

EDISON UI Scenario

(Workflow Generation)

Version 1.1

Revision History

Date	Content	Author
2011-03-17	Version 1.0	Jae Hyung Lim
2011-04-05	Version 1.1 added terminology definitions, changed project hierarchy, changed UI	Jae Hyung Lim
2011-04-25	Version 1.1 Eng: translated in Eng	Jong S. Lee

차 례

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Terminology

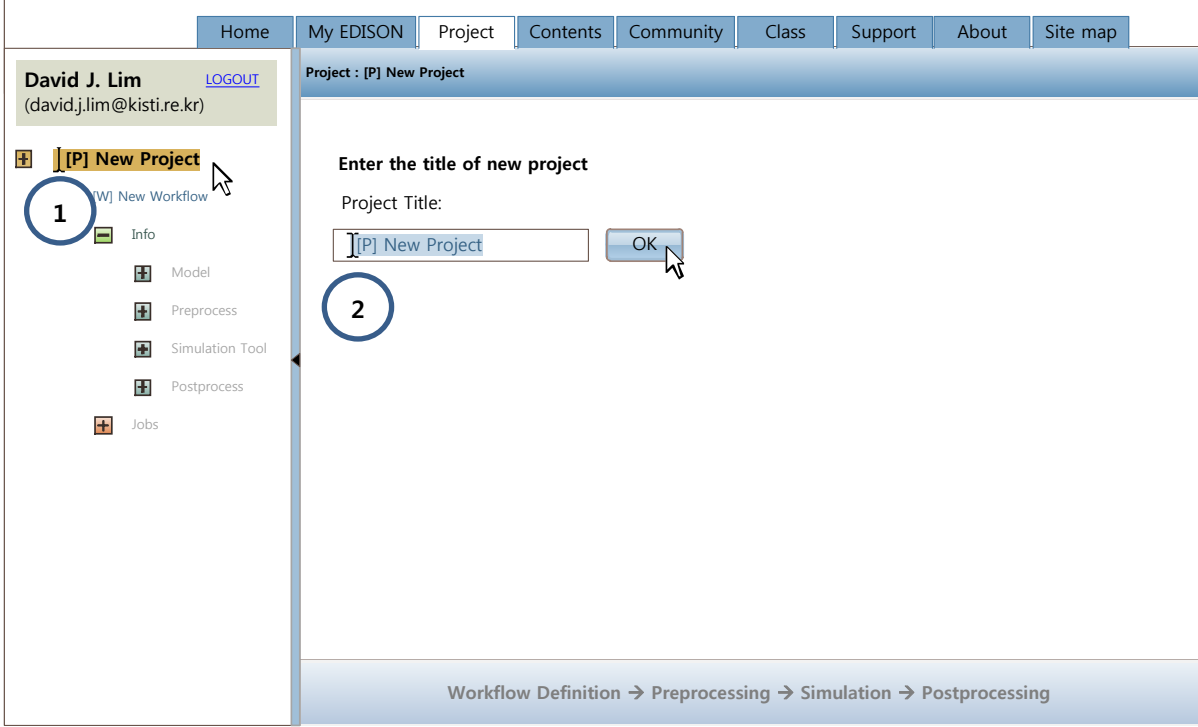
Project – Collection of Workflow. User defines the collection. Prefix: [P]; example: [P] 3D Surface Resonance'

Workflow – Collection of input files (model/mesh, parameter input file), pre-processor, solver, post-processor, jobs, and output files with processing steps. Prefix: [W]; example: [W] WF1

Job – Unit of computation of Simulation solver. 1 set of Model/mesh file and 1 set of parameter will be used to execute. Job also contains the concept of the term, "case"

01	Home page – Login
UI	
Scenario	
<ul style="list-style-type: none"> ● Prerequisite condition <ul style="list-style-type: none"> ■ C1: Selected My EDISON Tab menu ■ C2: Clicked Login button ● Outcome <ul style="list-style-type: none"> ■ Move to [03 My EDISON] page ● Scenario <ul style="list-style-type: none"> ■ S1 <ul style="list-style-type: none"> ◆ Enter ID and PW ◆ Press Enter Key or Click Login button ■ E1 <ul style="list-style-type: none"> ◆ Display Error message for wrong ID/PW ■ A1 <ul style="list-style-type: none"> ◆ Click ‘Forgot your id/password?’ link → Display “finding id/password” page ■ A2 <ul style="list-style-type: none"> ◆ Click REGISTER button → Display “registration” page 	

