

International Workshop on Languages for Modelling Variability (MODEVAR Online Edition)

Online. 29. April 2026

FlamapyIDE 2.0: What's Next for Client-Side AAFM

Francisco S. Benítez, J. A. Galindo, José Miguel Horcas, David Romero-Organvúdez, Esther Rocío Valladolid, David Benavides

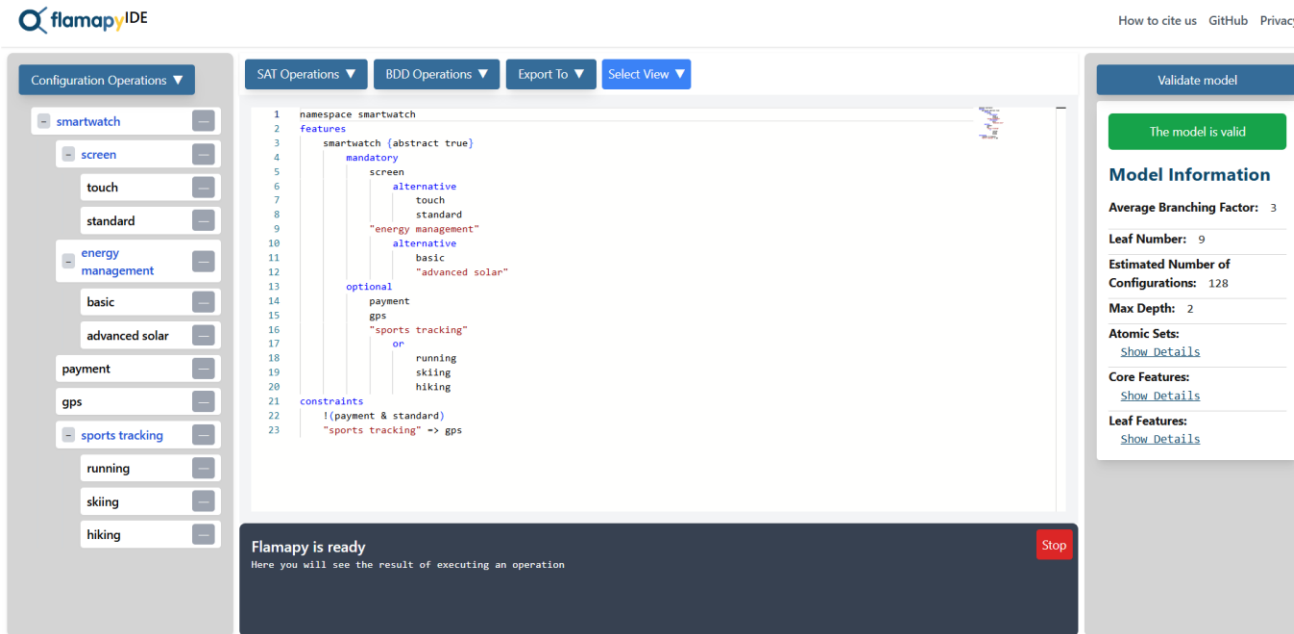


- 1. Introduction**
2. UVL sharing
3. Views for Metrics
4. Collaborative Mode

1. Introduction

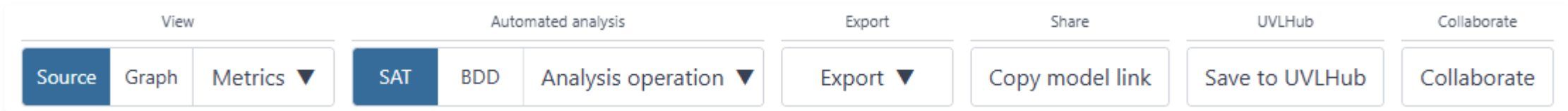


Web-based **UVL Editor** with client-side AAFM capabilities



- **Users** can run advanced feature model operations (validations, optimizations, etc.) directly in the browser.
- **Users** can open the IDE in any modern browser and start working **without needing a backend installation** or dependencies.
- **Users** can confidently upload and analyze models in the browser without security concerns related to privacy.

