

Registration and Simulation the Science application that solve Computational Science and Engineering problem application on EDISON Platform



Contents

EDISON Platform

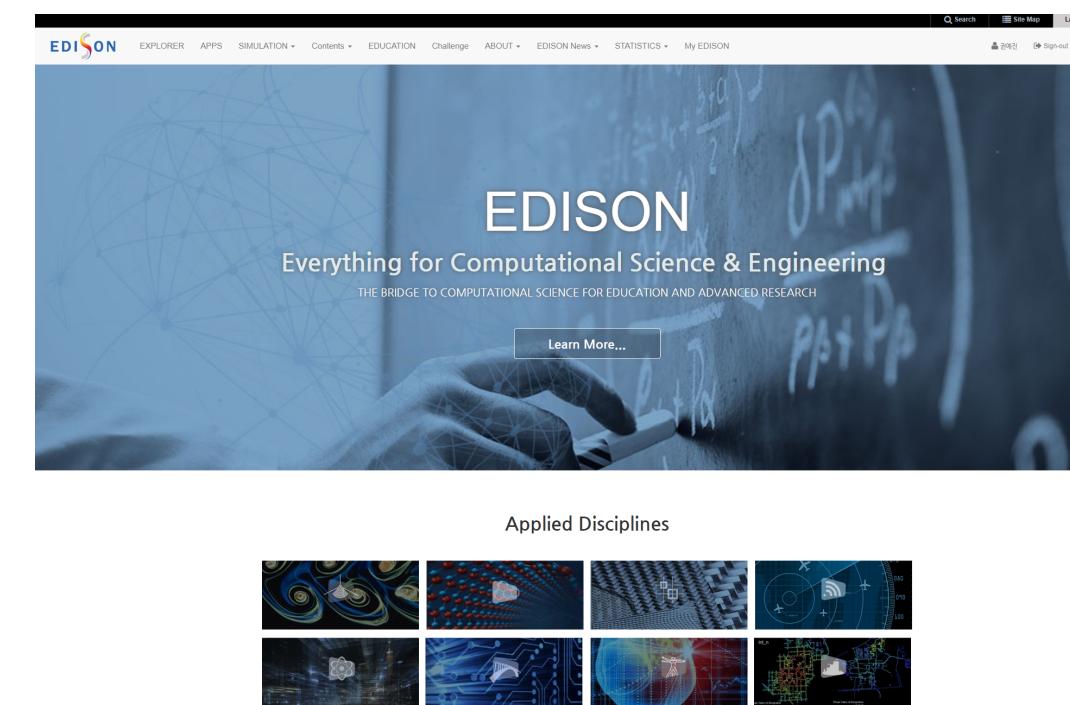
Workbench based CSE Simulation

EDISON : Workflow Simulation Service

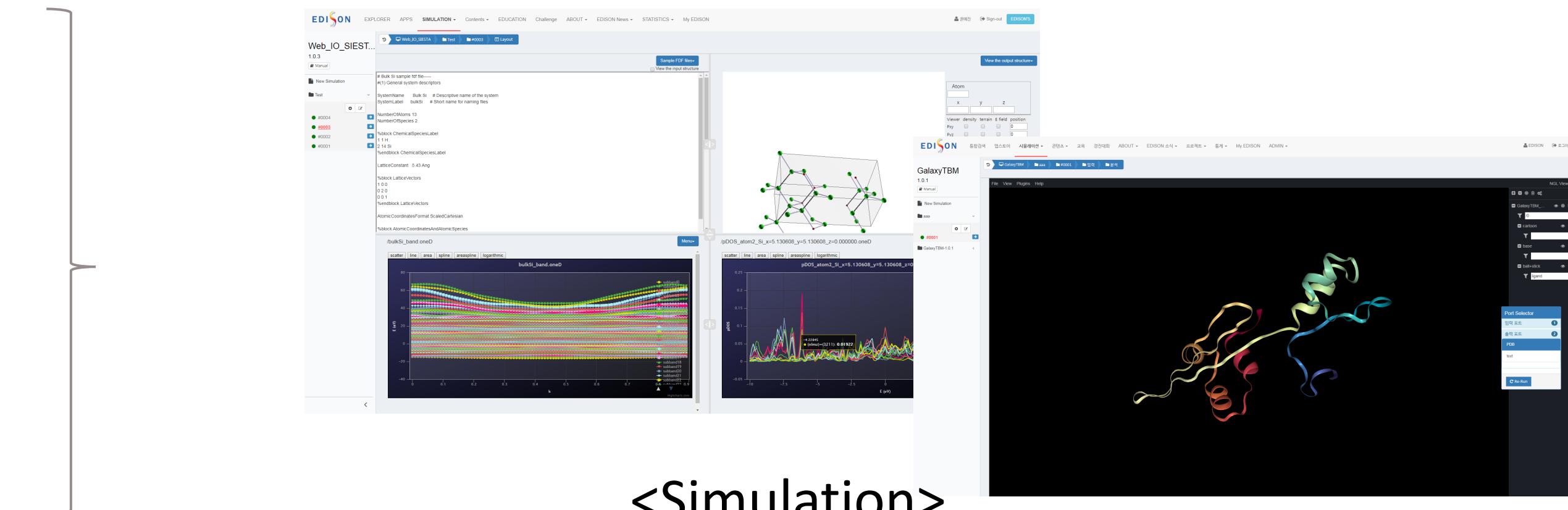
Workflow Simulation Service

EDISON Platform

- EDISON Platform
 - EDISON (EDUCATION-RESEARCH Integration through Simulation On the Net) is a web portal system that provides computational science engineering software as a web service using cloud computing
 - Providing services for eight applied disciplines
 - Computational Fluid Dynamics (CFD), Computational Nanophysics (NANO), Computational Chemistry (CHEM), Computational Structural Dynamics (CSD), Computer Aided Optimal Design(DESIGN), Computational Medicine(CMED), Computational Electromagnetics(WAVE), and Urban Environment (UE)

