ALL
```

Euronext Members and Non-Members

The Upload function must be used by client to upload a Commodity Position Reporting file in csv format.

### **Function:**

Function name:	upload
Request EndPoint:	/SaturnWebServices/rest/files/upload
Method:	POST

#### **Request Body :**

This endpoint accepts a request body in one of the following formats:

Name	Туре	Description	Notes	Validations
Туре	"FormData"			
FieldValues	List of FieldValue	A list of key/value pairs identifying the form data (field name / value)		

### 5.1 UPLOAD .CSV FILE DESCRIPTION

The file must be in csv format with ';' as separator.

The first line must contain the label of the fields in any order

The labels of the fields are listed below in the fire column of the tab; please note that the labels are case sensitive.

The file size is 10Mo. Files larger than 10Mo are to be uploaded separately.

Label	Description	Mandatory	Format	Validation Rules
Report reference number	Unique identifier of the report provided by the reporting entity	Yes	{ALPHANUM-52}	<ul> <li>1 - The Report Reference Number must be unique per client when Report Status field is equal to 1 (NEW).</li> <li>2 - For a Report status field equal to 2 (AMEND), the Report Reference Number must exist and corresponds to the reference of the initial report</li> <li>3 - For a Report status field equal to 3 (CANCEL), the Report Reference Number must exist and corresponds to the reference of the initial report (that must have been cancelled prior to the modification)</li> </ul>
Holding Position Trading Day	Field to be populated with the date on which the reported position is held at the close of the trading day	Yes	Date and time in the following format: YYYY-MM-DD - <b>YYYY</b> : Year - <b>MM</b> : Month - <b>DD</b> : Day	

Label	Description	Mandatory	Format	Validation Rules
Report status	Indication as to whether the report is (1) new, (2) cancelled, or (3) amended. Where a previously submitted report is cancelled or amended, a report which contains all the details of the original report and using the original Report Reference Number should be sent and the 'Report status' should be flagged as 'CANC'. For amendments, a new report that contains all the details of the original and using the original Report Reference Number with all necessary details corrected should be sent and the 'Report status' should be flagged as 'AMND'	Yes	Numerical value 1: New 2: Amendment 3: Cancellation	
Reporting Entity ID	LEI of the Reporting Entity. Direct clients must also populate this field with the LEI of their General Clearing Member (GCM)	Yes	{ALPHANUM-20}	This code must have been previously declared to Euronext
Position holder ID	Position Holder identifier. It can be either the Legal Entity Identifier (LEI) or the NATIONAL_ID for persons not having an LEI	Yes	{ALPHANUM-35}	This code must have been previously declared to Euronext

Label	Description	Mandatory	Format	Validation Rules
Position holder ID type	Identify the Type of the Position Holder.	No	Numerical value 1: Investment firms or credit institutions 2: Investment funds 3: Other financial institutions 4: Commercial undertakings 5: Operators with compliance obligations under Directive 2003/87/EC	This value must have been previously provided to Euronext
Position holder email	Email address for notifications of position- related matters	Yes*	{ALPHANUM-256}	Mandatory for XEUC Optional for XMAT
Ultimate parent entity ID	Field to be populated with the Legal Entity Identifier code (LEI) for legal entities or {NATIONAL_ID} for natural persons not having an LEI.	Yes	{ALPHANUM-35}	
Ultimate parent entity ID type	Identify the type of Ultimate Parent Id	Yes	Numerical value 1: LEI 2: National ID 3: CONCAT	
Ultimate parent entity email	Email address for correspondence in relation to aggregated positions	Yes*	{ALPHANUM-256}	Mandatory for XEUC Optional for XMAT
Investment Firm Indicator	Field to report on whether the position holder is a collective investment undertaking that makes investment decisions independently from its parent	Yes	Numerical 1: True 0: False	

Label	Description	Mandatory	Format	Validation Rules
SecurityId	ISIN code of the commodity derivative, emission allowance or derivative thereof. For Euronext instruments, the ISIN code of the instrument as provided in the standing data files	Yes	{ISIN}	
Trading venue identifier	Field to be populated with the ISO 10383 MIC code for positions reported on Euronext contracts. Where the segment MIC does not exist, use the operating MIC	Yes	{ALPHANUM-4} - XMAT: Euronext Paris contracts . XEUC: Euronext Amsterdam contracts . XXXX: off-venue positions in economically equivalent OTC contracts - XOFF: listed derivatives traded off-exchange	Π
Position type	Field to report whether the position is in either futures, options, emission allowances, or derivatives.	Yes	Numerical value: 1: Options 2: Futures 3: OTC equivalent	<ul> <li>If position type is Options or Futures, the values of the Euronext ISIN code and the Euronext Trading venue identifier must be consistent</li> <li>If Position Type is OTC equivalent, the Trading venue identifier must be either XXXX or XOFF</li> </ul>
Position maturity	Indication of whether the maturity of the contract comprising the reported position relates to the spot month or to all other months	Yes	Numerical value: 1: Spot month 2: All other months	

Label	Description	Mandatory	Format	Validation Rules
Long Position quantity	This field should be populated with the <b>Long</b> position quantity held in the Euronext commodity derivatives contract expressed in number of lots or MHWO For OTC equivalent contracts, this field should be populated with the number of units held.	Yes	Decimal value with 15 digits and 2 fraction digits separated by "."	If Position Type is Option, the field should contain the Long Position Quantity held in number of lots or MHWO. Must be filled and greater than or equal to 0. Error : [14] A Position quantity not null must be provided For Futures (Position type = 2 (FUTR)), either Long Position Quantity or Short Position Quantity can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Position. For Call Options (Position type = 1 (OPTN) & Instrument's CFI = OC**** (Call)), either (Long Position Quantity and Delta Equivalent Long Position) OR (Short Position Quantity and Delta Equivalent Short Position) can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Short Position) can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Position. For Put Options (Position type = 1 (OPTN) & Instrument's CFI = OP**** (Put)), either (Long Position Quantity and Delta Equivalent Position) Quantity and Delta Equivalent Short Position) OR (Short Position Quantity and Delta Equivalent Long Position) OR (Short Position Quantity and Delta Equivalent Long Position) OR (Short Position Quantity and Delta Equivalent Long Position) Can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Long Position) can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Long Position) can be filled.

Label	Description	Mandatory	Format	Validation Rules
Delta Equivalent Long Position	If the Position Type is 'OPTN', then this field shall contain the delta- equivalent quantity of the position reported in the "Position Quantity" field.	No	Decimal value with 15 digits and 2 fraction digits separated by "."	Must only be provided if Position Type is Option. For Call Options (Position type = 1 (OPTN) & Instrument's CFI = OC**** (Call)), either (Long Position Quantity and Delta Equivalent Long Position) OR (Short Position Quantity and Delta Equivalent Short Position) can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Position. For Put Options (Position type = 1 (OPTN) & Instrument's CFI = OP**** (Put)), either (Long Position Quantity and Delta Equivalent Short Position) OR (Short Position Quantity and Delta Equivalent Long Position) Can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Position. If Position Type is Futures, the field should be left empty

Label	Description	Mandatory	Format	Validation Rules
Short Position quantity	This field should be populated with the <b>Short</b> position quantity held in the commodity derivatives expressed in number of lots or MHWO For OTC equivalent contracts, this field shall be populated with the number of units held	Yes	Decimal value with 15 digits and 2 fraction digits separated by "."	If Position Type is Option, the field should contain the Long Position Quantity held in number of lots or MHWO. Must be filled and greater than or equal to 0. Error : [14] A Position quantity not null must be provided For Futures (Position type = 2 (FUTR)), either Long Position Quantity or Short Position Quantity can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Position. For Call Options (Position type = 1 (OPTN) & Instrument's CFI = OC**** (Call)), either (Long Position Quantity and Delta Equivalent Long Position) OR (Short Position Quantity and Delta Equivalent Short Position) can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Short Position) Can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options (Position type = 1 (OPTN) & Instrument's CFI = OP**** (Put)), either (Long Position Quantity and Delta Equivalent Position. For Put Options (Position type = 1 (OPTN) & Instrument's CFI = OP**** (Put)), either (Long Position Quantity and Delta Equivalent Short Position) OR (Short Position Quantity and Delta Equivalent Long Position) OR (Short Position Quantity and Delta Equivalent Long Position) Can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Long Position) can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Long Position) can be filled.

Label	Description	Mandatory	Format	Validation Rules
Delta Equivalent Short Position	If the Position Type is 'OPTN', then this field shall contain the delta- equivalent quantity of the position reported in the "Position Quantity" field.	No	Decimal value with 15 digits and 2 fraction digits separated by "."	Must only be provided if Position Type is Option If Position Type is Futures, the field should be left empty Delta equivalent Short Quantity must be expressed as a positive value. For <b>Call Options</b> (Position type = 1 (OPTN) & Instrument's CFI = OC**** (Call)), either (Long Position Quantity and Delta Equivalent Long Position) OR (Short Position Quantity and Delta Equivalent Short Position) can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Position. For Put Options (Position type = 1 (OPTN) & Instrument's CFI = OP**** (Put)), either (Long Position Quantity and Delta Equivalent Short Position) OR (Short Position Quantity and Delta Equivalent Long Position) OR (Short Position Quantity and Delta Equivalent Long Position) can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Position (Data Equivalent Long Position) can be filled. Error message : [7034]Only Long or Short Position Quantity can be filled. For Options, please check additional fields: Delta Equivalent Position.
Risk reducing indicator	Field to report whether the position is risk reducing in accordance with Article 7 of RTS 21.	Yes	Numerical value: 1: True (the position is risk reducing) 0: False_ (the position is not risk reducing)	
FreeText 1	User free text #1	No	{ALPHANUM-55}	
FreeText 2	User free text #2	No	{ALPHANUM-55}	
FreeText 3	User free text #3	No	{ALPHANUM-55}	
FreeText 4	User free text #4	No	{ALPHANUM-55}	For direct reporting clients, the field should be filled with 'REPORT_MYSELF'

Label	Description	Mandatory	Format	Validation Rules
FreeText 5	User free text #5	No	{ALPHANUM-55}	
Business Unit	The Saturn client can have several business units; this field is to specify to which business unit the user who sends the file belongs to.	No	{ALPHANUM-10}	Must only contain capital letters and numbers

#### 5.2 UPLOAD RESPONSE DATA

ALL
ALL

Euronext Members and Non-Members

This function returns the status of the file reception.

### **Response Data Parameters:**

Name	Туре	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 202 – OK, 600- FAILED
Data	Element	Sequence of data	Yes	Detailed description below

### Sequence of data

Name	Туре	Data Type	Required	Description
Туре	Attribute	String	Yes	Name of statistics: UploadedFileStatus
Filename	Attribute	String	Yes	Csv file name
Size	Attribute	Int	Yes	Csv file size
Status	Attribute	String	Yes	Flag W
Tid	Attribute	String	Yes	Treatment ID
UploadedDate	Attribute	Date	Yes	"YYYY-MM-DDTHH:MM:SS

### Successful upload example

