

VIOLET

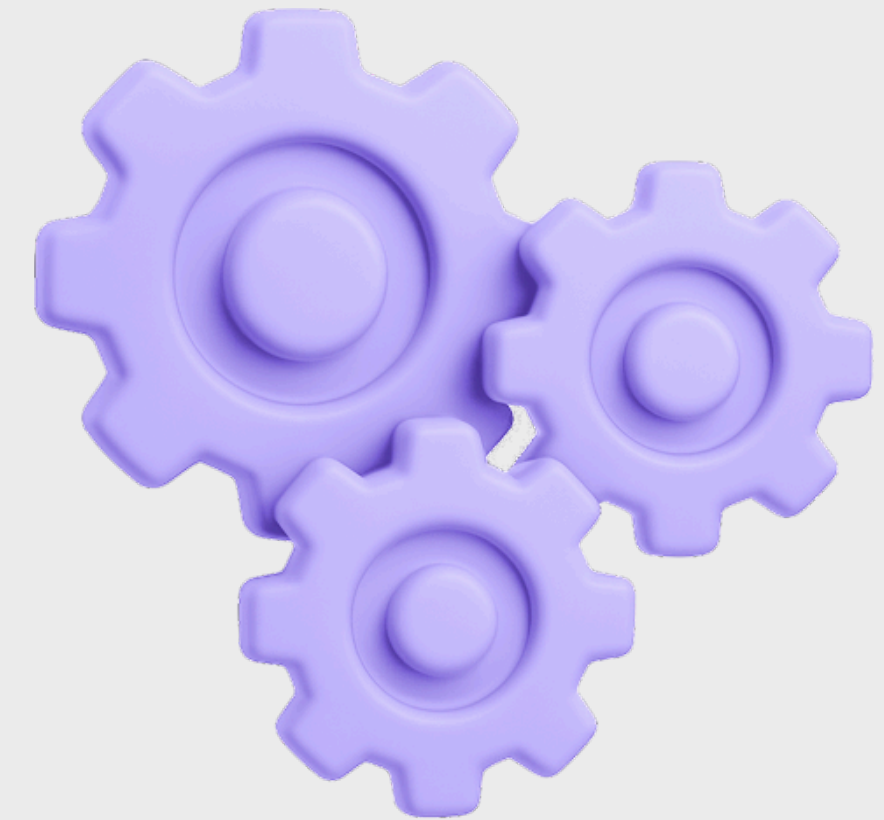
Knowledge and orchestration layer for the physical world.



The problem

Hardware volume and complexity is rapidly increasing
But the way we build hasn't budged in decades

- 1 Hardware products are increasingly complex, multi-disciplinary and AI-enabled
- 2 How we build hasn't meaningfully changed since the advent of mechanical-centric PLM in the 90s
- 3 We lack tooling to reliably and gracefully manage the interconnectedness of our systems



