



2026

INK DRAW SIGNAL GENERATOR MONITOR

V2.0

Real-time monitoring of inkjet print head systems,
signal generators and job event logging.

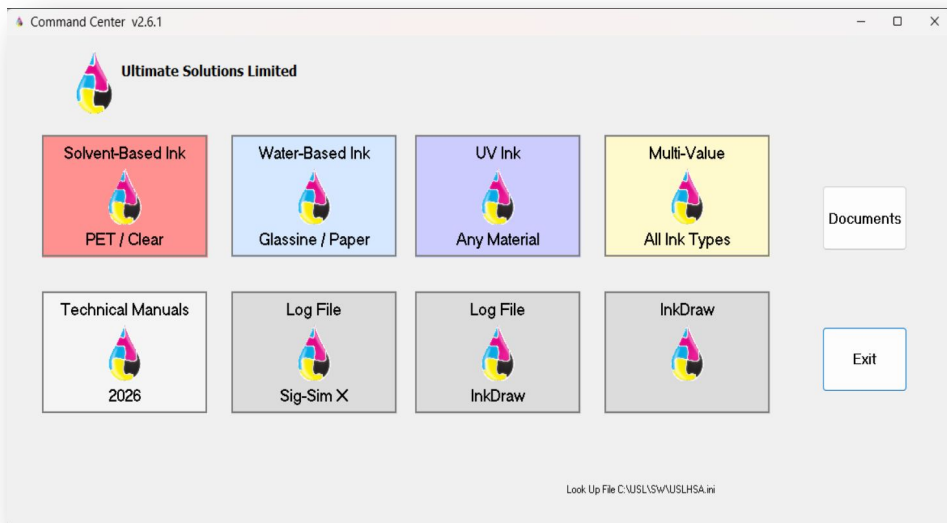
Monitor Status

Signal Generator

Job Reporting

COMMAND CENTRE – Application Launcher

Lookup file: C:\USL\SW\USLHSA.ini



Central Launcher

Command Center v2.6.1 provides a single-entry point to launch all configured Generator tool variants.

Generator Types

Supports Solvent-Based Ink (PET/Clear), Water-Based Ink (Glassine/Paper), UV Ink (Any Material), Multi-Value (All Ink Types) and InkDraw.

Active Configurations

Highlighted buttons show currently active setups — e.g. Solvent-Based / PET Clear (red) and Water-Based Ink Glassine / Paper (blue) etc.

Supporting Tools

Sig-Sim X Log, Log File viewer, and Technical Manuals access are available directly from the launcher.

NUMBER GENERATOR - Job Configuration

Ultimate Solutions Number Generator Print Group A8 v2.69

Step 1

Job Number: 13052026
Operator: PPL
Job Name: T8

Print Heads Type: Premium Heads ENG Ink Draw Version: v3.1.13 build 164

Print Heads Group: ☐ Back Numbering ☐ Front Numbering
Print Type Group: ☒ Normal ☐ Multi Reel ☐ Multi Value

Print Heads No.: 3 (MAX 12) Enable Duplicate Heads: ☐ Duplicate Heads No.: 1

Step 2

Start Number: 0001 Prefix: Suffix:
Labels Per Roll: 1000 Job Quantity: 500000

Counter Direction: ☒ Increment ☐ Decrement
Counter Mode: ☒ Normal ☐ Batch ☐ Wrap Around ☐ Dual Mode
Custom Off: ☐

Number of Batches: 1 Print Step Sequence: 1 Numeric Step Sequence: 1
Enable Modulo Step Sequence: ☐
Combined Print Numeric Sequence: ☐
Across Count: ☐
Duplicate: ☐
Duplicate Offset: 2.0

Step 3

Label Repeat (Label + Gap) In mm: 100 Label Gap In mm: 10

Step 4

Lead Out: 0 Text on Labels Lead Out:
Lead In: 0 Text on Labels Lead In:
Insert Date Code A: ☐ Insert Date Code B: ☐

Fixed Text:
Enable Fixed Text: ☐
Skip Leads In/Out: ☒
Skip Samples / Reel Separator: ☒
Fixed Text Position: ☒ Above ☐ Below

