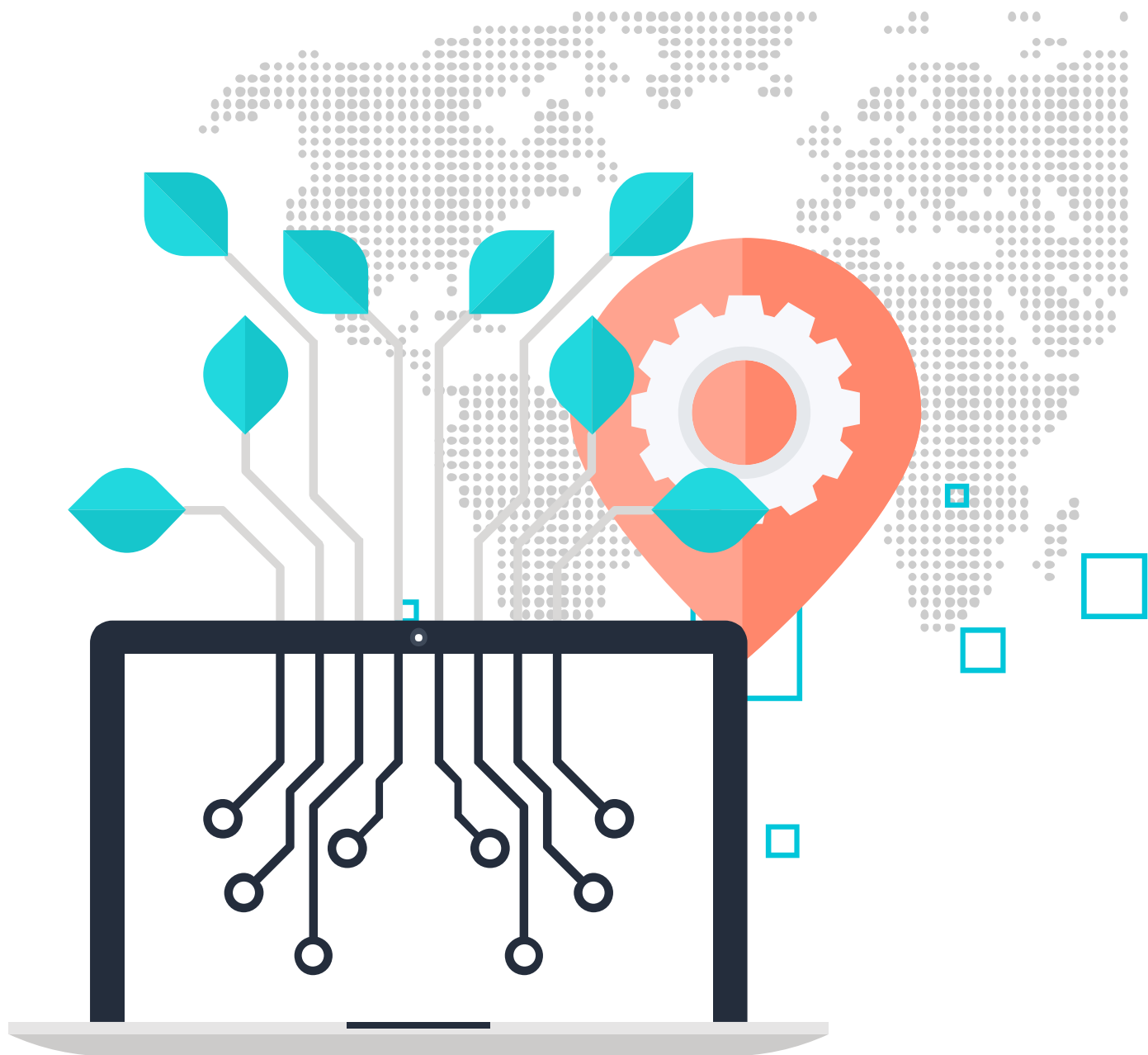


EDISON

User Guide

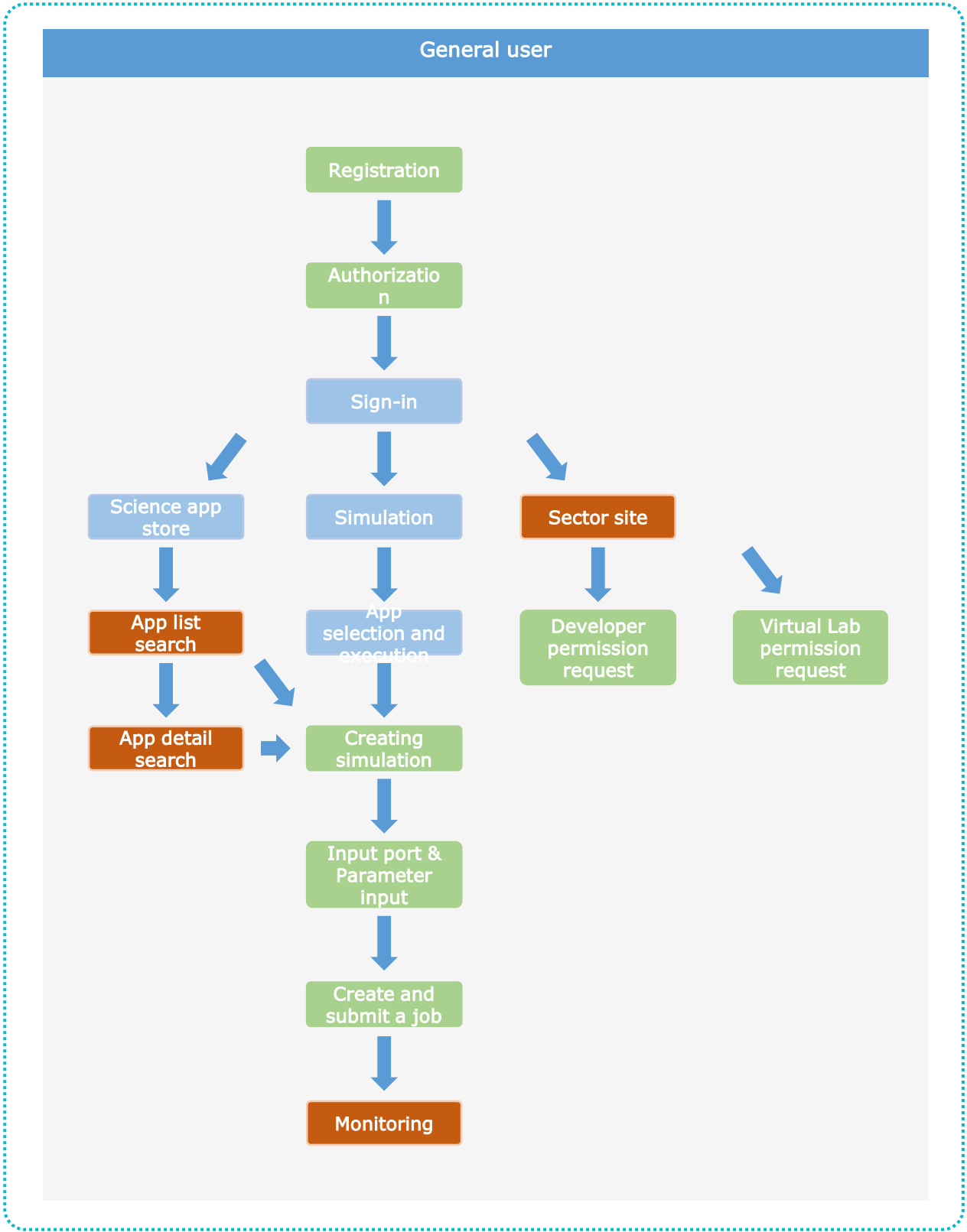


Contents

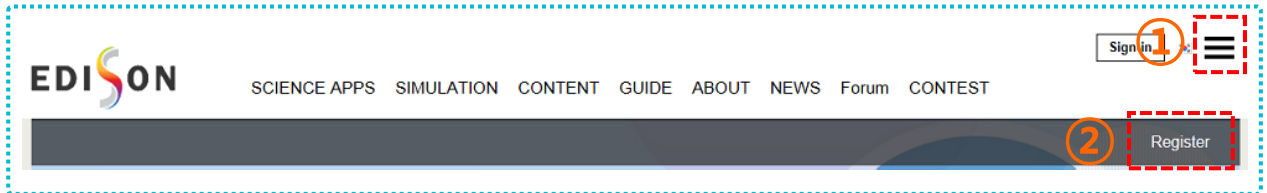
*. Job Flow	2
1. Job Flow	2
I. Sign-in	3
1. Registration	3
2. Authorization	5
3. Sign-in	6
II. Science App Store	7
1. App List Search	7
2. App Detail Search	8
III. Simulation Execution	9
1. App Selection and Execution	9
2. Creating Simulation	11
3. Input Port	12
4. Parameter Input	13
5. Create a Job	14
6. Job Submission Status	15
7. Monitoring	16
IV. Developer Permission Request	17
1. Sector Site Movement	17
2. Developer Permission Request	18
V. Virtual Lab Permission Request	20
1. Sector Site Movement	20
2. Virtual Lab Permission Request	21
VI. My EDISON	23
1. My Page	23

1. Job Flow

> Job Flow



1. Registration



- ① Click the three line-shaped icon in the top right corner of the main screen.
- ② Click the 'Register' menu in the submenu.

Sign Up Welcome to EDISON homepage. Sign-up can be processed by 'Term agreement > Information input'

Agreement of homepage utilization

EDISON website is following information network law's personal information policy
Check on agree after you read all of the agreements of utilization and personal information protection policy below

The first chapter General Rules
First Amendment (Purpose)
This agreement aims at providing every necessary service(s)(sequentes 'service') condition of utilization, procedure, EDISON and user's right, duty, responsible contents etc. that EDISON offer.
Second Amendment (Effect and alteration of terms)
① This agreement is effective only if it is announced through EDISON online service or other proper ways.
