

# **CRASH REPORT**

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# OVERVIEW

Our data ingestors randomly crash after 2 to 9 hours of operation. Each crash is relatively unpredictable – an ingester can run for hours smoothly in one round, but crash after 2 hours in another.

# **OVERVIEW**

Personnel need to manually reboot the program to resume data collection. Given the standard 8-4 / 8-5 work hours, any crash in the evening or early morning significantly disrupts the ideal 24-hour operation of the ingestors.

# **ISSUE REPLICATION**

SCRIPTS USED: WSC-CS-INGESTOR,  
CONCAST-1-INGESTOR

It is difficult to consistently replicate the error, as the ingestors can run smoothly for long periods of time (2 to 7 hours) before crashing.

## **ISSUE REPLICATION**

**SUGGESTION #1:** Experiment with the COS ingestion script. In past runs, it crashed two to three hours into operation.

**SUGGESTION #2:** Determine which of the other scripts fail quickly and use them as the base for issue replication.



# ISSUE REPLICATION: EXAMPLE

## Machine: WSC-CS

```
Windows PowerShell
(apc-rules-py3.10) PS D:\apc-rules> python .\ingestors\wsc-cs-ingestion.py
2025-07-05 11:24:19.129 | INFO | apc_rules.infrastructure.db.sql_server:get_engine:24 - Connected to SQL Server at mssql+pyodbc://sa:pmc
r+17+for+SQL+Server&MARS_Connection=yes
2025-07-05 11:24:19.611 | INFO | __main__:<module>:191 - Ingesting data from WSC CS...
2025-07-05 11:24:19.629 | INFO | __main__:start_monitoring:153 - Started process monitoring thread
2025-07-05 11:24:20.312 | INFO | apc_rules.infrastructure.db.sql_server:get_engine:24 - Connected to SQL Server at mssql+pyodbc://sa:pmc
r+17+for+SQL+Server&MARS_Connection=yes
2025-07-05 11:24:20.804 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:24:27.892 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:24:34.474 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:24:40.575 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:24:46.849 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:24:52.984 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:24:59.161 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:25:05.355 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:25:11.671 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:25:17.856 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:25:24.008 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:25:30.149 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:25:36.310 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:25:42.483 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:25:48.728 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:25:55.162 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 11:26:01.400 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
```

Start time: July 5, 11:24 AM

```
Windows PowerShell
2025-07-05 19:00:10.764 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:00:16.967 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:00:23.185 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:00:29.425 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:00:35.623 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:00:41.831 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:00:47.983 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:00:54.165 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:01:00.331 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:01:06.526 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:01:12.790 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:01:19.052 | ERROR | __mp_main__:ingest_data:120 - An unexpected error occurred <class 'pycomm3.exceptions.ResponseError'> : failed isolating user tags
2025-07-05 19:01:31.952 | WARNING | __mp_main__:ingest_data:121 - Attempt 1 to connect to WSC CS 172.31.73.85 failed.
2025-07-05 19:01:36.978 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:01:36.994 | ERROR | __mp_main__:ingest_data:120 - An unexpected error occurred <class 'pycomm3.exceptions.ResponseError'> : Failed to get PLC info
2025-07-05 19:01:36.994 | WARNING | __mp_main__:ingest_data:121 - Attempt 2 to connect to WSC CS 172.31.73.85 failed.
2025-07-05 19:01:47.004 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:01:47.016 | ERROR | __mp_main__:ingest_data:120 - An unexpected error occurred <class 'pycomm3.exceptions.ResponseError'> : Failed to get PLC info
2025-07-05 19:01:47.032 | WARNING | __mp_main__:ingest_data:121 - Attempt 3 to connect to WSC CS 172.31.73.85 failed.
2025-07-05 19:02:07.067 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:02:07.083 | ERROR | __mp_main__:ingest_data:120 - An unexpected error occurred <class 'pycomm3.exceptions.ResponseError'> : Failed to get PLC info
2025-07-05 19:02:07.083 | WARNING | __mp_main__:ingest_data:121 - Attempt 4 to connect to WSC CS 172.31.73.85 failed.
2025-07-05 19:02:47.128 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:02:47.160 | ERROR | __mp_main__:ingest_data:120 - An unexpected error occurred <class 'pycomm3.exceptions.ResponseError'> : Failed to get PLC info
2025-07-05 19:02:47.160 | WARNING | __mp_main__:ingest_data:121 - Attempt 5 to connect to WSC CS 172.31.73.85 failed.
2025-07-05 19:04:07.180 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:04:07.203 | ERROR | __mp_main__:ingest_data:120 - An unexpected error occurred <class 'pycomm3.exceptions.ResponseError'> : Failed to get PLC info
2025-07-05 19:04:07.203 | WARNING | __mp_main__:ingest_data:121 - Attempt 6 to connect to WSC CS 172.31.73.85 failed.
2025-07-05 19:06:47.225 | INFO | __mp_main__:ingest_data:71 - Ingesting data from WSC CS allen_bradley RSLogix
2025-07-05 19:06:47.241 | ERROR | __mp_main__:ingest_data:120 - An unexpected error occurred <class 'pycomm3.exceptions.ResponseError'> : Failed to get PLC info
```

Crash time: July 5, 7 PM

# **INTERIM ACTION**

Program a watchdog / monitor that runs  
alongside the data ingestor.

## **INTERIM ACTION**

The program launches a ingestor-monitoring thread. When an ingestor dies, the monitor retrieves its configuration and launches a copy. This monitor checks the ingestor status every 5 seconds.



## **INTERIM ACTION**

However, this workaround does not activate when the program enters an infinite loop of trying to reconnect to the machine.

It is best to cap attempts, end the process, and have the monitor reboot the ingestor.

## **RECOMMENDATION**

Can the watchdog be merged with the logic of the main code itself?

**ACTION:** I tried using self-contained loops within the main code, but all attempts so far do not run.