Select Ink Type:
☐ InvisiSOLV . Fluorescent Blue
☐ Collins Invisible, Solvent
☒ IQ 797+ / IQ 990, Solvent
☐ IQ 800, Solvent

Ink Reduction:
☐ 0% Darker ☐ 25%
☒ 50% ☐ 75% Lighter

Print Position:
☒ Top Of Pen
☐ Middle Of Pen
☐ Bottom Of Pen

Canvas Offset: 0
Adjustment In mm: Logo Step Sequence:
Small Font: ☐ Logo Mode: ☐ 5

Step 5

Set Samples to Max. Roll: ☐
Print Spaces: 0 Samples Counter Mode: ☐
Samples: 0 Samples Text:
Reel Separator: 0 Separator Text:

Special Features:
☒ Normal
☐ Large / Irregular Labels
☐ Small / Irregular Labels
Label Threshold In mm: 75.0

Run InkDraw Filename: C:\Program Files\Inkdraw\Files\Job.ink Exit

Step 1

Job details — Job Number, Operator, Job Name. Print Heads Type, Group and Print Type selection.

Step 2

Numbering — Prefix, Start Number, Suffix, Labels Per Roll and Job Quantity. Counter direction and mode.

Step 3

Label geometry — Label Repeat and Label Gap in mm.

Step 4

Lead In/Out, Fixed Text, Date Codes, Font Size and Text Rotation settings.

Step 5

Samples, Reel Separator, Special Features and Label Threshold configuration.

MONITOR - Status Tab

The screenshot shows the 'Status Tab' of the 'Ink Draw Signal Generator Monitor v1.0' application. The interface includes a menu bar (File, Options, Help) and a tabbed view with 'Monitor Status' selected. The 'Pen Status' section displays 12 colored boxes representing print heads: Pens 1-3 are green (active), Pens 4-12 are red (inactive or faulted). Below this, there are input fields for 'UV Lamp Status' and 'UV Lamp Fault'. The 'Print Velocity' section shows a large display for '0 mps'. The 'Ink Type' section includes fields for 'Ink Type #', 'Ink Type Description', 'Job Number', 'Operator', 'Job Name', 'Job Qty', 'Label Plus Gap', and 'Label Gap'. The 'Maximum Inserted' section has fields for 'Pulses Error Level' and 'Per Web Run'. At the bottom, 'Ink Draw Status' and 'Signal Gen Status' are both shown as 'Connected' in green boxes.

Ultimate Solutions Ltd - Ink Draw Signal Generator Monitor v1.0

File Options Help

Monitor Status Ink Draw Status Signal Generator Log File Report Database Status Diagnostics Licence

Pen Status

Pen 1 Pen 2 Pen 3 Pen 4 Pen 5 Pen 6 Pen 7 Pen 8 Pen 9 Pen 10 Pen 11 Pen 12

UV Lamp Status UV Lamp Fault

Print Velocity (meters per sec)

0 mps

Ink Type # 19 Ink Type Description IQ 797+ / IQ 990, Solvent

Job Number 13052026 Operator PPL Job Name T6

Job Qty 500000 Label Plus Gap 100mm Label Gap 10mm

Maximum Inserted Pulses Error Level 10 Maximum Inserted Pulses Error Level 3

Per Job Run Per Web Run

Ink Draw Status Signal Gen Status

Connected Connected

Pen Status (12 Pens)

Colour-coded indicators for all 12 print heads. Green = active, Yellow = not fitted, Red = fault or inactive. Pens 1–3 active in this example.

UV Lamp Status

Dedicated UV Lamp Status and UV Lamp Fault fields for UV-cured ink systems.

Job Information

Live display of Job Number, Operator, Job Name, Quantity, Label+Gap and Label Gap — pulled directly from the Generator.