② EDISON can change this agreement's content without announcement if there are inevitable situations and the changed content will only be effective if it is announced

>Do you agree with the homepage agreement of utilization? ☐ Agree ☐ Disagree ③

Collecting and using personal information

[Content on personal information that is collected]
a). The company is collecting personal information indicated below for sign-up, smooth customer service, and various service provision.
<General sign-up>
- Prerequisite columns : Name, birthday, sex, ID, pin, contact(choose between mail address and phone number)
<Real name confirmation sign-up: Resident registration number sign-up>
- Prerequisite columns : Name, resident registration number, ID, pin
~~Alternative columns : E-mail address, phone number~~

Do you agree with the use and save of personal information? ☐ Agree ☐ Disagree ③

SignUp Cancel ④

>Do you agree with the homepage agreement of utilization? ☒ Agree ☐ Disagree

Do you agree with the use and save of personal information? ☒ Agree ☐ Disagree

SignUp Cancel

- ③ Check the contents of 'Agreement of homepage utilization' and 'Collection and using personal information' then checked as agreed.
- ④ Click the 'Sign-up' button to complete the user agreement.

1. Registration

Sign Up

Welcome to EDISON homepage. Sign-up can be processed by 'Term agreement > Information input'

Member Information Input

* fields are required.

Combination of uppercase/lowercase letters and numbers. (minimum length 3 and maximum length 32) No spaces or punctuation.