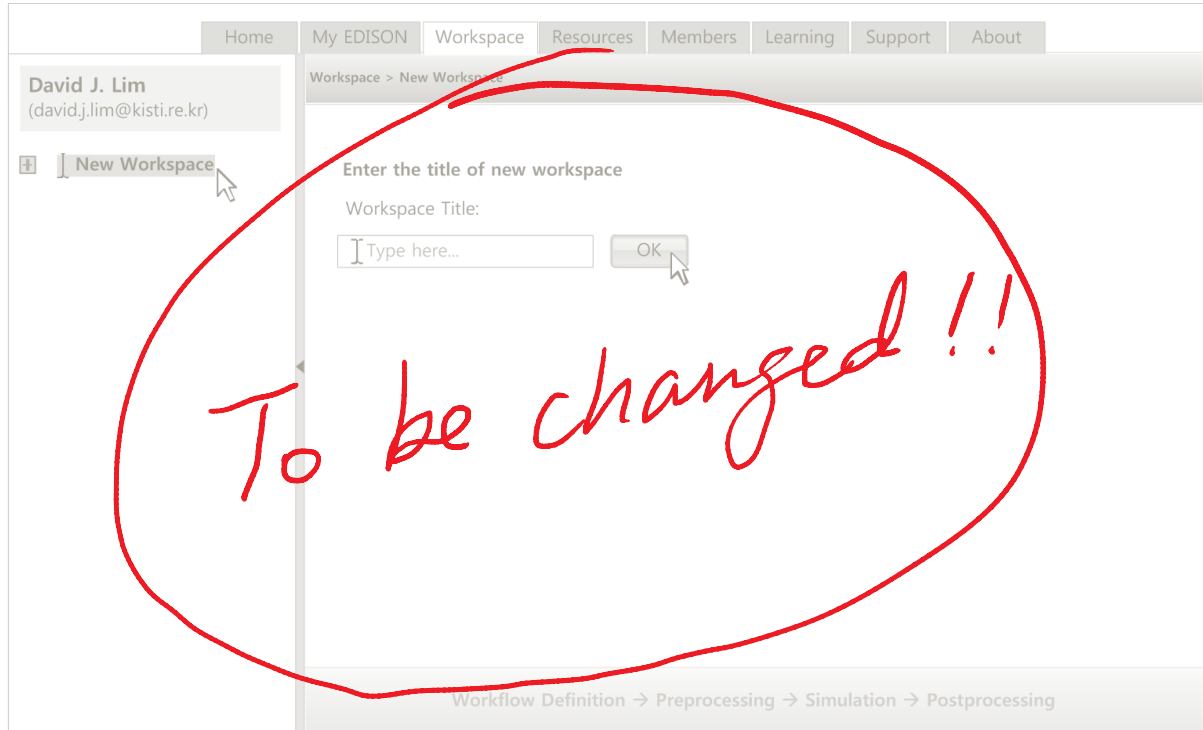
02	My EDISON
UI	
Scenario	
<ul style="list-style-type: none"> ● Prerequisite condition <ul style="list-style-type: none"> ■ C1: Already logged in ● Outcome <ul style="list-style-type: none"> ■ Move to [03 New Project] page ● Scenario <ul style="list-style-type: none"> ■ S1 <ul style="list-style-type: none"> ◆ Open 'Project Tab' menu by hover over 'Project Tab' ◆ Select 'New Project' on pop-up menu ■ S2 <ul style="list-style-type: none"> ◆ Click on 'Project Tab' or Select 'Projects' on pop-up menu ◆ Move to [03-A Projects] page that shows the list of projects <p>※ ①: Navigation area</p> <p>※ ②: Main window area</p>	

03	New Project
UI	
	
Scenario	
<ul style="list-style-type: none"> ● Prerequisite condition <ul style="list-style-type: none"> ■ C1: Select 'New Project' on pop-up menu from [02 My EDISON] page ■ C2: Click on 'New Project' on [A Project] page which haven't developed yet ■ C3: Generate empty '[P] New Project' and empty '[W] New Workflow'. Model, Preprocess, Simulation Tool, and Postprocess under Info are inactive. Jobs item also is inactive ● Outcome <ul style="list-style-type: none"> ■ Make Project Name, '[P] 3D Surface Resonance', with prefix '[P]' and user's input ■ Move to [04 New Workflow] page ● Scenario <ul style="list-style-type: none"> ■ S1 <ul style="list-style-type: none"> ◆ Click on ① '[P] New Project' ◆ Enter '3D Surface Resonance' as new project name then press Enter key or click on 'OK' button ■ S2 <ul style="list-style-type: none"> ◆ Click on ② text box ◆ Enter '3D Surface Resonance' as new project name then press Enter key or click on 'OK' button 	

03-A

Projects – Project LIST

UI



Scenario

Prerequisite Condition

Outcome

Scenario

[TO BE DESIGNED] ...

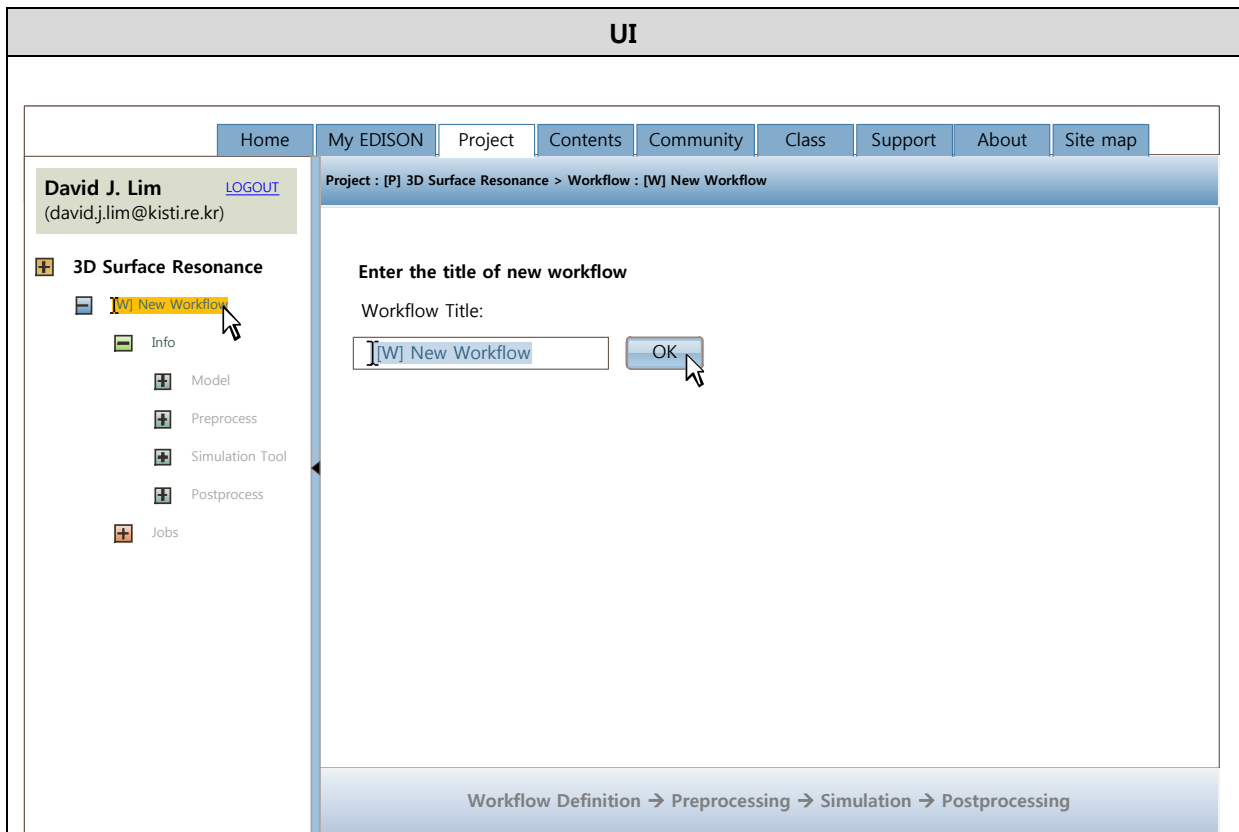
04	New Workflow
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UI