1. Introduction

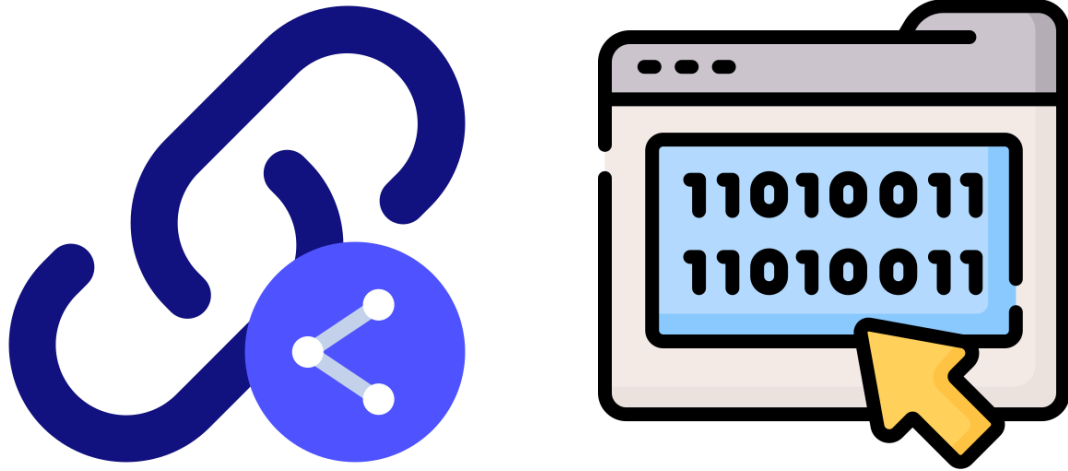


The screenshot shows the flamapyIDE interface. On the left is a 'Configuration Operations' sidebar with a list of features like 'smartwatch', 'screen', 'touch', 'standard', 'energy management', 'basic', 'advanced solar', 'payment', 'gps', 'sports tracking', 'running', 'skiing', and 'hiking'. The main area is titled 'Configuration Distribution' and features a line graph showing the distribution of configurations across the number of features (0 to 13). Below the graph are statistics: MEAN (8.33), MEDIAN (9), MODE (9), MIN (5), MAX (11), RANGE (6), STANDARD DEVIATION (1.56), and MEDIAN ABSOLUTE DEVIATION (1). On the right is a 'Syntax Validation' panel showing 'The model is syntactically valid' and 'Model Information' including Language Level (Boolean), Average Branching Factor (3), Leaf Number (9), Estimated Number of Configurations (128), and Max Depth (2).

- **FlamapyIDE** is still in active development
- As the UVL tool ecosystem grows, functionality of the IDE can be expanded
- New version coming soon!

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2. UVL Sharing

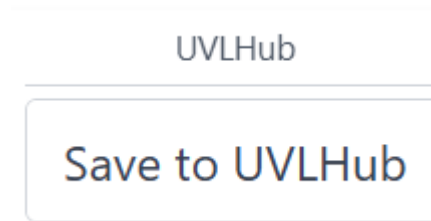
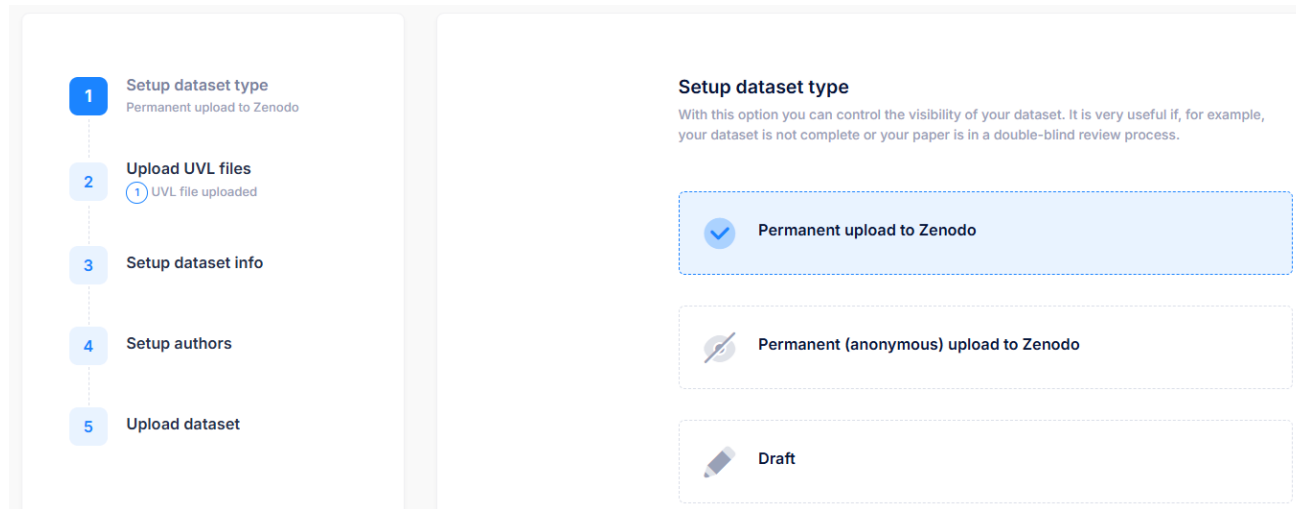


Share

Copy model link

- **Users** can generate a link to share their UVL model
- The link opens the IDE with said model
- The model is encoded in Base64 into the URL as a param, it is not uploaded to any server
- Useful during UVL-related events