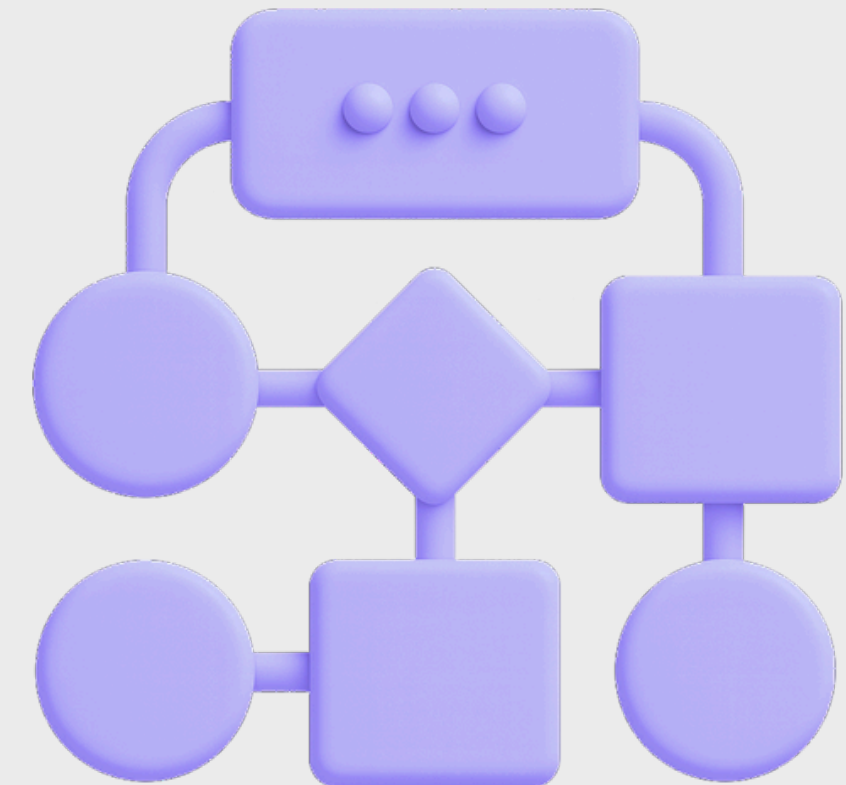
The AI inflection point in hardware

We're entering a generational shift in hardware.

Generative AI is transforming how engineering work is produced. Agentic AI will transform the lifecycle itself.

For the first time, AI can reason over and act on engineering systems.

But the data must be connected.

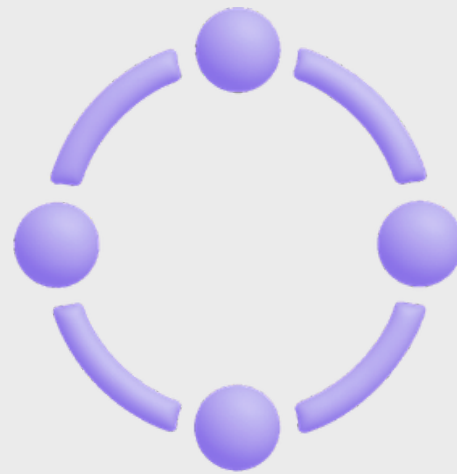


Violet is the enabling infrastructure for connected build



Knowlege

- 75+ no-code integrations
- Hub-and-spoke framework
- Ontology-structured data
- Universal access via MCP



Orchestration

- Declarative sync handlers
- Granular control
- Monitoring and observability
- Round-trip auditable



Context

- Relationships, decision history
- Email, Slack, metadata via NLP
- Enables institutional knowledge, change rationale, permissions

Under the hood

75+ live connectors (and counting)

- OAuth enabled
- Normalizes data on ingestion
- Continuous E2E testing framework to detect API changes

The screenshot displays the VIOLET Integrations interface. On the left, a sidebar lists various categories such as CAD + PDM, Developer Tools, ERP, Purchasing & Accounting, Inventory Management, LLM & AI Providers, MES, Manufacturing & Supply Chain, Model-Based Systems Engineering (MBSE), Modeling & Simulation, Product Lifecycle Management (PLM), Project Management, Requirements Management, Space, Testing & Operations, User Created, and Work & Productivity. The main area features a 'Create an Integration' dialog box with a search bar and a grid of application connectors. The connectors are organized into rows and columns, each with a logo and name. The 'Aras' connector is highlighted in the top row. The interface also includes a top navigation bar with 'Home', 'Search', and 'Notifications' options, and a bottom status bar showing the user's account information.

The screenshot shows the 'Configure Integration' dialog for Aras. The dialog is titled 'Configure Integration' and has a close button. It features the Aras logo and a section for entering a name for the credentials, with 'Aras' entered in the text field. Below this is a dropdown menu for 'Credentials Metadata (Optional)'. The 'Permissions' section includes a note about default permissions and an 'Advanced Permissions' link. There is a text input field for 'Enter the URL of your server instance'. A checkbox for 'Use Tailscale VPN Connection' is present and unchecked. A checked checkbox for 'Allow credentials export to 1Password' is also visible. At the bottom, there are two buttons: 'CANCEL' and 'CONNECT WITH ARAS'.

