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Preface

PURPOSE

This document sets out the Euronext Clearing system technical guidelines. It describes the different access points and their interfaces, as well as the ways in which Clients can connect to the clearing systems and prepare their integration with Euronext Clearing. Importantly, it also provides details of all the Reports that will be distributed by Euronext Clearing following the migration of the Euronext Cash Markets to Euronext Clearing as their primary clearing house.

Details relating to APIs and Connectivity will be provided in dedicated separate documents, to be released in due course.

TARGET AUDIENCE

All Euronext clients that will adopt Euronext Clearing as their clearing house.

WHAT'S NEW?

The following lists only the most recent modification made to this revision/version. For the Document History table, see the Appendix.

REVISION NO./ VERSION NO.	DATE	AUTHOR	CHANGE DESCRIPTION
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1 INTRODUCTION

Euronext is extending its competitive European offer to include clearing services, thus completing the value chain operated by the Euronext Group.

As announced on 9 November 2021, Euronext will make Euronext Clearing (formerly CC&G) the CCP of choice for the Euronext cash equity, listed derivatives and commodities markets. It will continue to offer an open access CCP model for cash equity clearing.

By providing clearing solutions across its markets, Euronext will directly manage the clearing of its cash and derivatives trading flows. Euronext Clearing will be positioned as a European clearing house.

Euronext Clearing is therefore building a new system to offer clearing services to the European markets. The content of this document focuses on clearing for cash equities, and aims to provide a technical overview of the new clearing system, which will be released in 2023.

1.1 Glossary

This section provides a list of some terms and abbreviations commonly used in this document. Please note that some of these terms are described in more detail in the dedicated sections within this document, or in the associated Euronext Clearing Systems specifications.

- IdP: Identity Provider used by Euronext Clearing to verify the identity of the end users and machine users
- Client application: application that requests resources from one of the Euronext Clearing services
- Client Credentials: credentials released by the IdP to the client to perform the first phase of the machine-to-machine authentication. It is made up of a pair of Client IDs and a Secret
- GUI: Graphical User Interface, web interface for end users
- API: Application Programming Interface
- Technical User: privileged user in the client's organisation in charge of managing the Client Credentials
- JSON: JavaScript Object Notation, textual data format used for communications
- JWT: Json Web Token, token used to share security information between two parties
- SSH: Secure Shell, network protocol
- SFTP: Secure File Transfer Protocol, protocol for file transfer with secured connections
- PDC: Primary Data Centre
- SDC: Secondary Data Centre

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- DR: Disaster Recovery site
- RTO: Recovery Time Objective
- SI: Settlement Instruction
- CA: Corporate Action
- Access Token: token used to authenticate with the IdP
- ISD: Intended Settlement Date

1.2 Overview

The Euronext Clearing systems manage the entire clearing process starting with the collection of market data and ending with the settlement phase.

Clearing Members can interact with the Euronext Clearing system to access clearing data, perform actions on trades and positions, and manage collateral, as well as interacting with the risk management systems to monitor margins and perform simulations. These actions can be carried out through several communication channels.

While providing a common information set, each channel addresses specific use cases and should therefore be deemed complementary to the others.

The following channels are available:

- **Graphical User Interface (GUI) channel:** displays the user's real-time clearing data on a web browser. It also provides features that enable the Clearing Member to interact with the settlement and collateral management workflows. Additionally, it allows the user to interact with the risk management system for margin calculation and simulations on portfolios. Detailed information on the GUI will be provided in a dedicated User Guide.
- **Application Programming Interface (API) channel**: enables the interoperability of the clearing system with the Clearing Member's own systems. It is based on a machine-to-machine protocol and provides all the informative and operational functions that are made available for human users via the GUI. For further details see section 2.1.
- **Secured File Transfer Protocol (SFTP) channel:** allows Clearing Members to retrieve reports generated by the Clearing System. For further details see section 3.3.
- **FIX connection:** provides real-time trade confirmation. For further details see section 1.3.2.

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1.3 Authentication and Authorisation

This section explains the authentication method and authorisation procedure for each of the Client Access Points (with the exception of the GUI, which will be detailed in a dedicated User Guide).

1.3.1 API

1.3.1.1 Tokens

The authentication of end users and machine users is based on the OpenID Connect Protocol.

In line with the protocol, Euronext Clearing uses the Access Token to allow the client application to access a resource. The token is issued by the authorisation server and is encoded as a JSON Web Token (JWT).

The JWT is composed of three parts, separated by a dot:

1. **Header**: specifies the type of the token and the algorithm that is used
2. **Payload**: the payload contains the claims. There is a set of registered claims, for example: iss (issuer), exp (expiration time), sub (subject), and aud (audience). The payload can also include extra attributes that define custom claims, such as employee role.
3. **Signature**: to create the signature part, the encoded header and encoded payload are signed by using the signature algorithm from the header. The signature is used to verify that the token was not corrupted along the way.

The claims are used to represent an identity and its associations. Euronext Clearing has customised the JWT in order to include claims, which specify permissions and the Member Code associated to the users/machine.

Below is an example of a decoded JWT that could be proposed by Euronext Clearing:


```
{
 "ver": 1,
 "jti": "AT.Oxmd9AABJgivAypz9KjIVBL1GqIEGCzSSXL9qztAvmI",
 "iss": "https://euronextclearing.com/oauth2/aus3j5mpv9p0lpqx6417",
 "aud": "eu-core-h2m-audience",
 "iat": 1657197886,
 "exp": 1657198486,
 "cid": "0oa3j5zmmk03Q1B2p417",
 "uid": "00u3lp7ytdMe8pWge417",
 "scp": [
   "openid",
   "profile"
 ],
 "auth_time": 1657197886,
 "sub": "name.surname@company.com",
```


