

## Application-Level Profile Semantics (ALPS)

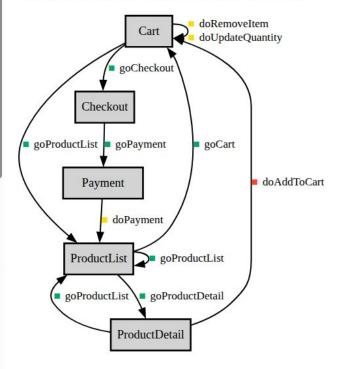
- Goal
  - A Format for Clarifying Application-Level Meaning and Structure of Interfaces
- History
  - First experiment was in at 2011 RESTFest
  - Based on XML Meta Data Profiles (XMDP) from 2003 by Tantek Çelik
- Tooling
  - ALPS online editor
  - ASD (app-state-diagram) CLI
  - <u>LLMs Prompt Library</u>
  - ALPS OpenAl Assistant

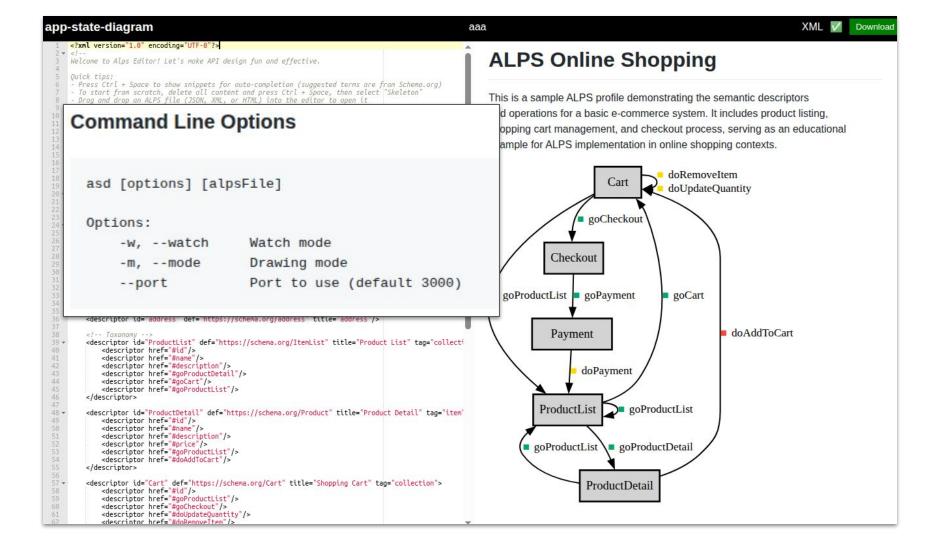
```
<?xml version="1.0" encoding="UTF-8"?>
    Welcome to Alps Editor! Let's make API design fun and effective.
    Ouick tips:
     - Press Ctrl + Space to show snippets for auto-completion (suggested terms are from Schema.ora)
     - To start from scratch, delete all content and press Ctrl + Space, then select "Skeleton"
      Drag and drop an ALPS file (JSON, XML, or HTML) into the editor to open it
      (For HTML files, the ALPS profile contained within will be extracted)
      Hit Ctrl + S to download your work anytime
    ALPS bridges vision and implementation, creating APIs that speak business and tech fluently.
    Learn more about ALPS:
     - app-state-diagram: https://www.app-state-diagram.com/
      Official ALPS website: http://alps.io/
    Happy modelina! Remember, solid semantics supports the long-term evolution of your APIs, :)
20 - <alps
             xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
             xsi:noNamespaceSchemaLocation="https://alps-io.github.io/schemas/alps.xsd">
         <title>ALPS Online Shopping</title>
24 -
         <doc>This is a sample ALPS profile demonstrating the semantic descriptors
             and operations for a basic e-commerce system. It includes product listing,
             shopping cart management, and checkout process, serving as an educational
            example for ALPS implementation in online shopping contexts.</doc>
         <!-- Ontology -->
30
         <descriptor id="id" def="https://schema.org/identifier" title="identifier"/>
         <descriptor id="name" def="https://schema.org/name" title="name"/>
         <descriptor id="description" def="https://schema.org/description" title="description"/>
         <descriptor id="price" def="https://schema.org/price" title="price"/>
         <descriptor id="quantity" def="https://schema.org/Quantity" title="quantity"/>
         <descriptor id="email" def="https://schema.org/email" title="email"/>
         <descriptor id="address" def="https://schema.org/address" title="address"/>
38
         <!-- Taxonomy -->
39 +
         <descriptor id="ProductList" def="https://schema.org/ItemList" title="Product List" tag="collecti"</pre>
             <descriptor href="#id"/>
             <descriptor href="#name"/>
             <descriptor href="#description"/>
             <descriptor href="#goProductDetail"/>
             <descriptor href="#goCart"/>
             <descriptor href="#goProductList"/>
46
         </descriptor>
47
48 -
         <descriptor id="ProductDetail" def="https://schema.org/Product" title="Product Detail" tag="item"</pre>
             <descriptor href="#id"/>
             <descriptor href="#name"/>
             <descriptor href="#description"/>
             <descriptor href="#price"/>
             <descriptor href="#goProductList"/>
             <descriptor href="#doAddToCart"/>
         </descriptor>
56
57 •
         <descriptor id="Cart" def="https://schema.org/Cart" title="Shopping Cart" tag="collection">
             <descriptor href="#id"/>
             <descriptor href="#goProductList"/>
             <descriptor href="#goCheckout"/>
             <descriptor href="#doUpdateOuantity"/>
             <descriptor href="#doRemoveItem"/>
```