```
{
   "code":200,
   "data":[
   {
     "type":"uploadedFileStatus",
     "fileName":"commo_CTSG_5.csv",
     "size":6144,
     "status":"W",
     "tid":1022, (please note that Tid is for Euronext internal usage)
```

```
"uploadedDate":"2017-09-12T12:54:25"
}
],
"msg":"OK",
"recordCount":1
}
```

For more details, refer to the section Filter structure in the chapter Technical details & examples here

#### 5.3 GETUPLOADED



Euronext Members and Non-Members

#### **EXAMPLE OF THE GETUPLOADED FUNCTION:**

Function name:GetUploadRequest EndPoint:/SaturnWebServices/rest/files/getuploadedMethod:GET

#### 5.4 GETUPLOAD RESPONSE DATA

ALL Euronext Members and Non-Members

# **RESPONSE DATA PARAMETERS:**

Name	Туре	Data Type	Required	Description
Code	Attribute	Int	Yes	Status of the function. 200 – OK
Data	Element	Sequence of data	Yes	Detailed description of uploaded data

#### **SEQUENCE OF DATA:**

Name	Туре	Data Type	Required	Description
Туре	Attribute	String	Yes	Name of statistics : UploadedFileStatus
Filename	Attribute	string	Yes	Csv file name
Msg	Attribute	Int	Yes	Detailed message by trade and column
Size	Attribute	String	Yes	Filename size

Name	Туре	Data Type	Required	Description
Status	Attribute	String	Yes	E
Tid	Attribute	int		Treatment ID sequential number
uploadedDate	Attribute	date	Yes	"YYYY-MM-DDTHH:MM:SS

```
{
 "code":200,
 "data":[
   {
     "type":"uploadedFileStatus",
     "fileName":"commo_CTSG_5.csv",
     "msg":[
      "line[3]ERROR: Data too long for column 'POSITIONHOLDEMAIL' at row 1",
      "line[7]ERROR: Data too long for column 'ULTIMATEPARENTENTITYEMAIL' at row 1",
      "line[8] Try to insert an existing transaction",
      "line[9] Try to insert an existing transaction"
     ],
     "size":6144,
     "status":"E",
     "tid":1022, (please note that Tid is for Euronext internal usage)
     "uploadedDate":"2017-09-12T12:54:25"
   }
 ],
 "msg":"OK",
 "recordCount":1
}
Possible returned status codes:
200 – OK
600 - FAILED
```

# 6. RETRIEVE REFERENTIAL

```
ALL
```

Euronext Members and Non-Members

The functions below are used to retrieve referential data.

#### 6.1 GET INSTRUMENTS

ALL

Euronext Members and Non-Members

The "Get Instruments" function is used to get instruments referential data.

#### **Function:**

Function name:	Get
Request EndPoint:	/SaturnWebServices/rest/referentials/instruments/get
Method:	POST

It is recommended to set a "Limit" and "offset" value to avoid retrieve all instruments from the database. Please note that <u>limit</u> and <u>offset</u> are defined at request end Point level. The <u>limit</u> value is used to retrieve a maximum number of instruments and the <u>offset</u> value is used to retrieve instruments from a specific starting point.

# Example : /SaturnWebServices/rest/referentials/instruments/get?limit=100offset=0

limit=100&offset=0, begin from the first instrument (offset) and take the 100 following instruments (limit)

### **Request Body:**

This endpoint accepts a request body in one of the following formats:

- 1- application/json;
- 2- application/xml.

#### **Request Parameters**

Name	Туре	Data Type	Required	Description
FilterList	Element	Sequence of FilterList	Yes	Detail of request (treatment ID, sort)
Offset	Attribute	Int	Yes	Initial number = 0
Limit		Int	Yes	Number of retrieved instruments

#### Sequence of filterList

Name	Type Data Type	Required	Description
------	----------------	----------	-------------

Name	Туре	Data Type	Required	Description
Name	Attribute	String	Yes	Name of the field used as filter. It can be any field listed in the sequence data tab, for example ISIN
Value	Attribute	String	Yes	Value to filter
Operator	Attribute	String	Yes	Operator for filtering
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

# **Example of GetInstruments:**

