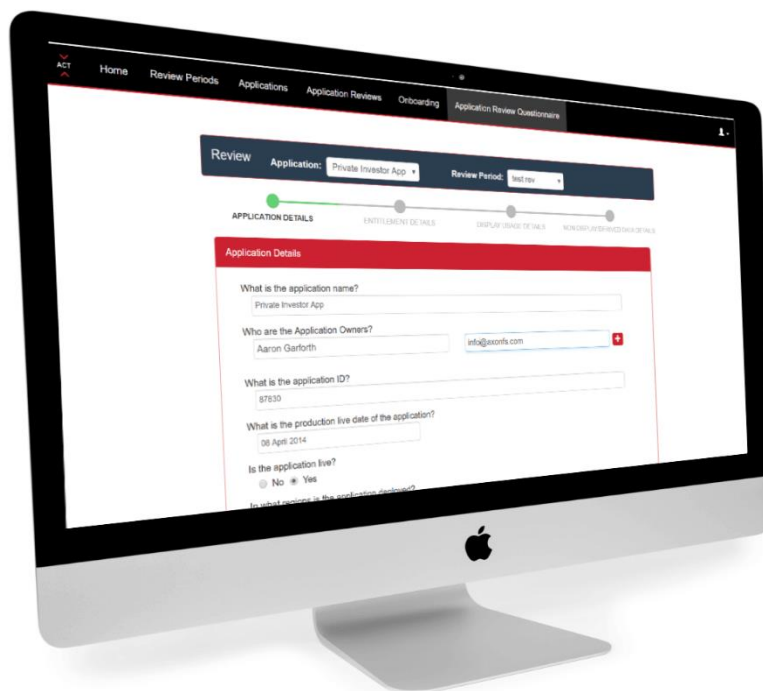




ACT – Application Compliance Tool



Contents

ACT – What is it?	3
ACT – Benefits	3
ACT - Walkthrough	3
ACT – User Roles	4
ACT - Home Page	5
ACT - Onboarding Tab	8
ACT - Review Periods Tab	8
ACT - Review Questionnaire Tab	9
ACT - Policy Announcements Tab and Vendor Notifications	10
ACT - Licences Tab	12

ACT – What is it?

ACT lets clients effectively manage their market data applications through regular recertification, throughout their life cycle from on-boarding to end of life.

Leveraging PEAR, Axon's industry-leading compliance database, ACT gives a clear view of the exchange compliance obligations for all your firm's applications, allowing you to identify licensing and policy requirements within minutes.

ACT – Benefits

1. Flexible form and field structures can be tailored quickly to fit your organisations workflow and proprietary information.
2. Schedules and automates the recertification of market data applications by owners using an intuitive web-based interface
3. Provides a comprehensive user dashboard ensuring key indicators are always available.
4. Integrating ACT with Axon's PEAR product enables clients to instantly identify the impact of market policy changes on applications.

ACT - Walkthrough

ACT lets clients effectively manage their market data applications through regular recertification based on a bespoke review questionnaire. Everything in ACT is completely customisable, meaning the content can be tailored precisely to suit each client's environment. Each questionnaire is completed online using the ACT application, which includes managing review periods, applications and user notifications.

ACT – User Roles

Administrator – The Administrator role is a power user which provides access to all areas of ACT.

Administrators can:

- View the dashboard on the home page.
- Create and edit Review Periods
- Add Applications as well as view and edit Questionnaire responses
- Review policy announcements
- Run licencing reports
- Create reports and export data sets
- Create, review and edit applications within the onboarding section.

Onboarding User – The Onboarding user is a role usually assigned to Administrators who then have additional permissions to:

- Sign off applications from Onboarding allowing the application to become live in ACT.

Application Owner – The Application Owner role is assigned to contacts that have responsibility for one or more applications that consume market data. Application Owners can:

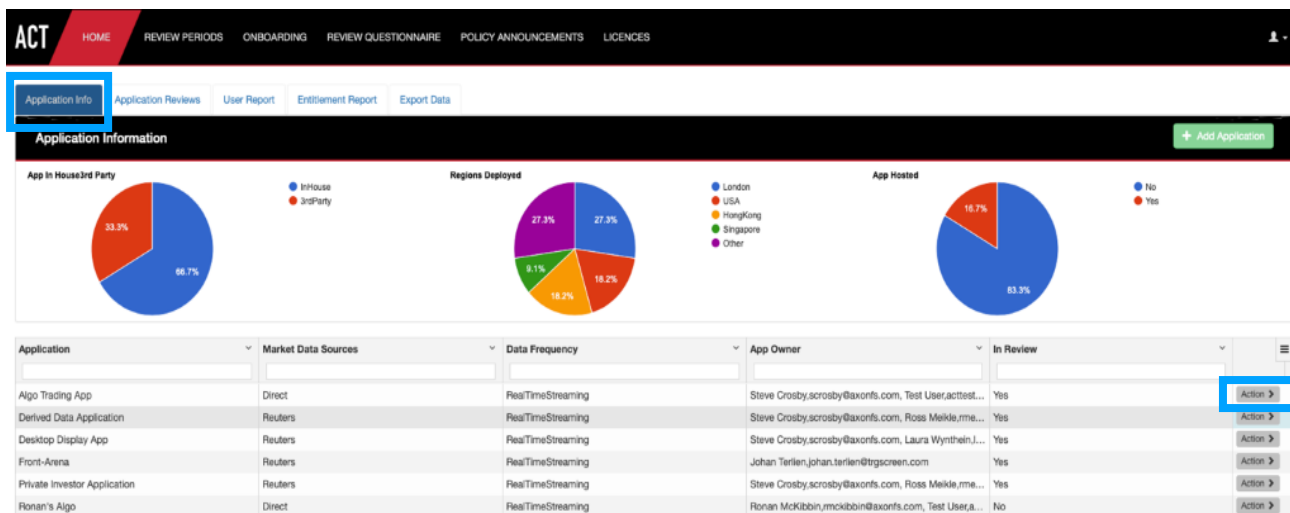
- Review the details held for applications for which they are responsible at any time.
- Edit/complete the questionnaire(s) for applications for which they are responsible during a review period.
- Review policy announcements that have been identified as impact the applications for which they are responsible.

Read Only – Read Only users can view the following areas of ACT but cannot edit any of the data:

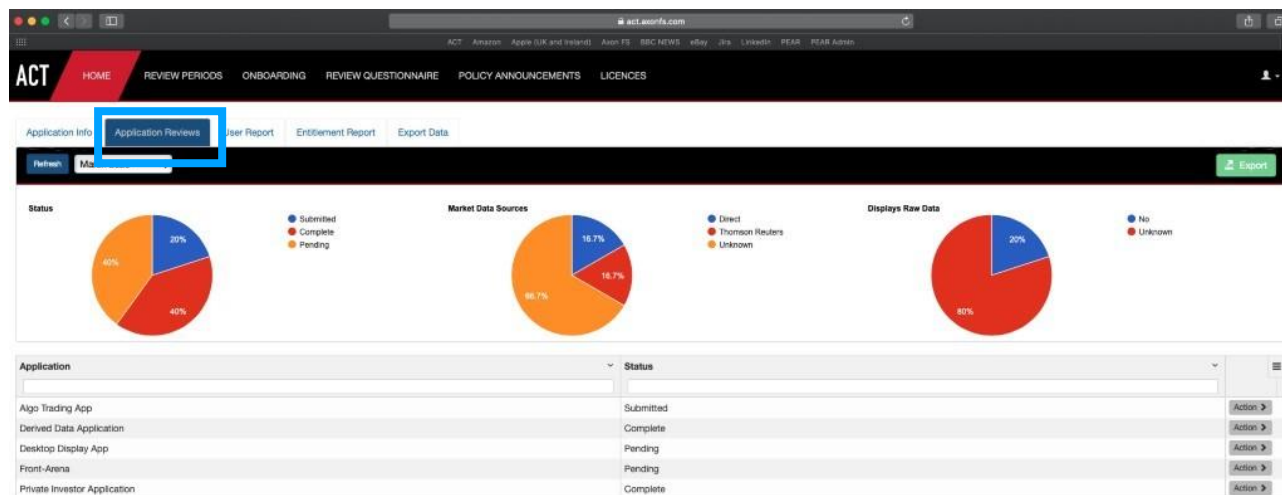
- View the Dashboard on the ACT Homepage.
- View Application details and completed review questionnaires.
- View Onboarding questionnaires
- View Policy Announcements
- View Licensing reports
- View and export data from the Reports page.

