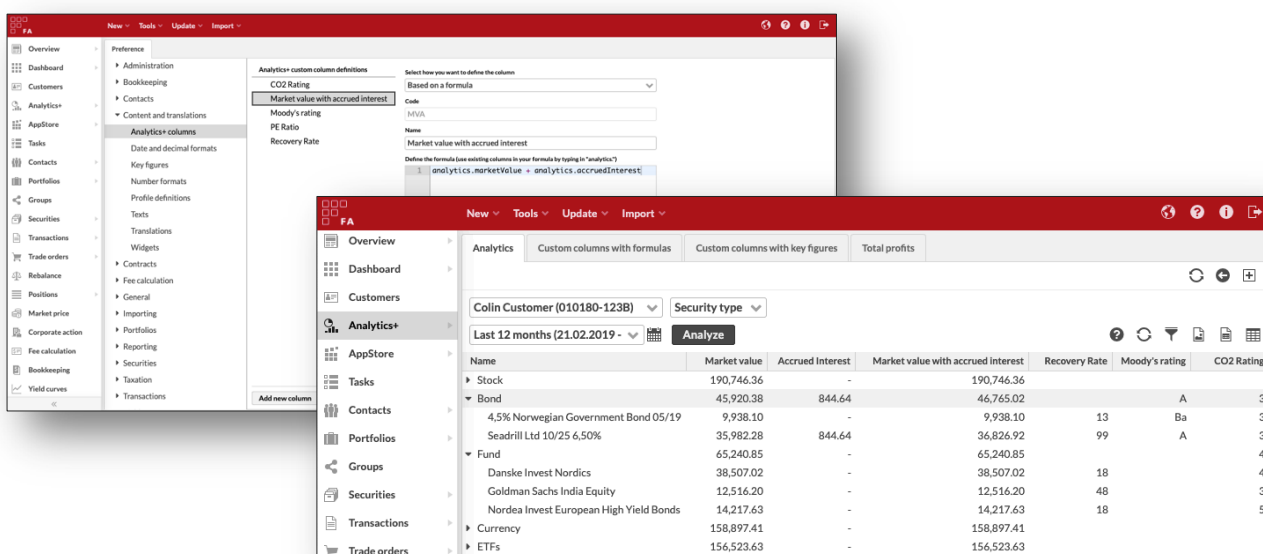# FA Back 3.5

FA Back 3.5 provides you with new opportunities to create your own custom columns in Analytics+, together with more tools to utilize and show the key figures you have stored on your contacts, portfolios and securities. In addition, this version improves authentication into the system, and provides smaller improvements on various existing features.

Custom columns in Analytics+

Version 3.5 provides you with new opportunities to extend Analytics+ with custom columns. You can configure new columns into Analytics+ based on *key figures* you have stored under your securities, or based on a *formula*, utilizing existing Analytics+ columns in mathematical calculations. This provides you with tools to extend Analytics+ flexibly with the figures you need to thoroughly analyze your investments. For example, you can show average ratings, financials of your underlying investment, or use existing columns to calculate market value with accrued interest or in security currency.

You can manage *Analytics+ columns* under *Content and translations Preferences*. Columns based on key figures are easy to add: just define a name for your column and select which key figure you want to use. Custom columns based on a formula require a bit more effort: type "*analytics.*" to select an existing column you want to use and embed it in your mathematical formula. In addition, you can flexibly configure how group level values are calculated (such as calculating security type level rating with weighted average, rounding down to the nearest rating) and how column content is formatted.

Your Analytics+ columns are also available for you to use in FA Front and through standard APIs.

FA SOLUTIONS

Improved authentication

Version 3.5 replaces FA's user management and authentication mechanism with an open source identity and access management solution, Keycloak. The solution is aimed at modern applications and services, and provides you with improved security and configurability on the security measures.

New security measures include tighter *password policy* (8 characters incl. one small letter, capital letter and number), improved *brute force detection* (1 second quick lock and lock after 5 unsuccessful attempts), and more secure *two-factor authentication* (only available through an Authenticator app).