```
{
    "filterList": [
        {
            "name": "isin",
            "value": "DEC%",
            "operator": "LK"
        },
    ]
}
```

For more details, refer to the section Filter structure in the chapter Technical details & examples here

Response Data	Parameters:			
Name	Туре	Data Type	Required	Description
Code	Attribute	int	Yes	Status of the function. 200 – OK

Element Sequence of data

# **Response Data Parameters:**

# Sequence of data

Data

Name	Туре	Data Type	Required	Description
mic	Attribute	String	Yes	MIC of the Instrument
isin	Attribute	String	Yes	ISIN of the Instrument
euronextcode	Attribute	String	Yes	Euronext code of the Instrument (only for Cash instruments)
currency	Attribute	String	Yes	Currency of the Instrument
amr	Attribute	String	Yes	Euronext code of the Instrument (only for Derivative instruments)
adt	Attribute	Int	Yes	Average Daily Turnover
Cfi	Attribute	String	Yes	CFI code of the Instrument
product_code	Attribute	string	Yes	Euronext code of the product (only for Derivative instruments)

Yes

Detailed description below

Name	Туре	Data Type	Required	Description
symbol_Index	Attribute	Int	Yes	Euronext Optiq symbol index
trading_group	Attribute	String	Yes	Euronext trading group of the Instrument (only for Cash instruments)
expiry_date_offset	Attribute	Int	Yes	Rank of the maturity: 0: Spot month 1,2 3: Other maturities
Ideleted	Attribute	Int	Yes	0: Instrument not delisted 1: Instrument delisted
Illiquidity	Attribute	Int	Yes	0: illiquid instrument 1: liquid instrument
q_notation	Attribute	String	Yes	This field indicates whether the quantity is expressed in monetary value, in nominal value or in Units: - 'UNIT - 'MONE' – Monetary value; - 'NMNL' – Nominal value;
tick_size_denominator	Attribute	Int	Yes	Denominator used for tick size calculation
tick_size_numerator	Attribute	Int	Yes	Numerator used for tick size calculation
lissposttrade	Attribute	Int	Yes	Number of lots representing the Large In Scale post trade transparency deferral threshold.
lispretrade	Attribute	Int	Yes	Number of lots representing the Large In Scale pre trade transparency deferral threshold.
sstiposttrade	Attribute	Int	Yes	Number of lots representing the Size Specific To Instruments post trade transparency deferral threshold.
sstipretrade	Attribute	Int	Yes	Number of lots representing the Size Specific To Instrument pre trade transparency deferral threshold.
underlying_name	Attribute	String	Yes	Euronext name of the underlying (only for Derivative instruments)
underlying_product_code	Attribute	String	Yes	Euronext code of the underlying (only for Derivative instruments)

{

"code": 200, "data": [{ "type": "instrument", "adt": "0.00000", "amr": "YOOMA161117200P", "cfi": "OPAFPS",

```
"currency": "EUR",
 "expiry_date_offset": 4,
 "ideleted": 0,
 "iliquidity": 0,
 "isin": "FRENX0146618",
 "lispostrade": "0",
 "lispretrade": "0",
 "mic": "XMAT",
 "product_code": "OMA",
 "q notation": "",
 "sent_to_mdg": 0,
 "sstiposttrade": "0",
 "sstipretrade": "0",
 "symbol_Index": "4225800688",
 "tick_size_denominator": 100,
 "tick size numerator": 10,
 "trading_group": "",
 "underlying_name": "Corn / Mais",
 "underlying_product_code": "EMA"
}],
     "msg": "success",
     "recordCount": 560
```

}

Please note that some of the attributes of the GetInstrument function will not be systematically populated.

### Specific notes for Commodity Reporting purpose:

- <u>Reporting entities are encouraged to filter the results of the function using the MIC code of</u> <u>Euronext Commodity markets (i.e.XMAT for Paris Commodity instruments).</u>
- <u>All commodity instruments having an expiry date offset equal to '0' correspond to instruments</u> related to the 'Spot Month' (at the date the function is called).
- <u>All Commodity instruments having an expiry\_date\_offset other than '0' correspond to instruments</u> related to 'Other Months' (at the date the function is called).

# 7. **RETRIEVE COMMODITIES REPORT**

The "Get Commodity Reports" function is used to get instruments referential data.

# **Function:**

Function name:	Get
Request EndPoint:	/SaturnWebServices/rest/commodityReports/get
Method:	POST

It is recommended to set a "Limit" and "offset" value to avoid retrieve all trades from the database. Please note that <u>limit</u> and <u>offset</u> are defined at request end Point level. The <u>limit</u> value is used to retrieve a maximum number of trades and the <u>offset</u> value is used to retrieve trades from a specific starting point.

# Example: /SaturnWebServices/rest/commodityReports/get?limit=15&offset=0

limit=15&offset=0, begin from the first trade (offset) and take the 15 following trades (limit)

# **Request Body :**

This endpoint accepts a request body in one of the following formats:

- 1- application/json;
- 2- application/xml.

# **Request Parameters**

Name	Туре	Data Type	Required	Description
FilterList	Element	Sequence of filterList	Yes	Detail of request
Offset	Attribute	Int	Yes	initial number = 0
Limit		Int	Yes	Number of retrieved trades

### Sequence of filterList

Name	Туре	Data Type	Required	Description
Name	Attribute	String	Yes	Type of request : tid (treatment ID), status
Value	Attribute	String	Yes	status of position
Operator	Attribute	String	Yes	EQ
Туре	Attribute	String	Yes	Type of report (commodity report)
Sort	Attribute	string	Yes	DESC or ASC (descending or ascending)

### Example of Get function:

```
{
    "filterList": [
    {
        "name": "arm",
        "value": "DEC%",
```

```
"operator": "LK"
},
]
}
```

#### 7.1 GET COMMODITIES REPORT

ALL

Euronext Members and Non-Members

#### Get ResponseData Parameters:

Name	Туре	Data Type	Required	Description
code	Attribute	l <u>nt</u>	Yes	Status of the function. 200 – success
data	Element	Sequence of data	Yes	Detailed description below
Msg	Attribute	Sequence of data	Yes	Status – Success or failed
Recordcount	Attribute	Sequence of data	Yes	Number of retrieved trades

# Sequence of data

Name	Туре	Data Type	Required	Description
Columns details	Attribute	List	Yes	block of positions with all columns filled in the database

{

"code": 200,

"data": [{

"type": "commodityReport",

```
"businessunit": {
```

"ideleted": 0,

"name": "BU001",

"participanttid": 385,

