Strategy for Sharing and Utilization of EDISON Simulation Results

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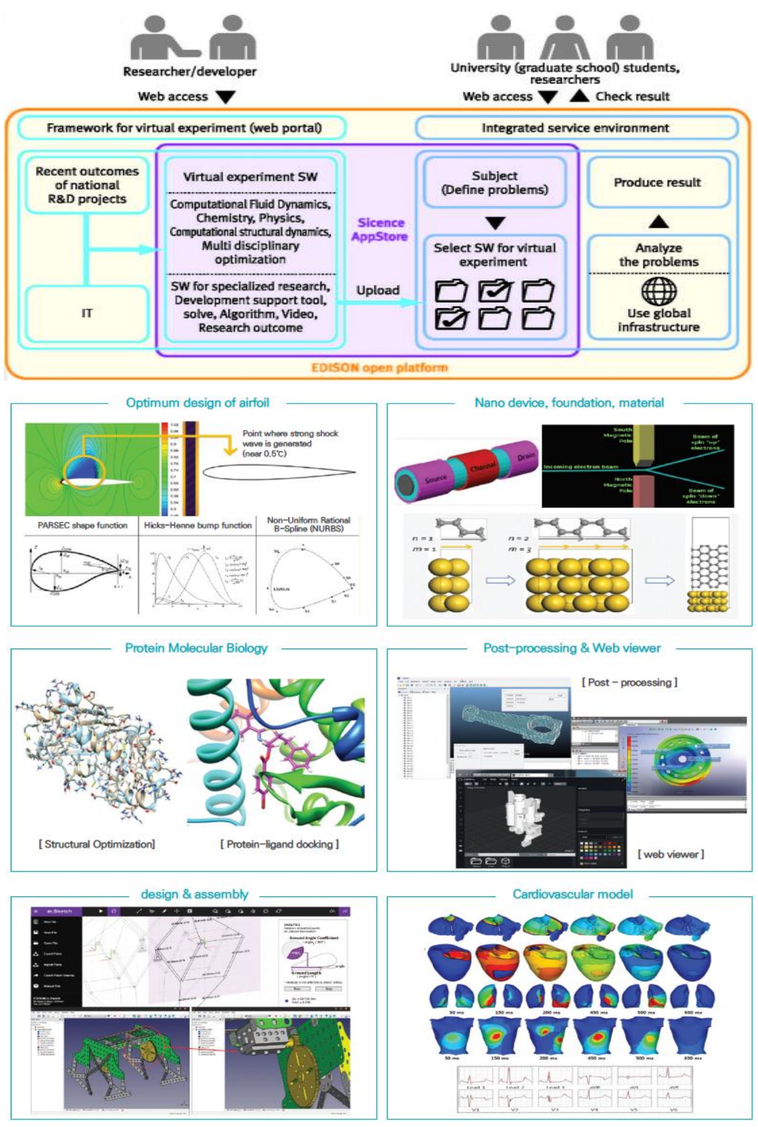
Abstract

➲ Sharing and utilization of research data

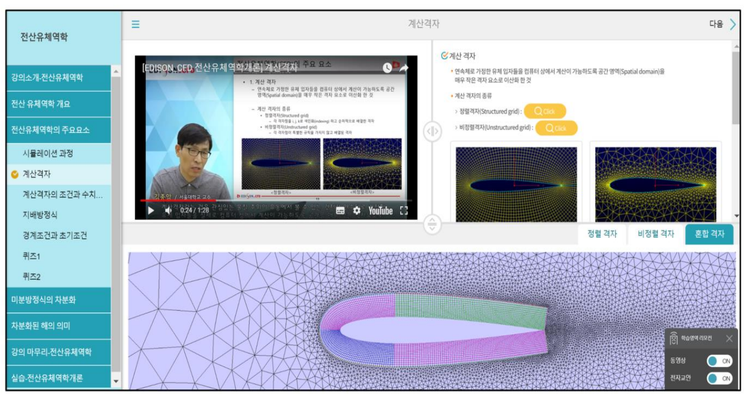
- ➢ EDISON Competition creates huge research data, and These research data must be actively open to **share** and **utilize** with other researchers.
- ➢ EDISON will provide a positive perception that various problems can be solved, and it will act as an idea bank to discover new research topics while referring to similar problems.
- ➢ Communities sharing know-how of each other are activated, and problems that are difficult to solve by themselves can be solved by collective intelligence.
- ➢ This will be a big advantage of EDISON in the form of an open market as opposed to an isolated commercial SW company for preventing technology leakage.