Aras integration

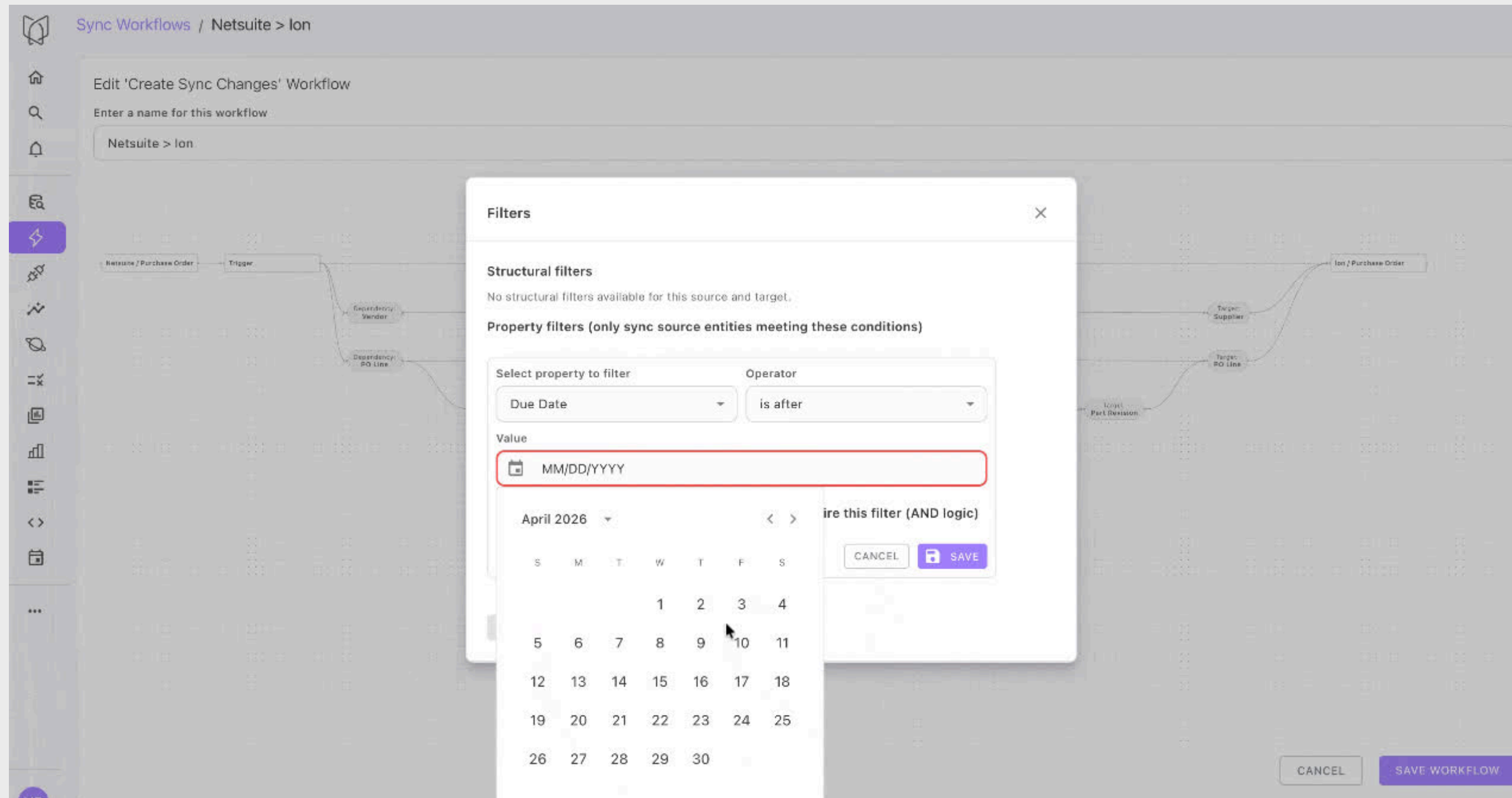
No-code integrations

The screenshot shows the VIOLET Integrations dashboard. At the top, there are four summary cards: 8 SUCCESSFUL FETCH, 0 FAILED FETCH, 0 RUNNING, and 4 PAUSED. Below these are control buttons: REFRESH ALL, PAUSE ALL, CREDENTIALS, and a purple + INTEGRATION button. The main area is a table with columns: App, Integration, Credentials, Entity Types, Fetch Frequency, Status, and Sync(s) To. The table lists 12 integrations, including Cofactr, Duro, Ion, Jira, Linear, Netsuite, Onshape, PartsBox, Smartsheet, SolidWorks PDM, and Teamcenter. The Linear integration is highlighted in grey and has a 'Subscribe to Linear' button. The left sidebar contains navigation options: Home, Search, Notifications, Integrations (selected), Data Explorer, Reports, Multisource Reports, Workflows, Analytics, Programs, Requirements, Parameters, and Scripts. At the bottom left, there is an 'Admin Account' section with the email violet_admin@violetlabs.c... and a 'Demo' button.

App	Integration	Credentials	Entity Types	Fetch Frequency	Status	Sync(s) To
Cofactr	Cofactr	Cofactr	BOM, BOM Line, Part, +2 more	Once a day	Success	--
Duro	Duro	Duro - New	Change Order, Part, +1 more	Every 10 minutes	Success	in 1 minute
Ion	Ion	Ion	aBOM Installation, File, Issue, +16 more	Every 4 hours	Success	in about 1 hour
Jira	Jira (1)	Jira - Lucy OAuth	Issue	Once a day	Success	tomorrow at 10:56 AM
Linear	Linear	Linear-Violet	Issue, Subissue	Once a day	Success 04/05/2026	--
Netsuite	Netsuite	Netsuite	Bill, Bill Line, Item, +5 more	Once a day	Success	in about 6 hours
Onshape	Onshape	Onshape	Document, Element, File, +3 more	--	Success	Ion
PartsBox	PartsBox	PartsBox	File, Part, Part Inventory, +3 more	Every 4 hours	Success	in about 2 hours
Smartsheet	Smartsheet	Smartsheet	Row, Sheet	Once a day	Success	--
SolidWorks PDM	SolidWorks PDM	--	Part	--	Success	--
Teamcenter	Parts	Teamcenter	Part, Part Revision	Once a day	Success	--