```
"tag": "BU001",
```

"tid": 9 (please note that Tid is for Euronext internal usage)

},

"errors": "[REPORTINGENTITY][11] Wrong ESMA code. Not referenced.;[POSITIONHOLDERID][11] Wrong ESMA code.Not referenced.;[SECURITYID][19] Instrument invalid value;[VENUE][13] Invalid Value; [VENUE][16] MIC incompatible with ISIN; [SHORTPOSITIONQUANTITYDELTA][18] The delta position quantity must no be provided for Futures; [LONGPOSITIONQUANTITYDELTA][18] The delta position quantity must no be provided for Futures ",

"freetext1 ": "Smith ",

"freetext2 ": "Roland ",

"freetext3 ": "Vert ",

"freetext4 ": "Audi ",

"freetext5": "Bruxelles",

"holdingpositionday": "2016-10-14T00:00:00",

"investmentfirmindicator": 0,

"longpositionquantity": 940736.00,

"longpositionquantitydelta": 265758.00,

"origin": "SATURN",

"participanttid": 385,

"positionholdemail": "holder1@client.com",

"positionholderid": "5493005GIOHA4VVQNV28",

"positionmaturity": 2,

"positiontype": 2,

"reportingentity": "549300KFCCJ1Y2M20965",

"reportref": "TRADEREFERENCECMQH7398852110",

"riskreducingid": 1,

"saturnuser": "CommoUser",

"securityid": "FRENX0717251",

"shortpositionquantity": 567772.00,

"shortpositionquantitydelta": 617137.00,

"status": 4,

"tid": 2751, (please note that Tid is for Euronext internal usage)

"tradereport": 1,

"tsreceive": "2017-08-24T13:31:06.15",

"ultimateparententityemail": "test2@demo2.com",

"ultimateparententityid": "549300HUWQH7YHZVHL75",

"ultimateparententityidtype": 1,

"venue": "XMAT"

SATURN Commodities Positions Reporting – Detailed Functional Specifications – Euronext Derivatives MarketRetrieve commoditie

}],
"msg": "success",
"recordCount": 560

}

For more details, refer to the section Filter structure in the chapter Technical details & examples here.

## 8. **REJECTION CODES**

The following table lists the error codes returned by Saturn as a result of the submission of the report. These error codes therefore do not correspond to the regulators' feedback.

Error Code	Description
7000	The Report Reference Number already exists
7001	Unknown Report Reference Number for Canc. Report
7002	Incorrect Report Reference Number for Amend. Report
7003	Incorrect Holding Position Trading Day format
7004	Invalid value for Report Status
7005	Unknown Reporting Entity ID
7006	Unknown Position Holder ID
7007	Incorrect Position Holder email format
7008	Unknown Ultimate Parent Entity ID
7009	Invalid Ultimate Parent Entity ID Type
7010	Incorrect Ultimate Parent Entity email format
7011	Invalid value for Investment Firm Indicator
7012	Unknown ISIN code
7013	Invalid Trading Venue Identifier
7014	Invalid value for Position Type
7015	Incorrect Euronext Trading Venue Identifier for ISIN
7016	Incorrect Trading Venue Identifier for Position type
7017	Invalid value for Position Maturity
7018	Long Delta Equivalent Position Quantity must be provided
7019	Long Delta Equivalent Position Quantity must not be provided for Futures
7020	Short Delta Equivalent Position Quantity must be provided
7021	Short Delta Equivalent Position Quantity must not be provided for Futures
7022	Invalid value for Risk Reducing Indicator
7023	Invalid Business Unit format
7024	Invalid Position Holder Type format

## 9. **REST API STANDARDS**

### 9.1 DATA FORMAT STANDARDS

ALL

Euronext Members and Non-Members

Certain data in the messages needs to be formatted according to standards for the respective data types.

Data Type	Standard	Example
Date	date	YYYY-MM-DD
DateTime	UTCTimestamp	YYYY-MM-DDThh:mm:ss.ddddddZ
Decimal	decimal	3.1415927
Boolean	Boolean	True/ False
String	string	FUTURE
Long	long	234 (up to characters)
Integer	int	2 (up to 233 characters)
Account	account	Username : string Role : string ID : long Jean ; Admin ; 347
LEI	ISO 17442	969500HMVSZ0TCV65D58
MIC	ISO 10383	ХМАТ
Currency	ISO 4217	EUR
Country	ISO 3166	FR
CFI	ISO 10962	ESETFA

### 9.2 **OPERATORS**

ALL
-----

Euronext Members and Non-Members

Operators	Description	
EQ	Equal to	
NEQ	Not Equal to	
LK	Like	
GT	Greater than	
GE	Greater than or Equal to	
LT	Less than	
LE	Less than or Equal to	
ISNULL	Is Null	

Operators	Description
ISNOTNULL	Is Not Null

### 9.3 SPECIAL CHARACTERS <, & AND > IN XML

ALL	Euronext Members and Non-Members

The ampersand character (&) and the angle brackets (<) and (>) *MUST NOT* appear in their literal form, except when used as mark-up delimiters, or within a <u>comment</u>, a <u>processing instruction</u>, or a <u>CDATA</u> <u>section</u>. If they are needed elsewhere, they *MUST* be <u>escaped</u> using either <u>numeric character references</u> or the strings "&amp;" for (&) and "&lt;" for (<). The right angle bracket (>) *MAY* be represented using the string ">", and *MUST*, for compatibility, be escaped using either ">" or a character reference when it appears in the string "]]>" in content, when that string is not marking the end of a <u>CDATA section</u>.

## **10. PRE REQUISITE BEFORE USING API**

### **10.1 ENGLISH SCREENSHOTS**

Before using SATURN API REST you have to check that your connection is made with a valid intermediate certificate.

Please follow the different steps below so that The connection is fully established.

- Open your Internet Explorer navigator
- Go to Internet Options
- Click on 'Content' Tab
- Click on 'Certificates' button

Internet Options		? ×			
General Security Privacy	Content Connections	Programs Advanced			
Certificates					
Use certificates	for encrypted connection	ns and identification.			
Clear SSL state	<u>C</u> ertificates	Pu <u>b</u> lishers			
AutoComplete		•			
	stores previous entries nd suggests matches	Sett <u>i</u> ngs			
Feeds and Web Slices —					
Feeds and Web Slices provide updated content from websites that can be read in Internet Explorer and other programs.					
<b>Some</b> <u>settings</u> are managed by your system administrator.					
OK Cancel Apply					

In the pop-in 'certificate' go to 'Intermediate Certification Authorities' and please check that you have the intermediate certificates Digicert

Certificates				
Intended purpose: <a>All&gt;</a>				
Personal Other People Intermediate Certification Authorities Trusted Root Certification				t Certification
Issued To		Expirati 25/10/2	Friendly Name <none></none>	
Root Agency	VeriSign Class 3 P Root Agency oad-PB2OACER01 Microsoft Root Aut	01/01/2 29/01/2	<none></none>	
Entrust Certifica	Entrust Root Certif DigiCert High Assu DigiCert Assured I	05/12/2 22/10/2	<none> <none></none></none>	
1.				
Import Expo	rt <u>R</u> emove			Advanced
Certificate intended purposes				
View				View
Learn more about <u>certificates</u>				Close

If any it is necessary to install them with executing the file attached "Certifdigicertclient.pfx" in this document, first click on 'Next'.

SATURN Commodities Positions Reporting – Detailed Functional Specifications – Euronext Derivatives MarketPre requisite before a



Browse the file on your desktop and click on 'Next'

Certificate Import Wizard
File to Import Specify the file you want to import.
Eile name:
C:\Users\Istevanovic\AppData\Local\Temp\Certifdigicertclieht.pfx
Note: More than one certificate can be stored in a single file in the following formats:
Personal Information Exchange- PKCS #12 (.PFX,.P12)
Cryptographic Message Syntax Standard- PKCS #7 Certificates (.P7B)
Microsoft Serialized Certificate Store (.SST)
Learn more about certificate file formats
< <u>B</u> ack Next > Cancel

### The password is Cer\$!IF123 click on 'Next'.

Certificate Import Wizard	X			
Password To maintain security, the private key was protected with a password.				
Type the password for the private key.				
Password:				
•••••••				
<ul> <li>Enable strong private key protection. You will be prompted every time the private key is used by an application if you enable this option.</li> <li>Mark this key as exportable. This will allow you to back up or transport your keys at a later time.</li> <li>Include all extended properties.</li> </ul>				
Learn more about <u>protecting private keys</u>				
< <u>B</u> ack <u>N</u> ext > Can	cel			

Tick on 'Automatically select the certificate store based on the types of certificate' and click on 'Next'.

Certificate Import Wizard	X
Certificate Store Certificate stores are system areas where certificates are kept.	
Windows can automatically select a certificate store, or you can specify a location for the certificate.	
Automatically select the certificate store based on the type of certificate	
$\bigcirc$ <u>P</u> lace all certificates in the following store	
Certificate store:	
Browse	
Learn more about certificate stores	
< <u>B</u> ack Next > Cancel	

When the installation is finished you get the window below, click on 'Finish'.

Certificate Import Wizard		X	
Completing the Certificate Import Wizard The certificate will be imported after you click Finish.			
	You have specified the follo	owing settings:	
	Certificate Store Selected Content	Automatically determined by PFX	
	File Name	C:\Users\Istevanovic\AppData	
	•		
	< <u>B</u> ack	Finish Cancel	

### **10.2 FRENCH SCREENSHOTS**

Before using SATURN API REST you have to check that your connection is made with a valid intermediate certificate.

Please follow the different steps below so that The connection is fully established.

- Open your Internet Explorer navigator
- Go to Options Internet
- Click on 'Contenu' Tab
- Click on 'Certificats' button

Options Internet ?	x
Général Sécurité Confidentialité Contenu Connexions Programmes Avancé	
Certificats	-
Utiliser des certificats pour les connections chiffrées et pour l'identification.	
Effacer l'état SSL Certificats Éditeurs	
Saisie semi-automatique	_
La saisie semi-automatique stocke les entrées précédentes sur des pages Web et suggère des correspondances.	
Flux et composants Web Slice	_
Les flux et les composants Web Slice offrent un contenu mis à jour à partir de sites Web, lisible dans Internet Explorer et dans d'autres programmes.	
Ortains <u>paramètres</u> sont gérés par votre administrateur système.	
OK Annuler Appl	iquer

In the pop-in 'certificate' go to 'Autorités de certification intermédiaires' and please check that you have the intermediate certificates Digicert

Certificats	<u> </u>			23
Rôle prévu : <a></a>	-		_	•
Personnel Autres personne	Autorités de certificatio	on intermédiaire	es Autorités de cert	i <u>· · ·</u>
Délivré à	Délivré par	Expiration	Nom convivial	<b>^</b>
	AddTrust External CA COMODO RSA Certific	30/05/2020 12/02/2029	<aucun> <aucun></aucun></aucun>	E
DigiCert SHA2 Assu	DigiCert Assured ID R DigiCert Assured ID R	05/11/2028	<aucun></aucun>	
DigiCert SHA2 High	DigiCert Assured ID R DigiCert High Assuran	22/10/2028	<aucun></aucun>	
	Entrust Root Certifica USERTrust RSA Certifi GeoTrust Global CA	05/12/2030 12/09/2024 20/05/2022		-
Importer Exporter	. Supprimer		Ava	ncé
			Afficha	ge
En savoir plus sur les <u>certifica</u>	its		Ferr	mer