Introduction

- ➢ What is EDISON?
  - **ED**ucation-research-industry **I**ntegration through **S**imulation **O**n the **N**et
  - Numerous computational science simulation analysis tools and pre-post processor support
  - Support for university lectures through e-learning



< Fig. 1 EDISON educational simulation services >

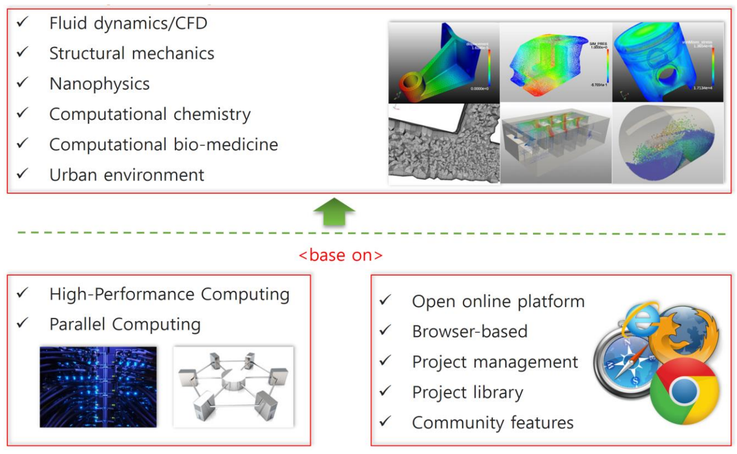


< Fig. 2 Learning object and learning tool interface >

EDISON's strengths and future strategies

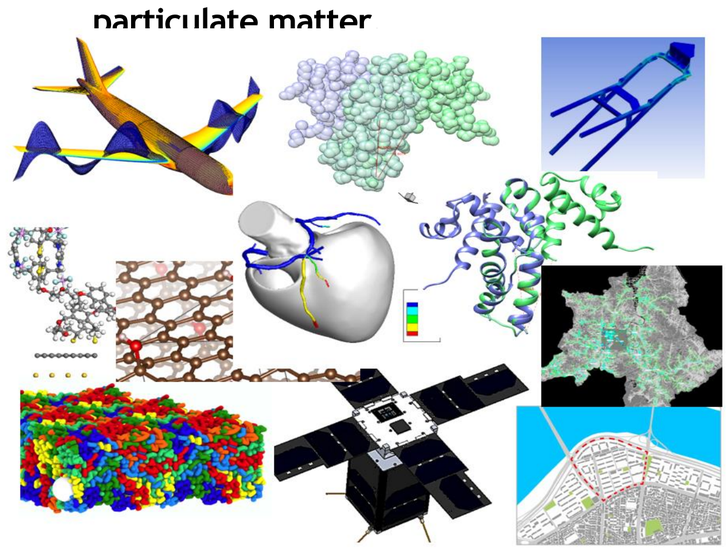
➲ EDISON's strengths

- ➢ Accumulation of simulation research data
  - The number of computer science platforms including EDISON is breaking the previous training focused on the practical and theoretical experience in providing training services to various simulation tools, and educational content.



< Fig. 3 EDISON service(in detail)>

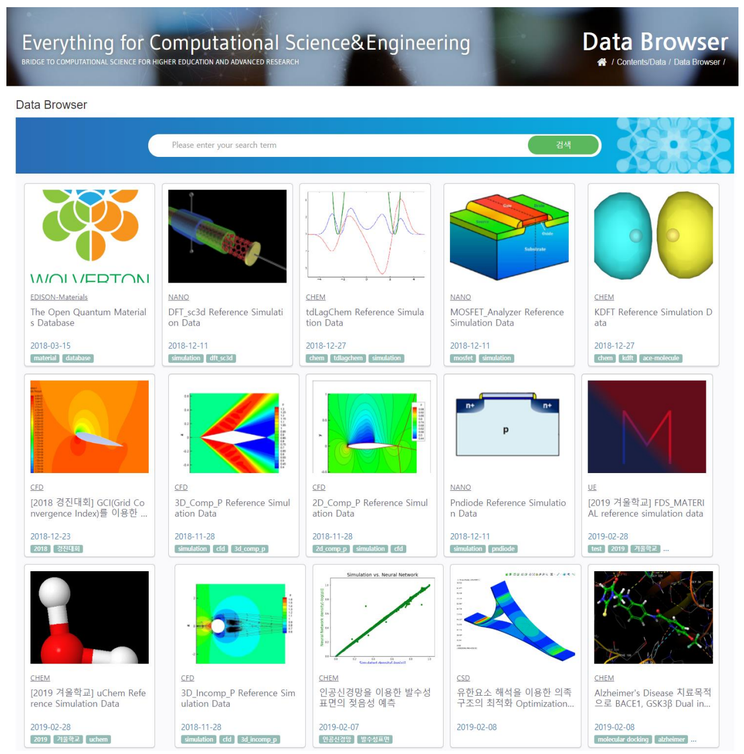
  - One of EDISON's greatest strengths is that students and researchers from seven specialization fields compete in various research themes through annual competitions.
  - EDISON Competition creates huge research data in various fields such as **aerospace**, **automotive, buildings/construction, material & chemical, healthcare and particulate matter**.