ACT - Home Page

The ACT home page displays a dashboard of each firm's applications and related key information. On the Home screen there are additional tabs for different views of the data. The 'Application Information' tab gives an overall view of the application suite. Each application can be accessed by clicking on the 'Action' button next to it.



The 'Application Reviews' tab gives the user an overview of each review period and the status of the applications within it.



The 'User Report' and 'Entitlement Report' tabs give an overview of the users and the permissions for applications across the firm's suite.

The screenshot shows the ACT application interface with the 'User Report' tab selected. The 'Review Period' is set to February 2020. The table below lists users associated with Desktop Display Apps.

Application	First Name	Last Name	User ID
Desktop Display App	Danyaal	Keeling	dkkeeling
Desktop Display App	Braiden	Perez	bperez
Desktop Display App	Jon-Paul	Burton	jburtan
Desktop Display App	Harpreet	Kay	hkay
Desktop Display App	Zaid	Lee	zlee
Desktop Display App	Kathleen	Wharton	kwharton
Desktop Display App	Inayah	Lister	ilister
Desktop Display App	Jaylan	Miner	jminer
Desktop Display App	Marilda	Meyers	mmeyers
Desktop Display App	Karl	Gay	kgay

The screenshot shows the ACT application interface with the 'Entitlement Report' tab selected. The 'Review Period' is set to February 2020. The table below lists service descriptions and data sources for various applications.

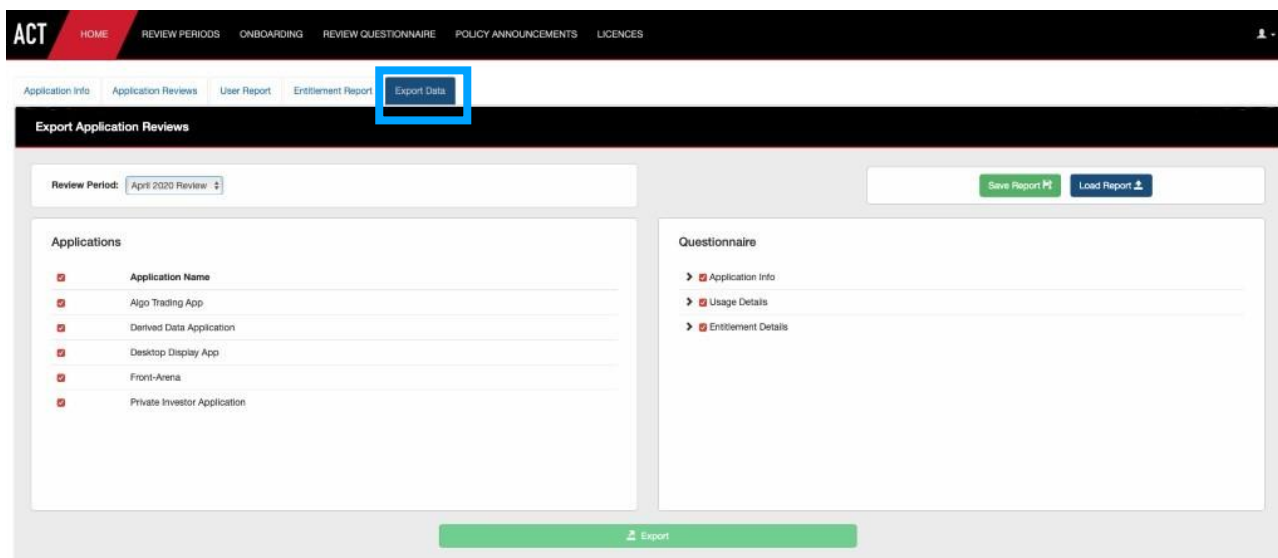
Application	Entitlement Code	Service Description	Data Source
Algo Trading App	GE2	Xetra Ultra L1+L2	Direct
Algo Trading App	ENS	Euronext Continental Cash Level 2	Direct
Algo Trading App	LSE2D	London Stock Exchange - Domestic L2	Direct
Algo Trading App	TOR	Toronto Stock Exchange Level 1	Direct
Algo Trading App	ASX	Australian Stock Exchange	Direct
Derived Data Application	GE2	Xetra Ultra L1+L2	Direct
Derived Data Application	ENS	Euronext Continental Cash Level 2	Direct
Derived Data Application	LSE2D	London Stock Exchange - Domestic L2	Direct
Derived Data Application	TOR	Toronto Stock Exchange Level 1	Direct
Derived Data Application	ASX	Australian Stock Exchange	Direct

In addition to these tabs, ACT now has a new tab for 'Variation Requests'. This tab allows app owners to notify the administrators of changes made to their applications between reviews in a change management process. Each App Owner can login to ACT, make changes to their application's use case and this can then be approved, ensuing ACT has the most up to date information on which to base licensing. The Variation Request follows a simple workflow where changes are made by the application owner, these are then notified to the administrators who can then approve, return to the App Owner for more information or decline the request. The changes are then archived, and any approved changes become the latest details for the app.