Once you create an account, you will be sent an email containing an activation link. You must confirm receipt of confirmation e-mail to run simulation jobs.

Password must be a minimum of 8 characters in length with a combination of lowercase and numbers.

Name(*)

ID(*)

Password(*)

Password confirm(*)

Email(*)

University/Organization (*)

Search

Major/Department

Captcha(*)

Text Verification (Required)

Save

Cancel

Member Information Input

* fields are required.

Combination of uppercase/lowercase letters and numbers. (minimum length 3 and maximum length 32) No spaces or punctuation.

Once you create an account, you will be sent an email containing an activation link. You must confirm receipt of confirmation e-mail to run simulation jobs.

Password must be a minimum of 8 characters in length with a combination of lowercase and numbers.

Save

Cancel

⑤ Check the membership information input form.

⑥ Enter your member information in the appropriate fields.

⑦ Click the 'Save' button to complete the registration.

ⓧ Registration is complete, verification code will be sent by e-mail that you enter during registration. After completion of e-mail verification you are available EDISON portal.

EDISON - User
Guide

4

KISTI

www.kisti.re.kr

Korea Institute of
Science and Technology Information

2. Authorization

Sign-in

The login is needed services. Please enter your ID and Password.

ID

Password

Sign-in

Forgot IDForgot PasswordRegister

ID

Password

Sign-in

① Entered a user ID and password and click the 'Sign-in' button.

Verify e-mail address

Please enter your activation key.

Email Verification Code

Verify

Send New Verification Code

Email Verification Code

Verify

Send New Verification Code

- ② Enter in the text box after you check the e-mail verification code will be sent by e-mail that you enter during registration
- ③ Click the 'Verify' button to complete the membership authorization.
- ④ If you don't get the Verification mail or deleted by mistake, click the 'Send New Verification Code' and you can request a new verification code.

3. Sign-in

Sign-in

The login is needed services. Please enter your ID and Password.

ID

Password

Sign-in

①

Forgot ID

Forgot Password

Register

ID

Password

Sign-in

- ① Enter your user ID and password after completing the member authorization and click the 'Sign-in' button.

EDISON

SCIENCE APPS SIMULATION CONTENT GUIDE ABOUT NEWS My EDISON Forum STATISTICS CONTEST

Sign-out

③

②

Sign-out

④

EDISON

EDISON_CFD

EDISON_NANO

EDISON_CHEM

EDISON_CSD

EDISON_DESIGN

My Account

- ② You can Sign-out of the current state.
- ③ Click the Flag button, you can convert the corresponding national language.
(Currently available in English, Korean Convertible)
- ④ The sub-menu in the site to move each field appears.
You can click to modify on the 'My Account' menu the image and membership information.

1. App List Search

EDISON_CFD

EDISON_NANO

EDISON_CHEM

EDISON_CSD

EDISON_DESIGN

ScienceApp

General Flow Analysis

Optimal Design and Design Framework

Stokes Flow Simulation

Thermal Analysis

Turbulent Flow Simulation

Aerodynamic Database

Pre-processor

Case Study

Multiphase Flow Analysis

Propeller Performance Simulation Package

Ship Resistance Simulation Package

All

10 Items

No.	App Title	Version	Affiliation	Name	Date	Manual	Run
81	Software for simulation of flow around a 3-D falling object of arbitrary shape (3D_SEDIMENTATION)(3D_SEDIMENTATION)	1.0	Yonsei University	Park Hyun-wook	2015-12-28	No Manual	Run
80	Two-dimensional Incompressible Flow Solver (2D_Incomp_P)(2D_Incomp_P)	3.0	Seoul National University	윤결	2015-09-08	Manual	Run
79	Unsteady Compressible Euler/Navier-Stokes Flow Solver for a Unstructured Grid(2D_uComp_P)	1.0	Seoul National University	윤결	2015-09-08	Manual	Run
78	Two-dimensional Compressible Flow Solver (2D_Comp_P)(2D_Comp_P)	3.0	Seoul National University	윤결	2015-09-03	Manual	Run
77	Propeller Open Water Test SW(SNUFOAM_Propeller_Open_Water_for_EDISON)	1.0	Seoul National University	이희범	2015-09-07	No Manual	Run
76	Multi-point Design Framework for 2D Airfoil(Multipoint_design_2D_airfoil)	1.0	KAIST	KAIST	2015-08-11	Manual	Run
75	Multi-point Design Framework for a 3-D wing in consideration of various operating conditions(Multipoint_design_3D_wing)	1.0	KAIST	KAIST	2015-08-11	Manual	Run
74	Indirect / Direct CoKriging surrogate modeling SW(CoKriging)	1.0	KAIST	KAIST	2015-06-30	Manual	Run
73	Gradient-free Optimizer based Design Framework for 2D Airfoil(EDISON_Global_Design)	1.0	KAIST	KAIST	2015-08-11	Manual	Run
72	Gradient-based Design Framework for 2D Airfoil v3.0(EDISON_Airfoil_Design)	3.0	KAIST	KAIST	2015-07-20	Manual	Run

<

1

2

3

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All

☒ (App Title+App Name+Affiliation+Developer)