Scenario
<ul style="list-style-type: none"> ● Prerequisite Condition <ul style="list-style-type: none"> ■ C1: Crated new project called ‘[P] 3D Surface Resonance’ ● Outcome <ul style="list-style-type: none"> ■ N1: S1 → move to [04-1 New Workflow – Enter workflow title] page ■ N2: S2 → move to [04-2 New Workflow – [W] WF1 created] page ■ N3: * S2 → move to [05 WFD Method] page ■ User can select either * N2 or N3 ● Scenario <ul style="list-style-type: none"> ■ S1 <ul style="list-style-type: none"> ◆ Click on ‘New Workflow’ button (①) → N1 ■ S2 <ul style="list-style-type: none"> ◆ Click on ‘[W] New Workflow’ item (②) ◆ Enter ‘WF1’ as new workflow name then press Enter key → N2 [or N3]

04-1

New Workflow – Enter workflow title

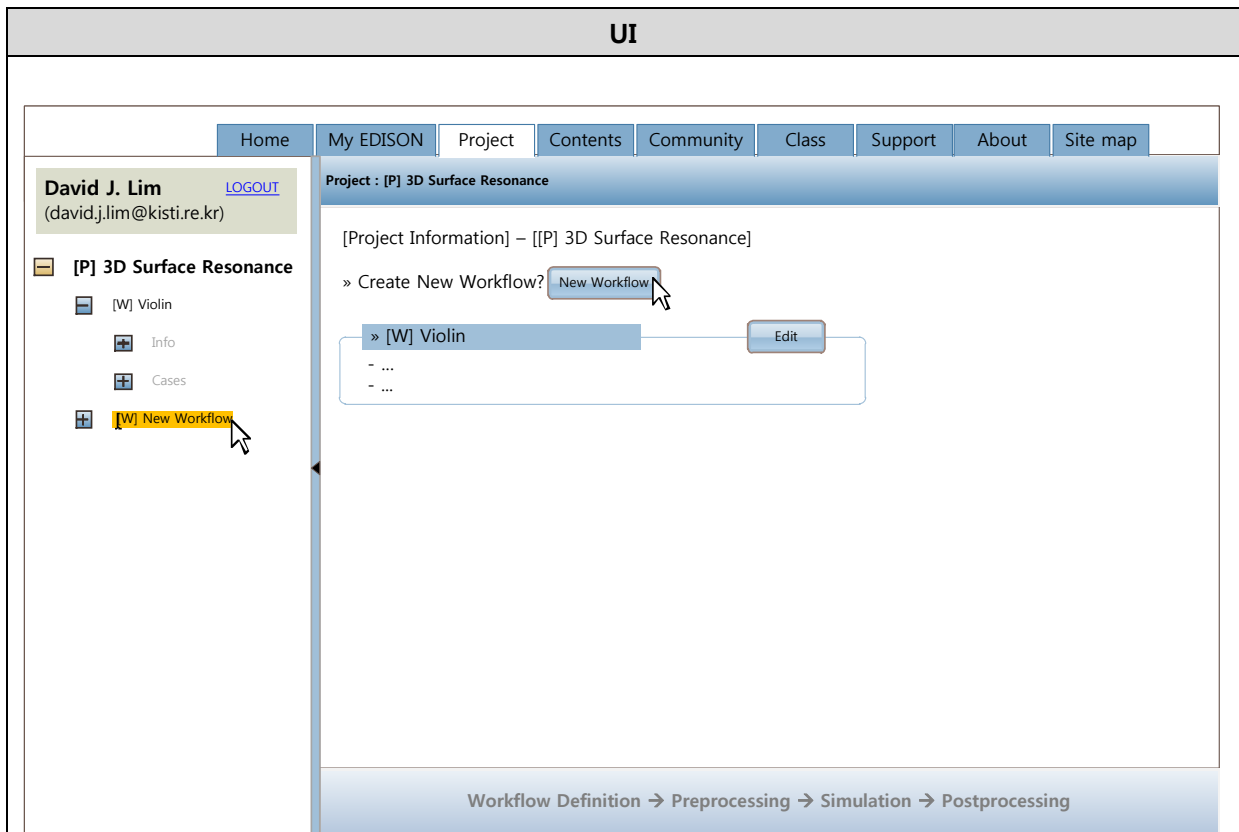


Scenario

- Prerequisite Condition
 - C1: Clicked on 'New workflow' button on [04] page (or Workflow list page such as [04-2], [04-3])
- Outcome
 - N1: Set '[W] WF1' as workflow name and Move to [04-2 New Workflow – [W] WF1 created] page
 - N2: Move to * or [05 WFD Method] page
 - User can select either N1 or N2
- Scenario
 - S1
 - ◆ Enter 'WF1' in the text box, 'Workflow Title'
 - ◆ Press Enter key or Click on 'OK' button → N1 [or N2]

