

Automated Data Analysis and Alarms with ATS CM4D

What is Automation in ATS CM4D?

In ATS CM4D, automation refers to the fully automated process in which inspection data is received, reports are generated and event-triggered or scheduled alerts are sent.

The ATS CM4D system can be tailored to suit a wide range of configuration requirements. From custom data translators that reformat any data file, to custom-built reports, to special alarm conditions sent only to specific users, ATS CM4D offers a comprehensive package to get your data from collection to report automatically.

And once the system is set up, ATS CM4D requires very little effort to maintain, freeing up resources for other concerns.

Elements of Automation

ATS CM4D offers four components that make up what is called our Automation Services:

- ▶ **DataSmith Batch:** Processes data from any collection device into the CM4D database.
- ▶ **CM4D Scheduler:** Generates PDF's from pre-defined reports, either on a scheduled or event-triggered basis.
- ▶ **EventSmith:** Sends email notifications when data triggers user-defined alarms.
- ▶ **CM4D Web:** Provides web access to reports that are either pre-defined or based on custom data queries.

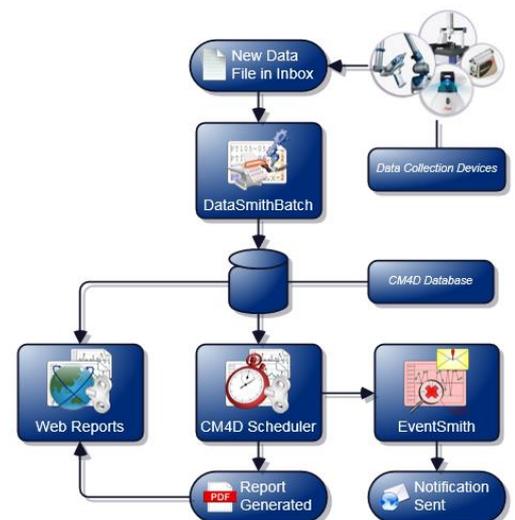
Why Use Automation?

- ▶ Automatically achieve the following:
 - ▶ Process data from any source into one or more CM4D databases.
 - ▶ Generate reports that can be made available via network folders or intranet webpages.
 - ▶ Alert users via email when defined data conditions are breached.
- ▶ Dynamically query data in pre-defined reports via a web interface.
- ▶ Little maintenance effort once set up.



Data Flow

1. Data collection device outputs new inspection data.
2. New data is automatically processed into the CM4D database.
3. Reports are automatically generated for immediate viewing over the web or network.
4. Alarm notifications are sent via e-mail subscription.

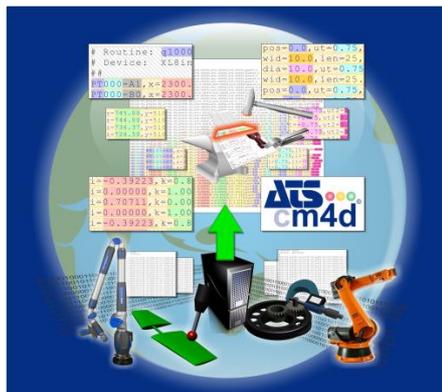


DataSmithBatch

DataSmithBatch automatically translates received ASCII files and puts them into a relational database for reporting with other ATS CM4D applications.

No manual effort is required to load data into a database.

When a new data file is detected in a specified 'Inbox' folder, DataSmith identifies the data file format and extracts the required information from the correct places in the file automatically. It then gathers any necessary information from each file, such as date, time, part number, project, etc. It will also search the files for all of the things that were measured, such as circles, slots, surface points, etc. For each type of feature found, DataSmith will also look for and identify the information that that feature type needs, such as XYZ, position, diameter, tolerances, etc.



Data can come from multiple locations and equipment within an enterprise or from external supplier sites.

Each source of data can be watched, validated and loaded according to a desired plan, so that when data appears it can automatically trigger reporting events according to user defined conditions. For example, when new data is processed into the Database for a specific routine, DataSmithBatch can automatically trigger a report to be printed by CM4D Scheduler and an event to be emailed to a subscribed user.

CM4D Scheduler

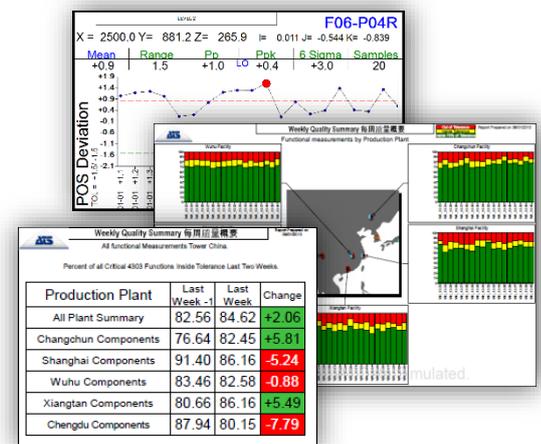
CM4D Scheduler automatically generates reports from user-defined templates on a scheduled or event-triggered basis.

Whether by itself, or in combination with DataSmithBatch and EventSmith, CM4D Scheduler is the primary hub for generating reports. Reports can be generated:

- ▶ On a Timed Schedule – Daily, Weekly, Monthly
- ▶ When data is processed into the database

CM4D generates reports on a Scheduled or Event-triggered basis.

Reports can be generated as PDF's or image files, and output for distribution to any defined location (whether on a network server or website) or person in your organization.

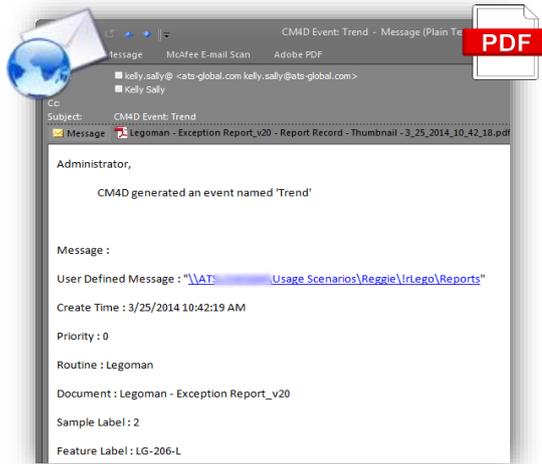


Any report created in CM4D can be set up to be automatically generated.

EventSmith

If an event is triggered by data in a report, EventSmith will notify the people who need to know about it via email.

Receive emails for data condition alarms.



For example, if data in a report is not within 70% of the upper and lower tolerance band, the users subscribed to that event will get an email about it so that they can then respond promptly to the situation as needed.

CM4D Web

CM4D Web is a user-friendly web interface that gives users throughout your organization easy access to full graphical CM4D reports and data analysis wherever they are in the world without the need of an ATS CM4D installation.

You can generate custom reports on-demand and export raw data for use in other analysis programs. It's also possible to select pieces of multiple reports and combine them into a single custom report.

Generate CM4D reports on-demand via a Web interface.