☐ App Title

☐ App Name

☐ Affiliation

☐ Developer

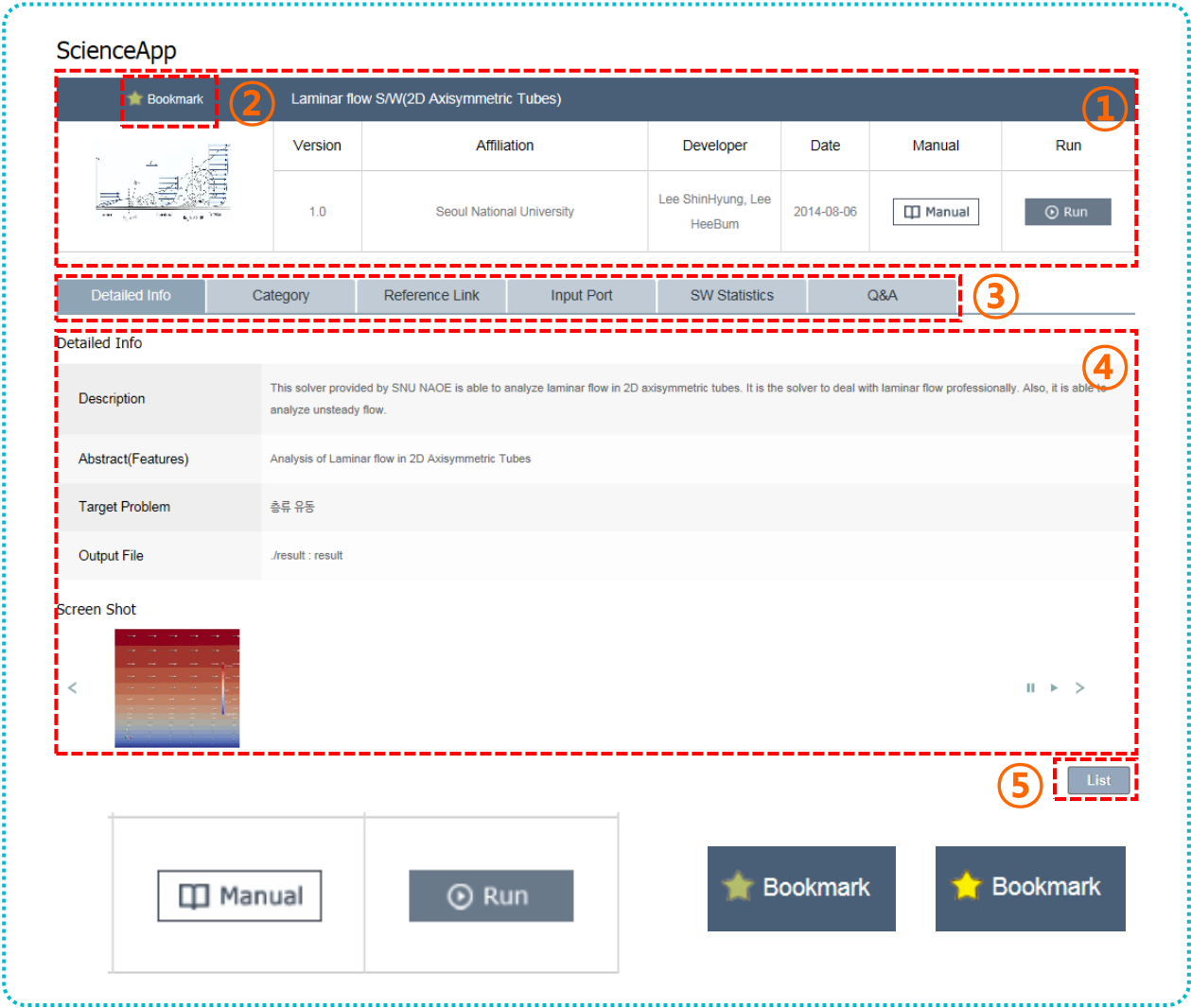
- ① If you selected the 'Science app' in EDISON site, you can check the tabs to select each field. You can select a fields of tab and search the corresponding of science apps list.

② You can search by selecting the type of software you want from the software categorized tab the list of corresponding types Science app.

③ When searching, you can search for search word from the list by applying various filters.

④ You can check the details by selecting the respective science App.
Click the 'Manual', 'Run' button, you can execute the simulation and download the manual of Science apps.

2. App Detail Search



- ① You can view basic information on the Science app.
You can download the manual of Science apps through to select the 'Manual' button.
You can run the corresponding Science apps simulation through to select the 'Run' button.
- ② You can set your bookmark apps.
If set to bookmark apps, the left star mark will change to brighter color.
If you click once again, you can turn your bookmark settings.
(The app is set to bookmark are displayed at the top of the list of Science apps and you can be viewed the apps added in My Page's bookmark app list.)
- ③ Select the tab of the Science app, you can determine the appropriate information.
- ④ You can check the detailed information and screenshots of the Science app.
- ⑤ You can go back to the Science app list screen to click the 'List' button.

1. App Selection and Execution

Workflow

Select ScienceApp

















SW or Organization or Name

Q

All

Select your own SW

1

No.	App Title	Affiliation	Name	Manual	Detailed Info
81	 Software for simulation of flow around a 3-D falling object of arbitrary s...	Yonsei University	Park Hyun-wook	No Manual	 Detail
80	 Two-dimensional Incompressible Flow Solver (2D_Incomp_P)(2D_Inco...	Seoul National University	윤결	 Manual	 Detail
79	 Unsteady Compressible Euler/Navier-Stokes Flow Solver for a Unstruc...	Seoul National University	윤결	 Manual	 Detail
78	 Two-dimensional Compressible Flow Solver (2D_Comp_P)(2D_Comp_P)	Seoul National University	윤결	 Manual	 Detail
77	 Propeller Open Water Test SW(SNUFOAM_Propeller_Open_Water_f...	Seoul National University	이희범	No Manual	 Detail
76	 Multi-point Design Framework for 2D Airfoil(Multipoint_design_2D_airfoil)	KAIST	KAIST	 Manual	 Detail

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Creating simulation


Input Port


Parameter Input

Create a job

Job submission status

3

 Manual

 Detail

4

- ① Entering the Science app name and Organization name in the search, you can search the run si
- ② Select the Science app that have search in the list.
- ③ You can download the corresponding manual for the Science app.
- ④ You can check detailed information of the corresponding Science app as the dialog.