04-2

New Workflow – [W] WF1 created

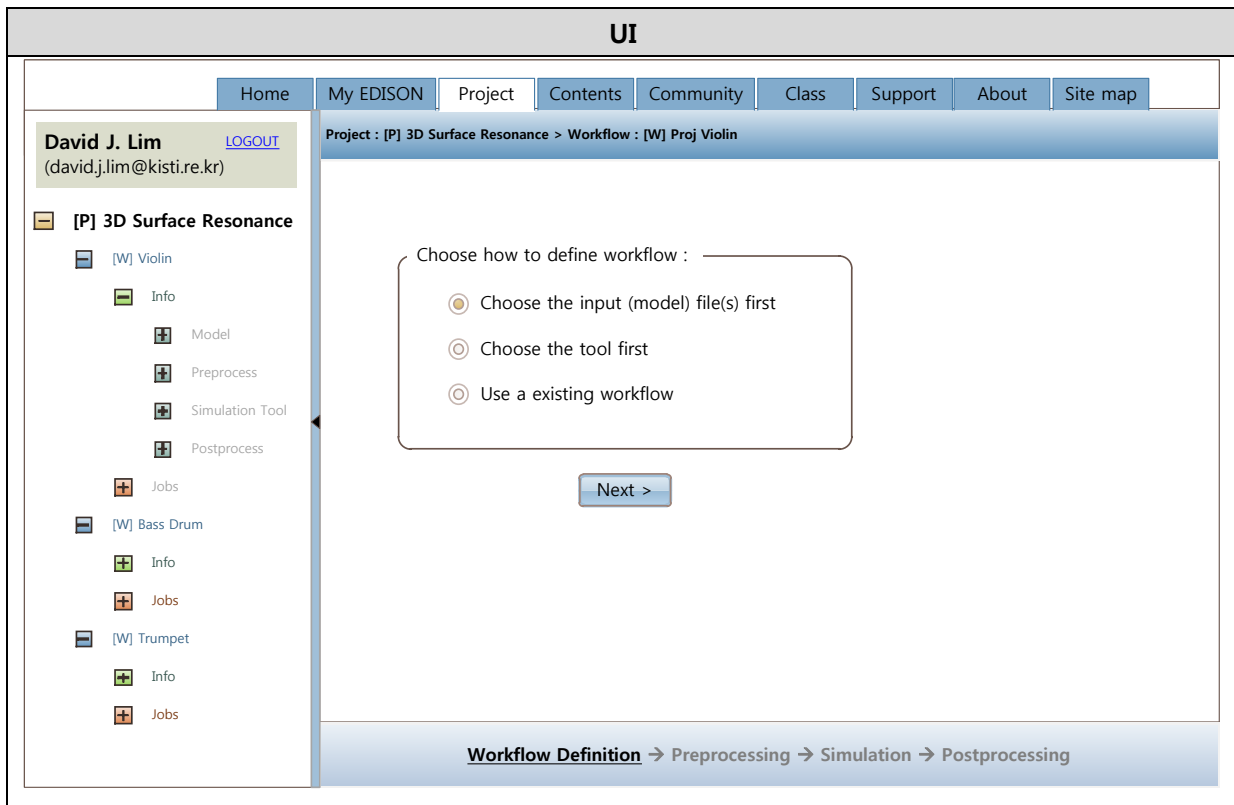


Scenario

- Prerequisite Condition
 - C1: Created empty '[W] WF1'
 - C2: Selected '[P] 3D Surface Resonance' project
- Outcome
 - N1: S1 → Move to [05 Choosing Workflow Definition Method - WFD Method] page
 - N2: S2 → Move to [04-2] or [04-3]
 - N3: S3 → Move to [04-1 New Workflow - Enter workflow title]
- Scenario
 - S1
 - ◆ Click 'Edit' button at '[W] WF1' project on main window area → N1
 - S2
 - ◆ Create another new workflow on navigation area → N2
 - S3
 - ◆ Create another new workflow by click on 'New Workflow' button on main window area → N3

04-3	New Workflow - Add
UI	
<div style="border: 1px solid #ccc; padding: 10px;"> <div style="display: flex; justify-content: space-between; border-bottom: 1px solid #ccc; margin-bottom: 10px;"> Home My EDISON Project Contents Community Class Support About Site map </div> <div style="display: flex;"> <div style="width: 25%; border-right: 1px solid #ccc; padding-right: 10px;"> <p>David J. Lim LOGOUT (david.j.lim@kisti.re.kr)</p> <p>[P] 3D Surface Resonance</p> <ul style="list-style-type: none"> <input type="checkbox"/> [W] Violin <input type="checkbox"/> [W] Bass Drum <input type="checkbox"/> [W] Trumpet <input checked="" type="checkbox"/> [W] New Workflow </div> <div style="width: 75%; padding-left: 10px;"> <p>Project : [P] 3D Surface Resonance</p> <p>[Project Information] – [[P] 3D Surface Resonance]</p> <p>» Create New Workflow? <input type="button" value="New Workflow"/></p> <div style="margin-top: 10px;"> <p>» [W] Violin <input type="button" value="Edit"/></p> <p>- ...</p> <p>- ...</p> </div> <div style="margin-top: 10px;"> <p>» [W] Bass Drum <input type="button" value="Edit"/></p> <p>- ...</p> <p>- ...</p> </div> <div style="margin-top: 10px;"> <p>» [W] Trumpet <input type="button" value="Edit"/></p> <p>- ...</p> <p>- ...</p> </div> </div> </div> <div style="text-align: center; margin-top: 10px; border-top: 1px solid #ccc;"> Workflow Definition → Preprocessing → Simulation → Postprocessing </div> </div>	
Scenario	
<ul style="list-style-type: none"> ● Prerequisite Condition <ul style="list-style-type: none"> ■ C1: There are many workflows under a project ■ C2: Selected '[P] 3D Surface Resonance' ● Outcome <ul style="list-style-type: none"> ■ N1: S1 → Move to [05 WFD Method] ■ N2: Execute appropriate functions depending on empty workflow, workflow with detail info (steps defined), and workflow with jobs ■ N3: S3 → Move to [04-2] or [04-3] ■ N4: S4 → Move to [04-1 New Workflow - Enter workflow title] ● Scenario <ul style="list-style-type: none"> ■ S1 <ul style="list-style-type: none"> ◆ Click 'Edit' button of '[W] WF1' → N1 ■ S2 <ul style="list-style-type: none"> ◆ Click 'Edit' on other workflow → N2 ■ S3 <ul style="list-style-type: none"> ◆ Create another new workflow on navigation area → N2 ■ S4 <ul style="list-style-type: none"> ◆ Create another new workflow by click on 'New Workflow' button on main window area → N3 	