- Ingestion is scheduled or event-driven
- API-less options (Teamcenter, Solidworks, Manufacturo...)
- Monitor performance metrics and failures
- Slack + email notifications

Automated workflows



- Build workflows with a trigger and an action
- User-configurable mapping
- Granular filters for custom business logic
- Sync tools designed for agentic operation

Monitoring and observability

The screenshot shows the 'Workflow Manager' interface with a 'Beta' badge. It features a navigation bar with 'DATA SYNC' and 'OTHER WORKFLOWS'. The main content area is titled 'All Integrations' and shows 'Pending Changes : Arena Production → Ion production'. It includes a 'Next Run: On Activity' indicator and four summary cards: '515 TOTAL CHANGES', '294 CREATED', '221 UPDATED', and '0 DELETED'. Below these is a table of pending changes with columns for Status, Change Type, Entity, Key Pr..., and Diffs. A sidebar on the left contains navigation icons for Find, Home, Explore, Tools, and Apps.

The screenshot displays the 'Integrations' dashboard with four summary cards: '4 SUCCESSFUL FETCH', '0 FAILED FETCH', '0 RUNNING', and '0 PAUSED'. Below these is a 'Data Transfer' chart for the period '02/04/2026 - 02/19/2026'. The chart shows 'Duration' on the left y-axis (ranging from 8m 20s to 33m 20s) and 'Entity Count' on the right y-axis (ranging from 0 to 1600). The x-axis shows dates from Wednesday, 02/04 to Friday, 02/20. The legend includes 'Entities Pushed' (green), 'Entities Skipped' (yellow), 'Entities Missed' (blue), and 'Time to Push' (green line).

- Approval gates
- Exhaustive history

The screenshot shows the 'Parts' integration dashboard. It features a summary card for 'LAST FETCH TIME' at '3m 30s' with a '+249%' increase. Below this is a 'Fetch Time' chart for the period '01/14/2026 - 01/29/2026'. The chart shows 'Duration' on the y-axis (ranging from 16m 40s to 50m) and the x-axis shows dates from Wednesday, 01/14 to Friday, 01/29.