Along with the improved authentication, the login page look & feel has been updated – other than that, changes are done in the background. In addition, users who can access multiple applications can now access them with single sign-on. If you already logged in to FA Back, you can go to FA Front without having to log in again.
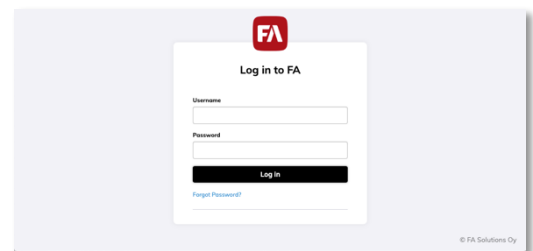
Along with this change, *Authentication Preferences* and *User management* are no longer available in FA Back. Users are automatically migrated, and managed in a new application, FA Admin Console.

Logging in to FA 3.5 for the first time

All users are required to reset their password when logging in to FA 3.5 for the first time due to security reasons. In addition, all users using two-factor authentication are required to reset their TOTP (Time-based One Time Password) in their Authenticator app while resetting their password.

Reset your password through the following steps when logging in to FA 3.5 for the first time:

**1) Request a password reset link from the login page.**
→ Click "Forgot Password" on the FA login page, type in your old user ID, and click "Submit".

2) Open the email you received from FA and click the "Link to reset credentials".
→ "Reset password" email is valid for 5 minutes and sent from "no-reply@email.fasolutions.com".
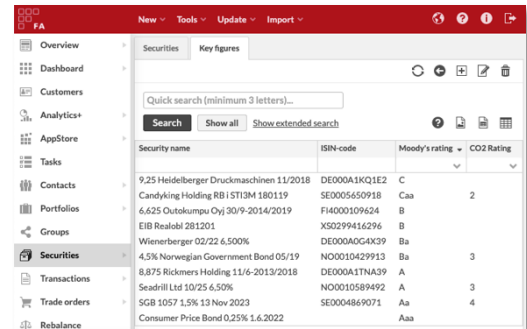
3) Define a password for yourself.
→ Your password should be at least 8 characters long, and contain one small letter, one capital letter and one number. You cannot use your user ID as your password.
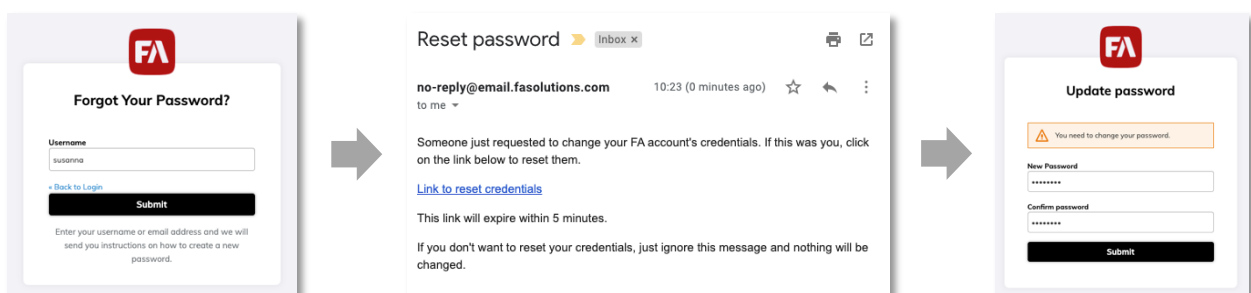
Key figures as columns on search views

With version 3.5, the *key figures* you have stored under your contacts, portfolios and securities are available as selectable columns on the corresponding search views. This allows you to easily see the latest key figure values you have stored, and flexibly search for your contacts, portfolios and securities with the key figure values.

For example, if you are storing the credit rating as a security key figure, you can see the latest credit rating on the Securities view, and search for securities with a specific credit rating.

Improved security of document management

Version 3.5 allows you to ensure your users cannot upload malicious documents into your system.