05 **Choosing Workflow Definition Method – WFD Method**



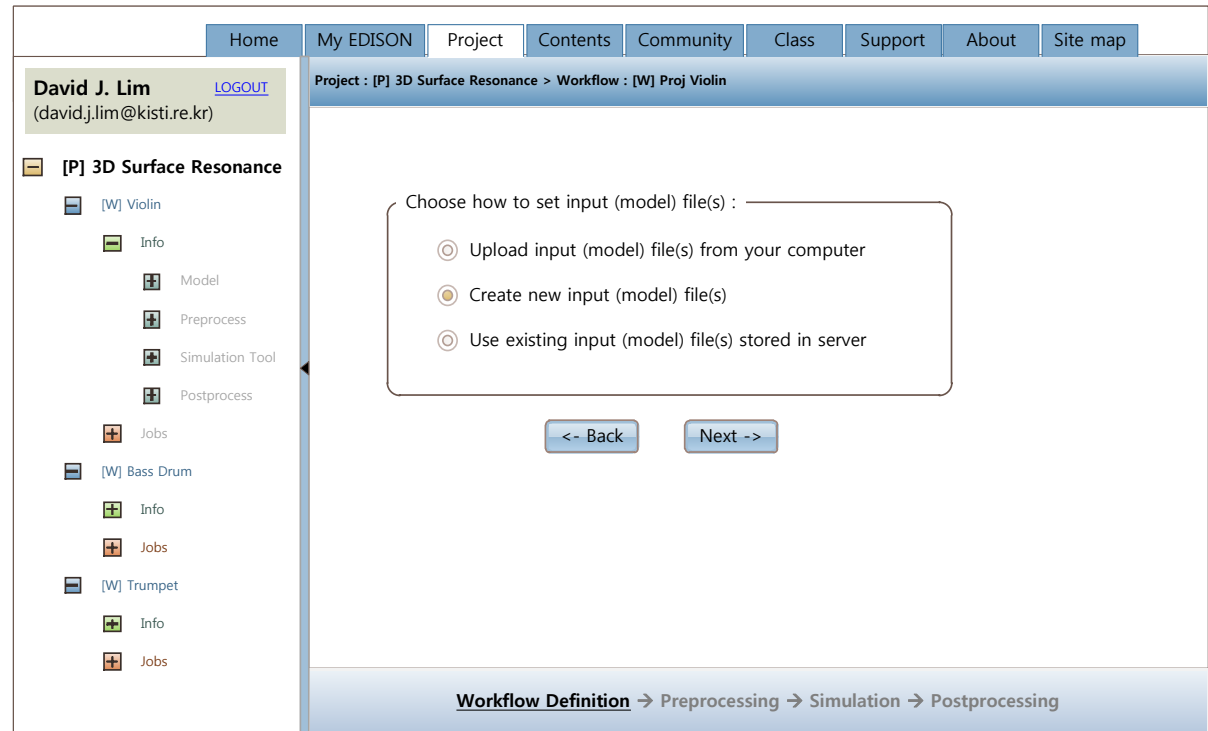
Scenario

- Prerequisite Condition
 - C1: Clicked 'Edit' button of '[W] WF1' at [04-2] or [04-3] page
 - C2: * Created new empty workflow
- Outcome
 - N1: Move to [06 How to Set Input File - WFD Input File]
 - N2: Move to [06-A Select tool first for workflow] (not yet)
 - N3: Move to [06-7 Select existing workflow] (not yet)
- Scenario
 - S1
 - ◆ Select the item, 'Choose the input (model) file(s) first', then click 'Next' button → N1
 - S2
 - ◆ Select the item, 'Choose the tool first', then click 'Next' button → N2
 - S3
 - ◆ Select the item, 'Use an existing workflow', then click 'Next' button → N3
 - E1
 - ◆ If a user clicked other menus or buttons, then the current workflow info will be lost