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```
  "perms": [
    "auth.margindeltaposition.fetch",
    "auth.margindeltaposition.actions",
    "auth.clientcredentials.fetch",
    "auth.clientcredentials.actions",
    "auth.defaultfundlog.fetch",
    "auth.collateraleligibleinstruments.fetch",
    "auth.collateral.fetch",
    "auth.collateraloperations.cashrestitutionrequest",
    "auth.collateraloperations.securityrestitutionrequest",
    "auth.collateraloperations.sharerestitutionrequest",
    "auth.collateraloperations.uploadrequest",
    "auth.defaultfund.actions",
    "auth.defaultfund.fetch",
    "auth.instruments.fetch",
    "auth.marginamounts.fetch",
    "auth.marginmonitor.actions",
    "auth.marginmonitor.fetch",
    "auth.operations.fetch",
    "auth.participants.fetch",
    "auth.positions.actions",
    "auth.positions.fetch",
    "auth.positionslog.actions",
    "auth.positionslog.fetch",
    "auth.reporting.actions",
    "auth.reporting.fetch",
    "auth.settlementpositions.fetch",
    "auth.simulationengine.actions",
    "auth.simulationengine.fetch",
    "auth.trades.actions",
    "auth.trades.fetch",
    "auth.tradeslog.actions",
    "auth.tradeslog.fetch",
    "auth.virtualportfolio.actions",
    "auth.virtualportfolio.fetch"
  ],
  "mbr": "01030"
}
```


In addition to the above, the security of information in transit will be guaranteed by TLS encryption. Further details will be provided in a dedicated document.

1.3.1.2 API Manager for Client Credentials

In order to obtain a JWT for machine-to-machine access, Clearing Members must generate private credentials. The Identity Provider (IdP) needs these private credentials to identify the client’s application and return a valid JWT. More details on the JWT can be found in the section 1.3.1.1.

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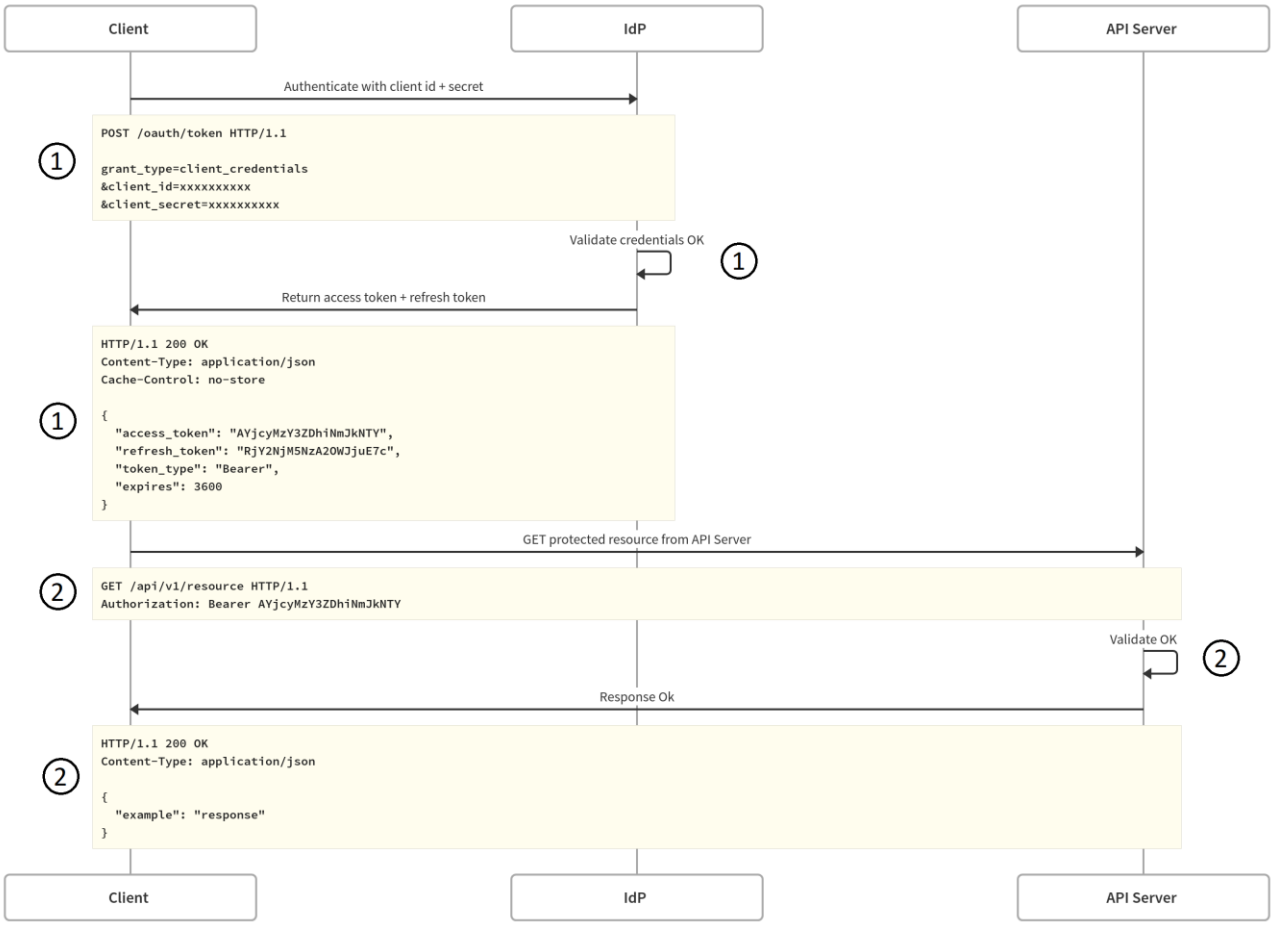
The Client Credentials must be generated by the client from the dedicated Client Credentials User Interface, to which technical users from the client's organisation have access. Client Credentials are composed of a pair of Client IDs and a Secret.
It is assumed by Euronext Clearing that the technical users will be in charge of the management of the credentials on the client side. At the time of generation, the system will return the values of the client credentials, but will not store them internally. The client's technical users must store the credentials in a safe place and integrate them in the client application.

The following diagram shows how Clearing Members interact with Euronext Clearing Systems:

Authentication workflow: Client credential grants



1. The client application uses credentials to authenticate with the IdP. The credentials are validated by the IdP and if the authentication is successful, the IdP returns a JSON Web Token (JWT) with limited duration set by the IdP. Please note that when the token expires, the client application must authenticate again with the IdP to obtain a new valid token.
2. The JWT must be sent at each API call and it will be validated by the API Server. If the validation is successful, the API Server will execute the API commands and return the response to the client application.

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The generation of the Client Credentials only needs to be done once; however, they can be renewed when necessary.

Credentials can be revoked from the Client Credentials Interface by technical users, meaning that the IdP will no longer generate a JWT when the client application presents these credentials.

The Euronext Clearing Operations team can also manage clients' credentials from a dedicated management interface. Actions that Euronext Clearing Operations can carry out include:

- Deactivation/activation: this action suspends the validity of the credentials temporarily;
- Revocation: this action deletes the credentials permanently. The IdP will no longer generate a JWT with these credentials.

API Client Credentials are segregated per environment (EUA vs Prod).

The diagram below shows how Clearing Members generate a new Access Token when their existing token expires:

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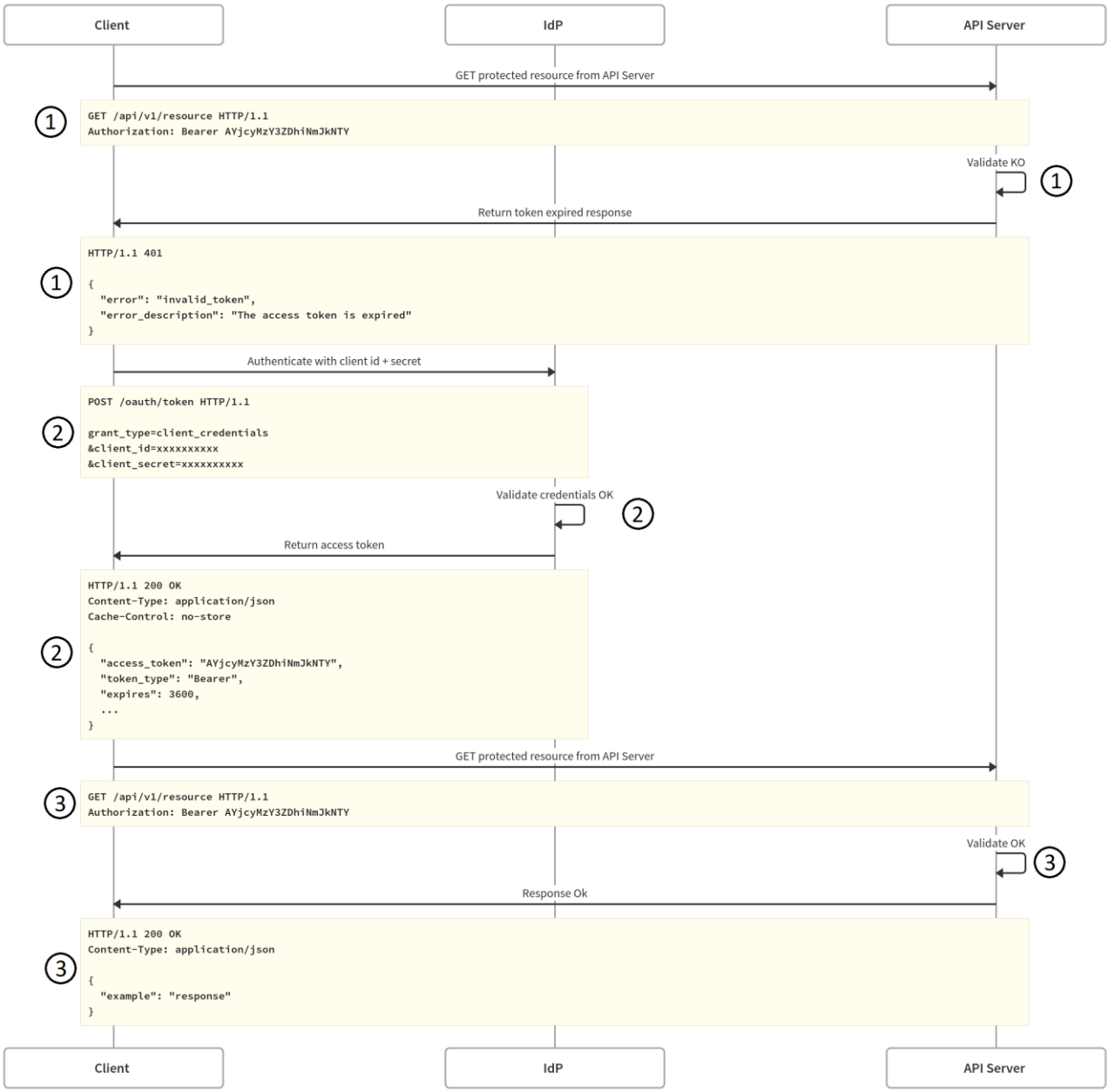
Request protected resource with expired access token



1. The client application tries to access the API using an expired Access Token. The API Server checks the Access Token and does not accept it. The Server responds to the client application with an Authorised code.
2. The client application submits a request to the IdP to obtain a new Access Token by providing the required pair of client IDs and a Secret. The IdP validates the credentials and returns a new Access Token to the requester.
3. The client application performs a new request providing the new Access Token to the API Server.

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1.3.1.3 API Authorisation

After the authentication process, the system performs an authorisation check to verify whether the user is allowed to perform the requested command.

All requests that have a valid JWT are analysed by the API Server. Before executing the API request, the Server retrieves the information contained in the claims (for more details regarding the JWT structure please refer to section 2.1).

The JWT contains information regarding the membership of the client; this information is used to return only data that belongs to the Clearing Member specified in the JWT. The membership is contained in the *mbr* claim of the JWT.

The API Server checks if the client application has the required permissions needed for the requested operation. If not, the request is rejected. Permissions granted can be Read and/or Write and must be set for each data object (trade, instrument, etc…). The permissions are contained in the *perms* claim of the JWT.

1.3.2 **FIX**

1.3.2.1 FIX Authentication

The authentication flow used for the FIX connection is the same as the one used for the API connection.

In order to connect to the FIX Engine, the Client must generate Client Credentials as described in section 1.3.1.2. The Client Credentials are used to request JWT Tokens (for more details on JWT see section 1.3.1.1) which allow client applications to access the resources made available by the FIX Engine.

Security of information in transit will be guaranteed by TLS encryption. Further details will be provided in a dedicated document.

The FIX Version used by Euronext Clearing is FIX Version 5.0.

1.3.2.2 FIX Authorisation

The authorisation mechanism implemented for requests sent via FIX is the same as the mechanism used for API requests. Please refer to section 1.3.1.3.

1.3.3 **SFTP**

1.3.3.1 SFTP Authentication

Euronext Clearing’s SFTP Server requires Clearing Members to authenticate using SSH Key Pairs. The client application and the Server must use a public key to encrypt messages, while the client application uses a private key to decrypt messages.

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When the client application wants to connect to the SFTP Server, it initiates a challenge-response sequence using an SSH Client to authenticate its identity. The Server detects the request and sends an encrypted challenge request using the public key. The client application decrypts the Server's response using the private key. It then responds to the Server's challenge to receive access.

1.3.3.2 SFTP Authorisation

Each authenticated client has access only to its dedicated area.

1.4 Environments

The environments available for Clients to connect to the clearing systems are as follows:

- EUA (physical External User Acceptance): environment used by Clients to carry out integration testing and to verify/accept software.
- Production: environment in which the application is available for business use.

When new releases are planned, the software version of the EUA Environment will be a version ahead of the version currently in use in the Production Environment. If there is no new release planned, then the versions remain aligned.

The Disaster Recovery (DR) Environment provides redundant standby systems to be used in the event of a failure of the Production environment.

Connectivity details for the different environments will be provided in a dedicated separate document, to be communicated in due course.

1.4.1 Throttling

Throttling is implemented to regulate traffic by limiting the number of requests from client applications to a given API over a given range of time. In addition, throttling reduces the risk of disruptive events and prevents malicious attacks that aim at overflooding the systems.

1.5 Failover management

1.5.1 Local failover management – API Server

In the event of a disruptive incident resulting in the failure of an instance of the API Server, the system will automatically distribute the workload to the other instances available in the same environment and will re-create the failed container. No additional connectivity set-up is required from the client's application, since the service endpoint of the APIs is the same for each instance.

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1.5.2 Local failover management – FIX Server

The failure resiliency mechanism described in section 1.5.1 is also in place for the FIX Server. In this case, the FIX client must monitor the status of the communication link using a heartbeat message; if the FIX client detects that the FIX Server is no longer reachable, the client must establish a new session to the endpoint Unique Resource Identifier (URI).

1.5.3 Geographic failover management – SFTP

The geographic failover procedure is triggered in the case of a disruptive incident resulting in an SFTP Server failure. From the failover event until the completion of the geographic failover procedure, the SFTP service is temporarily unavailable. There is no impact on clients' connectivity from a configuration point of view, so clients do not have to manage a pool of server endpoints.

1.5.4 Disaster management – Primary Data Centre

In the case of a disaster event affecting the Primary Data Centre (PDC), clients' connectivity to the API Server and FIX Engine will not be impacted in terms of endpoint configuration, since all requests are received by a Global Load Balancer that dispatches them internally.

In the case of a failover event, Euronext Clearing services will be provided by the Secondary Data Centre (SDC) which serves as the Disaster Recovery (DR) Site. The Production and SDC environments are continuously replicated, and the SDC environment is online in standby mode at all times.

There will be a service impact since a certain amount of activity is required to recover data recovery on the SDC and switch the traffic.

The following diagram represents Euronext Clearing's data centre topology and the interconnections between the data centres:

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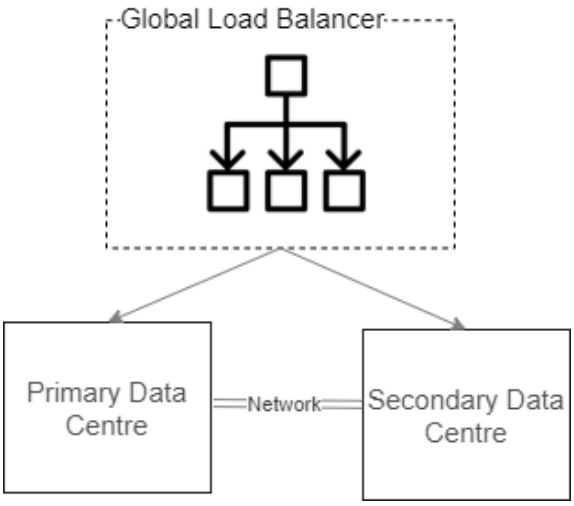

The Recovery Time Objectives of the disaster recovery procedure are in line with the EMIR Regulation.

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2 APPLICATION PROGRAMMING INTERFACE (API)

This section focuses on the APIs and explains their overall functioning. The complete list and the details of each interface will be provided in a dedicated document.

API actions are grouped into three main types that cover the main use cases:

- Queries: to retrieve data from the Clearing System
- Subscriptions: to activate real-time data flows
- Mutations: to interact with the Clearing System for transaction and position management.

All the APIs that execute queries allow the user to filter data according to different fields and to sort the results based on several criteria.

2.1 API Overview

The APIs are publicly exposed on the Internet and can be reached at a defined URL. The APIs are developed using the GraphQL Query Language. GraphQL is a query language for APIs and a runtime for fulfilling queries on the data source.

A GraphQL API has a single entry point instead of multiple resource addresses. Through the same API connection, Clearing Members will be able to retrieve reports, query the warehouse database and perform operational actions.

GraphQL allows the client application to specify the data required; the Server will return exactly the data requested by the client application. This prevents under-fetching or over-fetching. Data is returned in JavaScript Object Notation (JSON), the textual data format used for communications.

GraphQL protocol is widely used and related libraries are freely available for the most common programming language.

The following is a non-exhaustive list of information handled by the APIs:

- **Instruments:** clients can retrieve, in real time, referential data on instruments that have been sent by the trading market to the CCP and have been successfully processed.
- **Trades:** clients can retrieve, in real time, the trades that have been sent by the trading market to the CCP and have been successfully processed. It is possible to restore historical data that has been archived.
- **Positions:** clients can retrieve the positions generated by the CCP through the allocation of Trades to the Position Accounts and access position history.
- **Margins:** clients can retrieve the margins generated by the Risk Management System through the margin calculation.
- **Collateral:** clients can view posted collateral, cash, securities and concentration limits. Additional APIs allow collateral management to be performed through operational actions.

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- **Simulations:** clients can interact with the Risk Management System and perform a broad set of tests and simulations on portfolios with enhanced performances.
- **Settlement:** clients can retrieve information on settlement instructions generated by the Clearing House.
- **Reporting:** clients can request, receive and save reports. Clients can create their own reports by interfacing their systems directly with the APIs to ensure smooth and personalised operations.

Clearing Members can obtain credentials for API access as described in section 1.3.1.2. Once the Clearing Member has obtained its API credentials and installed them on its own systems, the Clearing Member can implement and deploy IT processes that can interoperate with the Euronext Clearing system.

2.2 Queries

The following table contains a subset of APIs that will be available to query the clearing system. The complete list and details of each interface will be provided in a dedicated document.

Area	API	Description
Instrument Management	listInstruments	API to query listed instruments
Instrument Management	exportInstruments	API to export instruments in a CSV/XML/XLS file according to active filters and sort criteria
Trades Management	listTrades	API to query trades
Trades Management	exportTrades	API to export trades in a CSV/XML/XLS file according to active filters and sort criteria
Trades Management	listTradesHistoricalRequests	API to retrieve requests made to restore trades
Position Management	listPositions	API to query positions
Position Management	exportPositions	API to export positions in a CSV/XML/XLS file according

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Area	API	Description
		to active filters and sort criteria
Position Management	listPositionsHistoricalRequests	API to retrieve requests made to restore positions
Settlement Management	listSettlementPositions	API to query settlement positions
Settlement Management	exportSettlementPositions	API to export settlement positions in a CSV/XML/XLS file according to active filters and sort criteria
Margin Management	listMargins	API to query initial and intraday margins required for the Participant
Margin Management	exportMargin	API to export margins in a CSV/XML/XLS file according to active filters and sort criteria
Default Fund Management	listDefaultFunds	API to query Participant's contribution to the Default Fund
Default Fund Management	exportDefaultFunds	API to export default fund contributions in a CSV/XML/XLS file according to active filters and sort criteria
Operations	listOperationRequestMasters	API to retrieve all requests sent by the Participant to the Clearing House (i.e. operational requests)
Operations	getOperationRequestDetails	API to retrieve details of requests sent by the Participant to the Clearing House
Notifications	listNotifications	API to retrieve Notifications produced by the Clearing system

An example of a query is provided below. Final types and fields will be provided in a dedicated document.

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Request:

```
query ListTrades {
 listTrades {
   msg_code
   msg_sequence
   trade_id
   position_id
   mbr
   gcm
   agent
   acct
   trade_dt
   trade_tm
   isin
   qty
   market_price
   mic
   mkt_group
   trade_numb
   sign
   ctv
   accr_int
   settle_dt
   trade_type
   repo_rate
   trade_status
   haircut
   curr_exch_rate
   settle_curncy
   coeff_index
   crud
 }
}
```

Response:


```
{
 "data": {
  "listTrades": [
   {
    "msg_code": "300",
    "msg_sequence": 5922,
    "trade_id": "0001A4812B773432AF24227CD7BD8655C6B21464",
    "position_id": "E670445886619B622833239AF8F8D9485E823800",
    "mbr": "01030",
    "gcm": "01030",
    "agent": "01030",
    "acct": "H",
    "trade_dt": 20220330,
    "trade_tm": 170715,
    "isin": "IT0005321325",
    "qty": 2000000,
    "market_price": 122.83,
    "mic": "MTSC",
    "mkt_group": "BWSL",
    "trade_numb": "0000402260",
    "sign": "S",
    "ctv": 2456600,
    "accr_int": 4970.2,
```


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```
        "settle_dt": 20220401,
        "trade_type": "C",
        "repo_rate": 0,
        "trade_status": "T",
        "haircut": 0,
        "curr_exch_rate": 1,
        "settle_curncy": "EUR",
        "coeff_index": 0,
        "crud": "I"
      },
      {
        "msg_code": "300",
        "msg_sequence": 7310,
        "trade_id": "0006F331EBC4E7BDB4B8AF51774BE0F5A5BC1685",
        "position_id": "DE227B21B4035C3E50B0B0CFF49927F9793231A5",
        "mbr": "01030",
        "gcm": "01030",
        "agent": "01030",
        "acct": "H",
        "trade_dt": 20220105,
        "trade_tm": 81411,
        "isin": "IT0004848831",
        "qty": 15000000,
        "market_price": 106.557,
        "mic": "EBMX",
        "mkt_group": "BWSL",
        "trade_numb": "0000401016",
        "sign": "S",
        "ctv": 15983550,
        "accr_int": 152694,
        "settle_dt": 20220107,
        "trade_type": "C",
        "repo_rate": 0,
        "trade_status": "T",
        "haircut": 0,
        "curr_exch_rate": 1,
        "settle_curncy": "EUR",
        "coeff_index": 0,
        "crud": "I"
      }
    ]
  }
}
```


2.3 Mutations

The following table contains a subset of APIs that will be available to query the Clearing House's system. The complete list and details of each interface will be provided in a dedicated document.

Area	API	Description
Trade Management	submitTradesHistoricalRequest	API to request the restoration of trades

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Position Management	submitPositionsHistoricalRequest	API to request the restoration of positions
Report Management	fileDownload	API to download files
Collateral Management	[Final list of APIs related to Collateral Management will be provided in a dedicated document]	[Final details related to Collateral Management will be provided in a dedicated document]

An example of a mutation is provided below. Final types and fields will be provided in a dedicated document.

Request:

```
mutation SubmitTradesHistoricalRequest($input: DateAsInput!) {
  submitTradesHistoricalRequest(input: $input) {
    disposal_id
    msg_code
    mbr
    gcm
    agent
    user_id
    created_at_tmsp
    modified_at_tmsp
    status
    err_code
    err_desc
    crud
    date_from
    date_to
  }
}

{
  "input": {
    "date": 20220101
  }
}
```

Response:

```
{
  "data": {
    "submitTradesHistoricalRequest": {
      "disposal_id": "1D06353ACE4D44B0AA11C99083423A7B",
      "msg_code": "D300",
      "mbr": "01030",
      "gcm": "01030",
      "agent": "01030",
      "user_id": "name.surname@company.com",
      "created_at_tmsp": "20220714T072449Z",
      "modified_at_tmsp": "20220714T072449Z",
```


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```
        "status": "L",
        "err_code": null,
        "err_desc": null,
        "crud": "I",
        "date_from": 20220106,
        "date_to": 20220106
      }
    }
  }
```


2.4 Subscription management

The following table contains a subset of APIs that will be available to query the Clearing House's system. The complete list and details of each interface will be provided in a dedicated document.

Area	API	Description
Trade Subscription	onTradesFeed	API to subscribe to new trades in real time
Trade Subscription	onTradesHistoricalRequestsFeed	API to subscribe to receive updates on the status changes of the *submitTradesHistoricalRequest* request
Position Subscription	onPositionsFeed	API to subscribe to new positions in real time
Position Subscription	onPositionsHistoricalRequestsFeed	API to subscribe to receive updates on the status changes of the *submitPositionsHistoricalRequest* request
Settlement Subscription	onSettlementPositionsFeed	API to subscribe to new settlement positions in real time
Margin Subscription	onMarginsFeed	API to subscribe to new margin positions in real time
Report Subscription	onReportingsFeed	API to subscribe to new reports in real time
Operation Subscription	onOperationRequestMastersFeed	API to subscribe to updates on operational requests in real time
Notification Subscription	onNotificationsFeed	API to subscribe to new notifications in real time

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An example of subscription is provided below. Final types and fields will be provided in a dedicated document.

Request:

```
subscription OnTradesHistoricalRequestsFeed {
  onTradesHistoricalRequestsFeed {
    member
    input {
      disposal_id
      msg_code
      mbr
      gcm
      agent
      user_id
      created_at_tmsp
      modified_at_tmsp
      status
      err_code
      err_desc
      crud
      date_from
      date_to
    }
  }
}
```

Responses through which the client application receives updates regarding the request status:

```
// Response received at 09:24:48
{
  "data": {
    "onTradesHistoricalRequestsFeed": {
      "member": "01030",
      "input": [
        {
          "disposal_id": "1D06353ACE4D44B0AA11C99083423A7B",
          "msg_code": "D300",
          "mbr": "01030",
          "gcm": "01030",
          "agent": "01030",
          "user_id": "name.surname@company.com",
          "created_at_tmsp": "20220714T072449Z",
          "modified_at_tmsp": "20220714T072449Z",
          "status": "L",
          "err_code": null,
          "err_desc": null,
          "crud": "I",
          "date_from": 20220106,
          "date_to": 20220106
        }
      ]
    }
  }
```


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```
}
// Response received at 09:24:49
{
  "data": {
    "onTradesHistoricalRequestsFeed": {
      "member": "01030",
      "input": [
        {
          "disposal_id": "1D06353ACE4D44B0AA11C99083423A7B",
          "msg_code": "D300",
          "mbr": "01030",
          "gcm": "01030",
          "agent": "01030",
          "user_id": "name.surname@company.com",
          "created_at_tmsp": "20220714T072449Z",
          "modified_at_tmsp": "20220714T072449Z",
          "status": "H",
          "err_code": null,
          "err_desc": null,
          "crud": "U",
          "date_from": 20220106,
          "date_to": 20220106
        }
      ]
    }
  }
}
```


PRIVATE

3 REPORTING

Member Reports provide a snapshot of clearing data taken at relevant moments in the open market day, in a structured format that can be read by both human users and automated systems.

3.1 Reporting Overview

Euronext Clearing will report updated and comprehensive information to Clearing Members on trades executed and all related clearing data, including risk and collateral management reports.

Reports will be available in the following formats:

- Machine-readable: CSV, XML.
- Human-readable: CSV, XML, XLSX.

The CCP will provide a set of mandatory reports in machine and human readable formats. These reports will be available through APIs, SFTP, GUI or FIX messages for the drop copies.

On client request, Euronext Clearing can create recurring or one-time reports for specific needs. These reports will be available via APIs, SFTP and on the web portal in the dedicated access section of the member who issued the request.

Reports are available for clients automatically at end of day and/or intraday, depending on the report's periodicity.

Available reports cover the following main categories:

- Trade legs confirmation
- Open positions (including fails)
- Settlement Instructions (including fails)
- Margin calculation and margin calls
- Collateral posted
- Default Fund contributions
- CSDR Penalties (under discussion)
- Payments
- Fees.

The following table shows the suite of reports that will be delivered.

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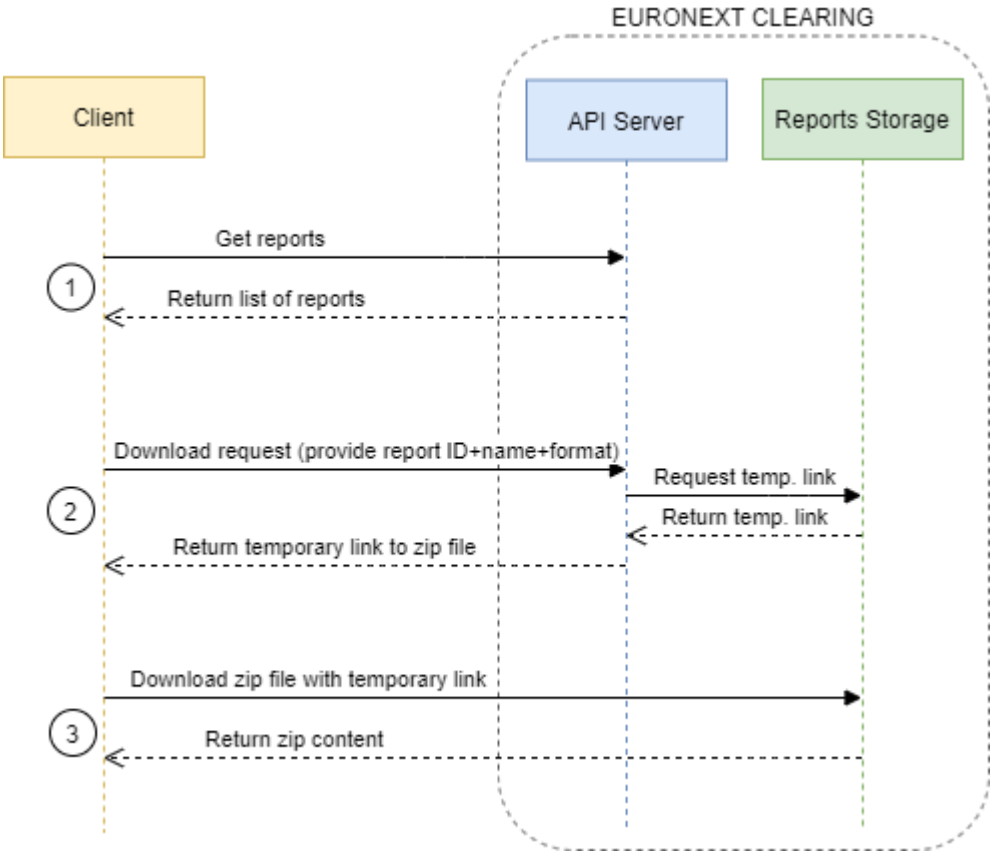
	1 Trade Legs confirmation	2 Open Positions	3 Settlement instruction (incl. Fails)	4 Margin calculation& Margin call	5 Collateral	6 Default fund	7 Cash calls	8 Fees
Scope	*Trade confirmation, FIX and API*	*All positions with value and quantity*	*The scope includes Settlement instructions, Buy-in, Sell-out, Pair-off, Cash compensation and non-guaranteed*	*Margin components and margin positions account, Margin call amounts*	*Detailed information regarding the collateral deposited*	*Default fund contribution, quota and calculation details*	*Breakdown report detailing the components and respective amounts*	*Clearing, collateral, fails and management fees*
Frequency	Real time End of Day	Intra-day End of Day	Intra-day End of Day	Intra-day End of Day	Intra-day End of Day	Intra-day End of Day	Intra-day End of Day	End of Day Monthly

(*) To be confirmed depending on outcome of consultation from ESMA regarding CSDR penalties process

3.2 Report download via API

The following diagram shows how Clearing Members can retrieve the reports using the APIs:



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To download the reports using the APIs the Client must follow these steps:

1. The client application calls the API Server to retrieve the IDs of the reports available for the Clearing Member for which the client application operates. The API has different filters and sorting parameters. The Server returns the requested list of report IDs.
2. The client application calls the download API, specifying ID, name and format for the desired reports. The Server returns a temporary link that identifies the file produced by the backend containing all the reports requested. The output is a .zip file. The links are valid for 2 minutes.
3. The client application uses the temporary link to download the .zip file.