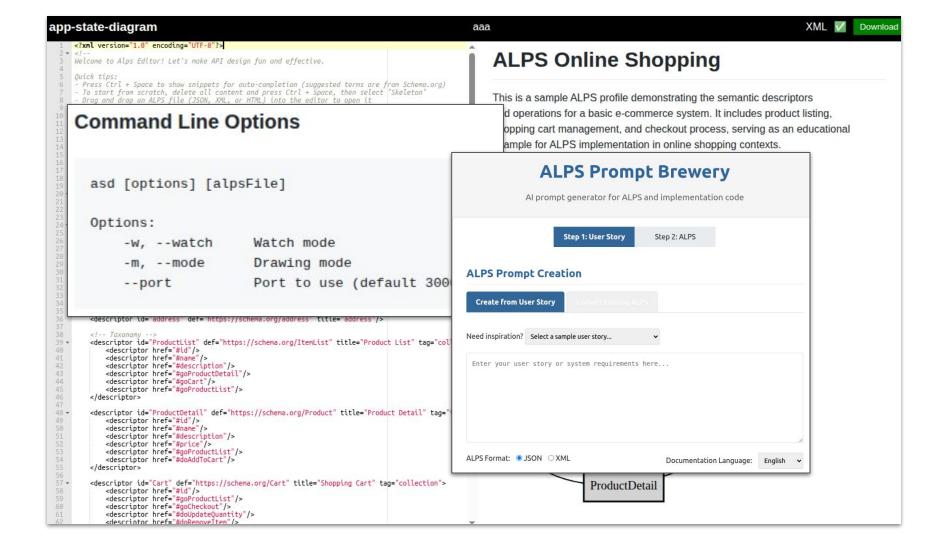
app-state-diagram

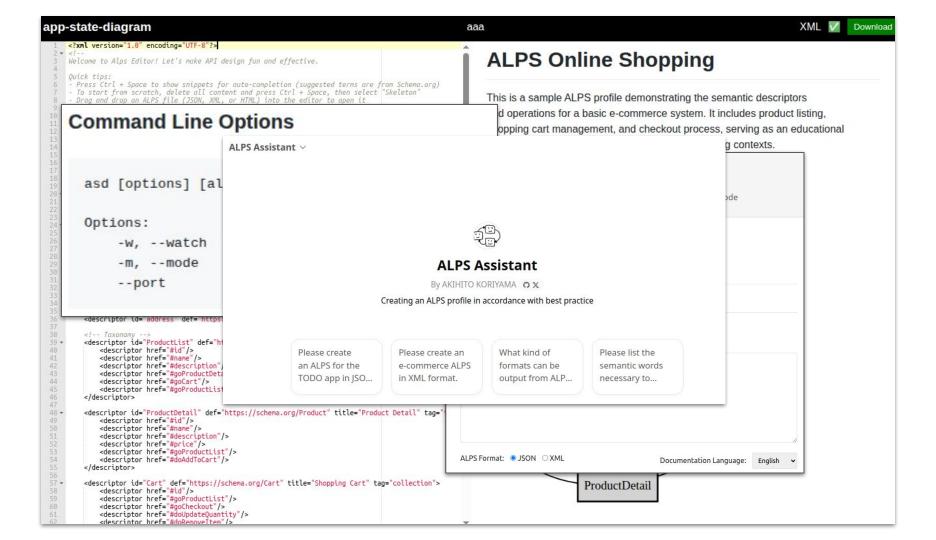
## **ALPS Online Shopping**

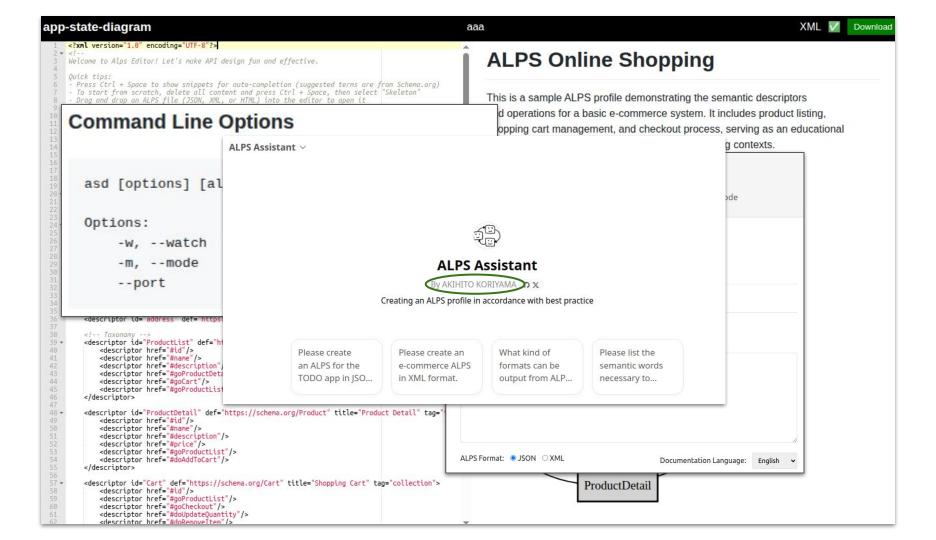
This is a sample ALPS profile demonstrating the semantic descriptors and operations for a basic e-commerce system. It includes product listing, shopping cart management, and checkout process, serving as an educational example for ALPS implementation in online shopping contexts.











## Akihito Koriyama

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"Traditionally, business-side requirements have been interpreted and formalized by API engineers. I'd be happy if this tool could help bridge that gap."