06

How to Set Input File – WFD Input File

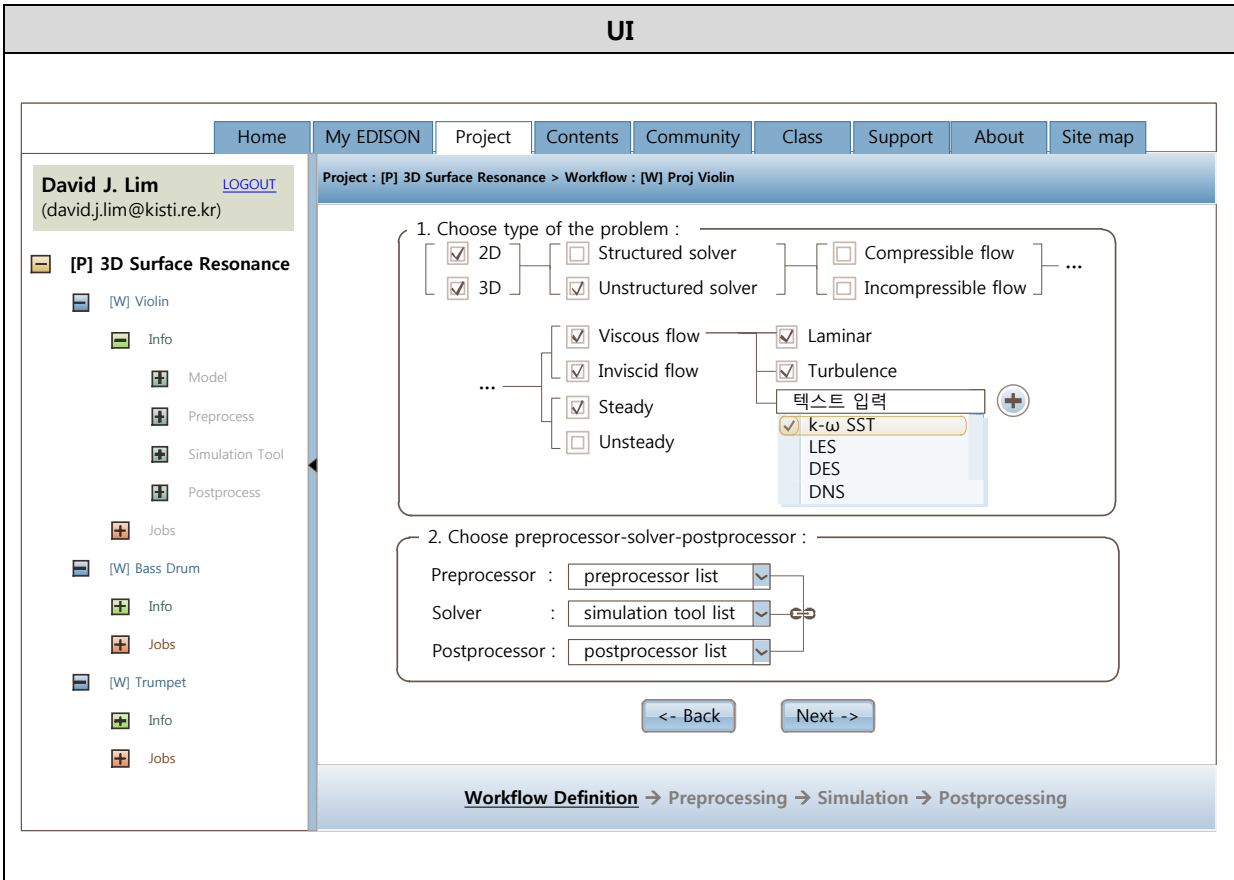
UI



Scenario

- Prerequisite Condition
 - C1: Selected 'Choose the input (model) file(s) first'
- Outcome
 - N1: S1 → Move to [07 Choosing Preproc-Tool-Postproc - WFD Pre-Tool-Post]
 - N2: S2 → Move to [07-A Upload Input (Model) Files] (to be designed)
 - N3: S3 → Move to [07-B Choosing Existing Input (Model) Files] (to be designed)
- Scenario
 - S1
 - ◆ Select the item, 'Create new input (model) file(s)', then click 'Next' button → N1
 - S2
 - ◆ Select the item, 'Upload input (model) file(s) from your computer', then click 'Next' button → N2
 - S3
 - ◆ Select the item, 'Use existing input (model) files(s) stored in server', then click 'Next' button → N3

07 **Choosing Preproc-Tool-Postproc – WFD Pre-Tool-Post**



Scenario

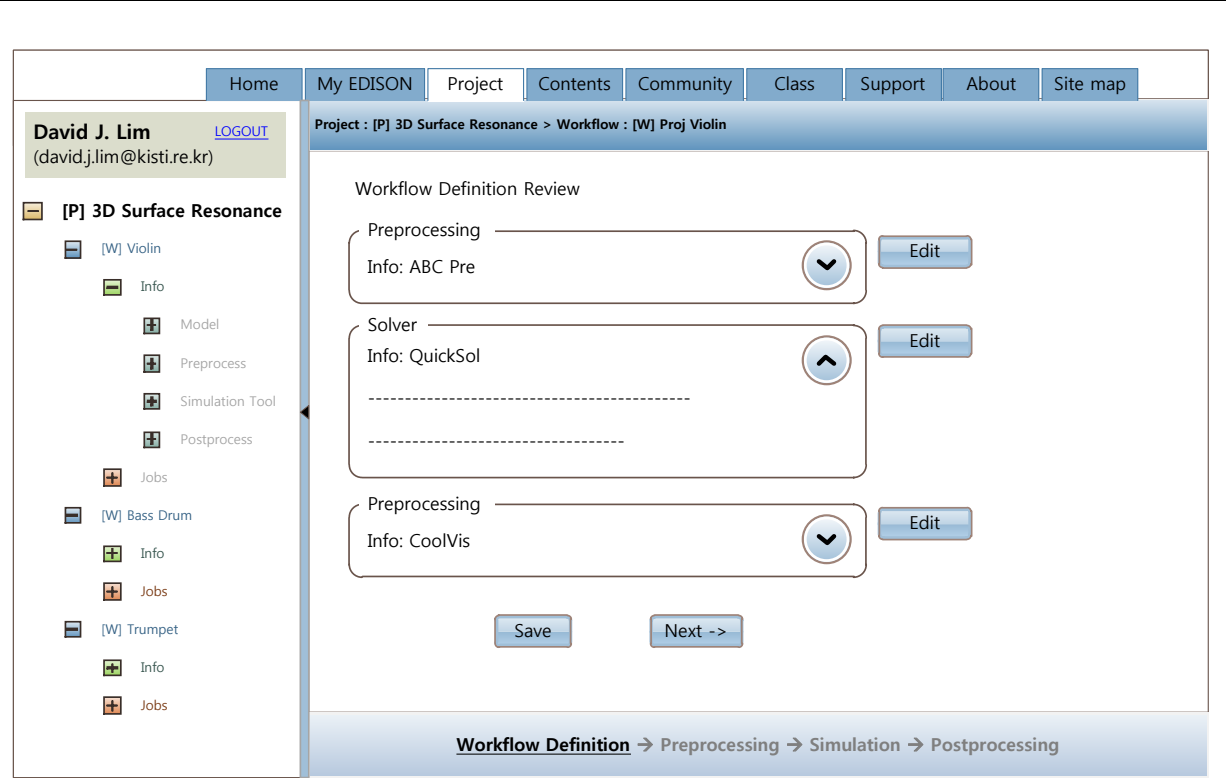
- Prerequisite Condition
 - C1: Selected ‘Create new input (model) files’ at [06 How to Set Input Files] page
- Outcome
 - N1: Move to [08 Workflow Review – WFD Review]
- Scenario
 - S1
 - ◆ Select items at ‘1. Choose type of the problem’
 - ◆ Then, the items at ‘2. Choose preprocessor-solver-postprocessor:’ will be generated
 - ◆ Select preprocessor, solver, postprocessor then click ‘Next’ button

※ ‘1. Choose type ...’ When user selected multiple items in a group, then system looks for solver to satisfy all the items user selected in a group (AND operation) and those items are not selected in a group will be ignored in the search.