The screenshot shows the ACT application interface with the 'Variation Requests' tab selected. A dialog box titled 'Application Selection' is open, showing the following details:

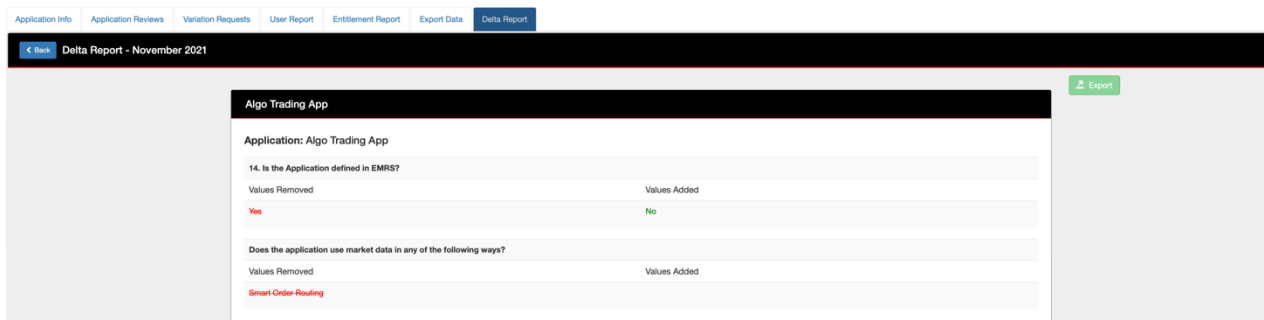
- Application Name: Desktop Display App
- Please select the type of variation request you would like to make:
 - Application Status
 - Application Server Location
 - Application DACS Status
- Continue button

The next tab on the home page is the 'Export Data' tab. This allows a user to export the entire data set for each review or to create custom exports on a field by field or application by application basis. These can then be saved and retrieved to run again at a future date, such as when a specific declaration is required by an exchange each year. Users also now have the ability to modify and delete these saved exports as required by the user.



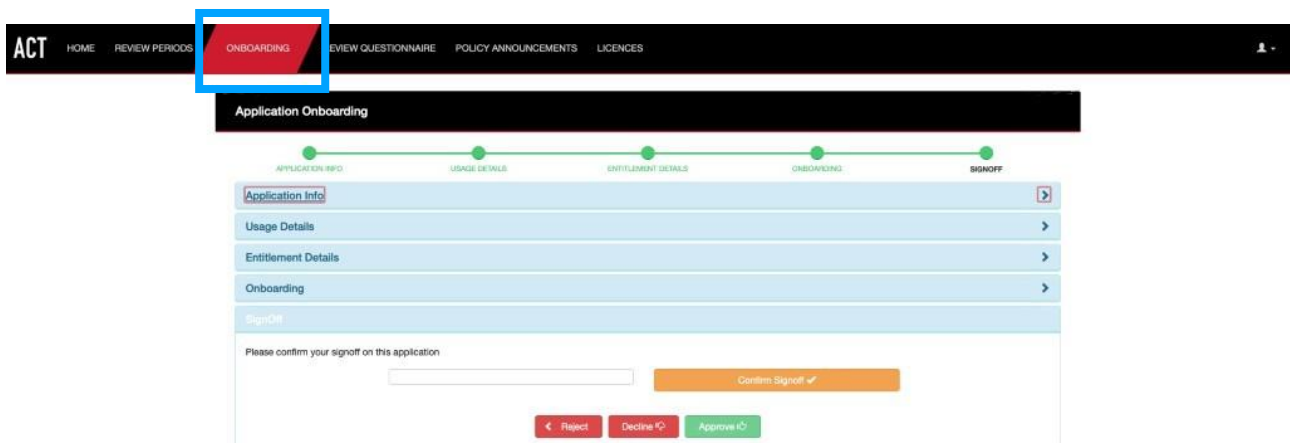
The final tab on the home page is the 'Delta Report' tab. This allows an administrator to see what an application owner changed between the start of the review period and the submitted application review questionnaire.