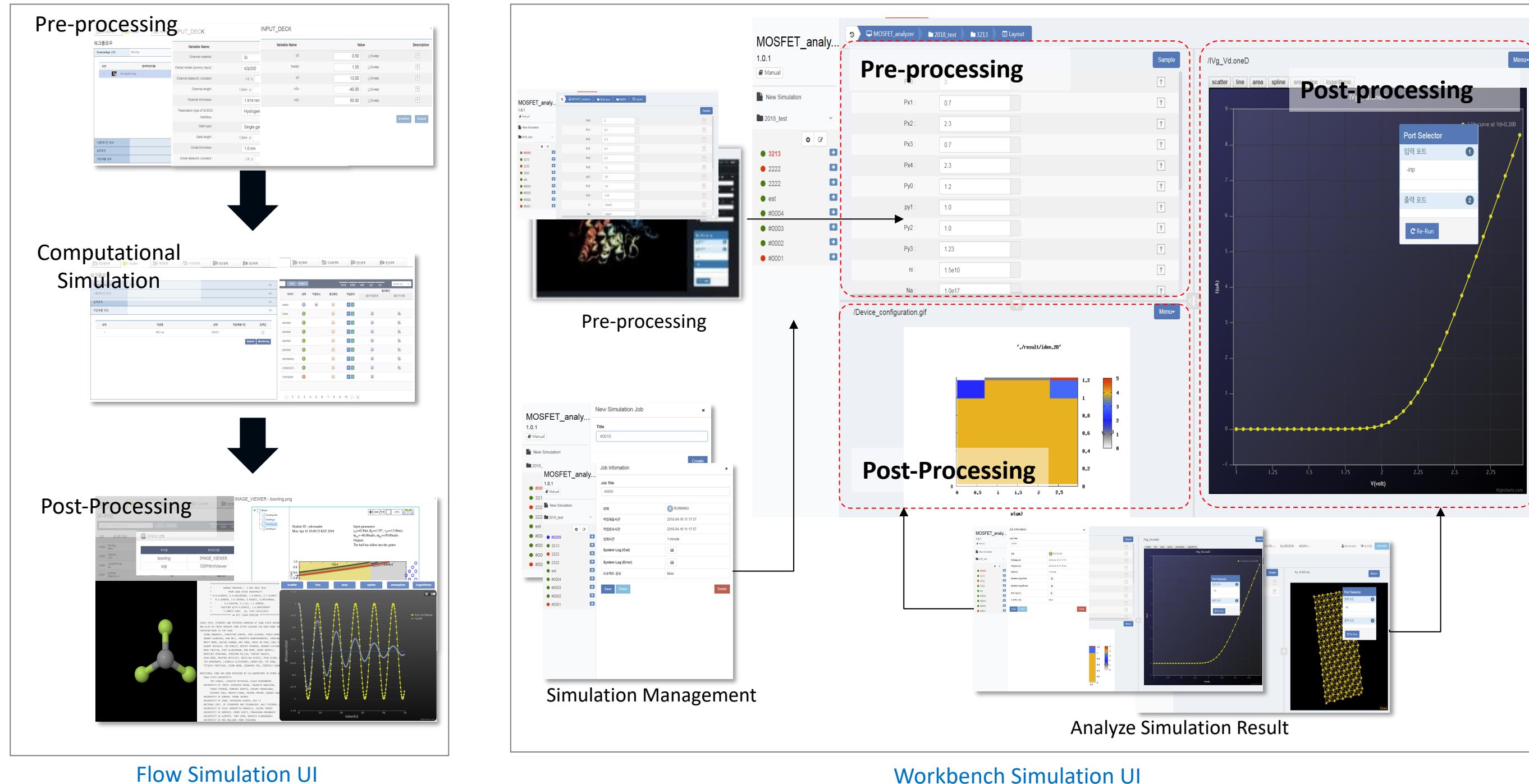


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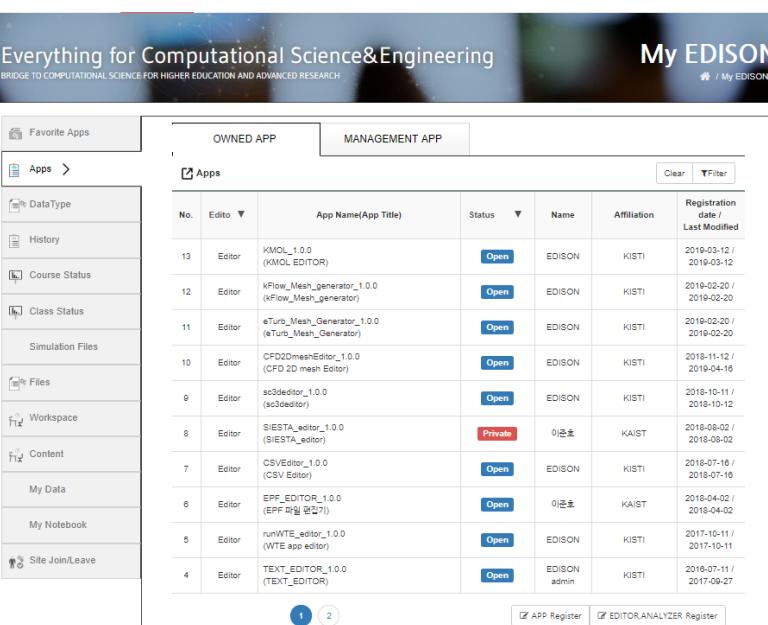


