

Workflow Manager

Sample Workflows

- ▶ Create Forward Curves
- ▶ Add Custom QA to Internal Data with alerts.
- ▶ Create notifications around all data inputs and calculations before publishing to CTRM.

Get Started Today

See how Workflow Manager can give your business more time to make quality investing decisions.

Contact us at +1 800 546-9646 Option 2 - or send an email to commoditydata-sales@morningstar.com to see it in action.

See more at

<http://www.morningstarcommodity.com/products/workflow>

Workflow Manager is an automated calculation engine. The tool—which allows risk managers and analysts to apply their own business logic to market and proprietary data—can perform a wide range of calculations, including simple logic and forward curves. The results can be integrated seamlessly into end systems or front-end applications.

Save Time

As soon as data arrives, our tool goes to work. Once a workflow is established, the tool's speedy, simple automation lets the user focus on adding true value to their investment process, rather than having to manually intervene at each step of the workflow. Users can set it up once and easily apply it to other curves or processes in their business.

See It All in One Place

As part of Morningstar Markets, the Workflow Manager tool provides one-screen access to market pricing, broker data, and internal data. Our comprehensive dashboard lets users save and store business logic, easily make changes to any part of the workflow, and configure output to feed downstream systems.

Perform Spot Checks With Ease

Workflow Manager's Status page gives users an overview of their workflow processes. Set permissions for other users to control who can view, run, and edit workflows, and get a full audit trail to see who did what, and when. Customizable alerts mean users don't have to constantly check the processes running—the tool will alert users about any errors or data-integrity checks that crop up.

Key Features



Intuitive Setup – Easily design the flow of data, QA, calculations, notifications, and publishing.

In-System QA Checks – Query internal and external data for accuracy. Set up QA checks to meet specific needs— and include dynamically calculated or absolute thresholds. QA checks include day-over-day change, intra-month change, change compared with broker quotes, and more.

Flexible Formula – Combine business calculations with market data for your proprietary systems with our robust calculation engine, the heart of Workflow Manager. From simple basis additions to shaping hourly curves, all of the calculations can be saved and applied to multiple curves.

Precise Scheduling – Take control of when every workflow starts.

Powerful Publishing – Save the curve or time-series back to the desired system. As soon as data is published, it's available through Morningstar's extraction tools: Publisher, Add-in, Markets, and APIs. Publishing can be performed for any feed, keys, or columns for which the owner has write permissions.

Customizable Permissions – As the creator of a workflow, assign other people to review, edit, start, stop, or approve without giving them total access.

Up-to-the-Minute Notifications – Receive a notification from Workflow Manager's alert system when action is required. Set up custom messages and alerts as well, including status results or when workflow has been completed.

At-a-Glance Status Page – Quickly see all curves or workflows at once to get a big-picture view of what is happening with the data in real time.