Old and new values for anything changes are highlighted to the administrator, automatically removing the need for a manual comparison.



ACT - Onboarding Tab

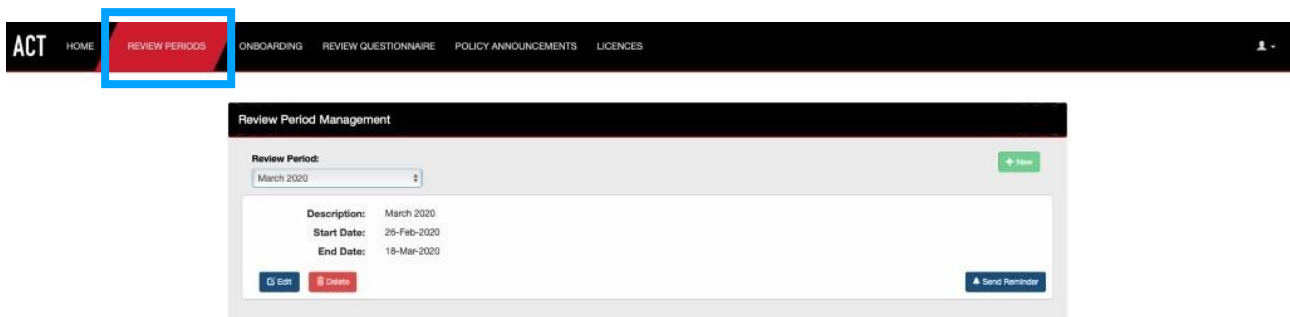
To add applications to the suite within ACT, there is an 'Onboarding' tab. Applications are added using the same interface with functionality for adding notes required during the onboarding process and the ability to save draft versions if not all information is to hand. The questionnaire for onboarding is broadly like that of the Review Questionnaire but will likely include additional forward-looking questions, such as an expected go live date. There is also functionality to allow approvals of Application Questionnaires by Administrators. This approval process can be tailored to your organisation but typically involves a sign off page which includes options for approving, declining, or returning an application to the request owner for more information.



Once approved, all content added is saved in an archive and the application becomes live for the next review.

ACT - Review Periods Tab

The 'Review Periods' tab is the second of the main tabs that can be used by Administrators to set up Review Periods, manage the applications within a review, send reminders and administer the reviews.



- The review periods are set up by providing a name, start date and then an end date, which is prefilled for convenience but can be adjusted as required.

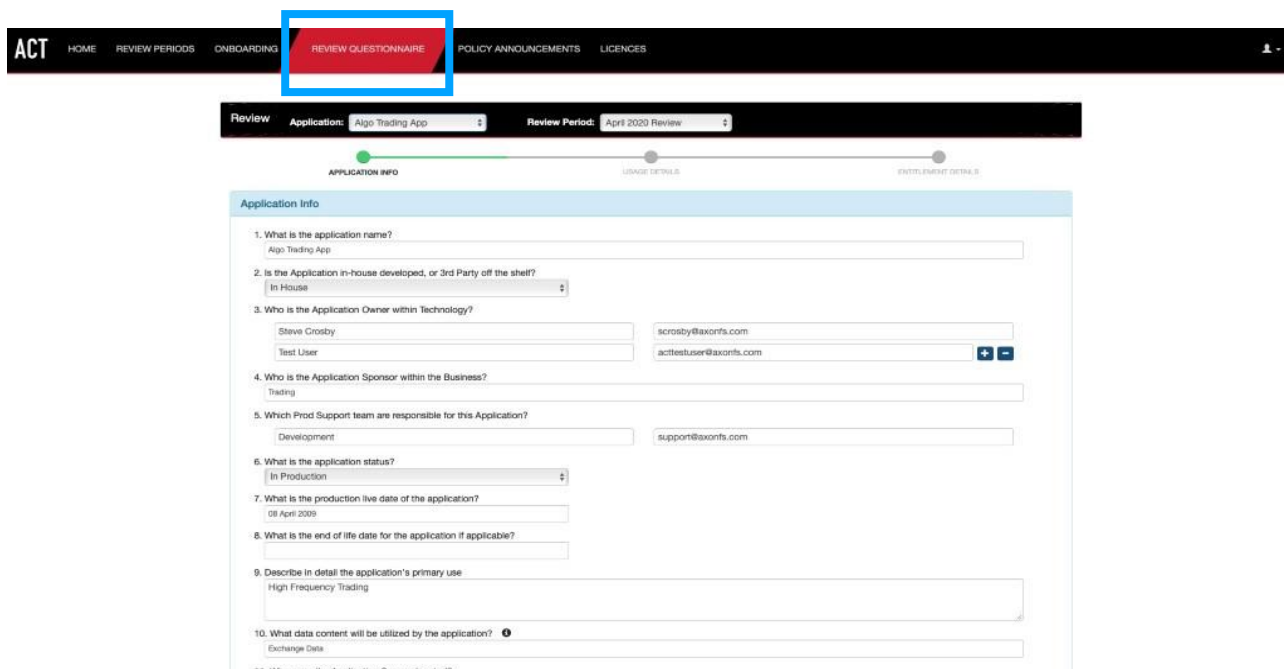
- The next step is to choose whether apps that are live, soon to be live or expired apps are to be included.
- There is also the option to have a customised filter for applications based on the questions in the review. For example, if one of the questions in the review is the source of data, you can choose to include applications only with a certain response to be included.
- The final screen of the review set up is a full list of applications that are to be included with the option to include / exclude any of those marked with a checkbox for inclusion. Once the list is confirmed, the review period is created, and a predefined customisable email is sent out to application owners.