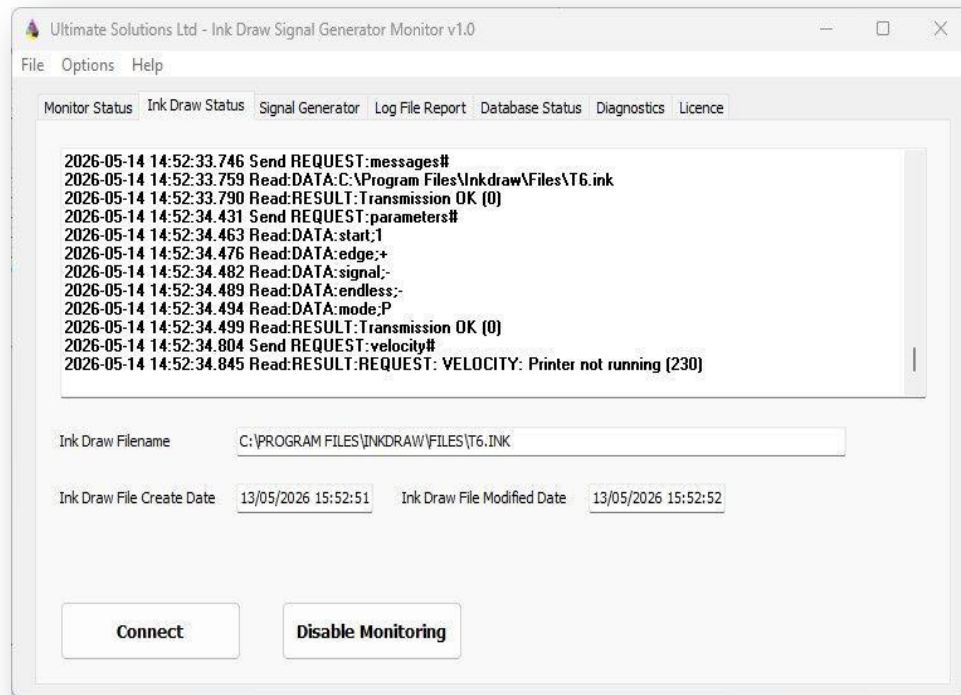
Connection Status

Ink Draw Status and Signal Gen Status both shown as Connected (Green) at the bottom of the tab.

Print Velocity

Real-time print speed display in metres per second (0 mps when printer is stopped).

INK DRAW - Status Tab



Communication Log

Timestamped transcript of all send/receive messages between the monitor and the InkDraw system — REQUEST, DATA and RESULT messages shown in real time.

Protocol Detail

Parameters exchanged include: start, edge, signal, endless, mode and velocity. Responses confirm transmission status (e.g. Transmission OK, Printer not running).

Ink Draw Filename

Displays the active .INK job file path — e.g. C:\PROGRAM FILES\INKDRAW\FILES\T6.INK.