< Fig. 4 Examples of various simulation analyzes in EDISON competition >

➲ Future strategies

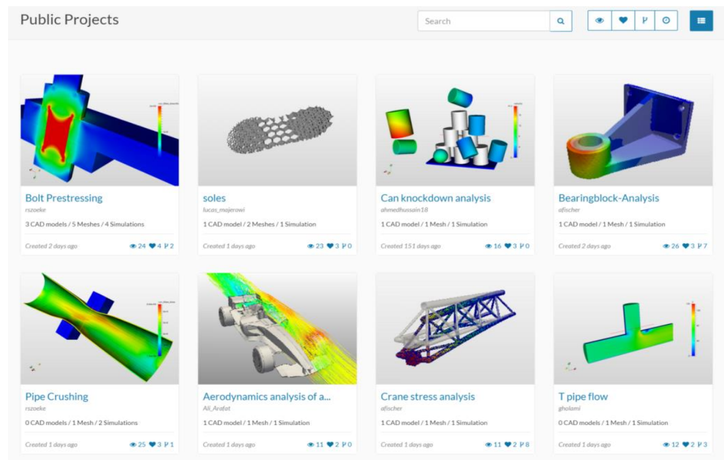
- ➢ Presentation of many analysis cases solved by EDISON SW



< Fig. 5 Competition simulation data disclosure through EDISON DATA platform(pre-release screen)>

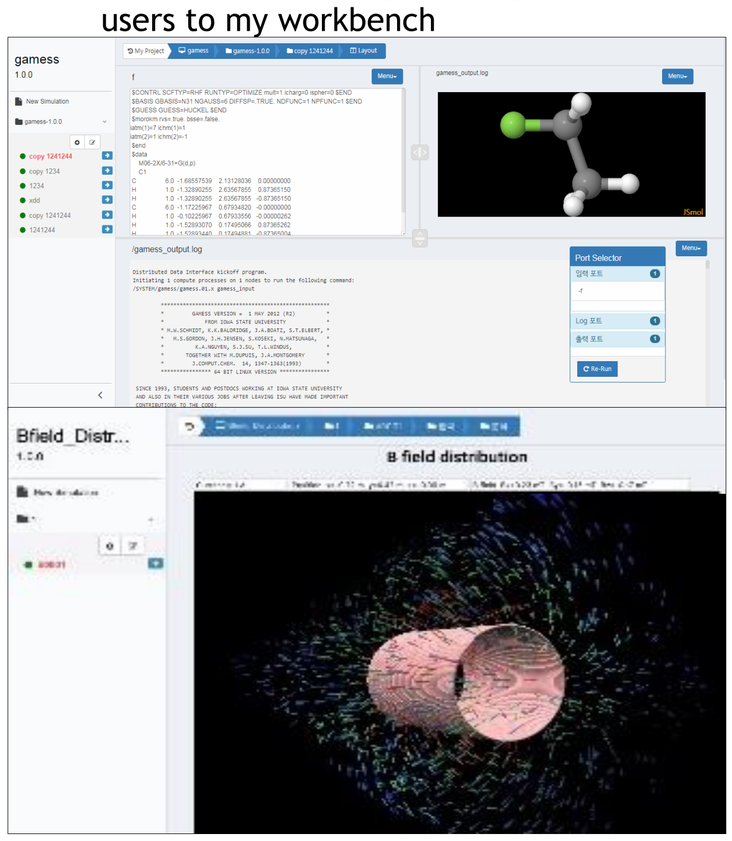
➢ Providing the public project environment

- The public project can collaborate with other users on the web and share configuration information or simulation information.



< Fig. 6 Providing open simulation files through open market (Other site references - www.simscale.com) >

- This can speed up the workflow through collaborations and prevent unnecessary work by reusing existing data.
- In addition, beginners who are unfamiliar with the simulation process can easily do the work by copying the progress of other users to my workbench



< Fig. 7 The workbench provided by EDISON can copy the published project(pre-release screen) >

Conclusions

➲ Benefits of sharing and utilization strategies

- ➢ Users can receive a positive perception that EDISON can solve a variety of problems.
- ➢ It will be an important starting point to know how others have solved similar problems that I need.
- ➢ Naturally, communities that share know-how with each other in a specific problem unit will be activated.
- ➢ Finally, Attempts to solve problems that are difficult to solve by themselves will also increase.

Acknowledgement

This research was supported by the KISTI program (No. K-19-L02-C05-S01). This research was supported by the EDISON Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Science & ICT (No. NRF-2011-0020576).