ACT - Review Questionnaire Tab

Each application owner receives an email with a link to logon to ACT, this link will bring them to the 'Review Questionnaire' tab.

In this tab, application owners can make changes to the data stored for their application as they walk through a customizable questionnaire created for their organization with the Axon team. There is also the option to have the form empty to be populated by the user from scratch at each review.

Once data is added for each application this is stored as for that period providing an audit trail for future reference. The data for that review is then used as the starting prefilled data for the next review or Variation Request.



ACT - Policy Announcements Tab and Vendor Notifications

ACT uses the same announcements available in Axon's PEAR and displays them in ACT but with the additional functionality to tailor these to a firm's usage. As part of a review or the onboarding of applications, data permissions can be added to ACT.

Announcement	Change Type	Types of use affected	Effective Date	
Shenzhen Stock Exchange 2020-02-28 SZSE Fee Schedule for February 2020	Document Change, Product Introduction	Unit of Court Display	2020-07-01	View
Euronext 2020-02-27 Oslo Bors migration to Euronext July 2020	Document Change, Product Introduction	Unit of Court Display, Unit of Court Non Display	2020-07-01	View
Oslo Bors 2020-01-27 Oslo market data will migrate to Euronext July 2020	Document Change, Exchange Participants, Product Decommission	Unit of Court Display	2020-07-01	View
Euronext 2020-02-27 Fee Changes effective 1 July 2020	Document Change, Policy Update, Price Change - Licence, Price Change - Product	Private Investor	2020-07-01	View
Equiduct 2020-03-19 Equiduct Documents for May 2020	Document Change, Policy Update	Market Data Audit	2020-05-01	View
Chicago Mercantile Exchange Group 2019-12-02 CME Market Data Fee List for April 2020	Document Change, Price Change - Licence, Price Change - Product	Unit of Court Display	2020-04-01	View
Nasdaq 2020-01-20 European Markets Price Changes April 2020	Document Change, Price Change - Licence, Price Change - Product	Unit of Court Display	2020-04-01	View
National Stock Exchange of India 2020-01-23 Market Data Pricing Changes for April 2020 (New PEAR Policy)	Document Change, Price Change - Licence, Price Change - Product, Product Introduction	Non Display, Unit of Court Display, Unit of Court Non Display	2020-04-01	View
Cboe U.S. Equities and Options 2020-01-26 Market Data Policies updated effective April 2020	Document Change, Policy Update	Reporting	2020-04-01	View
Cboe Futures Exchange (CFE)				

By adding these data permissions to ACT, both Policy Announcements and Vendor Notifications can be filtered to only those that affect your applications.

Announcement	Change Type	Types of use affected	Effective Date	
Euronext 2019-08-30 Fee and Policy changes effective Jan 2020	Document Change, Policy Update, Price Change - Licence, Price Change - Product	Non Display, Unit of Court Display, Unit of Court Non Display	2020-01-01	View

When drilling down to the detail of each application, ACT will also show which applications are affected by a change, allowing you to notify the application owners of the need to action a specific change. There is also the ability for both application owners and administrators to mark a change as actioned.