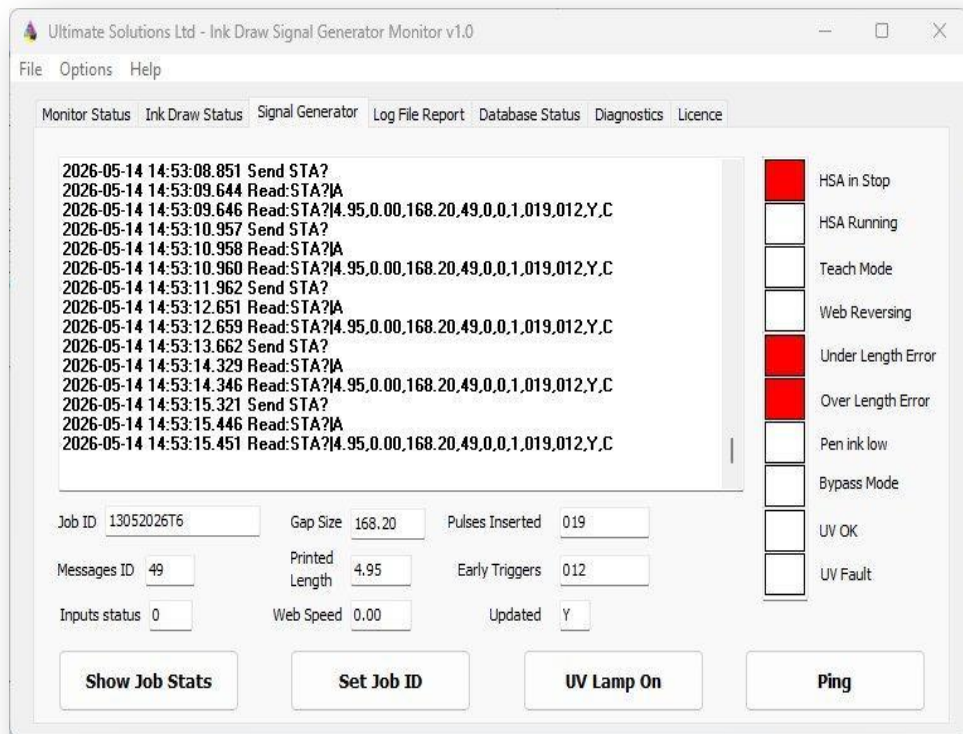
File Timestamps

Ink Draw File Create Date and Modified Date shown, confirming the job file in use and when it was last updated.

Connect / Monitoring

Connect and Disable Monitoring buttons allow the operator to manage the connection to the InkDraw system.

SIGNAL GENERATOR TAB



STA? Polling Log

Continuous timestamped poll of the signal generator status using STA? queries. Full response strings show gap, speed, pulse and trigger data.

Job & Measurement Data

Displays Job ID, Messages ID, Gap Size (mm), Printed Length (mm), Web Speed (m/min), Pulses Inserted and Early Triggers in Real Time.

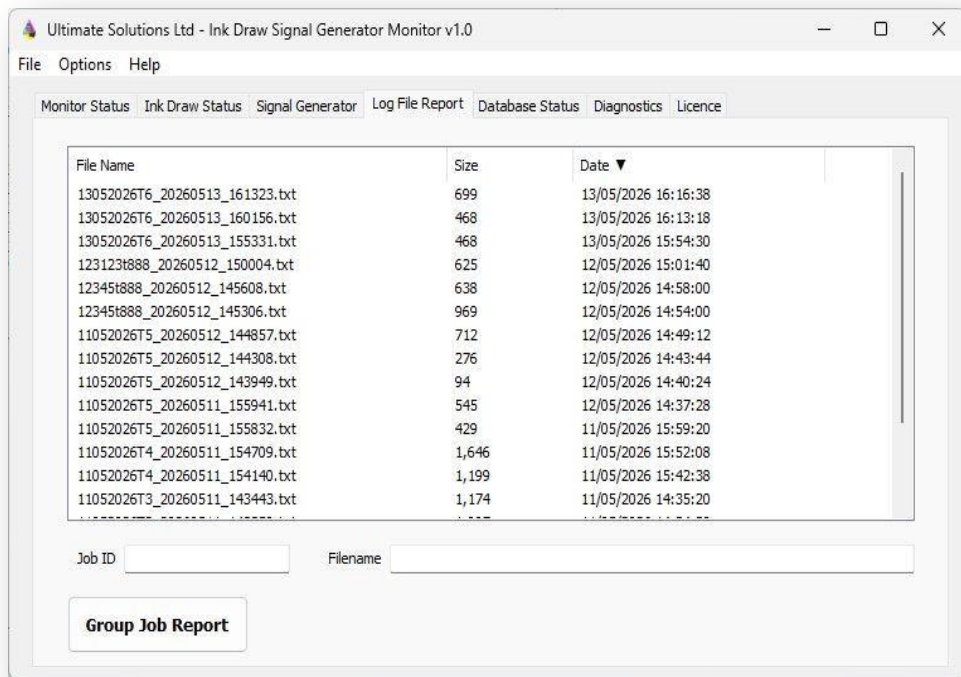
Status Indicators

Colour-coded status panel on the right: HSA in Stop and Under/Over Length Error shown in red; other states (HSA Running, Teach Mode, UV OK etc.) shown as unlit.

Controls

Show Job Stats, Set Job ID, UV Lamp On and Ping buttons give the operator direct control and diagnostics from within the monitor.