In order to retrieve the reports via API, the client application must first follow the authentication and authorisation flow described in section 1.3.1.

3.3 Report retrieval via SFTP

Clearing Member reports are also available via the Euronext Clearing SFTP Server. Secure File Transfer Protocol (SFTP) works over the Secure Shell (SSH) data stream to establish a secure connection and provide organisations with a higher level of file transfer protection.

After the SSH authentication process explained in section 1.3.3.1, the client application can send requests for a file transfer from a specific directory. The SFTP Server then starts sending the file over the secured tunnel established by the SFTP network protocol.

3.4 Report retrieval via FIX

The Real Time Trade Confirmation report, detailed in section 3.5.2, is provided to the Clearing Member via the FIX Protocol. Clearing Members that wish to retrieve the Real Time Trade Confirmation report via FIX should open a connection towards the Euronext Clearing FIX Engine; each time Euronext Clearing confirms a trade, a trade confirmation message is sent through the connection established.

Please note that the Real Time Trade Confirmation report is also provided via API.

3.5 List of reports

3.5.1 General information

The files are named using the following standard:

CURRENT_DATE-REPORT_CODE-MEMBER_CODE

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Example: 20220910-DT01-1000

Possible field types are:

- N: Numeric, integer or decimal numbers
- A: Alphanumeric, a combination of alphabetical and numerical characters
- T: Timestamp, date representation in the ISO standard

3.5.2 Real Time Trade Confirmation via FIX protocol

Purpose: This report provides all transactions validated by the Clearing House for use by the Clearing Member for trade reconciliation and position exposure. This report is distributed via a FIX connection.

The values in the fields with type *Price* and *Amt* must be calculated on the client side, using decimal notation with 7 decimal places. Clients must divide by 10^7 to obtain the final values.

Frequency: Real time

3.5.2.1 Message Header

Tag	Field Name	Format	Length	Description
8	BeginString	String	9	FIX version.
9	BodyLength	Length	6	Filled.
35	MsgType	String	3	8=Execution Report.
43	PossDupFlag	Boolean	1	Indicates possible retransmission of message with this sequence number. Values: Y=Original transmission N=Possible duplicate.
49	SenderCompID	String	12	Value used to identify Firm sending message. This field contains the BIC Code for Euronext Clearing: "CCEGITRRXXX".
52	SendingTime	UTCTimestamp	27	20090806-10:44:32
56	TargetCompID	String	12	Value to identify receiving Firm.
34	MsgSeqNum	SeqNum	10	Unique identifier of the message.
57	TargetSubID	String	10	Assigned value used to identify specific individual or unit intended to receive message when applicable, otherwise empty.

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3.5.2.2 Data Trade Report

Tag	Field Name	Length	Format	Description
1	Account	12	String	Position Account ID.
1816	ClearingAccountTyp e	1	int	1 = Client 2 = House 3 = LP/Market Maker
14	CumQty	20	Qty	Sum of all last quantities of the order involved in the trade(s).
15	Currency	3	Currency	Currency in which the security is traded. The clearing currency always matches the trading currency. Format is 'EUR', 'GBP', etc.
120	SettlCurrency	3	Currency	Currency code of settlement denomination.
17	ExecID	10	String	Trade Unique Identifier (TUI) of execution message as assigned by the Trading platform. The identifier must start with an B or S indicator (Buy or Sell). In the case of a cancellation by the exchange on T0, the ExecID contains a reference to the ExecID of the new Execution Report preceded by '1'. If the cancellation of the trade occurs after T0 (T+1, etc.) then the ExecID of the reverse trade will be different. In this case, the ID of the cancelled trade will be retrieved in the 'ExecRefID'.
19	ExecRefID	10	String	Mandatory in the case of a trade cancellation. Provides the ExecID of the trade cancelled. Empty if it is not a trade cancellation.
29	LastCapacity	1	char	1 = Agent 4 = Principal
31	LastPx	20	Price	Price of securities bought or sold on this fill.
32	LastQty	20	Qty	Trade quantity.
423	PriceType	1	int	Code to represent the price type: 1 = Percentage (Face value) 2 = Unit
159	AccruedInterestAmt	20	Amt	Only for Fixed Income and Convertible Bonds.
1701	SettlementAmount	20	Amt	Settlement countervalue including accrued interest.
37	OrderID	20	String	Unique identifier of the order created by the Exchange.
11	ClOrdID	20	String	Identifier of a message assigned by the Client when submitting an order to the Exchange.
39	OrdStatus	1	char	1 = partially filled 2 = fully filled
22	SecurityIDsource	1	String	Value is '4' to use ISIN as SecurityID.
48	SecurityID	12	String	ISIN of the security traded.

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54	Side	1	char	1 = Buy 2 = Sell
55	Symbol	10	String	Symbol of the security traded.
58	Text	18	String	Free format text string.
60	TransactTime	27	UTCTimestamp	FORMAT: YYYYMMDD-HH:MM:SS UTC time zone
150	ExecType	1	char	Filled with Value 'F' or 'H'. "F"=Filled "H"= Trade Cancellation
151	LeavesQty	20	Qty	Remaining quantity of the order.
30	LastMkt	4	Exchange	Market of execution (MIC Code).
382	NoContraBrokers	1	NumInGroup	Must have value of 1.
375	ContraBroker	20	String	CCPID value for guaranteed trade (Euronext Clearing CCPID = 9). Counterparty code in the case of non-guaranteed trade (cpty's FIRMID).
453	NoPartyIDs	1	NumInGroup	Must have value of 2.
448	PartyID	11	String	Filled with the unique ID of the Trading Firm.
447	PartyIDSource	1	char	D = Proprietary / Custom code
452	PartyRole	3	int	1 = Executing Firm
2376	PartyRoleQualifier	2	int	23 = Firm or legal entity
448	PartyID	11	String	Filled with the unique ID of the Clearing Firm.
447	PartyIDSource	1	char	D = Proprietary / Custom code
452	PartyRole	3	int	4 = Clearing Firm
2376	PartyRoleQualifier	2	int	3 = General Clearing Member 4 = Individual Clearing Member
63	SettlmntTyp	1.	String	"3" = T+2 "2" = T+1 (for late cancellation only).
64	SettlDate	8	LocalMktDate	Settlement date of the transaction FORMAT: YYYYMMDD
162	SettlInstID	16	String	Euronext Clearing settlement reference for the transaction provided in real time. The final Reference is provided in the End Of Day Report.

3.5.2.3 Message Trailer

Tag	Field Name	Format	Length	Description
10	CheckSum	String	3	Always last field in message.

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3.5.3 Real Time Trade Confirmation via API

The real time trade confirmation is available also via API. The information exposed by the API is the same as the content of the FIX message described in section 3.5.2.

In order to receive trade confirmations in real time, the client application needs to subscribe to the *onTradesFeed* API. For more details on subscription, please refer to section 2.4. Further details on the interface will be provided in a dedicated document.

3.5.4 DT01-Trade leg Reconciliation via SFTP

Purpose: This report provides in a flat file all FIX execution messages sent for the day at Trading Member level to the Trading Member's sponsored Clearing Member. In addition, the file provides the following information:

- Total number of trades performed in the current business day;
- Total volume traded in the current business day;
- Total number of trades performed during the month;
- Total volume traded during the month.

In the Machine-readable report, the first 5 columns of the file are dedicated to the summary information. The last column contains the FIX execution messages. The number of rows depends on the number of transactions performed by the Trading Member during the day.

The Human-readable report presents the FIX messages on the rows. At the end, a summary section presents the total numbers and volumes of trades.

The file can be retrieved via SFTP.

Frequency: End of Day

Report Code: DT01

3.5.5 DP01-Open Positions

Purpose: Provides open positions per ISIN at Position Account level, including:

- Fails positions either reported in the original Position Account or in a dedicated fails Position Account owned by the Clearing Member in its house activity account structure (including Corporate Action positions if any);
- Positions resulting from a pair-off;
- Positions resulting from a Corporate Action.

This report does not contain settled or cancelled positions.

Frequency: End of Day

Report Code: DP01

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Field Name	Length	Type	Values	Descriptions
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Member Code	4,0	N		Corresponds to the code of the Clearing Member or Trading Member owning the position if only one trading member is involved in the position account.
Position Account ID	20	A		Identification code for the Position Account containing the position(s).
Position ID	12,0	N	Position numeric incremental	Identification code created for each specific position.
Margin Account ID	9	A		Informational - Margin Account associated to the Position Account.
Account Category	2	A	"C" = Client "H" = House "LP" = Liquidity Provider "F" = Fails	
ISIN Code	12	A		Instrument ISIN following ISO 6166
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T	Format yyyy-MM-dd	
End of Validity Date	10	T	Format yyyy-MM-dd	End of extension period. Buy-In process is triggered.
Side	1	A	"B" = Buy "S" = Sell	Indicates if the Clearing Member is Buying or Selling securities.
Positions Quantity	20,3	N		Positive values represent long securities positions (CM buys securities). Negative values represent short securities positions (CM sells securities). Represents remaining quantity in the case of partial settlement (fails are reported in the original PA or in a dedicated fails PA).
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Positions Amount	20,4	N		Cash amount of the position (including accrued interest when relevant). Positive value represents a long cash position (CM is creditor). Negative value represents a short cash position (CM is debitor). Remaining amount in the case of partial settlement (reported in the original PA or in the dedicated fails PA).
Currency	3	A	ISO code for the currency	
Accrued Interest	20,8	N		Informational

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Field Name	Length	Type	Values	Descriptions
Market Venue	4	A	Please refer to the Appendix	MIC code of the trading venue.
Position source	2	A	"ST"=Trading "CA"=Corporate Action "BP"=Buyer Protection	Position from trading. Position from Corporate Actions (Claims, transformation). Position from buyer protection.
ENXC Settlement Reference	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD.
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction .
Clearing Member /Settlement Agent Place of Settlement	11	A	BIC code	BIC code of the settlement place where the Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument.
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	
Status Indicator	2	A	"F"=Failing position	Empty or "F" if instruction is failing.

3.5.6 DS01-Settlement Instructions

Purpose: This report provides, to the relevant Clearing Member and to the relevant Settlement Agent (if applicable), all net Settlement Instructions generated by Euronext Clearing on Guaranteed Trades. The report contains:

- all net (or aggregated Settlement Instructions generated during current business day, resulting from the Trade Date netting process;
- all failed Settlement Instructions: all net (or aggregated Settlement Instructions that have an Intended Settlement Date before or equal to the current business day and not settled or partially settled;
- new Settlement Instruction resulting from a pair-off;

- new Settlement Instruction resulting from a Corporate Action;
- cancelled Settlement Instruction after a buy-in, pair-off or Corporate Action event.

Frequency: End of Day

PRIVATE

Report Code: DS01

Field Name	Length	Type	Format	Values
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement Agent	4,0	N		Settlement Agent Code.
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	N		Corresponds to the settlement Account on (I)CSD side.
Fail Position Account ID	20	A		Only used when SI is failing.
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T	Format yyyy-MM-dd	T+2
Buy-in Alert Date	10	T		Extension date - 2 business days
End of Validity Date	10	T		End of extension period. Buy-In process is triggered.
Side	1	A	"B"=Buy "S"=Sell	Indicates if the Clearing Member is buying or selling securities.
Original QTY	20,3	N		Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Original Amount	20,8	N		Positive value if CM/SA is creditor Negative value if CM/SA is debitor
Currency	3	A	ISO code for the currency	
Unsettled Quantity	20,3	N		Equal to original quantity if no settlement has occurred yet. Different to original quantity if partial settlement has occurred. Equal to 0 if position is fully settled Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).