Define maximum document size. For improved security, you can now control how large documents your users can upload. If a typical file size is 10 MB, you can for example configure the application to reject files that are larger than 25 MB to prevent suspicious documents being saved into your system. By default, there is no limitation on accepted document size.
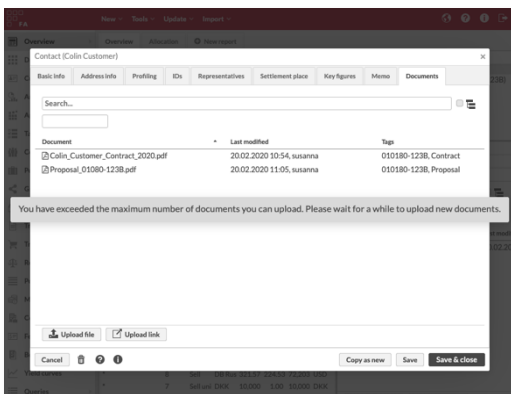
Limit the frequency of document uploads. You can now also control how frequently your users can upload documents – if the application detects a suspiciously high frequency of document uploads from a single user, the user is prohibited from uploading documents for a period of time. You can configure how many documents a user can upload, and how frequently rights to upload new documents will be available (e.g. a user can receive 1 new document to upload every 10 seconds). By default, there is no limitation on upload frequency.

Disable "Link to documents" from document bank. If you don't want to allow your users to store links to documents into your document bank, you can disable this feature with new permissions DOCUMENT.LINK.VIEW and DOCUMENT.LINK.MODIFY. This allows you to ensure no one can add malicious or harmful links within your documents. By default, links to documents are enabled.
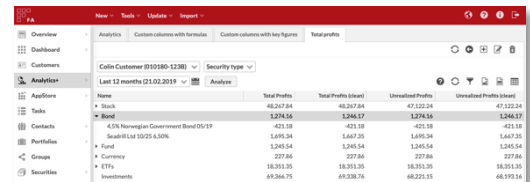
Scan uploaded documents for viruses. For additional security, the system can now scan all uploaded documents for viruses. If a virus is detected in the document the user tries to upload, the document upload is prevented. By default, virus scanning is not enabled – contact FA for more details if you are interested in enabling virus scanning for uploaded documents.

New columns in Analytics+

In addition to custom columns, version 3.5 provides you with new columns in Analytics+.

Market date. You can now select to show *Market date*, or the date of the market unit price used to calculate the market value. This allows you to see which date's price is used to valuate your position.
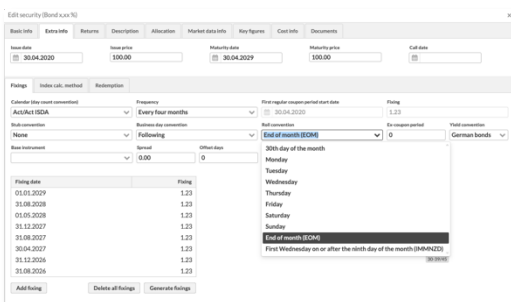
Profits with and without accrued interest. You can now select any profit columns, including *Total profits*, *Total net profits*, *Total gross profits* and *Unrealized profits*, with or without accrued interests. Profit columns without accrued interests are identified as *(clean)*.

Other improvements on existing features

Version 3.5 also introduces smaller improvements on existing features.

Roll convention as a new parameter for bonds. You can now control more thoroughly how dates are handled when calculating accrued interest on your bonds. *Roll convention* allows you to override the default schedule – for example, roll convention "end-of-month" allows you to configure that the first date of a monthly schedule, such as June 30th, should roll to the last day of each month instead of the 30th of each month.

Fee calculation supports portfolio's shared accounts. Transactions created through fee calculation are now automatically directed also to shared accounts available to the portfolio. This is useful for example when calculating fees on sub-portfolios using an account from the main portfolio – fee calculation now picks up the correct account the same way as when creating transactions manually.

Corporate actions support all types of shared accounts. Transactions created through corporate action runs are now directed to a correct shared account also with *"Shared to all linked contact's portfolios"*.

Permission to disable HTML content in email templates. For improved security, the new permission ENABLE.REPORTING.HTML allows you to disable all HTML content from emails sent from the system. This allows you to ensure no one can embed malicious content into your email templates.

Parameterizable session timeout. For better control over session duration, you can change *hearbeat interval* and *session duration* under *Session timeout Preferences*. This allows you to control how quickly your user's session is ended after user inactivity – default timeout is after 45 minutes of inactivity.

Improved information security. This version also prevents "clickjacking", tricking a user into clicking on something different from what the user perceives, and prevents formula injection in XLS exports.