- Ex1: ‘2D’ and ‘3D’ are selected → the solvers that can solve both ‘2D’ and ‘3D’ are displayed.
- Ex2: ‘Structured solver’ is not selected and ‘Unstructured solver’ is selected → the solvers that can solve ‘Unstructured’ problem are displayed
- Ex3: Neither ‘Compressible flow’ nor ‘Incompressible flow’ are selected → the search does not care about this criteria
- Picture above: (2D & 3D) & (Unstructured) & ([don’t-care]) & (Viscous & Inviscid & Steady) & (Laminar & Turbulence & k- ω SST)

08 **Workflow Review – WFD Review**

UI

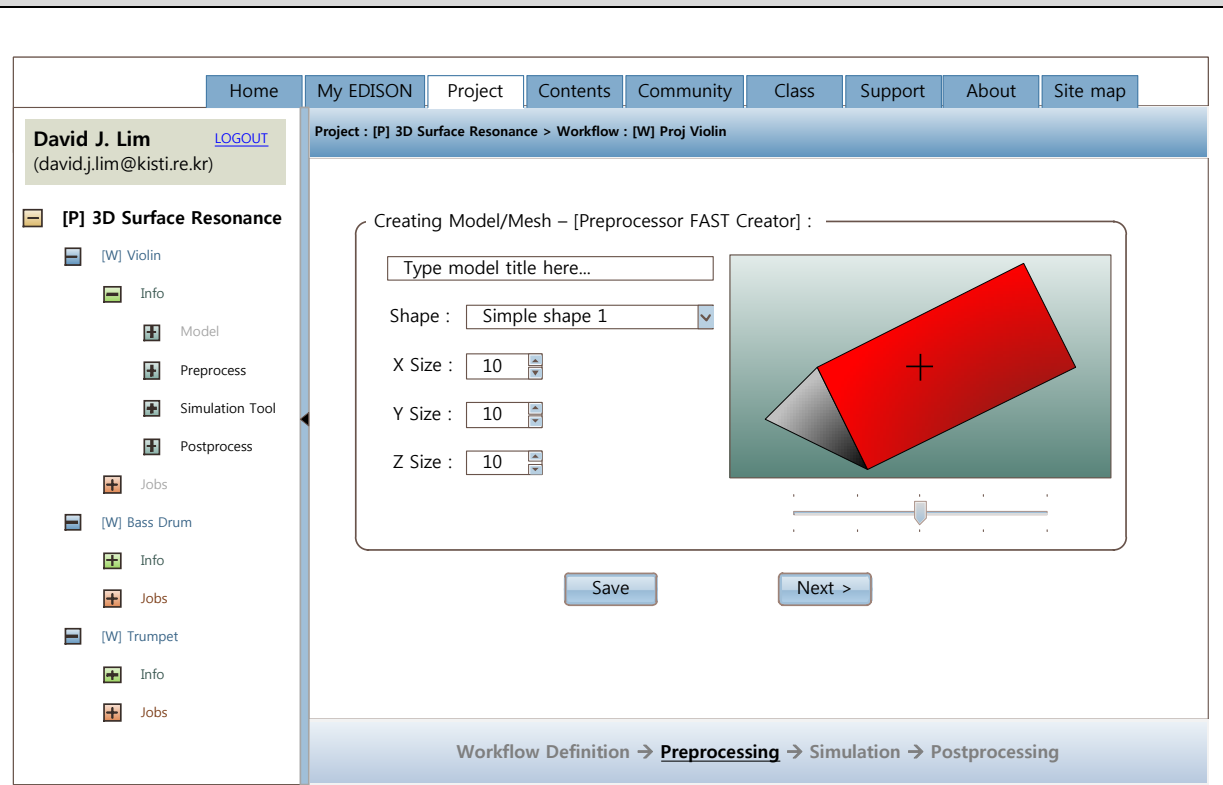


Scenario

- Prerequisite Condition
 - C1: Defined preprocessor, solver, and postprocessor for '[W] WF1' Workflow
- Outcome
 - N1:
 - ◆ Enable items, Pre, Sim, Post, at Navigation area
 - ◆ Move to [09 Creating Model/Mesh – Pre-Dummy]
 - N2: Move to [07 Choosing Preproc-Tool-Postproc – WFD Pre-Tool-Post] or [08-A Workflow edit] (to be designed)
- Scenario
 - S1
 - ◆ Click 'Next' button → N1
 - S2
 - ◆ Click 'Edit' button to modify → N2
 - S3
 - ◆ Click 'Save' button → workflow info will be store on local/remote storage temporally (it will make user be able to work later)