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Field Name	Length	Type	Format	Values
Unsettled Amount	17,2	N		Equal to original amount if no settlement has occurred yet. Different to original amount if partial settlement has occurred. Equal to 0 if position is fully settled. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Hold & Release indicator	1	A	"H"= Hold "R"= Release	Hold/Release indicator of the original Settlement instruction.
Previous Euronext Clearing Settlement References	16	A		Previous Euronext Clearing Settlement reference in case of cancellation.
Euronext Clearing Reference	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD (Blank if the Settlement Instruction is created by the (I)CSD).
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement Instruction Source	2	A	"T": Trading "CA": Corporate Action "BP": Buyer Protection "PO":" Pair-Off "BI": Buy-In "OR": Other Reason	SI from Trading SI from Corporate Actions (Claims, transformation) SI from Buyer Protection SI from Pair-Off Si from Buy-In SI for any Other Reason
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking)	T2S or EB
Clearing member/ Settlement Agent place of settlement	20	A	BIC code	BIC code of the settlement place where the Clearing Member/Settlement Agent holds its related settlement account.
ISIN main Place of settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument.
Market Venue	4	A	- "VARI": if netting cross trading venue or refer to the appendix 4.2	This field is filled with the MIC code of the trading venue when it is an SME growth market. For the other Euronext markets, since the netting is cross trading venues, the field is filled with "VARI".
Last Update Date&Time	19	T	Format yyyy-MM-dd-hh.mm.ss	

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Field Name	Length	Type	Format	Values
			(ex: 2018-07-27-15.30.00)	
Status indicator	1	A	- F for failed - C for cancelled - Empty if not F or C	Status of the Settlement Instruction.
Fail reason	20	A	- Lack of Cash - On hold -Lack of Securities	Status of the Settlement Instruction (lack of cash, on hold, lack of securities, …).
CA type	10	A	Indicates the CA event type from the CAEV field from the CSD	Relevant when SI source is a corporate action/buyer protection.
CA ref	20	A	Indicates the CA reference from the CAOF field from the CSD	Relevant when SI source is a corporate action/buyer protection.
CA information	50	A	Indicates if it is a transformation or a claim	Relevant when SI source is a corporate action/buyer protection.

3.5.7 DS02-Buy-In Notice

Purpose: Euronext Clearing informs the Clearing Member/Settlement Agent failing seller that the Buy-In procedure is triggered for the list of Settlement Instructions that have reached the End of Validity Date.

Frequency: End of Day (at the end of the Validity Period)

Report Code: DS02

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement agent	4,0	N		Settlement Agent Code.
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	A		Corresponds to the settlement Account on (I)CSD side.
Fail Position Account ID	20	A		Original position account ID or failed position account when applicable.
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T	Format yyyy-MM-dd	

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Field Name	Length	Type	Values	Description
End of Validity Date	10	T	Format yyyy-MM-dd	End of extension period. Buy-In process is triggered.
Clearing Member /Settlement Agent Place of Settlement	20	A	BIC code	BIC code of the settlement place where Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument.
Side	1	A	"B"=Buy "S"=Sell	Indicates if the Clearing Member is Buying or Selling securities. Always set to Sell for this report.
Original QTY	20,3	N		Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities) .
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Original Amount	20,4	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency	3	A	ISO code for the currency	
Unsettled Quantity	20,3	N		Equal to original quantity if no settlement has occurred yet. Different to original quantity if partial settlement has occurred. Equal to 0 if position is fully settled. Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Unsettled Amount	20,4	N		Equal to Original amount if no settlement has occurred yet. Different than Original amount if partial settlement has occurred. Equal to 0 if position is fully settled. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Fail reason	20	A	- On hold -Lack of Securities	Status of the Settlement Instruction (lack of securities, on hold, etc…).
Euronext Clearing Settlement References	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD.

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Field Name	Length	Type	Values	Description
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement Instruction Source	2	A	"T": Trading "CL": Claim "TS": Transformation "PO": Pair-Off "BI": Buy-In "OR": Other Reason	SI from Trading SI from Corporate Actions (claims, transformation) SI from buyer protection SI from pair-off SI for any other reason
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking	T2S or EB
Market Venue	4	A	- "VARI": if netting cross trading venue or refer to the appendix 4.2	This field is filled with the MIC code of the trading venue when it is an SME growth market. For the other Euronext markets, since the netting is cross trading venues, the field is filled with "VARI".
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.8 DS03-Buy-In Results Information

Purpose: Provides results information to the seller involved in the Buy-In process.

Frequency: End of Day on the day on which Buy-In occurred

Report Code: DS03

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement agent	4,0	N		Settlement Agent Code.
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	A		Corresponds to the Settlement Account on (I)CSD side.
Fail Position Account ID	20	A		Original position Account ID or failed position account when applicable.
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	

PRIVATE

Field Name	Length	Type	Values	Description
Intended Settlement Date	10	T	Format yyyy-MM-dd	
End of Validity Date	10	T	Format yyyy-MM-dd	End of extension period. Buy-In process is triggered.
Clearing Member /Settlement Agent Place of Settlement	20	A	BIC code	BIC code of the settlement place where Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument.
Side	1	A	"B"=Buy "S"=Sell	Indicates if the Clearing Member is Buying or Selling securities. Always set to Sell for this report.
Original QTY	20,3	N		Positive value represents long securities positions. (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Original Amount	20,4	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency	3	A	ISO code for the currency	
Unsettled Quantity	20,3	N		Remaining Quantity to be settled before Buy-In. Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Unsettled Amount	20,4	N		Remaining Amount to be settled before Buy-In. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Fail reason	20	A	- On hold -Lack of Securities	Status of the settlement instruction (lack of securities, on hold, etc…).
Buy-In Execution Date	10	T	Format yyyy-MM-dd	
Buy-In Settlement Date	10	T	Format yyyy-MM-dd	
Buy-In Price	20,5	N		Price of the Buy-In.
Today Bought In Quantity	20,3	N		Quantity bought today during the Buy-In process.

PRIVATE

Field Name	Length	Type	Values	Description
Today Bought In Amount	17,2	N		Amount settled before Buy-In. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Trading Fees	17,2	N		Trading Fees amount from the Buy-In Agent.
Today Bought in Gross Amount	20,4	N		Amount including Trading Fees.
Cash Differential	20,3	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Cash Differential Currency	3	A		
Fx Rate	20,5	N		Fx Rate applied to the currency of the transaction if different than Euro.
Total Quantity Bought In	20,3	N		Actual quantity purchased since the triggering of the Buy-In process.
Total Amount Bought In	20,4	N		Countervalue quantity purchased through Buy-In.
Remaining quantity to be Bought In	20,3	N		
Quantity submitted to cash compensation	20,3	N		In the case that the total failing quantity could not be fully purchased in the Buy-In process.
Original ENXC Settlement Reference	16	A		Original Settlement Reference sent by Euronext Clearing to the (I)CSD.
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement Instruction Source	2	A	"T": Trading "CL": Claim "TS": Transformation "PO": Pair-Off "BI": Buy-In "OR"=Other Reason	SI from Trading SI from Corporate Actions (Claims, transformation) SI from buyer protection SI from pair-off SI for any other reason
Last ENXC Settlement Reference	16	A		New Settlement reference sent by Euronext Clearing to the (I)CSD in reference to the new Buy-In instruction for remaining Buy-In quantity. This field could be empty in the first report of Buy-In Result Information.
MITI associated to the last ENXC settlement Reference	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction. This field will be empty in the first report of Buy-In Result Information.

PRIVATE

Field Name	Length	Type	Values	Description
Last Settlement Instruction Source	2	A	"BI": Buy-In	Settlement Instruction from Buy-In. This field will be empty in the first report of Buy-In Result Information.
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking	T2S or EB
Market Venue	4	A	- "VARI": if netting cross trading venue or refer to the appendix 4.2	This field is filled with the MIC code of the trading venue when it is an SME growth market. For the other Euronext markets, since the netting is cross trading venues, the field is filled with "VARI".
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.9 DS04-Buy-In Notification to Buyer

Purpose: Report sent to inform the buyer that the Settlement Instruction for a specific ISIN is under Buy-In process. This report is sent at end of day on the Validity Date and then every day until the end of Buy-In process.

Frequency: End of Day

Report Code: DS04

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement agent	4,0	N		Settlement Agent Code.
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	A		Corresponds to the settlement Account on (I)CSD side.
Fail Position Account ID	20	A		Original position account ID or failed position account when applicable.
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T	Format yyyy-MM-dd	
End of Validity Date	10	T	Format yyyy-MM-dd	End of extension period. Buy-In process is triggered.

PRIVATE

Field Name	Length	Type	Values	Description
Clearing Member /Settlement Agent Place of Settlement	20	A	BIC code	BIC code of the settlement place where Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument.
Side	1	A	"B"=Buy "S"=Sell	Indicates if the Clearing Member is Buying or Selling securities. Always set to Buy for this report.
Original QTY	20,3	N		Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Original Amount	20,4	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency	3	A	ISO code for the currency	
Unsettled Quantity	20,3	N		Equal to Original quantity if no settlement has occurred yet. Different than Original quantity if partial settlement has occurred. Equal to 0 if position is fully settled. Positive value represents long securities positions (CM/SA receives securities). Always positive for this report. Negative value represents short securities positions (CM/SA delivers securities).
Unsettled Amount	20,4	N		Equal to Original amount if no settlement has occurred yet. Different than Original amount if partial settlement has occurred. Equal to 0 if position is fully settled. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Fail reason	20	A	- On hold -Lack of Securities	Status of the settlement instruction (lack of securities, on hold, etc…).
ENXC Settlement Reference	16	A		Settlement reference of the buyer SI sent by Euronext Clearing to the (I)CSD.
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement Instruction Source	2	A	"T": Trading "CL": Claim "TS": Transformation "PO": Pair-Off "BI": Buy-In	SI from Trading SI from Corporate Actions (Claims, transformation) SI from buyer protection SI from pair-off

PRIVATE

Field Name	Length	Type	Values	Description
			"OR"=Other Reason	SI for any other reason
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking	T2S or EB
Market Venue	4	A	- "VARI": if netting cross trading venue or refer to the appendix 4.2	This field is filled with the MIC code of the trading venue when it is an SME growth market. For the other Euronext markets, since the netting is cross trading venues, the field is filled with "VARI".
Buy-In process triggered for this ISIN	1	A	1 = Yes 2 = No	Indicates if the ISIN is under a Buy-In process
Activation Date of Buy-In Process	10	T	Format yyyy-MM-dd	Date when the Buy-In process was triggered for the ISIN. In the case of several Buy-In processes the field will be populated with the date of the oldest Buy-In process.
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.10 DS05-Sell-Out Notice

Purpose: On the Intended Settlement Date the Clearing House sends this report to the buyer with all the Settlement Instructions that are lacking in cash or on hold. This report represents an alert so that the buyer can credit their cash account or release their Settlement Instruction before the next Start Of Day.

Frequency: End of Day

Report Code: DS05

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement agent	4,0	N		Settlement Agent Code.
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	A		Corresponds to the Settlement Account on (I)CSD side.
Fail Position Account ID	20	A		Original position account ID or failed position account when applicable.
ISIN Code	12	A		

PRIVATE

Field Name	Length	Type	Values	Description
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T	Format yyyy-MM-dd	
End of Validity Date	10	T	Format yyyy-MM-dd	End of extension period
Sell Out Date	10	T	Format yyyy-MM-dd	The date on which the Sell Out is triggered. The day following the sending of the Sell Out Notice. Empty in the case that the Sell Out is not yet dated as the securities are not yet delivered.
Clearing Member /Settlement Agent Place of Settlement	20	A	BIC code	BIC code of the settlement place where the Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument
Side	1	A	"B" = Buy "S" = Sell	Indicates if the Clearing Member is Buying or Selling securities. Always set to Buy for this report.
Original QTY	20,3	N		Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Original Amount	20,4	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency	3	A	ISO code for the currency	
Unsettled Quantity	20,3	N		Quantity in Fail Equal to Original Quantity if no settlement has occurred yet. Different than Original Quantity if partial settlement has occurred. Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Unsettled Amount	20,4	N		Equal to Original Amount if no settlement has occurred yet. Different than Original Amount if partial settlement has occurred. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.

PRIVATE

Field Name	Length	Type	Values	Description
Fail reason	20	A	- Lack of Cash - On hold	Status of the settlement instruction (lack of cash and on hold).
Euronext Clearing Settlement References	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD.
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement Instruction Source	2	A	"T": Trading "CL": Claim "TS": Transformation "PO": Pair-Off "BI": Buy-In "OR": Other Reason	SI from Trading SI from Corporate Actions (Claims, transformation) SI from buyer protection SI from pair-off SI for any other reason
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking	T2S or EB
Market Venue	4	A	- "VARI": if netting cross trading venue or refer to the appendix 4.2	
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.11 DS06-Sell-Out Result Information

Purpose: The Clearing House sends this report to the failing buyer after the execution of the Sell-Out process. The report contains all the information related to the Sell-Out. This report is sent at end of day on the Validity Date and then every day until the end of Sell-Out process.