1. App Selection and Execution

Detailed Info

Description

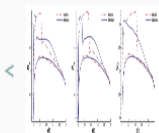
Airfoil design framework to optimize airfoil satisfying various design conditions (e.g. multi-point)

Abstract (Features)

Hick-Henne bump function is used for airfoil shape definition
Design framework is coupled with CFD solver

Target Problem

Screenshot



Workflow

Select ScienceApp

SW or Organization or Name

All

Multi-point Design Framework for a 3-D wing in consi...

No.	App Title	Affiliation	Name	Manual	Detailed Info
75	Multi-point Design Framework for a 3-D wing in consideration of variou...	KAIST	KAIST	Manual	Detail
74	Indirect / Direct CoKriging surrogate modeling SW(CoKriging)	KAIST	KAIST	Manual	Detail
73	Gradient-free Optimizer based Design Framework for 2D Airfoil(EDISO...	KAIST	KAIST	Manual	Detail
72	Gradient-based Design Framework for 2D Airfoil v3.0(EDISON_Airfoil_...	KAIST	KAIST	Manual	Detail
71	Software for simulation of turbulent flows around a 2-D object of compl...	Yonsei University	Park Hyun-wook	Manual	Detail
70	Airfoil 3DOF Motion Flow Analysis SW(KFLOW_EDISON_2D3DOF)(K...	Konkuk University	SajeongHwan	Manual	Detail

<

1

2

3

4

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>>

Creating simulation

Input Port

Parameter Input

Create a job

Job submission status

- ⑤ The dialog screen shown when click the 'Detail' button.
You can check the detailed information and screenshots of Science app.
- ⑥ Select the execution Science app in the list and the 'Creating simulation' button, and then proceed to the next step.

ⓧ You must choose the simulation to go to the next step of the 'Creating simulation' step.

2. Creating Simulation

Workflow

Select ScienceApp

SW or Organization or Name

Q

All

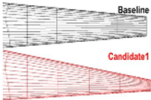
Multi-point Design Framework for a 3-D wing in consi...

^

Creating simulation

v

Multi-point Design Framework for a 3-D wing in consideration of various operating conditions



Version : 1.0

Date : 2015-08-11

Affiliation : KAIST

Developer : Seongim Choi, Hyungil Kwon, Saji Kim, Taehee Kim, Yeongmin Jo, Seulgi Yi

Simulation name

1

Description

2

Input Port

3

Parameter Input

^

Create a job

^

Job submission status

^

- ① Enter a name for the simulation of to be run. (This value is a required value.)
- ② Enter the additional information about the simulation.
- ③ Enter the simulation name and then select 'Input Port' to proceed to the next step.
- ⊗ Must enter the simulation name and you can go to the next step.

3. Input Port

Workflow

Select ScienceApp

SW or Organization or Name

Two-dimensional Incompressible Flow Solver (2D_In...

Creating simulation

Input Port

CPU Number

1

Scope : ~

1

Upload attachments

-mesh

Sample file : NACA0012_1blk.msh

3

My File

2

4

5

Parameter Input

Create a job

Job submission status

My Files View

File Name

Choice Delete

5 Items

No.	Site Group	File Name	File Size	Insert Date	Download	File Choose	Copy PATH
No Data							

Server Upload

찾아보기...

Upload

- 1

 Enter the CPU number to be used for simulation.
- 2

 Select the necessary files to input port.
- 3

 Click the sample file that is included in the Science app and then upload files.
- 4

 Select the file or upload the new file by search at the 'My file' and then to Choose.
- 5

 After entering the input port and selecting the 'Parameter Input' proceed to the next step.

⊗

 Depending on the Science app, you can not set the input port.

⊗

 Must entered into All input ports and you can go to the next step.

4. Parameter Input

Workflow

Select ScienceApp

SW or Organization or Name

Multi-point Design Framework for a 3-D wing in consi...

Creating simulation

Input Port

Parameter Input

1 Objective type

CI 최소화

?

2 Number of populations

100

?

3 Number of generations

10

?

4 Display option

1

?

5 Mach number of first flow condition

0.3

?

6 Mach number of second flow condition

0.5

?

7 Mach number of third flow condition

0.7

?

8 Altitude of first flow condition

23000.0

?

9 Altitude of second flow condition

24000.0

?

Create a job

Job submission status

?

목적함수 설정 1: CI 최소화 2: Cd 최소화 3: L/D 최소화 4: 순
항거리 최소화 (Brequet range eqn 사용)

- ① Check the parameter name.

② Select or enter the appropriate value for the parameter.

③ Placing the mouse cursor over the question mark icon,
you can view the brief information of the corresponding parameters.

④ After input the parameter, proceed to the next 'Create a job' step.
- ⊗ Depending Science app, You can not set this parameter.

⊗ The input parameters are set to default values.

⊗ Must entered into all input ports and you can go to the next step.

5. Create a Job

Workflow

Select ScienceApp

SW or Organization or Name

All

Multi-point Design Framework for a 3-D wing in consi...

Creating simulation

Input Port

Parameter Input

Create a job

No.	Job Name	Status	Queue Time	Input value
1	#001 test1	Create		<div><div></div><div>Delete</div></div>

Job submission status

Detail Job

SID: 3f858b5a-507a-4039-93a0-4fd63c863cf7

JID: 1

Job detail

function_type 1

initial_value_x1 1.0

initial_value_x2 1.0

step_size 0.1

- ⊖ Verify the information and status of the jobs created.
- ② Check the input value of the current operation.
- ③ Delete the selected task.
- ④ Proceed to the next step, 'Job Submission Status' stage.
- ⑤ Check the detail information of the selected input at step②.