In addition, on request, firms can now have the notifications automatically sent to the application owner as soon as they are added to ACT. Notifications are marked as previously notified to track what has been sent and reduce the risk of duplication.

Policy Announcements

Announcements: 2019-08-30 Fee and Policy changes effective Jan 2020

Announcement Summary

Euronext has published updated documents announcing changes to its fees and policies effective **1st January 2020**.

1 - Introduction of Non Display Restricted - Premium licence. This new licence covers Non Display use in up to 50 devices. The existing Non Display Restricted licence which covers up to 10 devices has been renamed Non Display Restricted Basic. The Non Display Enterprise licence fees have increased.

2 - All market data fees, data charges and licences have increased by 1.70% (projected inflation).

Effective Date: 2020-01-01

Announcement Type:

- Document Change
- Policy Update
- Price Change - Licence
- Price Change - Product

Affected Apps

App	Actioned
Algo Trading App*	<input type="checkbox"/>
Desktop Display App*	<input type="checkbox"/>
Front-Arena*	<input type="checkbox"/>
Private Investor Application*	<input type="checkbox"/>

Announcement Extracts

Source Document: 2019-08-30 Policy and Fee changes effective January 2020
 Document Version:
 Effective Date: 2019-08-30
 End Date:
 Document Reference: NOTICE 2020 - MARKET DATA FEE CHANGES

MARKET DATA FEE CHANGES

Market data fee changes, which will take effect on 1st January 2020, are reflected in the Information Product Fee Schedule and Order Form.

Overall inflation correction of 1.70%

Euronext will adjust its market data fees for the projected Euro-zone inflation.

Additional changes to some Non-Display Use Fees to reflect the ongoing automation of activities involving the use of market data

This functionality applies to both Policy Announcements as above and Vendor Notifications.

Policy Announcements Vendor Notifications

Exchange: All Exchanges Notifications Affecting My Apps Only: Yes No

Vendor Notification	Change Type	Data Source	Effective Date	
London Stock Exchange Group Changes to MiFID Regulated flag for Brexit impacted securities	Reference Data change	Exchange(London Futures and Options Exchange, London Stock Exchange plc)	2021-01-01	View
Cboe Europe Equities Liquidnet MTF - Brexit Strategy	Data Change		2020-12-31	View
Turquoise Turquoise MTF - Brexit Strategy	Data Change		2020-12-31	View
Aquis Exchange Aquis Exchange MTF - Brexit Strategy	Data Change		2020-12-31	View
Osaka Exchange Osaka Stock Exchange: Support of Commodities Products Transferred from TOCCOM	Content Removal (No alternatives available), Depth of Coverage change, Field / FID change, New RICs / Symbols	Exchange(Tokyo Commodity Exchange, Osaka Securities Exchange)	2020-07-27	View
Tokyo Stock Exchange TOCCOM - Introduction of new trading session state "A_ZARABA_EZ"	Field / FID change	Exchange(Tokyo Commodity Exchange)	2020-07-27	View
Tokyo Stock Exchange Tokyo Commodity Exchange (TOCCOM) to Merge with Japan Exchange Group (JPX)	Data Change		2020-07-27	View
Johannesburg Stock Exchange				

Policy Announcements Vendor Notifications

Vendor Notifications

Exchange: All Exchanges

Refinitiv Bloomberg

Notifications Affecting My Apps Only: Yes No

Vendor Notification	Change Type	Data Source	Effective Date	
Deutsche Boerse Elektron FID Changes - Frankfurt Stock Exchange	Field / FID change	Exchange(Frankfurt Stock Exchange)	2020-05-11	View
Deutsche Boerse Frankfurt Stock Exchange migration to T7	Field / FID change	Exchange(Frankfurt Stock Exchange)	2020-04-06	View
Euronext Euronext - Introduction of Prior Approval Policy for Datafeeds	Policy change	Exchange(Euronext Amsterdam)	2020-04-01	View

ACT - Licences Tab

The final piece of functionality takes the permissioned data and the use case of the applications based on questionnaire responses provided by application owners. It calculates the licences your organisation requires to cover this use case and provides a consolidated list of requirements. This is calculated each time the 'Run Report' button is used on the 'licences' tab based on the latest information entered into ACT, providing a live view of the licensing requirements for your application suite.