- Detailed observability
- Health & status
- Performance metrics

Under the hood

Reports

Multisource Reports / 8 Cyl Radial Engine

000079 SELECT COLUMNS 72

Part No.	Description	Qty ...	Cost	Latest MBOM Id	Sourcing ...	Name	External ID
000079	8 CYL RADIAL ENGINE	1		1159			
000069	HAYOOCALL	1	\$65,412.00		Buy		
000071	FLYWHEEL	1	\$350.00		Buy	PO 1027, Jet Propulsion La...	PO-1027
000080	CYLINDER ASSEMBLY	8		1051			
000070	PISTON SLEEVE	1			Make		
000078	VALVE RETAINER CLIP	2	\$20.00		Buy		

Multisource

Dynamically generate reports that aggregate and associate data from different sources

VIOLET Reports / LEO Sat BOM- Ion and Duro

duro Part Number 999-00049/A

Part Number	Rev	Name	Status
999-00049		LEO Satellite	
910-00001		Solar Panel Assembly	
912-00001		Solar Panel	
913-00001		PCBA	
216-00001		XTAL 1	
910-00004		EBOM	
410-00...		ADHESIVE	
910-00002		Propulsion System	
422-00001		MOTOR Engine N/A RP-1	
463-00001		NOZZLE	
910-00003		Bus Structure	
910-00006		Compute Board	
921-00001		Battery	
211-00001		BATT NCA 3.6 2.539	
410-00002		ADHESIVE 3M Epoxy	

Part Number 999-00049/A

Part Number	Rev	Name	Status
999-00049		LEO Satellite	
910-00001		Solar Panel Assembly Description	
913-00001		PCBA	
216-00001		XTAL - Crystal	
910-00004		EBOM	
410-00...		ADHESIVE	
920-00001		CABLE 14 COAX HDMI	
910-00002		Propulsion System	
422-00001		MOTOR Engine N/A RP-1	
463-00001		NOZZLE	
910-00003		Bus Structure	
910-00006		Compute Board	
921-00001		Battery	
211-00001		BATT NCA 3.6 2.539	
410-00002		3M™ Scotch-Weld™ Epoxy Adhesive DP...	

Differences Found

BOM Compare

Compare BOMs across revisions or sources, generate Clear-to-Build

Violet Chat

Violet Chat Beta

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- [Requirements](#)
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- [Integrations](#)
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use exploreEntities tool to get a list of all parts with "Solar" in the name, and provide their part number, revision, category, and status attributes.

Apr 7, 6:22 PM

VIOLET

Here are the parts with "Solar" in the name, with the requested attributes (showing all rows returned in this page of results):

Name	Part Number	Revision	Category	Status
4-junction Solar cell	242-00001	7	—	—
AriSAT Solar Array Assembly	991-00012	-	Sub-Assembly	Design
Blanket, Solar Panel	442-00002	4	Thermal Management	Design
Core, Solar Panel	446-00007	8	Miscellaneous Mechanical	Design

Scroll for more rows or columns when needed

The underlying search found 24 matching parts in total; the table above includes the ones present in the returned data for this call. If you'd like, I can page through and list all 24.

Apr 7, 6:22 PM

VIOLET

Here are all 24 parts with "Solar" in the name, with part number, revision, category, and status where available:

Name	Part Number	Revision	Category	Status
4-junction Solar cell	242-00001	7	—	—
AriSAT Solar Array Assembly	991-00012	-	Sub-Assembly	Design
Blanket, Solar Panel	442-00002	4	Thermal Management	Design
Core, Solar Panel	446-00007	8	Miscellaneous Mechanical	Design
DCUBED Power Cube Solar Array	910-00010	A	—	—
Facesheet, Solar Panel	446-00006	4	Miscellaneous Mechanical	Design
Power Cube Solar Array	910-00009	A	—	—
Solar array positioner	910-00002	A	—	—

