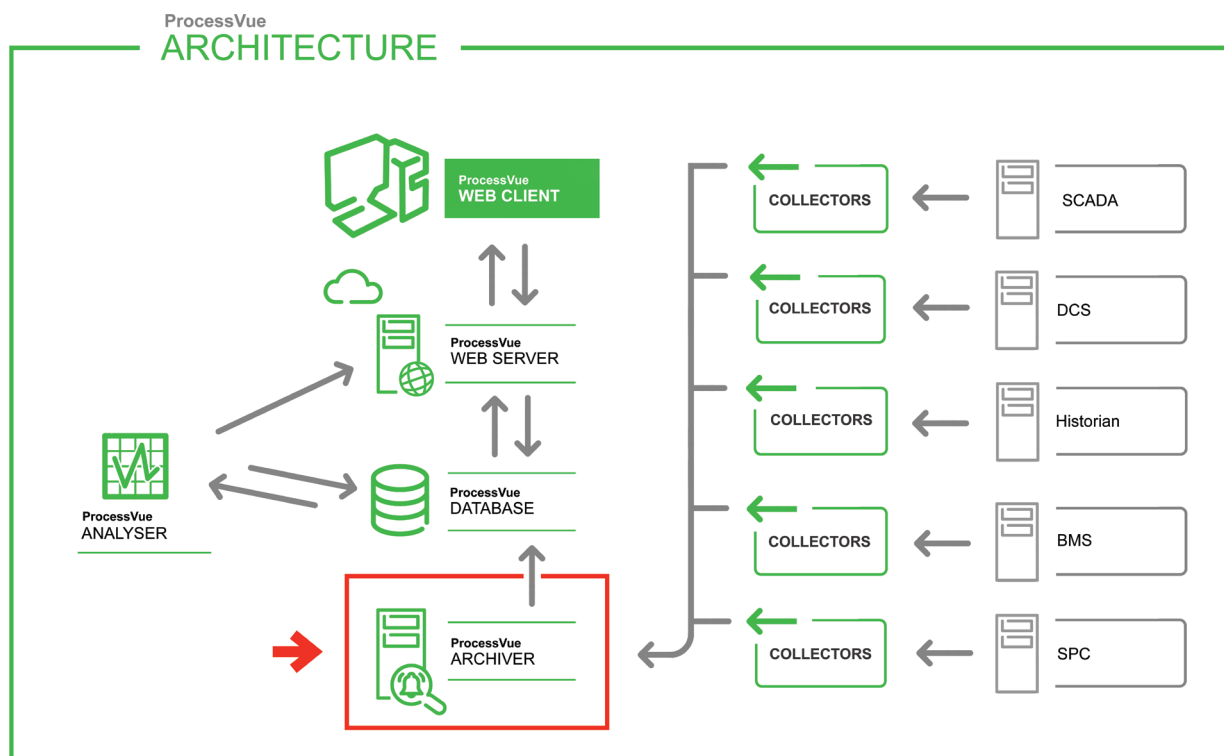# THE DATA ARCHIVER

What is it and what does it do?

The Data Archiver is a service within the ProcessVue software suite; it is employed by ProcessVue Sequence and the ProcessVue Analyser software. It retrieves the alarm and event data from ProcessVue Data Collectors and conditions the data before storing it in an industry standard SQL database.

How it works

The Data Archiver polls the ProcessVue Data Collectors, looking for new alarm and event data. Upon finding new data, the Data Archiver retrieves the messages from the Data Collector using a bespoke communication protocol. When messages arrive at the Data Archiver, the messages are logged to ProcessVue's raw tables to ensure there is a copy of the unaltered messages. The messages are then presented to the parsing engine, where the raw messages are split into their respective fields in the ProcessVue database, such as the Tag, Status, and Priority.

The parsing engine also defines the message type, such as Alarm, Return, or Acknowledge. It does this through keyword identifiers, assigning keywords to the dedicated alarm action field in the database; for example, any message containing the word "alarm" is designated as an alarm by assigning ALM to the alarm action field.

The messages are then passed through the Data Archiver's processing workflow, where messages may be managed in the following ways:

How messages are managed

Message Routing
Alarms and events can be moved or copied to other windows, allowing you to create a customised view of your alarms and events. For example, organise alarms by priority, equipment, area, or operator responsibility.

Auto Extract
Reports can be automatically extracted and archived to a file, the Data Archiver looks for a start and end point in the messages and extracts everything between these points. It can also be applied to specific alarms, where it archives a series of messages before and after the alarm, this can help with investigations as the alarm and associated messages are already extracted.

Notification
Emails can be generated on receipt of specific alarms. Messages can also be sent to third party applications, such as telephony systems to notify operators or maintenance personnel of specific alarms.

Priority Assignment
If the host system does not include a priority, user defined priorities can be assigned using keyword identifiers and logic states.

Data Enrichment
Message Lookups can be configured to apply additional information to alarms and events as they are being logged to the ProcessVue database, you can add alarm categories, equipment, groups, and other information to your alarms.

Once messages have been processed, the final step is to write them to the ProcessVue database. The Data Archiver manages the ProcessVue database, specifically the sequence of events tables. The alarms and events retrieved from Data Collectors are written to dedicated tables within the ProcessVue database. Each table can store up to two million messages or twelve months' worth of data; this amount can be significantly increased with the addition of the Purge Archive module, where the number of alarms stored by ProcessVue is limited only by the available storage space of the system's hardware.

The Archiver can be installed on the same machine as the other ProcessVue components, or as part of a distributed architecture.

Software

- Windows: Windows 10 or Windows Server 2019
- Microsoft .NET Framework 4.7.1
- Microsoft SQL Server Compact 3.5 SP2 Database 32/64-bit OPC Core Components
- Latest Service Packs and Updates for the above

Hardware

- Intel / AMD Quad Core Processor or better
- 4 GB of System RAM
- 50 GB Hard disk or better

PROCESSVUE
Alarm Management Without Limits