Licence Reports Report Details

Licences

Saved Reports: Start of: August 2022

The last report you ran is displayed below. Select Run report to get the latest data.

We have detected that there may be a number of licences appropriate for your application use case. Please select the licences for your usage as appropriate. For further guidance on which licence you may require you can consult the underlying policy summary by selecting the ⓘ icon beside the application name.

Run Report Save Report

This report was generated on the following date: 01-Aug-2022

Licences Required For Applications

Licences shown: All Required Only

Fee Frequency: Per Year Fee Currency: From Exchange

Licence Name	Fee	Include in Total	Applications	Unit of Count
Deutsche Boerse				
Xetra Ultra - Distribution - All User Types	EUR 47,808 Per Year	<input type="checkbox"/>	Private Investor Application ⓘ	Per-enterprise
Xetra Ultra Tier 2 Licence - Professional	Banded	<input checked="" type="checkbox"/>	Algo Trading App ⓘ Risk Management App1 ⓘ	Per-device
Xetra Ultra Tier 3 Licence - Professional	EUR 17,976 Per Year	<input checked="" type="checkbox"/>	Algo Trading App ⓘ Risk Management App1 ⓘ	Per-device
Eurex Ultra Tier 2 Licence - Professional	Banded	<input checked="" type="checkbox"/>	Algo Trading App ⓘ	Per-device
Eurex Ultra Tier 3 Licence - Professional	EUR 8,988 Per Year	<input checked="" type="checkbox"/>	Algo Trading App ⓘ	Per-device
Eurex Ultra Other Application Usage - All User Types	EUR 8,700 Per Year	<input type="checkbox"/>	Algo Trading App ⓘ Front-Arena ⓘ	Per-enterprise
Total: to EUR 26,964 Per Year				
Euronext				

In addition to the consolidated list, ACT also allows you to filter out those licences marked as held in PEAR and show you only those that aren't held. This gives you an up-to-date view on your firm's current licence position.

Additionally, these licence reports are automatically generated by ACT as part of the start and end of Review Periods.

This allows for a delta to be created between two different points in time. The delta will show what has changed between these two points in time either because of changes to the applications or to the exchange policies held in PEAR.

The delta tab shows:

- New licences required since the last report,
- Licences no longer required that were previously and,
- Where a licence is still required but the applications requiring that licence have changed either by adding new applications to that requirement or the applications requiring the licence having reduced.

The screenshot shows the ACT system interface. The top navigation bar includes 'ACT', 'HOME', 'REVIEW PERIODS', 'ONBOARDING', 'REVIEW QUESTIONNAIRE', 'POLICY ANNOUNCEMENTS', and 'LICENCES'. The 'Report Deltas' tab is highlighted in blue. Below the navigation bar, the 'Deltas' section is visible, containing a 'Licence Report Comparison' tool. This tool allows users to select a date range (Start of: June 2022 to Start of: July 2022) and click 'Generate Delta'. The resulting table shows 'New Licences Since Selected Report' for SIX Swiss Exchange, listing various licence types, fees, and applications.

Licence Name	Fee	Applications
SIX Swiss Exchange		
Non-Display User Type 2: Proprietary AND Agency - Level 1 Data (Participants) - Member	Banded	Algo Trading App
Non-Display User Type 2: Proprietary AND Agency - Level 1 Data (Non-Participants) - Non-Member	Banded	Algo Trading App
Non-Display User Type 2: Proprietary AND Agency - Level 2 Data (Participants) - Member	Banded	Algo Trading App
Non-Display User Type 2: Proprietary AND Agency - Level 2 Data (Non-Participants) - Non-Member	Banded	Algo Trading App
Non-Display User Type 2: Proprietary OR Agency - Level 1 Data (Participants) - Member	Banded	Algo Trading App
Non-Display User Type 2: Proprietary OR Agency - Level 1 Data (Non-Participants) - Non-Member	Banded	Algo Trading App
Non-Display User Type 2: Proprietary OR Agency - Level 2 Data (Participants) - Member	Banded	Algo Trading App
Non-Display User Type 2: Proprietary OR Agency - Level 2 Data (Non-Participants) - Non-Member	Banded	Algo Trading App

Below the table, there is a section for 'Licences No Longer Required'.