23 Assistant Importation de certificat **Bienvenue**! Cet Assistant vous aide à copier des certificats, des listes de certificats de confiance et des listes de révocation des certificats depuis votre disque vers un magasin de certificats. Un certificat, émis par une autorité de certification, est une confirmation de votre identité et contient des informations utilisées pour protéger vos données ou établir des connexions réseau sécurisées. Le magasin de certificats est la zone système où les certificats sont conservés. Cliquez sur Suivant pour continuer. < Précédent Suivant > Annuler

If any it is necessary to install them with executing the file attached "Certifdigicertclient", first click on 'suivant'.

## Browse the file on your desktop and click on 'Suivant'

Assistant Importation de certificat	<u> </u>
Fichier à importer	
Spécifiez le fichier à importer.	
Nom du fichier :	
C:\Users\ohbali\Desktop\Certifdigicertclient.pfx Par	rcourir
Remarque : des certificats peuvent être stockés dans un fichier aux formats	suivants :
Échange d'informations personnelles - PKCS #12 (.PFX,.P12)	
Standard de syntaxe de message de chiffrement - Certificats PKCS #7 (.F	Р <b>7</b> В)
Magasin de certificats sérialisés Microsoft (.SST)	
En savoir plus sur les <u>formats de fichiers de certificats</u>	
< Précédent Suivant >	Annuler

The password is Cer\$!IF123 click on 'Suivant'

Assistant Importation de certificat
Mot de passe Pour maintenir la sécurité, la clé privée a été protégée avec un mot de passe.
Entrez le mot de passe de la dé privée.
Mot de passe :
Activer la protection renforcée de dés privées. Une confirmation vous sera demandée à chaque utilisation de la dé privée par une application.
Marquer cette dé comme exportable. Cela vous permettra de sauvegarder et de transporter vos dés ultérieurement.
Inclure toutes les propriétés étendues.
En savoir plus sur la <u>protection des dés privées</u>
< Précédent Suivant > Annuler

Tick 'Sélectionner automatiquement le magasin de certificats selon le type de certificat' and click on 'suivant'

Magasin o	le certificats				
Les m	agasins de certifi	icats sont des zone	s système où les	certificats so	nt stockés.
		nner automatiquen lacement du certific		de certificats,	ou vous
0	Sélectionner aut	tomatiquement le n	nagasin de certifi	cats selon le t	ype de certificat
C	Placer tous les c	certificats dans le m	agasin suivant		
	Magasin de cert	tificats ;			
					Parcourir
En savoir	olus sur les <u>maga</u> s	sins de certificats			

Assistant Importation de certific	at	X
	Fin de l'Assistant Impo certificat	ortation de
	Ce certificat sera importé après que Terminer.	
	Vous avez spécifié les paramètres s	uivants :
	Magasin de certificats sélectionné Contenu	Déterminé automatiqu PFX
	Nom du fichier	C: \Users \ohbali \Deskt
	•	4
	< Précédent Te	rminer Annuler

## When the installation is finished you get the window below, click on 'Terminer'

SATURN Commodities Positions Reporting – Detailed Functional Specifications – Euronext Derivatives MarketHow To Set Up a Test

## **11. HOW TO SET UP A TEST**

This section describes step by step how to test a function in Web service.

### 11.1 ACCESS TO API VIA POSTMAN

The function take in example hereafter is AuthenticateUser. It allows a user to connect to the API. The screenshots are Software Postman examples

Select in the combo box below the function POST (showed by the arrow in the following screenshot)

New Tab + ••••							No Environn	nent	~ <	۵
GET V Enter request URL							Params	Send	Sav	e 🗸
Authorization Headers Body Pre-request Script	Tests									Code
Туре	No Auth		$\sim$							
Response										
		Hit the S	end buttor	n to get a re	sponse.					
			Do more w	ith requests						
		Share	Mock	Monitor	Document					
		<		-\/-	E					

### **11.2 REQUEST ENDPOINT AND FUNCTION PARAMETER**

All functions in this document have to be built as detailed below

### **Function:**

Function name:AuthenticateUserRequest EndPoint:/SaturnWebServices/rest/Authentication/ AuthenticateUserMethod:POST

In Postman, select the method (POST) set up the URL followed by request end point.

SATURN Commodities Positions Reporting – Detailed Functional Specifications – Euronext Derivatives MarketHow To Set Up a Test

https://saturn-apl-v.et X + *** URL request end	point					No Environm	ient 🗸	<ul> <li></li> <li></li></ul>
POST v https://saturn-api-v.euronext-net.com/SaturnWebServices/rest/Authen		r				Params	Send 💙	Save 🗸
Authorization  Headers (2) Body Pre-request Script Tests								Code
Key	Value				Description		••• Bulk Edit	Presets 🔻
Authorization	Basic Ym5wMTE6ZDBi	ZmJIZmU3NWI4Yz	ZhYzliZGEwY2NhZ	GNiYmExMzg=				
Content-Type	application/xml							
Response								
•								
	Hit the	Send butto	n to get a re	sponse.				
		Do more w	ith requests					
	Share	Mock	Monitor	Document				
	~		-/					
	<	<u> </u>						

### **Request Body :**

This endpoint accepts a request body in one of the following formats:

- 1. application/json;
- 2. application/xml.

### In the screenshot below, xml is chosen as content type

https://saturn-api-v.ei X + ++++						No Environme	ent 🕚	<ul> <li></li> <li></li></ul>
POST V https://saturn-api-v.euronext-net.com/SaturnWebServices/rest/Authen	POST V https://saturn-api-weuronext-net.com/SaturnWebServices/rest/AuthenticateUser							Save 🗸
Authorization  Headers (2) Body Pre-request Script Tests								Code
Key	Value				Description		••• Bulk Edit	Presets 🔻
Authorization	Basic Ym5wMTE6ZDE	BiZmJIZmU3NWI4Y	zZhYzliZGEwY2NhZ	GNiYmExMzg=				
Content-Type	application/xml							
	Value							
	Hit th	e Send butto	n to get a re	sponse.				
		Do more v	vith requests					
	Share	Mock	Monitor	Document				
	<		-//-					

### **11.3 USERNAME AND PASSWORD ENCRYPTION**

The last step is username and password encryption

You can take an encryption tool in the Internet of your choice to convert the character string Username:Password or use the following command to encrypt in base64: \$ echo -n '<username>:passwordEncrypted in md5>'
| base64

# As a result we can paste it in the field 'value' of the parameter Authorization as follow : **Basic <Base64 parameter** converted>

https://saturn-api-v.et	No Environment	~ © \$		
POST V https://saturn-api-v.euronext-net.com/SaturnWebServices/rest/Authent	Params Send 🗡	Save ~		
Authorization Headers (1) Body Pre-request Script Tests				Code
Key	Value	Description	••• Bulk Edi	it Presets 🔻
<ul> <li>Authorization</li> </ul>	Basic T3V0aG1hbkFQSTE6ZjFkOGY3MmQ0MDA0ZGM3NmUxNTQ2NTgxNDA3Nzg2M			
New key	Value	Description		
Body Cookies Headers (10) Tests			Status: 200 OK	Time: 507 ms
Pretty Raw Preview JSON V				ū Q

## 11.4 RESULT

After clicking on SEND, you receive a response message :

- If the you have a problem with the certificate, you will get the Euronext web page.
- If the you have a problem in your credentials, you will get an error message :

https://saturn-api-v.et × + +++		No Environment V 💿 🔅				
POST V https://saturn-api-v.euronext-net.com/SaturnWebServices/rest/Authent	POST V https://saturn-api-v.euronext-net.com/SaturnWebServices/rest/Authentication/AuthenticateUser					
Authorization  Headers (2) Body Pre-request Script Tests			Code			
Key	Value	Description	••• Bulk Edit Presets 🔻			
Authorization	Basic Ym5wMTE6ZDBiZmJIZmU3NWI4YzZhYzIiZGEwY2NhZGNiYmExMzg=					
Content-Type	application/xml					
Body Cookies Headers (8) Tests			Status: 401 Unauthorized Time: 359 ms			
Pretty Raw Preview JSON V			Ē Q			
1 × K code": 401, "msg": "Access denied ! Check your login/password (103)", recordCount": 1 5 }						

- If your credentials are verified and are good, you get a token as return :

https://saturn-api-v.et	N	No Environment 🗸 💿 🔅		
POST V https://saturn-api-v.euronext-net.com/SaturnWebServices/re	st/Authentication/AuthenticateUser	F	Params Send 💙 Save 🗡	
Authorization Headers (1) Body Pre-request Script Tests			Code	
Key	Value	Description ••• Bulk		
<ul> <li>Authorization</li> </ul>	Basic T3V0aG1hbkFQSTE6ZjFk0GY3MmQ0MDA0ZGM3NmUxNTQ2NTgxNDA3Nzg2M			
Body Cookies Headers (10) Tests			Status: 200 OK Time: 404 ms	
Pretty Raw Preview JSON V			Ē Q	
1 • ( 2 "token": "eyJhbGciOiJIUzIINiJ9.eyJzdHIIOiJPdXRobWFuQVBJMSISI 3 )	nlzcyI6IkFldGgwIiwiZXhwIjoxNTA1MzgxMTExfQkwUCSG617CpnGdX-ilySmAZ5iurLcL541HG4DxF3a			
5 J				

## **12. TECHNICAL DETAILS & EXAMPLES**

### 12.1 OVERVIEW

Euronext Members and Non-Members

As part of the MIFID2-reporting trade (Saturn) we are developing the server web API rest.

The goal of this document is to describe the technical Rest API which will be used by the Saturn GUI, or by the external users who doesn't necessary use the Saturn GUI.

### **12.2 REQUIREMENTS**

ALL

Euronext Members and Non-Members

For testing API rest we can use postman (https://www.getpostman.com/), curl command or Saturn GUI.

## 12.3 ACCESS

ALL

Euronext Members and Non-Members

The web server API Rest is accessed via a URL using the HTTPS protocol and is served from the SaturnWebServices/rest domain. Which will be defined later by Euronext' Infosec team.

### 12.4 REST API RETURN STATUS CODE

ALL

Euronext Members and Non-Members

Status Code	Description	Cause	Comments
200	ОК	Success	
400	Bad Request	Unsupported or invalid parameters, or missing required parameters	
401	Unauthorized	User is not authorized	
403	Forbidden	User does not have access to this resource	
404	Not Found	No matching pattern for incoming URI	

Status Code	Description	Cause	Comments
405	Method Not Allowed	The service does not support the HTTP method used by the client	
408	Request Timeout		
412	Precondition Failed	A non-syntactic part of the request was rejected. For example, an empty POST or PUT body	
415	Unsupported Media Type	A PUT or POST payload cannot be accepted	
423	Locked	The resource that is being accessed is locked	Account, rights, etc locked.
500	Internal Server Error	A generic error message, given when an unexpected condition was encountered and no more specific message is suitable	
503	Service Unavailable	The server is currently unavailable (because it is overloaded or down for maintenance). Generally, this is a temporary state	If some services are blocked or the thread pools that handle each service is full.
600	КО	Failed	
601	Bad filter	Bad filter	
602	Check transaction with error		

### 12.5 SERVICES

### 12.5.1 Request

ALL	Euronext Members and Non-Members	

	Description/Value	Mandatory
Method	POST	Yes
Service name (path)	Files/upload	Yes
Authorization	Login/pwd	Yes

	Description/Value	Mandatory
Header : Content-Type	The MIME type of the body of the request (used with POST and PUT requests). Value : multipart/form-data	Yes
Header : <b>Accept</b>	The <b>Accept</b> indicates which format the result will be returned :application/json or Accept: application/xml. If the <b>Accept</b> isn't sat up, the result is returned under the JSON Format	No

### 12.5.1.1 Filter structure

ALL	Function applying to all users
-----	--------------------------------

The filter allows user to refine his search (for example get trades for a specific instrument).

All Saturn REST API services provide the possibility to use the filters available.

The filter is the json/xml Object (structure) passed in the header of the POST request. Its definition is described as below:

```
{
"filterList":
[
  {
   "name": "field1",
   "sort": "DESC",
   "subFilterOR":
  [
   {
   "value": "%durand%",
   "operator": "LK"
   },
   {
   "value": "%durand%",
   "operator": "LK"
   }
  ]
  },
  {
   "subFilterOR":
  [
    {
   "name": "field11",
   "value": "%durand%",
   "operator": "LK"
   },
   {
```

```
"name": "field12",
value": "%durand%",
"operator": "LK"
}
]
}, ....
} ]
```

The filter contains one (1) main section called filterList :

- 1. you can concatenate one or several filters, for example get transaction which the side=1, here is the filter json structure: "filterList": [{"name": "side","value": "1", "operator": "EQ"}]
- you can filter by the value domaine, for example get transactions which the status in(0,1), here is the filter json structure: "filterList": [{"name": "status", "subFilterOR": [{"value""0", "operator": "EQ"}, {"value": "1", "operator": "EQ"}] }]
- 3. you can search records which contain something : for example get transactions which the freetext1 like "%durand%" or freetext1 like "%alain%", here is the filter json structure: "filterList": [{"subFilterOR": [{"name": "freetext1", "value": "%durand%", "operator": "LK"}, {"name": "freetext2", "value": "%alain%", "operator": "LK"}] } ]}
- 4. you can sort the get result by using the sor word, for eamaple get transaction order by tradelegtid ascendant, here is the filter json structure "filterList": [{"name": "tradelegtid ","value": "123645", "operator": "EQ", "sort": "ASC"}]

Operator	Description
EQ	Equal To
NEQ	Not Equal To
LK	Like to
GT	Greater Than
GE	Greater Than Or Equal To
LT	Less Than
LE	Less Than Or Equal To

Operator allowed are :

### 12.5.1.2 Response

ALL	Euronext Members and Non-Members	

### The response of that command has the following format, by default the response is under the json.

Code	Status Code	
	OK, KO, etc. refer to the <u>Status code table</u> above	
Data	Contains the result of the service	
Msg	Success or fail	