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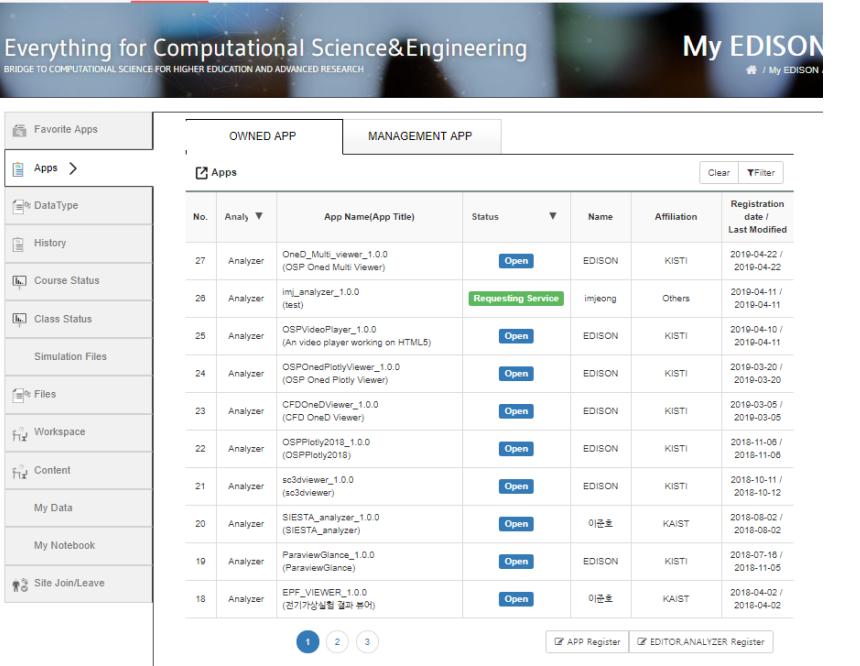
Workbench based CSE Simulation