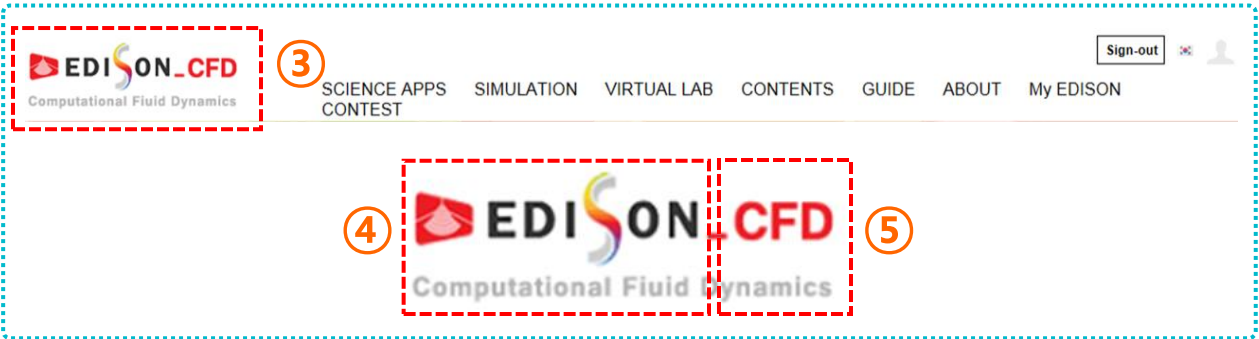
④

- ① Search for information on monitoring.
Search for each state work results.
- ② Check the status and execution result of the job.

1. Sector Site Movement

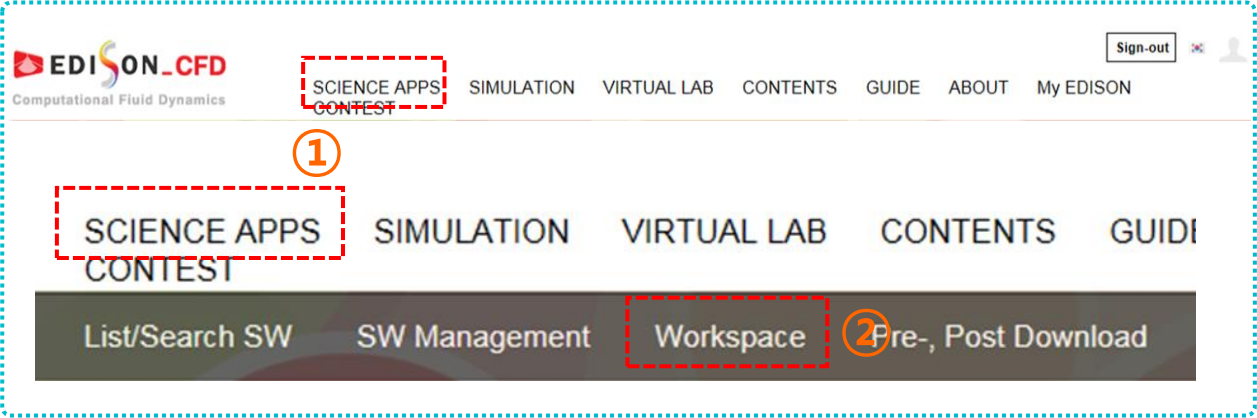


- ① After logging in, click your profile image.
- ② Select the EDISON portal you want to move in the submenu below.



- ③ Check your moved site.
- ④ Go to the EDISON Homepage of representative sites.
- ⑤ Go to the Homepage of the current site.

2. Developer Permission Request



- ① Select the menu in the 'Sciences apps' sector sites.
- ② Select the 'Workspace' menu in the submenu.
Go to the developer permission request screen.

Workspace Request

☒ User Information

UserID	popopipi95	UserNM	강다영
E-mail	popopipi95@naver.com	University/Organization	Others/

☒ Workspace Request Information

Use the request

Solver Development

Preferred date*

Use language

☐fortran ☐c/c++ ☐python ☐java ☐ETC

Access IP*

Add

Remark

- ③ Check the current user's basic information.
- ④ Enter the requested information according to form.

2. Developer Permission Request

Agreement Information

5

보안 서약서

상기 본인은 "첨단 사이언스·교육 허브 개발 사업 플랫폼 연구개발 및 사이버 인프라 기반 사용자 서비스" 연구과제 개발 인원으로 참여하면서 다음사항을 준수할 것을 서약합니다.

1. 본 연구과제를 수행하는 과정에서 알 수 있었던 연구기밀에 대해 연구과제 수행중은 물론 종료후에도 연구원장 허락없이 자신 또는 제3자를 위하여 사용하지 않는다.

agree

deagree

Security Pledge*

찾아보기...

6

7

8

Request

- 5
- After checking the security pledge agreement, check the user agreement.
- 6
- Upload security pledge file about the developer permission.
- 7
- Download the security pledge sign files.
- 8
- Save the contents on the entered information and will ask the developer permission.

워크스페이스 상세정보

사용자 정보

아이디	gplustest	사용자명	지플러스
E-mail	sjk6984@gmail.com	대학교/기관	기타/연구소

워크스페이스 요청정보

요청용도	solver 개발	사용희망일	2015-09-01 ~ 2019-09-01
사용언어	<input type="checkbox"/> fortran <input checked="" type="checkbox"/> c/c++ <input checked="" type="checkbox"/> python <input type="checkbox"/> java <input type="checkbox"/> 기타		
접속 IP	192.168.173.1		
비고	사이언스랩 개발을 위해 개발자 권한을 요청합니다.		