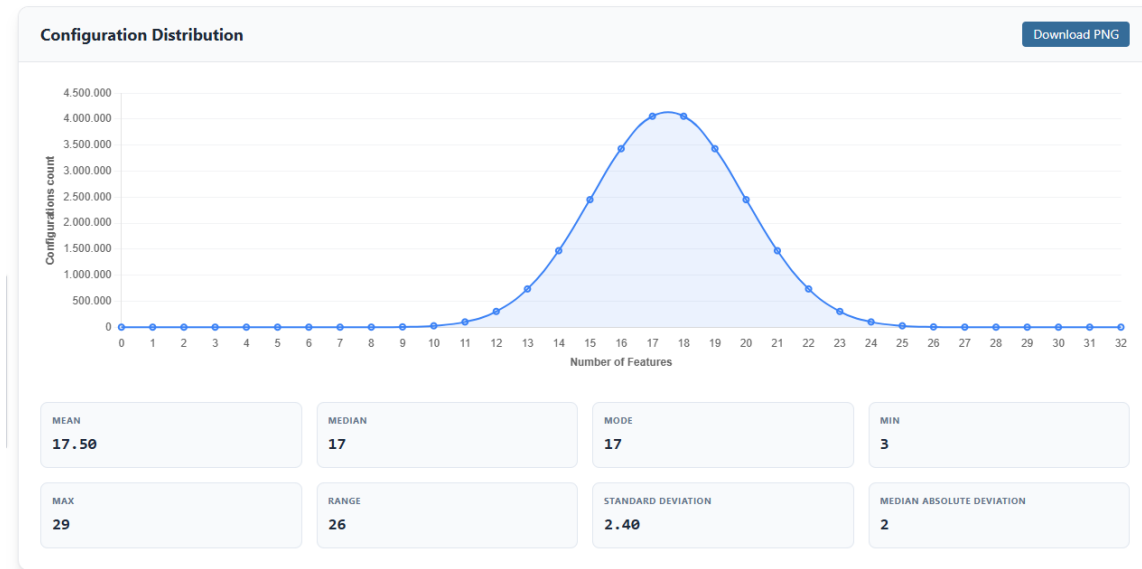
2. UVL Sharing



- **Users** can directly save their UVL model to UVLHub by clicking on a button
- UVLHub will be opened in a new tab directly into the new dataset form page

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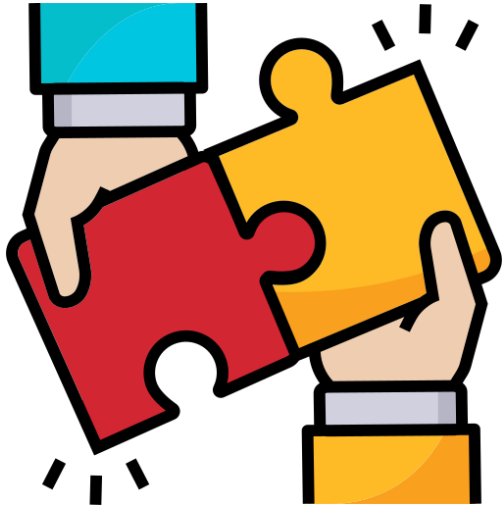
3. Views for Metrics



- **Users** can access dedicated views for metrics, and export them to PNG
- Configuration Distribution
- Feature Inclusion Probability
- More views in development (feature flow map...)

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4. Collaborative Mode



Collaborate

Collaborate

- **Users** can generate a link to share a live coding session with other users.
- They can work on the same UVL and see changes in real time
- This functionality requires a collaborative server to be set up, users are warned that the model will no longer be sandboxed.

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- 5. One More Thing**

5. One More Thing



View Automated analysis Export Share UVLHub Collaborate

Source Graph Metrics ▼ **SAT** BDD Analysis operation ▼ Export ▼ Copy model link Save to UVLHub Collaborate

How to cite us GitHub Privacy

Configuration Operations ▼

- smartwatch
- screen
 - touch
 - standard
- energy management
 - basic
 - advanced solar
- payment
- gps
- sports tracking
 - running
 - skiing
 - hiking

Hide configuration panel

```
1 namespace smartwatch
2 features
3   smartwatch {abstract true}
4     mandatory
5       screen
6         alternative
7           touch
8           standard
9       "energy management"
10      alternative
11        basic
12        "advanced solar"
13      optional
14        payment
15        gps
16        "sports tracking"
17          or
18            running
19            skiing
20            hiking
21 constraints
22   !(payment & standard)
23   "sports tracking" => gps
```

Syntax Validation

The model is syntactically valid

Model Information

Language Level: Boolean

Average Branching Factor: 3

Leaf Number: 9

Estimated Number of Configurations: 128

Max Depth: 2

Atomic Sets:

[Show Details](#)

Core Features:

[Show Details](#)

Leaf Features:

[Show Details](#)

Flamapy is ready

Here you will see the result of executing an operation

Stop

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