Type	Solver	Editor	Analyzer
No	607	13	27



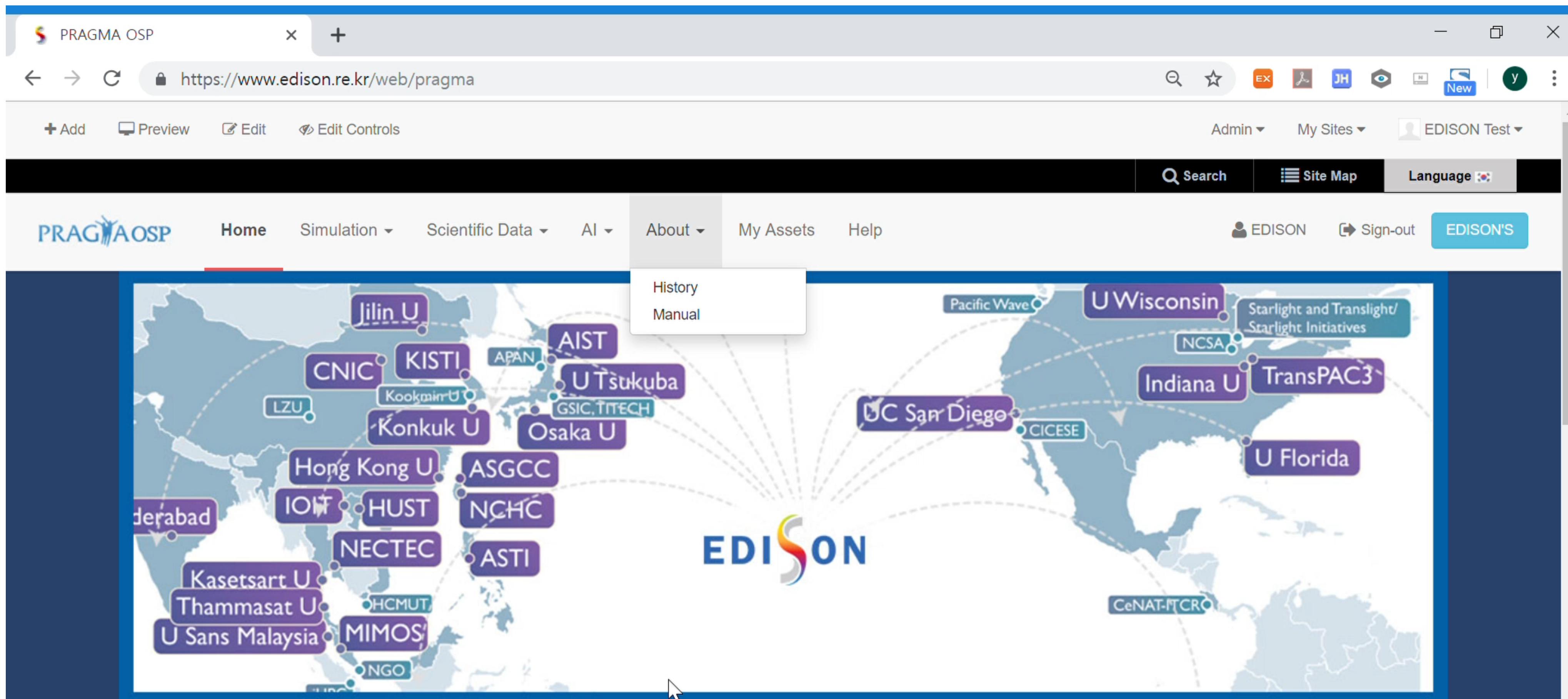
<EDISON Editor>



<EDISON Analyzer>

- **Flow Simulation System**
 - Providing a simulation environment to the user according to the execution flow when executing simulation in each science analysis solver
- **Workbench Simulation System**
 - Configures the user environment for performing the simulation in real time, pre-processing, running simulation, and post-processing can be consists of a single simulation environment without screen movement and service movement