워크스페이스 상세정보

열기

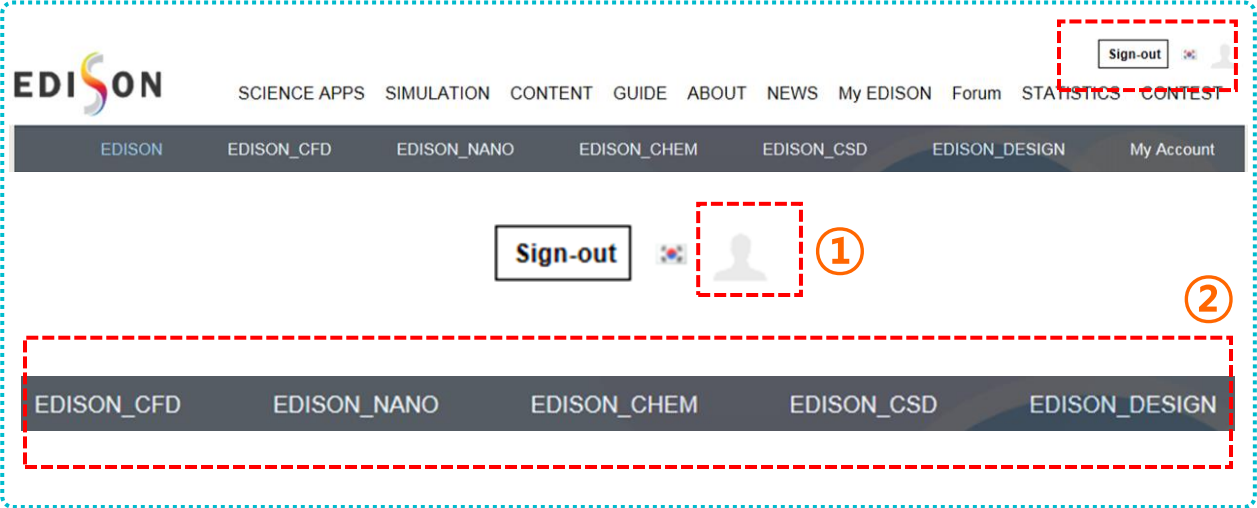
9

처리정보

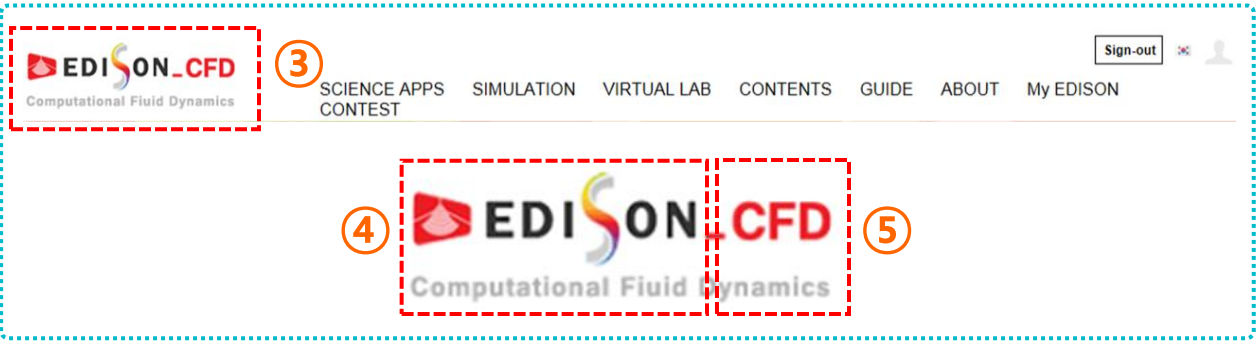
처리상태	발급요청	처리일자	2015-09-07
아이디			
처리내역정보	처리내역 : 처리결과 : 발급요청 / 처리일자 : 2015-09-07		

- 9
- Check the developer permission request information.
- ⊗
- The developer permission can be obtained after approval by the administrator.

1. Sector Site Movement



- ① After logging in, click your profile image.
- ② Select the EDISON portal you want to move in the submenu below.



- ③ Check your moved site.
- ④ Go to the EDISON Home page of representative sites.
- ⑤ Go to the Home page of the current site.

2. Virtual Lab Permission Request



- ① Click the 'Virtual LAB' menu in sectoral site .
- ② Click the 'Virtual Lab' menu of the sub-menu.
Go to the 'Virtual Lab List' screen.



- ③ Click the 'A Virtual Lab Creation' button to check a Virtual LAB creation request dialogue.