```
RecordCount The max record available in the data base
```

### 12.5.2 Upload service

ALL	Euronex

Euronext Members and Non-Members

### a) Request (POST)

Using curl command , input file name to upload is in green below

```
curl -i -X POST -H "Authorization: Bearer [Token]==" -H "Content-Type: multipart/form-data" -F "data=@@uploadCommodities.csv" <u>http://localhost:8080/SaturnWebServices/rest/files/upload</u>
```

\*[Token] : you have to set the token that the server returns during the authentication phase.

#### b) Response JSON

```
*
"code":200,
"data":[
{
 *
type":"uploadedFileStatus",
 *
fileName":"uploadCommodities.csv",
 *
size":8770,
 *
status":"W",
 *
tid":940, (please note that Tid is for Euronext internal usage)
 *
uploadedDate":"2017-07-05T13:44:07"
}

/
*
msg":"OK",
 *
recordCount":1
}
```

#### 12.5.3 Instrument service

a) Request (POST):

Using curl command without filter

*curl -i -X* **POST** -H "Authorization: Bearer [Token] <u>http://localhost:8080/SaturnWebServices/rest/referentials/getInstruments</u>?offset=0&limit=1

```
Using curl command with filter (in green)
```

```
curl -i -X POST -H "Authorization: Bearer [Token] -H "Content-Type: application/json" -d '{"filterList": [{"name": "isin", "value": "DEC%", "operator": "LK"}]]' http://
```

localhost:8080/SaturnWebServices/rest/referentials/getInstruments?offset=0&limit=1

\*[Token] : you have to set the token that the server returns during the authentication phase.

```
b) Response JSON:
```

```
{
```

```
"code": 200,
"data": [{
         "cmic ": "XBRD ",
          "isin ": "DECGA150902 ",
        "cdevnm ": "EUR ",
         "amr ": "DECGA1509024055 ",
         "tick_size_denominator ": "10000 ",
        "tick_size_numerator": "1",
         "cfi_code": "FFSCSX",
         "product_code": "CO6",
         "price_decimals": NULL,
         "quantity_decimals": NULL,
        "symbol_index": 4254400011,
         "cgrvalcot": NULL,
         "underlying_product_code": "COL",
        "expiry_date_offset": 2,
         "ideleted": 0,
         "underlying_medium_name": NULL,
}],
"msg": "success",
"recordCount": 100
```

}

### 12.5.4 Commodity service

a) Request (POST):

Using curl command without filter

curl -i -X **POST** -H "Authorization: Bearer [Token] http://localhost:8080/SaturnWebServices/rest/CommodityReports/**get**?offset=0&limit=1

Using curl command with filter (in green)

curl -i -X **POST** -H "Authorization: Bearer [Token] -H "Content-Type: application/json" -d '{"filterList": [{"name": "name", "value": "BU001", "operator": "EQ"}]}' http:// localhost:8080/SaturnWebServices/rest/CommodityReports/**get**?offset=0&limit=1 \*[Token] : you have to set the token that the server returns during the authentication phase.

```
b) Response JSON:
```

{

```
"code": 200,
"data": [{
"type": "commodityReport",
"businessunit": {
"ideleted": 0,
"name": "BU001",
"participanttid": 385,
"tag": "BU001",
"tid": 9 (please note that Tid is for Euronext internal usage)
```

},

"errors": "[REPORTINGENTITY][11] Wrong ESMA code. Not referenced.;[POSITIONHOLDERID][11] Wrong ESMA code.Not referenced.;[SECURITYID][19] Instrument value;[VENUE][13] Invalid Value; [VENUE][16] invalid MIC incompatible with ISIN; [SHORTPOSITIONQUANTITYDELTA][18] The delta position quantity must no be provided for Futures; [LONGPOSITIONQUANTITYDELTA][18] The delta position quantity must no be provided for Futures ",

```
"freetext1 ": "Smith ",
"freetext2 ": "Roland ",
"freetext3 ": "Vert ",
"freetext4 ": "Audi ",
"freetext5": "Bruxelles",
"holdingpositionday": "2016-10-14T00:00:00",
"investmentfirmindicator": 0,
"longpositionquantity": 940736.00,
"longpositionquantitydelta": 265758.00,
"origin": "SATURN",
"participanttid": 385,
"positionholdemail": "holder1@client.com",
"positionholderid": "5493005GIOHA4VVQNV28",
"positionmaturity": 2,
"positiontype": 2,
"reportingentity": "549300KFCCJ1Y2M20965",
"reportref": "TRADEREFERENCECMQH7398852110",
"riskreducingid": 1,
"saturnuser": "CommoUser",
"securityid": "FRENX0717251",
"shortpositionquantity": 567772.00,
"shortpositionquantitydelta": 617137.00,
"status": 4,
"tid": 2751, (please note that Tid is for Euronext internal usage)
"tradereport": 1,
"tsreceive": "2017-08-24T13:31:06.15",
"ultimateparententityemail": "test2@demo2.com",
```