HISTORY

+ NEW CHAT

- use exploreEntities tool to get a list of ...
1 day ago
- Provide a list of all parts with "Solar" in...
1 day ago
- Provide a list of all parts with "Solar" in...
1 day ago
- Provide a list of all parts with "Solar" in...
1 day ago
- what batteries are available for reuse?
1 day ago
- what batteries are available?
3 days ago
- how many batteries are available?
3 days ago
- Can you show me all the Duro parts wit...
3 days ago
- Can you show me all the Duro parts wit...
3 days ago
- what batteries are available?
3 days ago
- what batteries are available?
3 days ago
- what batteries are available?
3 days ago
- How many parts are in my LEO satellite
6 days ago
- Find all Duro parts with a mass over 10...
7 days ago
- Can you show me all the Duro parts wit...
7 days ago
- list all data where type = part
8 days ago
- list all Quickbooks invoices with status ...
8 days ago
- How many invoices are unpaid in Quick...
8 days ago

Ask a question about your data...

Enter to send · Shift+Enter for new line

➤
Send

VS

Violet SuperAdmin
 violet_admin@violetlabs.c...

Provider Azure AI Foundry

Model gpt-5.1

Models load from your Azure resource (deployments). If the list is empty, check the API key and /openai/v1 endpoint in Apps. Static suggestions apply when the API cannot be reached.

Connected

- Query your data with natural language
- Build tables and reports

Under the hood

Violet MCP

Configuration

API KEY: PART NUMBER: 000079 REVISION: B APP 1 NAME: Ion APP 2 NAME: Teamcenter SQL Server [↔ Compare](#)

ION LINE ITEMS: **29** TEAMCENTER SQL SERVER LINE ITEMS: **29** METADATA DIFFS: **0** (0 name · 0 rev · 0 qty) ONLY IN ION: **0** structural differences ONLY IN TEAMCENTER SQL SERVER: **0** structural differences TOTAL DIFFERENCES: **0** across all categories

Line-by-Line Diff [Side-by-Side Tree](#) Ignore name differences

Metadata difference Only in Ion Only in Teamcenter SQL Server

Ion				Teamcenter SQL Server			
PART #	REV	NAME	QTY	PART #	REV	NAME	QTY
000079	B	8 CYL RADIAL ENGINE	—	000079	B	000079 - 8 CYL RADIAL ENGINE	—
000079	B	8 CYL RADIAL ENGINE	—	000079	B	000079 - 8 CYL RADIAL ENGINE	—
000069	A	HAYOOCALL	1	000069	A	000069	1
000071	A	FLYWHEEL	1	000071	A	000071	1
000080	B	CYLINDER ASSEMBLY	8	000080	B	000080	8
000070	A	PISTON SLEEVE	1	000070	A	000070	1

Don't like Violet's UI?
Build your own

← Built with Claude

Thank you!

Thank you!

Reach out for a demo: violetlabs.com/book-a-demo

Check out our docs: docs.violetlabs.com

lucy@violetlabs.com



BACKUP

Infra to power an agentic engineering future

Violet is the cognitive layer for agentic hardware engineering.

It enables AI agents to

- Query structured engineering data
- Trigger workflows across systems
- Make context-aware decisions

Without Violet, agents are blind to system boundaries and data inconsistencies

With Violet, agents operate on a clean, connected, real-time data graph



Team

Team



Lucy Hoag, PhD
Founder & CEO



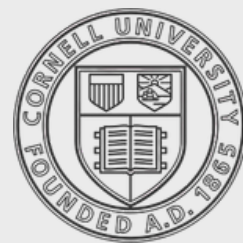
Mike Marmar
CTO



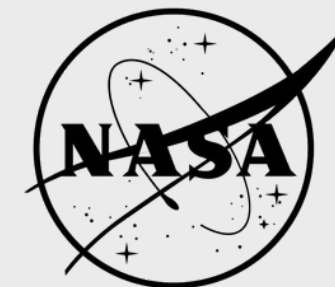
Katie Trase
Product Lead, Systems Engineering



Sam Hoffman
Product Lead, Manufacturing



Yale



BAE SYSTEMS

SPACEX