LOG FILE - Report Tab



Log File List

Displays all job log files generated by the Signal Generator sortable by File Name, Size and Date. Files are named in the format JobID_YYYYMMDD_HHmss.txt for easy identification.

Job Coverage

Provides a complete historical record of all runs. Multiple log files per job are supported, capturing each web run as a separate entry.

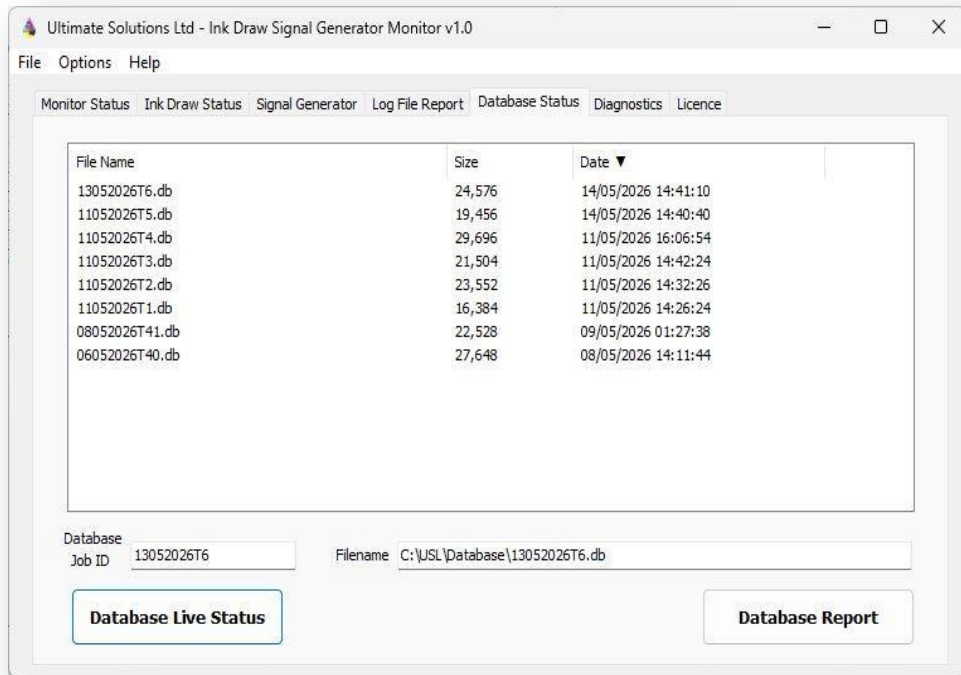
Filtering & Selection

Job ID and Filename fields allow the operator to filter and locate specific job records quickly.

Group Job Report

The Group Job Report button consolidates multiple log files for a single job into a combined report for review or export.

DATABASE - Status Tab



Database File List

Lists all job database files (.db) with File Name, Size and Date. One database file is created per job, stored at C:\USL\Database\.

Active Job

The currently selected database is shown at the bottom — Job ID and full file path — confirming which job's data is being accessed.

Database Live Status

Opens the Database Journal Report in live mode, showing a shared connection to the active job database with real-time event data.

Database Report

Generates a formatted printable report of all journal entries for the selected job database.

DATABASE JOURNAL REPORT - Live View

Database Journal Report

Job ID: 13052026T6
File: C:\USL\Database\13052026T6.db
Mode: Live job (shared connection)

Job Details:

Job ID	Created	Modified	Job Number	Operator	Job Name	Qty	Lbl+Gap	Gap	Ink Type	Ink I
13052026T6	13/05/2026 15:53:29	14/05/2026 14:41:08	13052026	PPL	T6	500000	100	10	19	IQ 7

Filter by Event Type(s): Apply Filter Clear Filter

Job Journal:

ID	Created	Event Date	Job ID	Job Number	Operator	Event Type	Event Detail
1	13/05/2026 15:53:29		13052026T6			CREATE	Job database created
2	13/05/2026 15:53:29		13052026T6			UPDATE	Job Table
3	13/05/2026 15:53:31	13/05/2026 15:53:31	13052026T6	13052026	PPL	Job_Started	SIGGENLOG
7	13/05/2026 15:53:33		13052026T6			UPDATE	Job Table
8	13/05/2026 15:54:08	13/05/2026 15:54:07	13052026T6	13052026	PPL	WebStarted	SIGGENLOG
9	13/05/2026 15:54:15	13/05/2026 15:54:14	13052026T6	13052026	PPL	PulsesInserted	SIGGENLOG
10	13/05/2026 15:54:15	13/05/2026 15:54:14	13052026T6	13052026	PPL	EarlyTriggers	SIGGENLOG
11	13/05/2026 15:54:16	13/05/2026 15:54:15	13052026T6	13052026	PPL	PulsesInserted	SIGGENLOG
12	13/05/2026 15:54:17	13/05/2026 15:54:16	13052026T6	13052026	PPL	PulsesInserted	SIGGENLOG
13	13/05/2026 15:54:17	13/05/2026 15:54:16	13052026T6	13052026	PPL	EarlyTriggers	SIGGENLOG
14	13/05/2026 15:54:18	13/05/2026 15:54:17	13052026T6	13052026	PPL	PulsesInserted	SIGGENLOG
15	13/05/2026 15:54:18	13/05/2026 15:54:17	13052026T6	13052026	PPL	EarlyTriggers	SIGGENLOG
16	13/05/2026 15:54:19	13/05/2026 15:54:18	13052026T6	13052026	PPL	PulsesInserted	SIGGENLOG
17	13/05/2026 15:54:19	13/05/2026 15:54:18	13052026T6	13052026	PPL	EarlyTriggers	SIGGENLOG
18	13/05/2026 15:54:20	13/05/2026 15:54:19	13052026T6	13052026	PPL	WebStopped	SIGGENLOG
19	13/05/2026 15:54:22	13/05/2026 15:54:22	13052026T6	13052026	PPL	PulsesThresholdAcknc	User clicked on Acknowledge button
20	13/05/2026 15:54:30	13/05/2026 15:54:29	13052026T6	13052026	PPL	Job_Ended	SIGGENLOG
23	13/05/2026 15:54:40		13052026T6			UPDATE	Job Table
24	13/05/2026 16:02:02		13052026T6			UPDATE	Job Table
25	13/05/2026 16:02:03	13/05/2026 16:02:02	13052026T6	13052026	PPL	WebStarted	SIGGENLOG
26	13/05/2026 16:02:07	13/05/2026 16:02:06	13052026T6	13052026	PPL	PulsesInserted	SIGGENLOG

Refresh Export CSV Generate Report Close

Job: 13052026T6 Records: 50 Filter: None

Live Job Mode

Opens with a shared connection to the active job database, updating in real time as events are recorded during the print run.

Job Details Header

Displays job metadata at the top — Job ID, Operator, Job Name, Qty, Label+Gap, Gap and Ink Type — for quick confirmation.

Colour-Coded Event Log

Journal entries are colour-coded by type: Job_Started (green), routine events (amber/yellow), Job_Ended (red), providing instant visual status.

Event Types

Captures CREATE, UPDATE, Job_Started, WebStarted, PulsesInserted, EarlyTriggers, WebStopped, PulsesThresholdAcknowledge and Job_Ended events.

Export & Filter

Refresh, Export CSV and Generate Report buttons. Filter by Event Type to isolate specific event categories. Status bar shows total record count.

JOB REPORT - Print Preview

Preview

100% 1 of 1

Ink Draw Signal Generator Monitor - Job Report

Generated: 14/05/2025 14:41:26 | Job ID: 1305202076 | Journal entries: 50

Job Details		
Job ID:	1305202076	Ink Type:
Job Number:	13052020	Ink Description:
Operator:	PPL	Ink Draw File:
Job Name:	T5	Created:
Quantity:	500000	Modified:
Label + Gap (mm):	100	Max Pulses / Job:
Gap (mm):	10	Max Pulses / Web Run:
Unit System:	metric	Database:

ID	Created	Event Date	Job Number	Operator	Event Type	Event Detail	Seq	Gap (mm)	Speed (mm/min)	Low Pos (m)	High Pos (m)
1	13/05/2025 15:53:29	0			CREATE	Job database created	0	0	0	0	0
2	13/05/2025 15:53:29	0			UPDATE	Job Table	0	0	0	0	0
3	13/05/2025 15:53:31	0			SIGENLOG	Job Started	0	0	0	0	0
7	13/05/2025 15:53:33	0	13052020	PPL	UPDATE	Job Table	0	0	0	0	0
8	13/05/2025 15:54:08	13/05/2025 15:54:07	13052020	PPL	WebStarted	SIGENLOG	0	0.08	2	0	0
9	13/05/2025 15:54:15	13/05/2025 15:54:14	13052020	PPL	PulsesInserted	SIGENLOG	2	167.8	19	1.62	2.43
10	13/05/2025 15:54:15	13/05/2025 15:54:14	13052020	PPL	EarlyTriggers	SIGENLOG	1	167.8	19	1.62	2.43
11	13/05/2025 15:54:16	13/05/2025 15:54:15	13052020	PPL	PulsesInserted	SIGENLOG	4	167.8	19	1.6	2.78
12	13/05/2025 15:54:17	13/05/2025 15:54:16	13052020	PPL	PulsesInserted	SIGENLOG	7	167.8	19	2.01	3.12
13	13/05/2025 15:54:17	13/05/2025 15:54:16	13052020	PPL	EarlyTriggers	SIGENLOG	3	167.8	19	2.01	3.12
14	13/05/2025 15:54:18	13/05/2025 15:54:17	13052020	PPL	PulsesInserted	SIGENLOG	9	167.8	19	2.28	3.49
15	13/05/2025 15:54:18	13/05/2025 15:54:17	13052020	PPL	EarlyTriggers	SIGENLOG	6	167.8	19	2.28	3.49
16	13/05/2025 15:54:19	13/05/2025 15:54:18	13052020	PPL	PulsesInserted	SIGENLOG	11	167.8	19	2.46	3.62
17	13/05/2025 15:54:19	13/05/2025 15:54:18	13052020	PPL	EarlyTriggers	SIGENLOG	7	167.8	19	2.46	3.62
18	13/05/2025 15:54:20	13/05/2025 15:54:19	13052020	PPL	WebStopped	SIGENLOG	0	3.91	0	0	0
19	13/05/2025 15:54:22	13/05/2025 15:54:22	13052020	PPL	PulsesInserted/AcknowledgeForWebRun	User clicked on Acknowledge button	0	0	0	0	0
20	13/05/2025 15:54:30	13/05/2025 15:54:29	13052020	PPL	Job Ended	SIGENLOG	0	0	0	0	0
23	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
24	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
25	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0.08	0	0	0
26	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
27	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
28	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
29	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
30	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
31	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
32	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
33	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
34	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
37	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
40	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
43	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
44	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
45	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
46	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
47	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
50	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
51	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
52	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
53	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
54	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
55	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
56	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
57	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
58	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
59	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0
60	13/05/2025 15:54:40	0			UPDATE	Job Table	0	0	0	0	0

Report Title & Header

Ink Draw Signal Generator Monitor — Job Report. Auto-populated with generation date/time, Job ID and total journal entry count.

Job Details Section

Full job metadata block: Job ID, Number, Operator, Name, Qty, Label+Gap, Gap, Unit System, Ink Type/Description, Ink Draw File, Created/Modified timestamps and max pulse thresholds.

Full Journal Table

All events listed with columns: ID, Created, Event Date, Job Number, Operator, Event Type, Event Detail, Seq, Gap (mm), Speed (m/min), Low Pos (m) and High Pos (m).

Print & Export

Standard print preview toolbar — print, save, zoom and page navigation. Page count shown (e.g. Page 1 of 1).



INK DRAW – Guardian Software

A complete solution for real-time inkjet print monitoring, signal generator status and job event reporting.

- **Command Center Launcher**
- **Ink Draw Communication Log**
- **12-Pen Status Monitoring**
- **5-Step Job Configuration**
- **Signal Generator Status**
- **Job Report & CSV Export**

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