Workbench based CSE Simulation



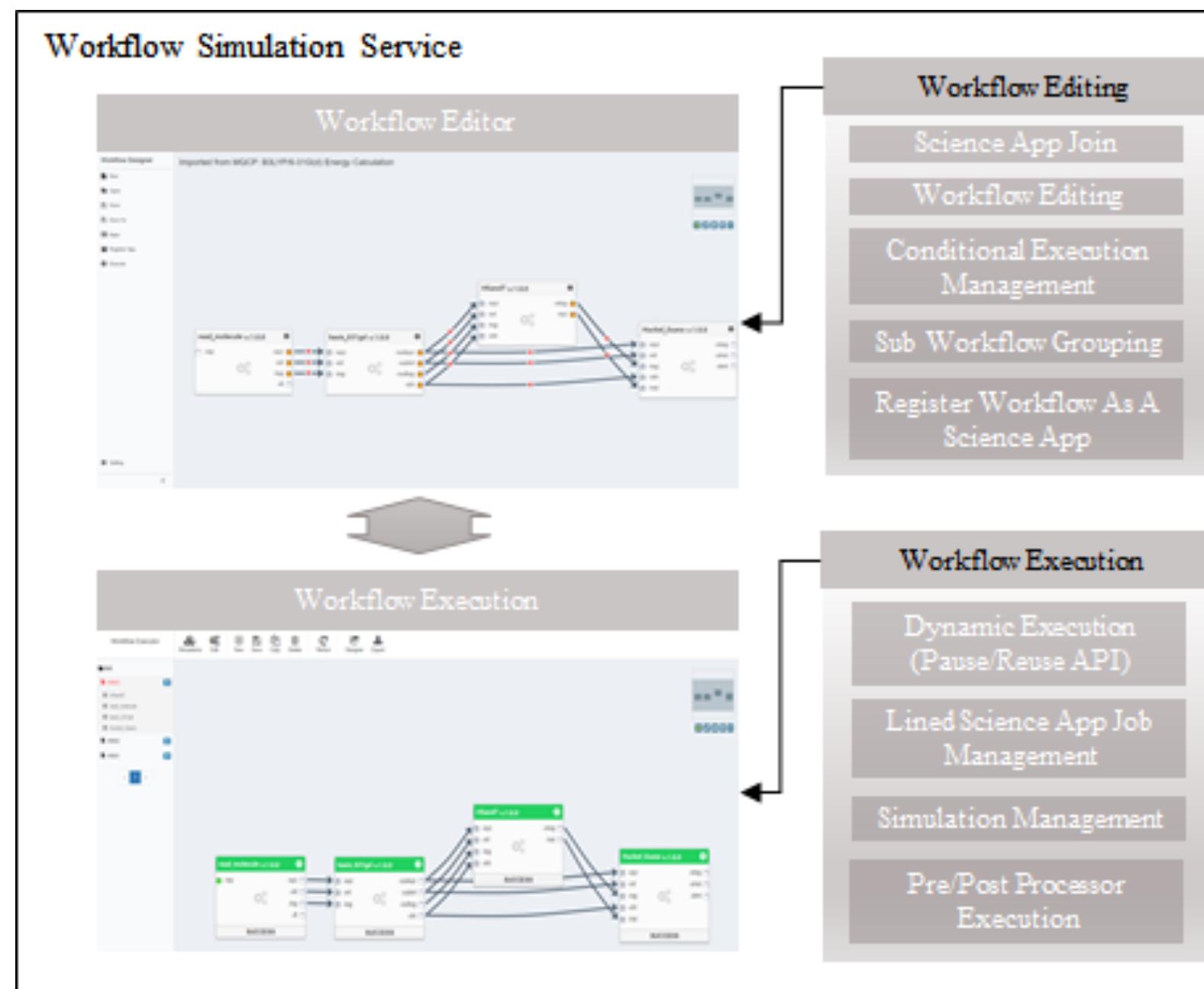
Science Apps

Workbench based CSE Simulation

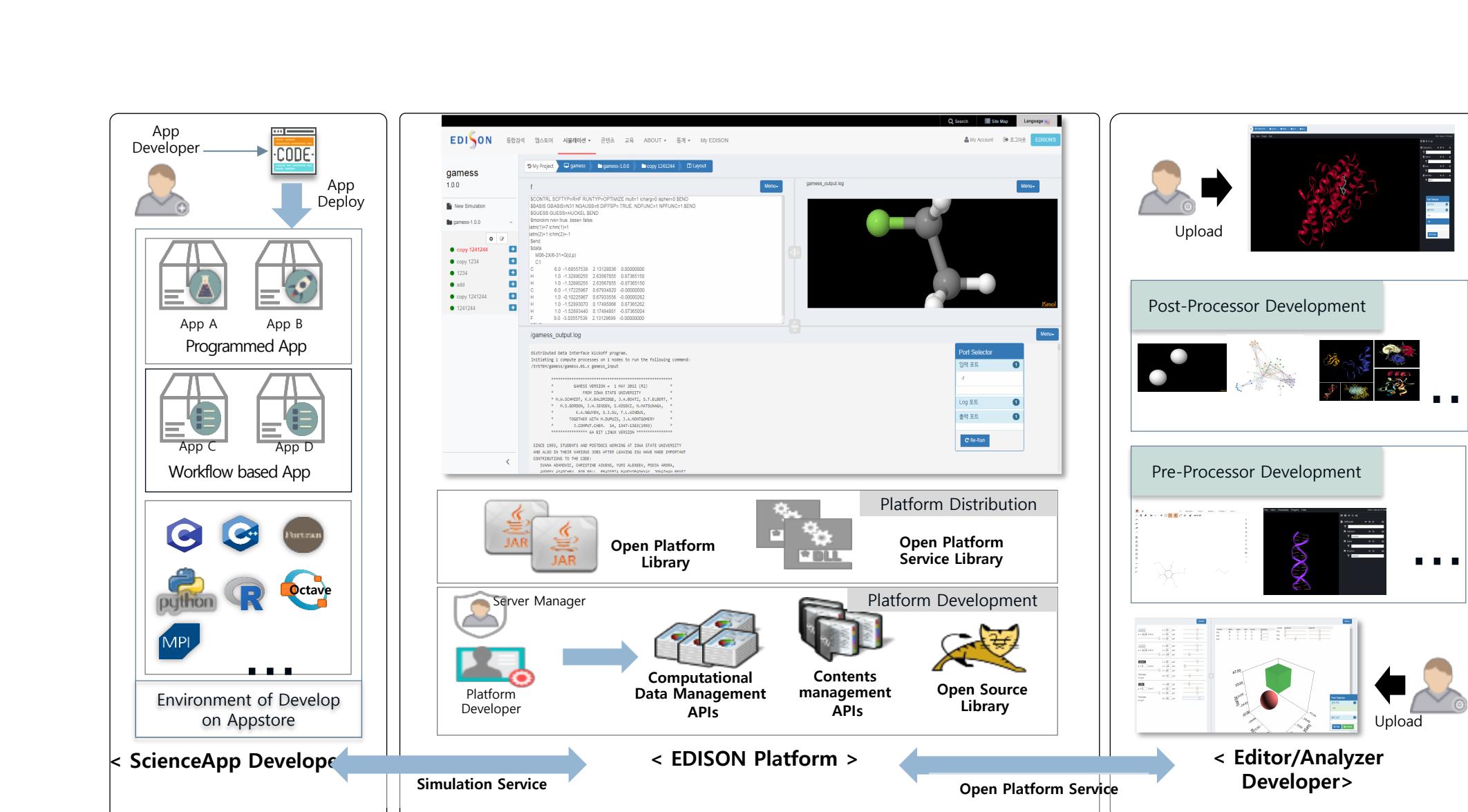
The screenshot shows the PRAGMA OSP Workbench interface. At the top, there is a navigation bar with links for Admin, My Sites, and EDISON Test. Below the navigation bar is a search bar, Site Map, and Language selection. The main content area has a header with "PRAGMA OSP" and links for Home, Simulation, Scientific Data, AI, About, and My Assets. The "My Assets" tab is currently selected. A sidebar on the left contains links for App Info, Execute Info, Port Info, Layout, and Public Data. The main workspace displays a "Data Insert Success" message. Below this, there is a section for "Flow WorkBench" with an "Enabled" button, a status indicator, and buttons for List, Upgrade, Private, Delete, and Run. There are tabs for INPUT and OUTPUT, each showing a grid of icons representing different port configurations. On the right side of the workspace, there are sections for "-pdb Input Port", "-gro Input Port", "-itp Input Port", and "-txt Input Port", each with a corresponding input port configuration. A "Save" button is located at the bottom right of the workspace.