```
"ultimateparententityid": "549300HUWQH7YHZVHL75",
"ultimateparententityidtype": 1,
"venue": "XMAT"
}],
"msg": "success",
"recordCount": 560
```

}

## **13. FIELDS DESCRIPTION**

## В

### **BUSINESS UNIT**

Field Name	Business Unit
Description	Free form text manually entered by the client – Custom Field
Format	{ALPHANUM}
Length	10
Possible Values	Only capital letters and numbers
Conditions	Optional
Used In	COMMODITY POSITIONS

## F

### FREETEXT 1

Field Name	FreeText 1
Description	Free form text manually entered by the client – Custom Field
Format	{ALPHANUM}
Length	55
Possible Values	
Conditions	Optional
Used In	COMMODITY POSITIONS

## FREETEXT 2

Field Name	FreeText 2
Description	Free form text manually entered by the client – Custom Field
Format	{ALPHANUM}
Length	55
Possible Values	
Conditions	Optional
Used In	COMMODITY_POSITIONS

## FREETEXT 3

Field Name	FreeText 3
Description	Free form text manually entered by the client – Custom Field
Format	{ALPHANUM}
Length	55
Possible Values	No restriction

Field Name	FreeText 3
Conditions	Optional
Used In	COMMODITY POSITIONS

### FREETEXT 4

Field Name	FreeText 4
Description	Free form text manually entered by the client – Custom Field
Format	{ALPHANUM}
Length	55
Possible Values	No restriction
Conditions	Optional
Used In	COMMODITY POSITIONS

### FREETEXT 5

Field Name	FreeText 5
Description	Free form text manually entered by the client – Custom Field
Format	{ALPHANUM}
Length	55
Possible Values	No restriction
Conditions	Optional
Used In	COMMODITY POSITIONS

## I

### **INVESTMENT FIRM INDICATOR**

Field Name	Investment Firm Indicator
Description	Field to report on whether the position holder is a collective investment undertaking that makes investment decisions independently from its parent.
Format	Numerical
Length	
Possible Values	<ul> <li>0 - FALSE the position holder is not a collective investment undertaking that makes independent investment decisions</li> <li>1 - TRUE – the position holder is a collective investment undertaking that makes independent investment decisions</li> </ul>
Conditions	Mandatory
Used In	COMMODITY POSITIONS

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## L

## LONG POSITION QUANTITY

Field Name	Long Position Quantity
Description	This field shall be populated with the net position quantity held in the commodity derivatives expressed either in lots (when the position limits are expressed in lots) or units of the underlying. This field should be populated with the long positions.
	If the position is in commodity derivatives under point (c) of Directive 2014/65/EU (e.g. securitized derivatives) this field shall be populated with the number of units held
Format	{DECIMAL-15/2}
Length	15 +1
Possible Values	Decimal value with 15 digits and 2 fraction digits separated by "."
Conditions	Mandatory
Used In	COMMODITY POSITIONS

### LONG POSITION DELTA QUANTITY

Field Name	Long Position Delta Quantity
Description	If the Position Type is 'OPTN', then this field shall contain the delta-equivalent quantity of the position reported in the "Position Quantity" field. This field should be populated with long calls and short puts.
Format	{DECIMAL-15/2}
Length	15+1
Possible Values	Decimal value with 15 digits and 2 fraction digits separated by "."
Conditions	Mandatory only if the Position Type is "OPTN", otherwise should be left empty.
Used In	COMMODITY POSITIONS

## Ρ

### **POSITION REPORTER ID**

Field Name	Position Reporter ID
Description	The identifier of the reporting investment firm. Field to be populated with the Legal Entity Identifier code (LEI) for legal entities or {NATIONAL_ID} for natural persons not having an LEI.
Format	{ALPHANUM}
Length	20 or 35
Possible Values	LEI or National ID of the GCM
Conditions	Mandatory
Used In	COMMODITY POSITIONS

### **POSITION HOLDER EMAIL**

Field Name	Position Holder Email
Description	Email address for notifications of position-related matters.
Format	{ALPHANUM}
Length	256
Possible Values	Email
Conditions	Mandatory
Used In	COMMODITY POSITIONS

## POSITION HOLDER ID

Field Name	Position Holder ID
Description	Field to be populated with the Legal Entity Identifier code (LEI) for legal entities or {NATIONAL_ID} for natural persons not having an LEI
Format	{ALPHANUM}
Length	20 or 35
Possible Values	LEI or National ID
Conditions	Mandatory
Used In	COMMODITY POSITIONS

### **POSITION HOLDER TYPE**

Field Name	Position Holder Type
Description	Field to be populated to identify the type of the Position Holder.
Format	Numerical
Length	1
Possible Values	• 1: Investment firms or credit institutions
	• 2: Investment funds
	3: Other financial institutions
	4: Commercial undertakings
	• 5: Operators with compliance obligations under Directive 2003/87/EC
Conditions	Optional
Used In	COMMODITY POSITIONS

## **POSITION TYPE**

Field Name	Position Type
Description	Field to report whether the position is in either futures, options, emission allowances, or derivatives thereof commodity derivatives defined under.
	point (c) of Article 4(1)(44) of Directive 2014/65/EU or any other contract type
Format	Numerical
Length	
Possible Values	1 – Options
	2 - Futures
	3 - OTC equivalent

Field Name	Position Type
Conditions	Mandatory
Used In	COMMODITY POSITIONS

## **POSITION MATURITY**

Field Name	Position Maturity
Description	Indication of whether the maturity of the contract comprising the reported position relates to the spot month or to all other months. No consistency check with ISIN
Format	Numerical
Length	
Possible Values	1 - spot month
	2 - all other months
Conditions	Mandatory
Used In	COMMODITY POSITIONS

R

### **REPORT REFERENCE NUMBER**

Field Name	Report Reference Number
Description	Field to be populated with the unique identifier given by the submitter unambiguously identifying the report to both, submitter and receiving competent authority
Format	{ALPHANUM}
Length	52
Possible Values	
Conditions	Mandatory
Used In	COMMODITY POSITIONS

## **REPORT STATUS**

Field Name	Report Status
Description	Indication as to whether the report is new or a previously submitted report is cancelled or amended.
	Where a previously submitted report is cancelled or amended, a report which contains all the details of the original report and using the original Report Reference Number should be sent and the 'Report status' should be flagged as 'CANC'.
	For amendments, a new report that contains all the details of the original and using the original Report Reference Number with all necessary details corrected should be sent and the 'Report status' should be flagged as 'AMND'
Format	Numerical
Length	
Possible Values	1 - New
	2 - Amend
	3 – Cancel

Field Name	Report Status
Conditions	Mandatory
Used In	COMMODITY POSITIONS

### **RISK REDUCING INDICATOR**

Field Name	Risk Reducing Indicator
Description	Field to report whether the position is risk reducing in accordance with Article 7 of RTS 21
Format	Numerical
Length	
Possible Values	0 - FALSE- the position is not risk reducing
	1 - TRUE – the position is risk reducing
Conditions	Mandatory
Used In	COMMODITY POSITIONS

# S

## SECURITYID

Field Name	SecurityId
Description	Instrument identifier based on the value of the ISIN
Format	ISIN
Length	12
Possible Values	ISIN
Conditions	Mandatory
Used In	COMMODITY POSITIONS

### **SHORT POSITION QUANTITY**

Field Name	Short Position Quantity
Description	This field shall be populated with the net position quantity held in the commodity derivatives expressed either in lots (when the position limits are expressed in lots) or units of the underlying. This field should be populated with the short positions.
	If the position is in commodity derivatives under point (c) of Directive 2014/65/EU (e.g. securitized derivatives) this field shall be populated with the number of units held
Format	{DECIMAL-15/2}
	Decimal value with 15 digits and 2 fraction digits separated by "."
Length	15 +1
Possible Values	
Conditions	Mandatory
Used In	COMMODITY POSITIONS

### SHORT POSITION DELTA QUANTITY

Field Name	Short Position Delta Quantity
Description	If the Position Type is 'OPTN', then this field shall contain the delta-equivalent quantity of the position reported in the "Position Quantity" field.
	This field should be populated with short calls and long puts.
Format	{DECIMAL-15/2}
	Decimal value with 15 digits and 2 fraction digits separated by ".
Length	15 +1
Possible Values	
Conditions	Mandatory only if the Position Type is "OPTN", otherwise should be left empty.
Used In	COMMODITY POSITIONS



## TRADING VENUE IDENTIFIER

Field Name	Trading venue identifier
Description	Field to be populated with the ISO 10383 segment MIC for positions reported in respect of on-venue contracts.
	Where the segment MIC does not exist, use the operating MIC: . 'XMAT' or 'XAMS' for Euronext Commodity Contracts;
	. 'XXXX' for off-venue positions in economically equivalent OTC contracts;
	. 'XOFF' for listed derivatives traded off-exchange.
Format	{ALPHANUM}
Length	4
Possible Values	XEUC, XMAT, XXXX,XOFF
Conditions	Mandatory
Used In	COMMODITY POSITIONS



## **ULTIMATE PARENT ENTITY ID**

Field Name	Ultimate Parent Entity ID
Description	Field to be populated with the Legal Entity Identifier code (LEI) for legal entities or {NATIONAL_ID} for natural persons not having an LEI.
Format	{ALPHANUM}
Length	20 or 35
Possible Values	LEI
	or
	NATIONAL_ID
Conditions	Mandatory
Used In	COMMODITY POSITIONS

## ULTIMATE PARENT ENTITY ID TYPE

Field Name	Ultimate Parent Entity ID Type
Description	Identify the type of Ultimate Parent-ID
Format	{ALPHANUM}
Length	20 or 35
Possible Values	LEI or NATIONAL_ID or CONCAT
Conditions	Mandatory
Used In	COMMODITY POSITIONS

### **ULTIMATE PARENT ENTITY EMAIL**

Field Name	Ultimate Parent Entity Email
Description	Email address for correspondence in relation to aggregated positions
Format	{ALPHANUM}
Length	256
Possible Values	
Conditions	Mandatory
Used In	COMMODITY POSITIONS