

## Atmos Trend

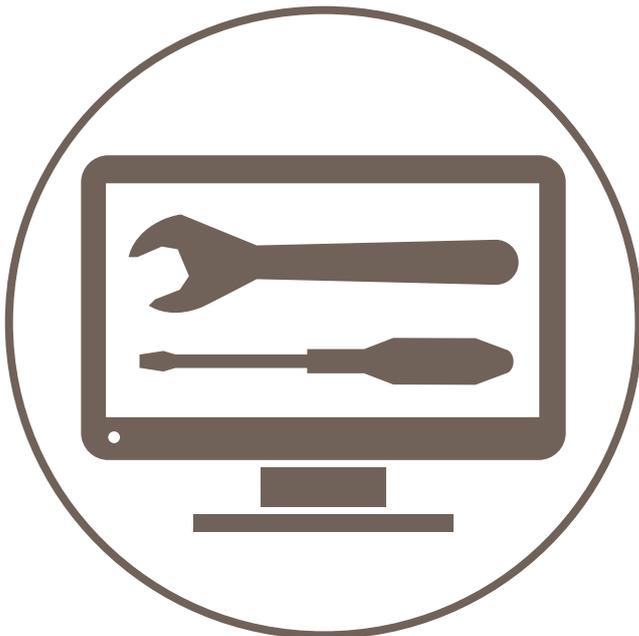
# A powerful trending and distance-based profiling tool for real-time, historical and forecast data

### The challenge

The ability to view data quickly and easily is crucial for process and pipeline operators. Whether for diagnosis, data observation or signal generation, the user needs information at a glance to enable speedy decision making.

Atmos Trend helps users to:

- **Reduce time in diagnosing and comparing results**
- **View historical and predicted data easily and at the same time**
- **Reload saved trend configurations to save time**
- **Click, drag and zoom in and out of charts conveniently**



### Main features

- **Customizable visual display: alter the display units, axis, general color and appearance, as well as filtering and splitting series onto different axes**
- **Variety of time settings for increased flexibility, including UTC setting and fixed time auto-update settings useful for viewing 'gas days'**
- **Selects and uses saved trend configurations created by any user**
- **Seamless 'out of the box' switching from primary to secondary data sources when the initial data source is no longer active**
- **Views data chronologically, or as a profile for the whole pipeline at a given point in time**
- **Displays discrete values as enumeration bars to clearly show the current and historical data and customizes the color and text representation of values**
- **Configures values into a histogram showing the distribution of values**

### What is Atmos Trend?

Atmos Trend is a bespoke trending tool that specifically addresses the needs of engineers, designers, operators and process control specialists. Through years of development, this customizable trending application fits specifically into the niche role of process control and simulation trending.

Atmos Trend is generally installed with other Atmos applications. It can also be used as a stand-alone trending tool in conjunction with Atmos Data Manager.



Figure 1: Trend with overview screen and zoomed into a smaller time range, also showing discrete values as an enumeration bar

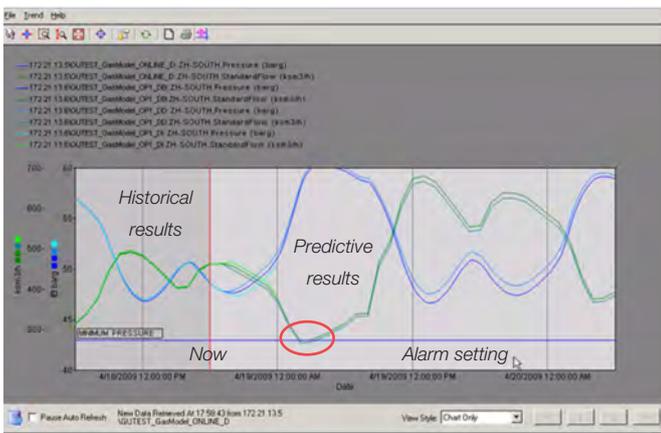


Figure 2. View showing potential issue in 12 hours (circled in red)

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## Viewing data

One of the key functionalities of Atmos Trend is its flexibility for the users to inspect and diagnose data.

Series items can be split onto different panes to make them easier to view. All panes are linked so that zooming and navigation actions on one pane are applied to all.

The user can, for example, load a month's data in the smaller overview window while inspecting a display of two days in the main display window. The operator can skim through the data and address different issues in greater detail at the same time (see figure 1).

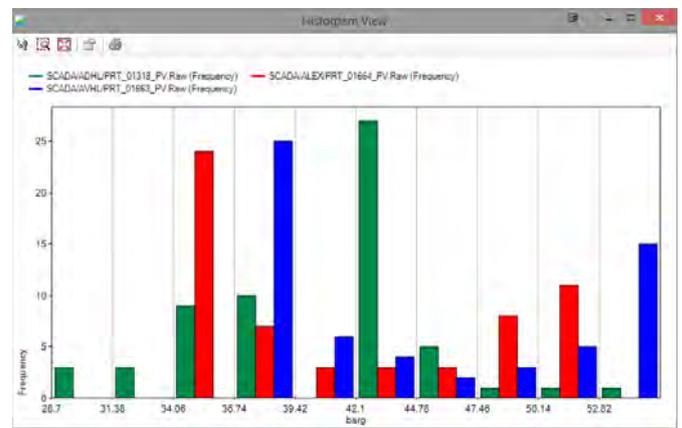


Figure 3. The fully customizable histogram option gives the operator the distribution of values for a set of meters

Atmos Trend has a novel data interpolation system for large trends that only shows the data detail when the user zooms in. This enables a trend to display large time ranges while allowing the user to seamlessly zoom into small periods to see the details. The filtering ensures that working with large ranges of data is as fluid as working with shorter periods.

When used with Atmos SIM Online, this trending tool can display the predicted future behavior of the pipeline in the most user friendly way.

Figure 2 shows that if the operator does not react the pipeline pressure will fall below the allowed minimum.

This kind of functionality is extremely powerful and helps operators and engineers make informed decisions quickly.

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## About Atmos International

Atmos International (Atmos) provides pipeline leak detection and simulation technology to the oil, gas, water and associated industries. The company was founded in 1995 in the UK by the inventor of the statistical pipeline leak detection system – Atmos Pipe, now one of a suite of leak and theft detection solutions from Atmos. These technologies are implemented on hundreds of pipelines in over 50 countries, including major oil and gas companies such as Shell, BP, ExxonMobil, and Total. With associated offices in the USA, China, Russia, Singapore and Costa Rica, and local agents in 28 countries, the multi-cultural and multilingual team can provide effective support all over the world.