Frequency: End of Day

Report Code: DS06

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement agent	4,0	N		Settlement Agent Code.
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	A		Corresponds to the settlement Account on (I)CSD side.

PRIVATE

Field Name	Length	Type	Values	Description
Fail Position Account ID	20	A		Original position account ID or failed position account when applicable.
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T	Format yyyy-MM-dd	
End of Validity Date	10	T	Format yyyy-MM-dd	End of extension period
Clearing Member /Settlement Agent Place of Settlement	20	A	BIC code	BIC code of the settlement place where Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument.
Side	1	A	"B" = Buy "S" = Sell	Indicates if the Clearing Member is Buying or Selling securities. Always set to Buy for this report.
Original QTY	20,3	N		Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Original Amount	20,4	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency	3	A	ISO code for the currency	
Quantity Unsettled	20,3	N		Quantity in Fail. Equal to Original quantity if no settlement has occurred yet. Different than Original quantity if partial settlement has occurred. Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Amount Unsettled	20,4	N		Equal to Original amount if no settlement has occurred yet. Different than Original amount if partial settlement has occurred. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Fail reason	20	A	- Lack of Cash - On hold	Status of the settlement instruction (lack of cash and on hold).

PRIVATE

Field Name	Length	Type	Values	Description
Sold Out Execution Date	10	T		Date when the Sell Out occurred.
Sold Out Price	20,5	N		Price of the Sell Out.
Today Sold Out Quantity	20,3	N		Quantity sold today during the Sell Out process.
Today Sold Out Amount	20,4	N		Amount sold today during the Sell Out process.
Trading Fees	20,5	N		Trading Fees amount from the Sell Out Agent.
Cash Interest	17,2	N		
Today Sell Gross Amount	20,4	N		Amount including Trading Fees and Cash interest.
Cash Differential	20,3	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Cash Differential Currency	3	A		
Total Quantity Sold Out	20,3	N		Total quantity sold out since the start of the Sell Out process.
Total Amount Sold Out	20,4	N		Total amount sold out since the start of the Sell Out process.
Remaining Quantity to be Sold Out	20,3	N		Remaining quantity that has not yet been sold out.
Remaining Amount to be Sold Out				Remaining original amount that has not yet been sold out.
Euronext Clearing Settlement References	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD.
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement Instruction Source	2	A	"T": Trading "CL": Claim "TS": Transformation "PO": Pair-Off "BI": Buy-In "OR": Other Reason	SI from Trading SI from Corporate Actions (Claims, transformation) SI from buyer protection SI from pair-off SI for any other reason
Last ENXC Settlement Reference	16	A		New Settlement reference sent by Euronext Clearing to the (I)CSD in reference to the new Sell-Out

PRIVATE

Field Name	Length	Type	Values	Description
				instruction for remaining Sell-Out quantity. This field could be empty in the first report of Sell Out Result Information.
MITI associated to the last ENXC settlement Reference	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction. This field could be empty in the first report of Sell Out Result Information.
Last Settlement Instruction Source	2	A	"BI": Buy-In	Settlement Instruction from Sell Out. This field could be empty in the first report of Sell Out Result Information.
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking	T2S or EB
Market Venue	4	A	- "VARI": if netting cross trading venue or refer to the appendix 4.2	This field is filled with the MIC code of the trading venue when it is an SME growth market. For the other Euronext markets, since the netting is cross trading venues, the field is filled with "VARI".
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.12 DS07-Cash Compensation Information for Seller

Purpose: The Clearing House sends this report in the case of unsuccessful or partial Buy-In. The report contains information regarding the Settlement Instruction submitted to cash compensation, the cash compensation amount that the Clearing House will debit to the Seller and the price used for the Cash Compensation.

Frequency: End of Day

Report Code: DS07

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement agent	4,0	N		Settlement Agent Code.
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	A		Corresponds to the settlement Account on (I)CSD side.
Fail Position Account ID	20	A		Original position account ID or failed position account when applicable.

PRIVATE

Field Name	Length	Type	Values	Description
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T	Format yyyy-MM-dd	
End of Validity Date	10	T	Format yyyy-MM-dd	End of extension period. Buy-In process is triggered.
Clearing Member /Settlement Agent Place of Settlement	20	A	BIC code	BIC code of the settlement place where Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument.
Side	1	A	"B" = Buy "S" = Sell	Indicates if the Clearing Member is Buying or Selling securities. Always set to Sell for this report.
Original Quantity	20,3	N		Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Original Amount	20,4	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency	3	A	ISO code for the currency	
Unsettled Quantity	20,3	N		Remaining Quantity to be Settled before Buy-In. Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Unsettled Amount	17,2	N		Remaining Amount to be settled before Buy-In. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Quantity purchased through Buy-In	20,4	N		Actual quantity purchased through the Buy-In process
Remaining quantity submitted to cash compensation	20,3	N		Quantity that could not be purchased in the Buy-In process. Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).

PRIVATE

Field Name	Length	Type	Values	Description
Cash Compensation Price	20,5	N		Cash compensation Price determined by the CCP.
Cash Compensation Amount	20,4	N		Amount to be debited due to Cash Settlement.
Euronext Clearing Settlement References	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD.
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement Instruction Source	2	A	"T": Trading "CL": Claim "TS": Transformation "PO": Pair-Off "BI": Buy-In "OR": Other Reason	SI from Trading SI from Corporate Actions (Claims, transformation) SI from buyer protection SI from pair-off SI for any other reason
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking	T2S or EB
Market Venue	4	A	- "VARI": if netting cross trading venue or refer to the appendix 4.2	This field is filled with the MIC code of the trading venue when it is an SME growth market. For the other Euronext markets, since the netting is cross trading venues, the field is filled with "VARI".
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.13 DS08-Cash Compensation Information for Buyer

Purpose: The Clearing House sends this report in the case of unsuccessful or partial Buy-In(s). The report contains information regarding the Settlement Instruction submitted for Cash Compensation, the cash compensation amount that the Clearing House will credit to the Buyer and the price used for the Cash Compensation.

Frequency: End of Day

Report Code: DS08

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement agent	4,0	N		Settlement Agent Code.

PRIVATE

Field Name	Length	Type	Values	Description
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	A		Corresponds to the settlement Account on (I)CSD side.
Fail Position Account ID	20	A		Original position account ID or failed position account when applicable.
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T	Format yyyy-MM-dd	
End of Validity Date	10	T	Format yyyy-MM-dd	End of extension period. Buy-In process is triggered.
Clearing Member /Settlement Agent Place of Settlement	20	A	BIC code	BIC code of the settlement place where Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument
Side	1	A	"B" = Buy "S" = Sell	Indicates if the Clearing Member Is Buying or Selling securities. Always set to Buy for this report.
Original Quantity	20,3	N		Positive value represents long securities positions (CM/SA receives securities) Negative value represents short securities positions (CM/SA delivers securities)
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Original Amount	20,4	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency	3	A	ISO code for the currency	
Unsettled Quantity	20,3	N		Remaining Quantity to be Settled. Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Unsettled Amount	17,2	N		Remaining Amount to be settled. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Quantity subject to Cash Compensation	20,3	N		Quantity that could not be purchased in the Buy-In process.

PRIVATE

Field Name	Length	Type	Values	Description
				Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Amount Subject to Cash Compensation	20,4	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Cash Compensation Price	20,5	N		Cash compensation Price determined by the CCP.
Cash Compensation Amount	20,4	N		Amount to be debited due to Cash Settlement.
Euronext Clearing Settlement References	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD.
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement Instruction Source	2	A	"T": Trading "CL": Claim "TS": Transformation "PO": Pair-Off "BI": Buy-In "OR": Other Reason	SI from Trading SI from Corporate Actions (Claims, transformation) SI from buyer protection SI from pair-off SI for any other reason
Last ENXC Settlement Reference	16	A		New Settlement reference sent by Euronext Clearing to the (I)CSD in reference to the new settlement instruction for remaining quantity. This field could be empty in the first report of Cash Compensation Information.
MITI associated to the last ENXC settlement Reference	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction. This field could be empty in the first report of Cash Compensation Information.
Last Settlement Instruction Source	2	A	"OR": Other Reason	SI from partial cash settlement.
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking	T2S or EB
Market Venue	4	A	- "VARI": if netting cross trading venue or refer to the appendix 4.2	This field is filled with the MIC code of the trading venue when it is an SME growth market. For the other Euronext markets, since the netting is cross trading venues, the field is filled with "VARI".

PRIVATE

Field Name	Length	Type	Values	Description
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.14 DS09-Pair-Off Result

Purpose: The Pair-Off result report provides information regarding all the Pair-Off Requests from the current business day for a given Clearing Member/Settlement Agent. It specifies all the instructions used for the Pair-Off and the details of the new instruction that is produced as the result of the Pair-Off Request.

Frequency: End of Day

Report Code: DS09

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement agent	4,0	N		Settlement Agent Code.
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	A		Corresponds to the settlement Account on (I)CSD side.
Fail Position Account ID	20	A		Original position account ID or failed position account when applicable.
Pair Off Request ID	12,0	N		Unique identifier of the Pair-Off request.
ISIN Code	12	A		
Pair Off Date	10	T	Format yyyy-MM-dd	
Currency	3	A	ISO code for the currency	
Cash Differential	20,3	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Cash Differential Currency	3	A		
Fx Rate	20,5	N		Fx Rate applied to the currency of the transaction if different than Euro.
Pair Off Quantity	20,3	N		Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).
Pair Off Remaining Quantity	20,3	N		Positive value represents long securities positions (CM/SA receives securities).

PRIVATE

Field Name	Length	Type	Values	Description
				Negative value represents short securities positions (CM/SA delivers securities).
Pair Off Result Side	1	A	"B" = Buy "S" = Sell	Indicates if the Clearing Member Is Buying or Selling securities
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Pair Off Remaining Amount	20,4	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency of the Pair Off Settlement Instruction	3	A	ISO currency code	
Intended Settlement Date	10	T	Format yyyy-MM-dd	ISD of the new instrument Instruction.
Pair Off Euronext Clearing Settlement Reference	16	A		New Pair-off Settlement reference sent by Euronext Clearing to the (I)CSD for Pair-off.
Pair Off MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking	T2S or EB
Clearing Member /Settlement Agent Place of Settlement	20	A	BIC code	BIC code of the settlement place where Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument.
Market Venue	4	A	- "VARI": if netting cross trading venue or refer to the appendix 4.2	
Euronext Clearing Settlement Reference subject to Pair off	16	A		Reference of one of the Settlement Instructions included in the Pair-off request.
ISD SI subject to Pair off	10	T		
Side SI subject to Pair off	1	A	"B"=Buy "S"=Sell	

PRIVATE

Field Name	Length	Type	Values	Description
Unsettled Quantity SI subject to Pair off	20,3	N		
Quantity Type SI subject to Pair off	1	A	"U" = Unit "F" = Face Value	
Unsettled Amount SI subject to Pair off	17,2	N		
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.15 DS10-Non-Guaranteed Settlement Instruction

Purpose: This report provides all Settlement Instructions generated by Euronext Clearing for Non-Guaranteed Trades.

Frequency: End of Day

Report Code: DS10

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Settlement Agent	4,0	N		Settlement Agent Code.
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Settlement Account ID	50	N		Corresponds to the settlement Account on (I)CSD side.
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T		T+2
Side	1	A	"B"=Buy "S"=Sell	Indicates if the Clearing Member is Buying or Selling securities.
Quantity	20,3	N		Positive value represents long securities positions (CM/SA receives securities). Negative value represents short securities positions (CM/SA delivers securities).

PRIVATE

Field Name	Length	Type	Values	Description
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Amount	20,8	N		Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency			ISO code for the currency	
Hold & Release indicator	1	A	"H"= Hold "R"= Release	Hold/Release indicator of the original Settlement Instruction.
Counterparty	20	A		BIC code of the counterparty.
Counterparty's CSD	20	A		BIC code of the counterparty's CSD.
Euronext Clearing References	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD.
Settlement Instruction Source	2	A	"T": Trading	Settlement Instruction from Trading.
Settlement platform	1	A	1 = Target 2 Securities (T2S) 2 = International CSDs (Euroclear Bank and Clearstream Banking	T2S or EB
Clearing Member /Settlement Agent Place of Settlement	20	A	BIC code	BIC code of the settlement place where Clearing Member/Settlement Agent holds its related settlement account.
ISIN Main Place of Settlement	5	A	Please refer to the Appendix	Main settlement place of the instrument.
Market Venue	4	A	Please refer to the Appendix	This field is populated with the MIC code of the trading venue.
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.16 DM01-MtM at Position Level

Purpose: Provides Mark-to-Market valuation for each position account at instrument level. Please note that this report already contains fields applicable for listed Derivatives.