EDISON : Workflow Simulation Service

- Workflow Simulation Service
 - Workflow Designer and workflow Execution
 - Workflow simulation is connected several Science application, and provides web based scientific workflow service

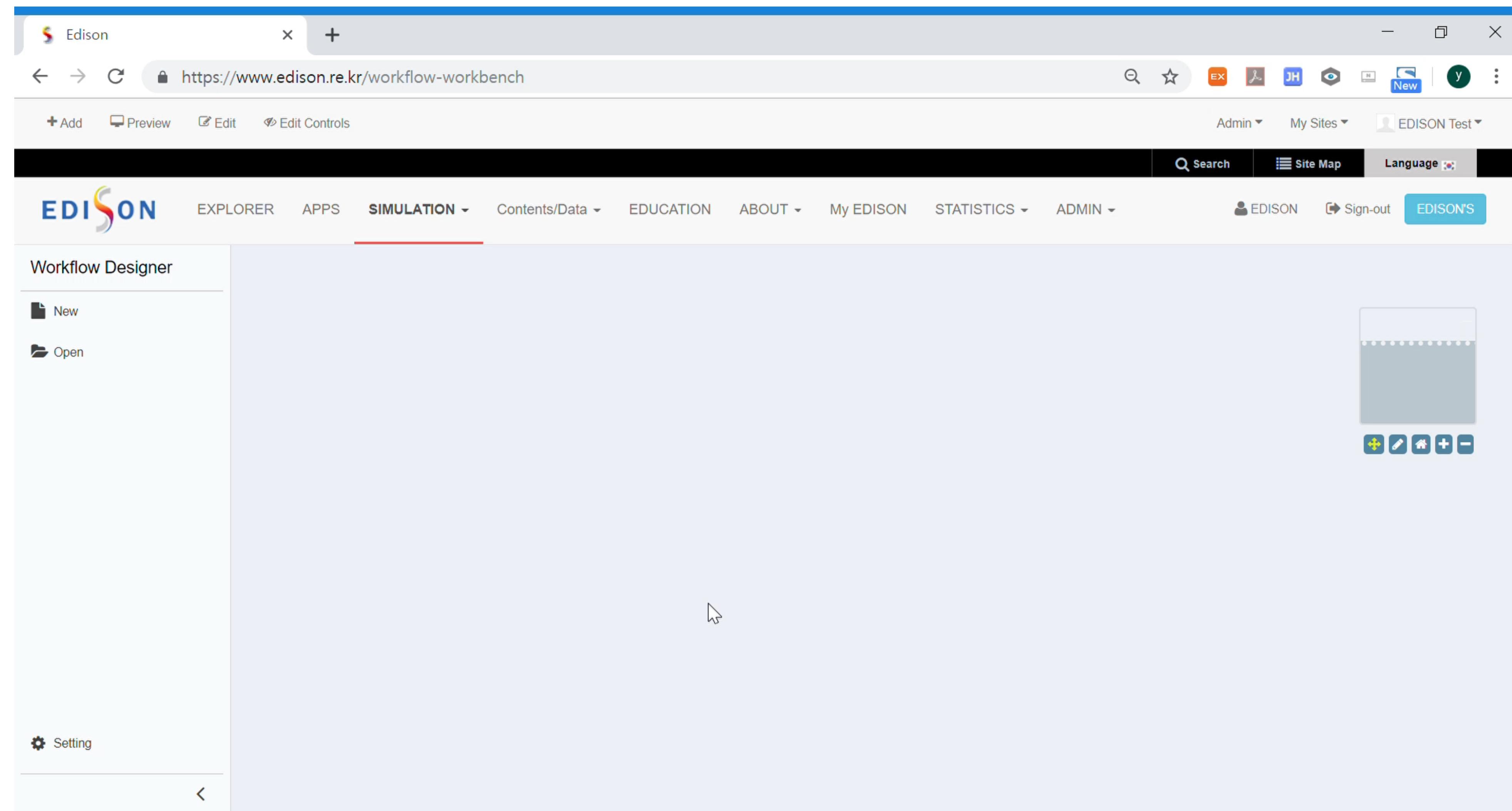


<Workbench Configuration Process>



<EDISON Platform Collaboration System>

Workflow Simulation Service



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