2. Virtual Lab Permission Request

VirtualLab Request Info

Request User ID

popopipi95

Request User Name

강다영

Tutor

VirtualLab

University/Or ganization

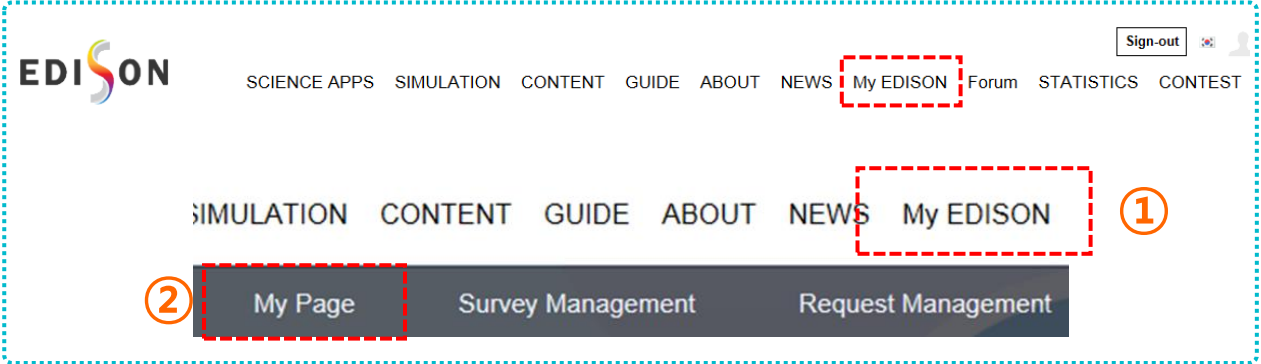
Search

Resume

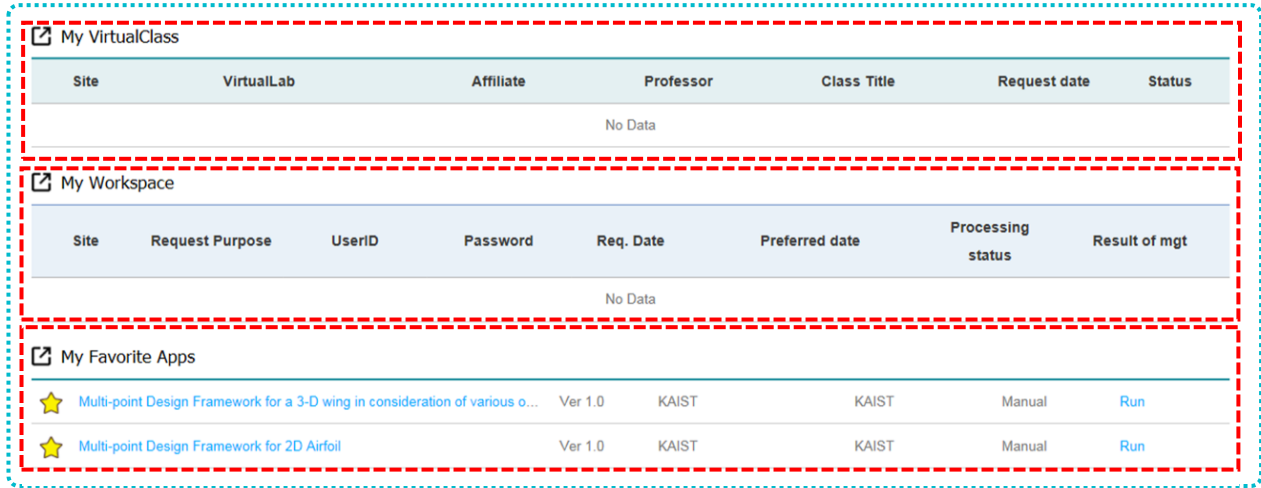
VirtualLab Creation

- ④ Enter the Virtual Lab request information according to form.
- ⑤ Select the 'Virtual Lab Creation' button to save the request information to a Virtual Lab requests for and requests.
- ⓧ Permission to a Virtual Lab creation can be obtained after approval by the administrator.

1. My Page

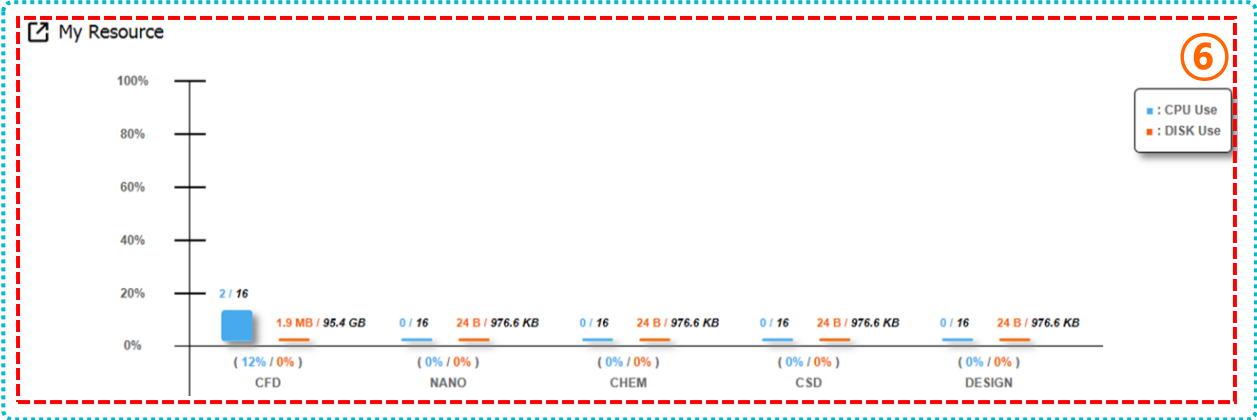


- ① Login and then click 'My EDISON' menu.
- ② Click the 'My Page' menu of submenu.
Go to the 'My Page' screen.



- ③ You can check the current virtual class enrollment status.
- ④ You can check the current developer permission request facts.
- ⑤ You can check your science apps of the bookmark apps in 'My Favorite Apps'.

1. My Page



⑥ You can check the 'CPU Usage' and 'Disk Usage' of the current account.

⑦ My Files

INPUTFILE RESULTFILE

File Name 5 Items

No.	Site Group	File Name	File Size	Insert Date	Download
7	<input type="checkbox"/> EDISON_CFD	block.msh	309.9 KB	2016-01-22 16:31:43	
6	<input type="checkbox"/> EDISON_CFD	edPOW.msh	121.0 MB	2016-01-22 16:28:30	
5	<input type="checkbox"/> EDISON_CFD	edPOW.msh	121.0 MB	2016-01-22 16:28:27	
4	<input type="checkbox"/> EDISON_CFD	edPOW.msh	121.0 MB	2016-01-22 16:28:25	
3	<input type="checkbox"/> EDISON_CFD	edPOW.msh	121.0 MB	2016-01-22 16:28:22	

Server Upload

⑦ Manage the simulation 'Input file' and 'Result file'.