Frequency: Intraday and End of Day

Report Code: DM01

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.

PRIVATE

Field Name	Length	Type	Values	Description
Position Account ID	20	A		Identification code for the Position Account containing the position(s).
Margin Account ID	20	A		Informational - Margin Account associated to the Position Account.
Collateral Account ID	20	A		Collateral Account to which the Margin Account is associated.
Account Category	1	A	C = Client H = House LP = Liquidity Provider F = Fails	
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	
Side	1	A	"B" = Buy "S" = Sell	Indicates if the Clearing Member Is Buying or Selling securities.
Positions Quantity	20,3	N		Positive values represent long securities positions (CM buys securities). Negative values represent short securities positions (CM sells securities). Represents remaining quantity in the case of partial settlement (fails are reported in the original PA or in a dedicated fails PA).
Quantity Type	1	A	"U" = Unit "F" = Face Value	
Positions Amount	20,4	N		Cash amount of the position (including Accrued interest when relevant). Positive value represents a long cash position (CM is creditor). Negative value represents a short cash position (CM is debitor). Remaining amount in the case of partial settlement (reported in the original PA or in the dedicated fails PA).
Currency	3	A	ISO code for the currency	
Asset Type	3	A	"EQU"=Equities "FXI"=Fixed Income "ETF"=ETFs "WAR"=Warrants "OPT"=Options "FUT"=Future	Equities/Bonds/ETFs/Warrants/Options /Future/Commodities
Underlying ISIN	12	A		
Exercised/Assigned	1	A	"E" =Exercised "A" = Assigned	
Settlement Date/Expiry Date	10	T	Format yyyy-MM-dd	
Strike Price	20,5	N		
Price currency	3	A		Executed trade price.

PRIVATE

Field Name	Length	Type	Values	Description
Underlying Price currency	3	A		
MtM	20,8	N		Mark-to-Market in instrument currency. Positive value for positive variation of the instrument. Negative value for negative variation of the instrument.
Fx Rate	20,5	N		
MtM EUR	20,8	N		Mark-to-Market in Euro Positive value for positive variation of the instrument. Negative value for Negative variation of the instrument.
Market Venue	4	A	Please refer to the Appendix	This field is filled in with the MIC code of the trading venue when it is an SME growth market. For the other Euronext markets, since the netting is cross trading venues, the field is filled with "VARI".
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	
Status Indicator	2	A	"F"=Failing position	Empty or "F" if instruction is failing.

3.5.17 DM02-Initial Margin Breakdown

Purpose: This report provides detailed margin calculation at margin account level. Please note that this report already contains fields applicable for listed Derivatives.

Frequency: Intraday and End of Day

Report Code: DM02

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Segment	3	A	"EQU"=Equities "DER"=Derivatives "COM"=Commodities	Provides the Segment: Equities/Future derivatives/Commodities etc…
Margin Account ID	20	A		Informational - Margin Account associated to the Position Account.
Collateral Account ID	20	A		Collateral Account to which the Margin Account is associated.
Account Category	2	A	"C" = Client "H" = House	

PRIVATE

Field Name	Length	Type	Values	Description
			"LP" = Liquidity Provider "F" = Fails	
MtM EUR	20,8	N		Mark-to-Market in Euro Positive value for positive variation of the instrument. Negative value for negative variation of the instrument.
Diversified Expected Shortfall (DES)	20,8	N		DES:= Diversified expected shortfall.
Diversified Stressed Expected Shortfall (DSES)	20,8	N		DSES:= Diversified Stressed expected shortfall.
Undiversified Expected Shortfall (UES)	20,8	N		UES: Sum of the Expected Shortfall at position level.
Undiversified Stressed Expected Shortfall (USES)	20,8	N		USES:= Sum of the stressed Expected Shortfall at position level.
Decorrelation Add-On (DAO)	20,8	N		DAO:= [UES - ES]* (1 - Decorrelation_Parameter)
Stressed Decorrelation Add-on (SDAO)	20,8	N		SDAO:= [USES - SES]*(1 - Decorrelation_Parameter)
Initial Margin (IM)	20,8	N		IM:= MAX[ES + DAO ; Weight*(DES + DAO) + (1-Weight)*(DSES + SDAO))
Total Margins	20,8	N		Total Margin:= Max[0 ; IM + MtM]
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.18 DM03-Initial Margins Breakdown Fixed Income

Purpose: This report provides detailed margin calculation at margin account level for Fixed Income.

Frequency: Intraday and End of Day

Report Code: DM03

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Segment	3	A	"EQU"=Equities "DER"=Derivatives "COM"=Commodities	Provide the Segment: Equities/Future Derivatives/Commodities etc…

PRIVATE

Margin Account ID	20	A		Informational - Margin Account associated to the Position Account.
Collateral Account ID	20	A		Collateral Account to which the Margin Account is associated.
Account Category	2	A	"C" = Client "H" = House "LP" = Liquidity Provider "F" = Fails	
MtM EUR	20,8	N		Mark-to-Market in Euro. Positive value for positive variation of the instrument. Negative value for negative variation of the instrument.
Scaled Expected Shortfall (SES)	20,8	N		
Unscaled Expected Shortfall (UES)	20,8	N		UES: Unscaled expected shortfall at portfolio level
Undiversified Scaled Expected Shortfall (USES)	20,8	N		USES: Sum of scaled expected shortfall at node level
Undiversified Unscaled Expected Shortfall UUES	20,8	N		UUES: Sum of unscaled expected shortfall at node level
Scaled Decorrelation Add-On (SDAO)	20,8	N		SDAO:= [USES - SES]* (1 - Decorrelation_Parameter)
Unscaled Decorrelation Add-on (UDAO)	20,8	N		UDAO:= [UUES - UES]*(1 - Decorrelation_Parameter)
Idiosyncratic Concentration Add-on (IDAO)	20,8	N		Idiosyncratic Add-on at portfolio level.
Repo Concentration Add-on (RCA)	20,8	N		Repo concentration Add-on at portfolio level
Settlement Add-on (SAO)	20,8	N		Settlement Add-on at portfolio level
Initial Margin (IM)	20,8	N		IM:= MAX[ES + DAO ; Weight*(DES + DAO) + (1-Weight)*(DSES + SDAO))
Total Margins	20,8	N		Total Margin:= Max[0 ; IM + MtM]
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.19 DM04-Total Margin Breakdown Cross Segment

Purpose: This report provides the total margin calculation for all margin account of a General Clearing Member per segment. Please note that this report already contains fields applicable for listed Derivatives.

PRIVATE

Frequency: Intraday and End of Day

Report Code: DM04

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Segment	3	A	"EQU"=Equities "DER"=Derivatives "COM"=Commodities	Provides the Segment: Equities/Future derivatives/Commodities etc…
Margin Account ID	20	A		Informational - Margin Account associated to the Position Account.
Collateral Account ID	20	A		Collateral Account to which the Margin Account is associated.
Account Category	1	A	C = Client H = House LP = Liquidity Provider F = Fails	
Total Margins	20,8	N		Total Margin:= Max[0 ; IM + MtM]
Total Margins per Segment	20,8	N		Sum of all total Margin for a specific segment.
Total of all Initial Margins Calculated	20,8	N		Sum of each Total Margins calculated.
Last Update Date & Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.20 DC01-Collateral Deposited

Purpose: This report provides detailed information regarding the deposited collateral.

Frequency: Intraday and End of Day

Report Code: DC01

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Margin Type	1	A	1 - Initial margin 2 - Default Fund	Initial margin/Default fund.
Segment	3	A	"EQU"=Equities "DER"=Derivatives "COM"=Commodities	Provide the Segment: Equities/Future derivatives/Commodities etc…
Collateral Account ID	20	A		Collateral Account to which the Margin Account is associated.

PRIVATE

Field Name	Length	Type	Values	Description
Total initial Margin	20,8	N		Total initial margin calculated for the account or exposure amount.
Total NCB Guarantee	20,4	N		Outstanding Amount of NCB guarantee. Empty if not available.
Allocated NCB Guarantee	20,4	N		Allocated Amount of NCB guarantee. Empty if not available.
Excess NCB Guarantee	20,4	N		Excess Amount of NCB guarantee. Empty if not available.
Total Cash EUR Available	20,8	N		Cash deposited as Collateral.
Allocated Cash	20,8	N		Allocated cash used as collateral.
Excess cash EUR	20,8	N		Excess cash.
Client Buffer Cash	20,8	N		Permanent deposit related to Collateral Account ID.
Total Securities collateral available before limits	20,4	N		Sum valuated amount collaterals deposited after Haircut and WrongWayRisk.
Total Securities collateral available after limits	20,4	N		Collateral available after limits application (Sum of Total Securities allocated and Total Securities unallocated).
Total Securities collateral allocated	20,4	N		Allocated Securities Collateral.
Total securities collateral unallocated	20,4	N		Sum of excess of securities eligible to collateral.
Total Excess (countries)	20,4	N		Sum of excess amounts for all countries.
Issuance Country	30	A		Issuance Country of the security and Type of Asset (Govies, Supranational, etc..)
ISIN	12	A		ISIN of the Security.
Place of Depository	1	A	1 = Euronext Securities Milan 2 = Euroclear Bank	(I)CSD where the securities have been deposited.
Security Description	30	A		Description of the security.
Security Maturity date	10	T	Format yyyy-MM-dd	Maturity date of the Security.
Security Face value/unit	1	A	"U" = Unit "F" = Face Value	Indicate if the issuance of the security is Face Value or Unit.
Security Dirty Price	20,8	N		Price of the security including accrued Coupon.
Security Clean Price	20,8	N		Price of the security excluding accrued coupon.
Security Accrued Coupon	20,4	N		Amount of the accrued coupon.

PRIVATE

Field Name	Length	Type	Values	Description
Security Haircut	20,8	N		Percentage of Haircut applied.
Security valuated amount	20,4	N		Collateral value of each deposited securities after Haircut and WrongWayRisk.
Reason for ISIN Excess	20	A		Temporary exclusion : corporate action, close to maturity, no quotation (except coupon interest).
Total Security Collateral Available before Country Limits	20,4	N		Total Sum of available security collateral for the same country (after applying Haircut).
Total Maximum Security Collateral Value After Country Limits	20,4	N		Total Sum of Maximum total value usable for the Country.
Excess For The Country	20,4	N		Excess Amount calculated for the country.
Reason for Excess	2	A	"BL"=Breach of limit "OR"=Other Reason	Breach of limit. Any other reason.
Total Default Fund	20,8	N		Total Default Fund contribution calculated.
Total Cash EUR Available for Default Fund	20,8	N		Cash deposited as Default Fund.
Allocated Cash for Default Fund	20,8	N		Allocated cash used as Default Fund.
Excess cash EUR for Default Fund	20,8	N		Excess cash for Default Fund.
Last Update Date&Time	10	T	Format yyyy-MM-dd (ex: 2018-07-27)	

3.5.21 DD01-Default Fund Contribution

Purpose: Provides information on required contribution to Default Fund at GCM level.

Frequency: At least Monthly

Report Code: DD01

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the report during the day.
Clearing Member	4,0	N		Clearing Member Code.
Default Fund Account ID	20	A		
Average Risk measure	20,8	N		Average margin at GCM level for 20 sliding working days.

PRIVATE

Field Name	Length	Type	Values	Description
Variable contribution	20,8	N		Delta of the contribution (difference between required contribution and collateral already posted).
Minimum contribution	20,8	N		Minimum contribution quota for the specific DF Account ID.
Required contribution	20,8	N		Contribution that is needed based on the calculation.
Posted Collateral	20,8	N		Contribution already posted.
Excess Cash	20,8	N		If the required contribution is less than the posted collateral (Money Euronext Clearing owes to the Clearing Member).
Default Fund Call	20,8	N		If required contribution is more than the collateral already posted OR if the posted collateral is below the minimum contribution (Cash call).
Currency	3	A	ISO currency code	
Period start	10	T	Format yyyy-MM-dd (ex: 2018-07-27)	Period to be defined.
Period End	10	T	Format yyyy-MM-dd (ex: 2018-07-27)	Period to be defined.

3.5.22 DD02-Default Fund Quota

Purpose: Provides breakdown details of default fund contribution per Margin account.

Frequency: At least Monthly

Report Code: DD02

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code.
Default Fund Account ID	20	A		
Margin Account ID	20	A		
Average risk measure per Margin Account	20,8	N		Average risk measure used to estimate the participant contribution to the Default Fund.
Currency	3	A		ISO currency code
Average risk measure per Member (a)	20,8	N		Sum, over all margin account of a given members, of Average risk measure.
Sum of the average risk measure (b)	20,8	N		Sum, over all CCP members, of average risk measure at members level.

PRIVATE

Field Name	Length	Type	Values	Description
Percentage of Default fund contribution (c)	6,3	N		Repartition key at member level. (c)=(a)/(b)
Default Fund total size (d)	20,8	N		Total size of the Default Fund, in Euro.
Temporary contribution (e)	20,8	N		DF contribution – not rounded, in Euro. (e)= (d)*(c)
Final contribution (f)	20,4	N		Rounding value of DF contribution, in Euro. (f) = round(e)
Period start	10	T	Format yyyy-MM-dd(ex: 2018-07-27)	Period to be defined.
Period End	10	T	Format yyyy-MM-dd(ex: 2018-07-27)	Period to be defined.

3.5.23 DD03-Default fund calculation details

Purpose: Provides breakdown of Default Fund calculated daily per margin account.

Frequency: Monthly

Report Code: DD03

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code.
Default Fund Account ID	20	A		
Margin Account ID	20	A		
Margin date	10	T	Format yyyy-MM-dd(ex: 2018-07-27)	
Default fund contribution	20,4	N		
Currency	3	A	ISO currency code	
Business Days	10	N		
Period start	10	T	Format yyyy-MM-dd(ex: 2018-07-27)	Period to be defined.
Period End	10	T	Format yyyy-MM-dd(ex: 2018-07-27)	Period to be defined.

PRIVATE

3.5.24 DF01-Payments and Fees CCP

Purpose: This report contains the breakdown of all the Fees and Payments related to clearing activity.

Frequency: End of Day

Report Code: DF01

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code.
Paying Agent	4,0	N		Paying Agent Code (Empty when Clearing Member is the Paying Agent).
Account Category	1	A	"C" = Client "H" = House	
Cash clearing fee	17,2	N		Monthly amount to be paid for clearing fee. This field will be empty until last business day of the month.
Settlement Fee	17,2	N		Monthly amount to be paid for settlement fee. This field will be empty until last business day of the month.
Pair-off fee	17,2	N		Monthly Fee applied to Pair-off requests. This field will be empty until last business day of the month.
Buy-in cash compensation	20,4	N		Payment of Cash Compensation Amount.
Buy-In fee	17,2	N		Monthly Fee related to Buy-In process. This field will be empty until last business day of the month.
Broker fee	17,2	N		
Late settlement Fees	17,2	N		Monthly fee applied for fail management related to Shares. This field will be empty until last business day of the month.
CSDR Penalties	17,2	N		To be confirmed depending on outcome of consultation from ESMA regarding CSDR penalties process.
Sell-out interests	17,2	N		
Membership & Connectivity fee	17,2	N		Monthly fee applied for membership and connectivity. This field will be empty until last business day of the month.
Reporting fee	17,2	N		Monthly fee applied for reporting subscription. This field will be empty until last business day of the month.
Account fee	17,2	N		Monthly fee applied for the clearing member account structure.
Sub Account fee	17,2	N		Monthly fee applied for the clearing member account structure.

PRIVATE

Field Name	Length	Type	Values	Description
Segregated account fee	17,2	N		Monthly fee applied for the clearing member account structure.
Historical reports request	17,2	N		Monthly fee applied for historical data request.
Report delivery to third parties	17,2	N		Monthly Fee applied for the request of delivering report to third party.
Cash Call Late Payment fee	17,2	N		Fee applied for cash call late payment.
Statement Requested By Auditors	17,2	N		Fee applied for Statement request.
Statement Default Fund	17,2	N		Fee applied for Statement Default Fund Request (stamp duty).
Cash Adjustment	17,2	N		Amount of Cash Adjustment when applicable.
Reason For Cash Adjustment	17,2	N		Reason for Cash Adjustment.
Cash Call Clearing Activity	20,8	N		Cash Call related to the CCP.
Last Update Date&Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.25 DF02-Payment and Fee Collateral

Purpose: This report contains the breakdown of all the Fees and Payments related to the collateral account.

Frequency: End of Day

Report Code: DF02

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code
Collateral Account ID	20	A		
Account Category	1	A	C = Client H = House	
Total of all Initial	20,8	N		Sum of each Total Margins calculated.

PRIVATE

Field Name	Length	Type	Values	Description
Margins Calculated				
Total allocated Securities collateral value	20,4	N		Collateral allocated to cover initial margin considering both limits (Country Limit and Total securities Limit).
NCB Guarantee	20,4	N		Outstanding Amount of NCB guarantee. Empty if not available.
Cash Client Buffer	20,8	N		
Sub Total Initial Margin Cash Call	20,8	N		
NCB Guarantee fee	17,2	N		
Securities Management fee	17,2	N		Commission due to cover the cost of handling securities deposited as collateral.
Securities Movement fee	17,2	N		Monthly Fee related to movement of securities at the CSD side.
Securities Collateral Coupon Payment	17,2	N		Coupon received from (I)CSDs to be transferred back.
Cash EUR Interest Return	20,4	N		Interest on the cash deposited. Quarterly payment.
Default Fund Call	20,8	N		
Excess Cash EUR Collateral Guarantees	20,8	N		
Cash Call Collateral	20,8	N		In Cash EUR
Last Update Date&Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.26 DF03-Total Cash Call

Purpose: This report contains the consolidated overall Cash Call for the next business day.

PRIVATE

Frequency: End of Day

Report Code: DF03

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code.
Paying Agent	4,0	N		Paying Agent Code (Empty when Clearing Member is the Paying Agent).
Account Category	1	A	C = Client H = House	
Cash Call Collateral	20,8	N		
Cash Call Clearing Activity	20,8	N		
Total Cash Call	20,8	N		Total cash call
Last Update Date&Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.27 DF04-Corporate Action Payment Report

Purpose: This report contains the Market Claim/Coupon compensation managed by the Clearing House for Guaranteed trades.

Frequency: End of Day

Report Code: DF04

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code.
Settlement Agent	4,0	N		Paying Agent Code (Empty when Clearing Member is the Paying Agent).
Account Category	1	A	"C" = Client "H" = House	
Fail Position Account ID	20	A		Original position account ID or failed position account when applicable.
ISIN Code	12	A		
Trade Date	10	T	Format yyyy-MM-dd	
Intended Settlement Date	10	T	Format yyyy-MM-dd	T+2
Actual Settlement Date	10	T	Format yyyy-MM-dd	Effective settlement date. Value populated only when settlement occurs.

PRIVATE

Field Name	Length	Type	Values	Description
Record Date	10	T	Format yyyy-MM-dd	In case of redemption, it is reported the Maturity Date.
Payment Date	10	T	Format yyyy-MM-dd	
Value Date	10	T	Format yyyy-MM-dd	
Interest period ending Date	10	T	Format yyyy-MM-dd	
Amount for Entitlement	20,4	N		Based on the characteristic of the corporate action, the amount corresponds to the market claim or to the coupon compensation or the redemption amount. Positive value if CM/SA is creditor. Negative value if CM/SA is debitor.
Currency	3	A	ISO code for the currency	
Euronext Clearing Reference	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD (Blank if the Settlement Instructions is created by the (I)CSD).
MITI	20	A		Market Infrastructure Transaction Identification: the unique reference allocated by T2S or Euroclear Bank to the Settlement Instruction.
Settlement platform	1	A	2 = International CSDs (Euroclear Bank and Clearstream Banking)	Always EB
CA type	10	A		Indicates the CA event type for which the CAoF is needed. The amount may be related to Dividend/Coupon/Redemption/Cash Payment for Transformation.
CA ref	20	A		Reference defined by Euronext Clearing.
Balance reference	20,4	N		Reference of the net balance of all Amounts for entitlement on the same ISIN code and same record/payment date.
Status of the balance	1	A	"F"= Final "P"= Provisional	The balance is Final (F) when the related settlement instructions are settled and the payment date has been reached otherwise it is Provisional (P).
Payment processed date	10	T	Format yyyy-MM-dd	
Last Update Date&Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.28 DF05-Details Fee on Fails Report

Purpose: This report contains all the details of fees applied for fails.

PRIVATE

Frequency: Monthly

Report Code: DF05

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code.
Date	10	T		Date of the event.
ISIN	12	A		ISIN Code
Delivery Account ID	9	A		Corresponds to the Delivery Account on Euronext Clearing side.
Fail Position Account ID	20	A		Account ID of the fail position.
Euronext Clearing Reference	16	A		Settlement reference sent by Euronext Clearing to the (I)CSD (Blank if the Settlement Instruction is created by the (I)CSD).
Type of Fee	2	A	"LS" = Late Settlement fee "B" = Buy-In fee "P" = Pair Off fee	Description of the fee
Fee Due	20,4	N		Amount due per event
Total Late Settlement fee for Current Month	17,2	N		Sum of all Fees due related to Late Settlement for the current month.
Total Buy-In fee for Current Month	17,2	N		Sum of all Fees due related to Buy-Ins for the current month.
Total Pair-Off fee for Current Month	17,2	N		Sum of all Fees due related to Pair-Offs for the current month.
Last Update Date&Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.29 DF06-Monthly Interest Details

Purpose: The Report shows the amount of interest on the cash deposited. The Report is created only for General and Individual Clearing Members and is made available the first days of the month following the reference month.

Frequency: Monthly

Report Code: DF06

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Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code.
Paying Agent	4,0	N		Paying Agent Code (Empty when Clearing Member is the Paying Agent).
Margin Type	1	A	1 - Initial margin 2 - Default Fund	Initial margin/Default fund
Collateral Account ID	20	A		Collateral Account
Date	10	T	Format yyyy-MM-dd	
Cash Balance	17,2	N		Daily End of Day cash balance
Interest Return Amount	20,4	N		
STR daily Rate	20,5	N		
Spread	20,5	N		Applied spread with ECB rates. Spread differs for Initial margin and Default Fund.
Total Current Month	20,4	N		
Last Update Date&Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.30 DF07-NCB Guarantee Details Report

Purpose: The Report contains the daily fee calculated on NCB Guarantee Amount.

Frequency: Monthly

Report Code: DF07

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code.
Collateral Account ID	20	A		Collateral Account.
Date	10	T	Format yyyy-MM-dd	
Total NCB Guarantee	20,4	N		EOD Amount provided daily by the NCB.
Basis Points (BPs) applied	20,8	N		Basis points applied to the NCB guarantee amount.
Fee calculated	17,2	N		Daily fee calculated

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Field Name	Length	Type	Values	Description
Total Cumulated Current Month	20,4	N		Total Amount Cumulated for the current month.
Last Update Date&Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

3.5.31 DF08-Management Fee Details Reports

Purpose: The Report contains the daily calculation of the Management Fee.

Frequency: Monthly

Report Code: DF08

Field Name	Length	Type	Values	Description
Version	4,0	N		Indicates the progressive version of the run that produced the report.
Clearing Member	4,0	N		Clearing Member Code
Collateral Account ID	20	A		Collateral Account
Date	10	T	Format yyyy-MM-dd	
Value of securities deposited	20,4	N		Total value of the deposited securities at End of Day (EOD).
Basis Points (BPs) applied	20,8	N		Basis points applied to the NCB guarantee amount.
Fee calculated	17,2	N		Daily fee calculated
Total Cumulated Current Month	20,4	N		Total Amount Cumulated for the current month.
Last Update Date&Time	19	T	Format yyyy-MM-dd-hh.mm.ss (ex: 2018-07-27-15.30.00)	

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4 APPENDIX

4.1 Human Readable Reports Examples

Below there are two files that provide examples of Human Readable Reports.

Pair-Off%20Report%20example.xlsx

Trade%20Reconciliation%20Report%20exa

4.2 Market Venue

The possible values of this field are:

- ALXB: EURONEXT GROWTH BRUSSELS
- MLXB: EURONEXT ACCESS BRUSSELS
- TNLB: EURONEXT - TRADING FACILITY BRUSSELS
- TNLK: EURONEXT BLOCKS
- XBRU: EURONEXT - EURONEXT BRUSSELS
- XESM: EURONEXT GROWTH DUBLIN
- XMSM: EURONEXT DUBLIN
- ALXL: EURONEXT GROWTH LISBON
- ENXL: EURONEXT ACCESS LISBON
- XLIS: EURONEXT - EURONEXT LISBON
- ALXP: EURONEXT GROWTH PARIS
- XMLI: EURONEXT ACCESS PARIS
- XPAR: EURONEXT - EURONEXT PARIS
- XAMS: EURONEXT - EURONEXT AMSTERDAM

4.3 Main Place of Settlement

The possible values of this field are:

- 00001: Euroclear France
- 00002: Euroclear Belgium
- 00003: Euroclear Nederland
- 00010: Euronext Securities Porto
- 00004: NBB-SSS
- 00006: Euroclear Bank

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SUPPORT

For support relating to this document or with the clearing migration, please contact: ccp-readiness@euronext.com

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