09 **Creating Model/Mesh – Pre-Dummy**

UI



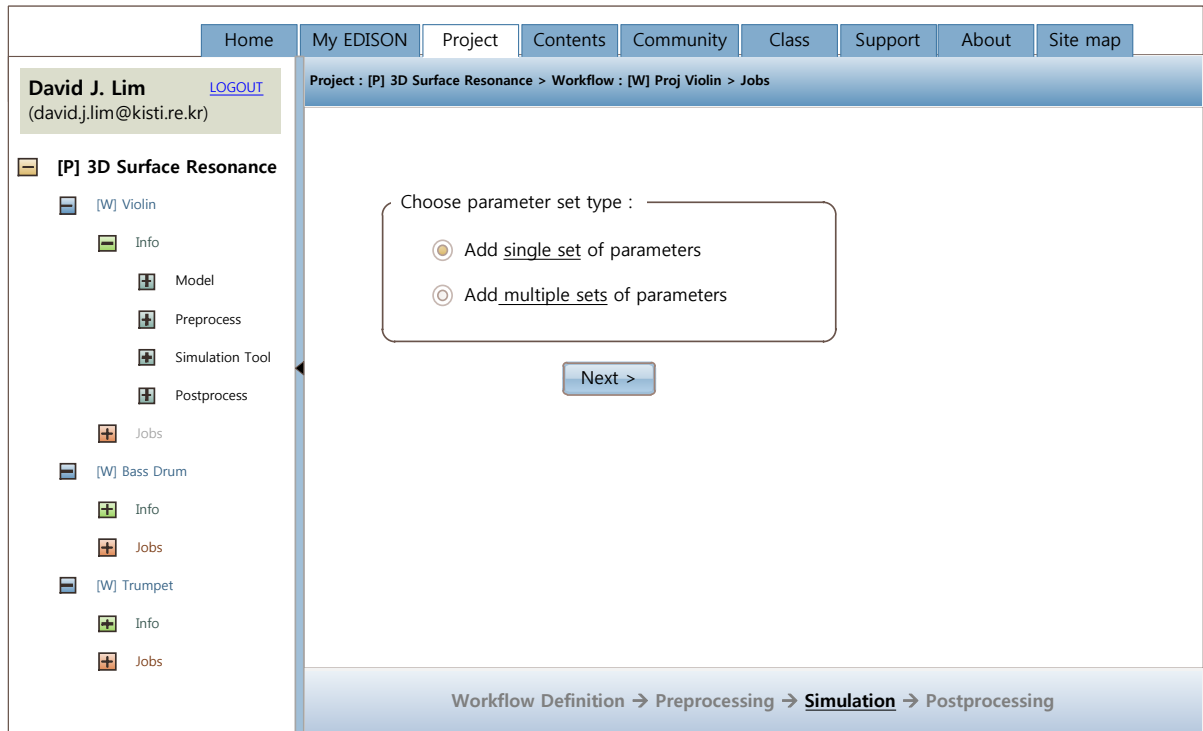
Scenario

- Prerequisite Condition
 - C1: Clicked 'Next' button at [08 Workflow Review – WFD Review] page
 - C2: == 해당 workflow 정보 준비
- Outcome
 - N1: Store generated Model and Mesh file at the server
 - N2: Move to [10 Choosing Single/Multiple Param Set]
- Scenario
 - S1
 - ◆ Enter information at each item, then click 'Next' button → N1, N2

10

Choosing Single/Multiple Param Set

UI



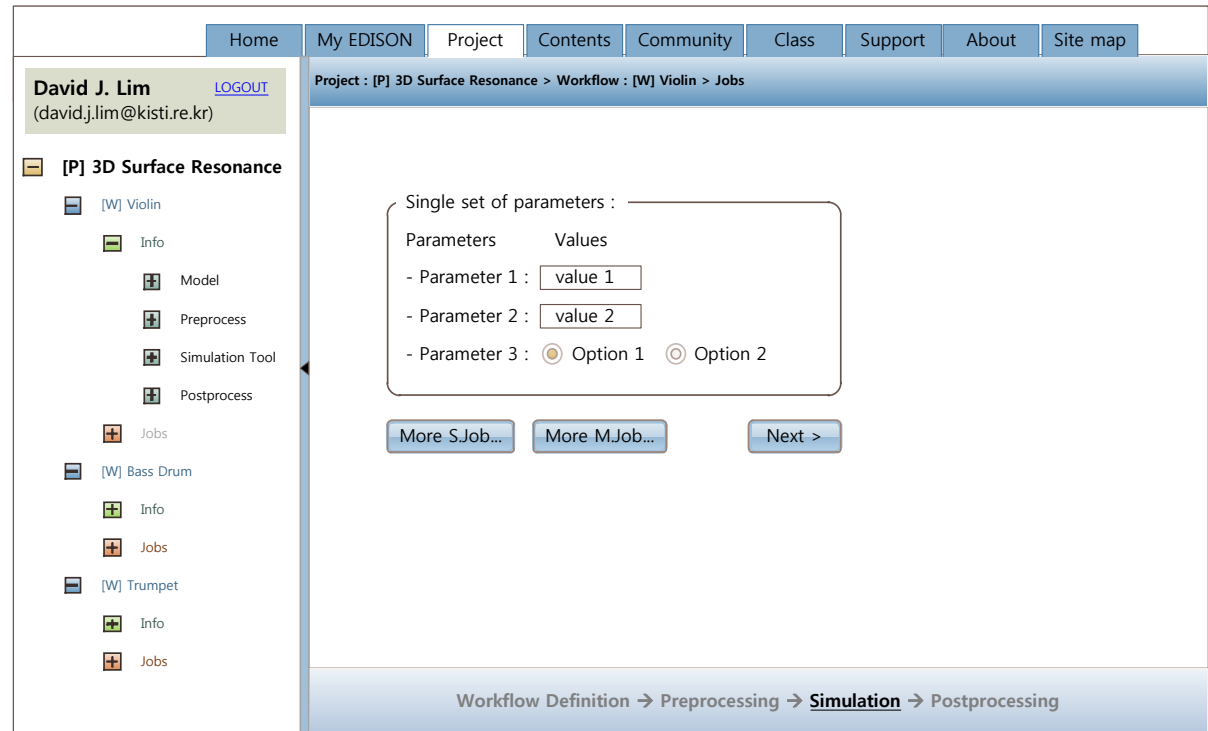
Scenario

- Prerequisite Condition
 - C1: Defined all information for the workflow
- Outcome
 - N1: S1 → Move to [11 Single Parameter Set - Sim-Param Single]
 - N2: S2 → Move to [12 Multiple Parameter Set – Sim-Param Multi]
- Scenario
 - S1
 - ◆ Select the first item then click ‘Next’ button → N1
 - S2
 - ◆ Select the second item then click ‘Next’ button → N2

11

Single Parameter Set – Sim-Param Single

UI



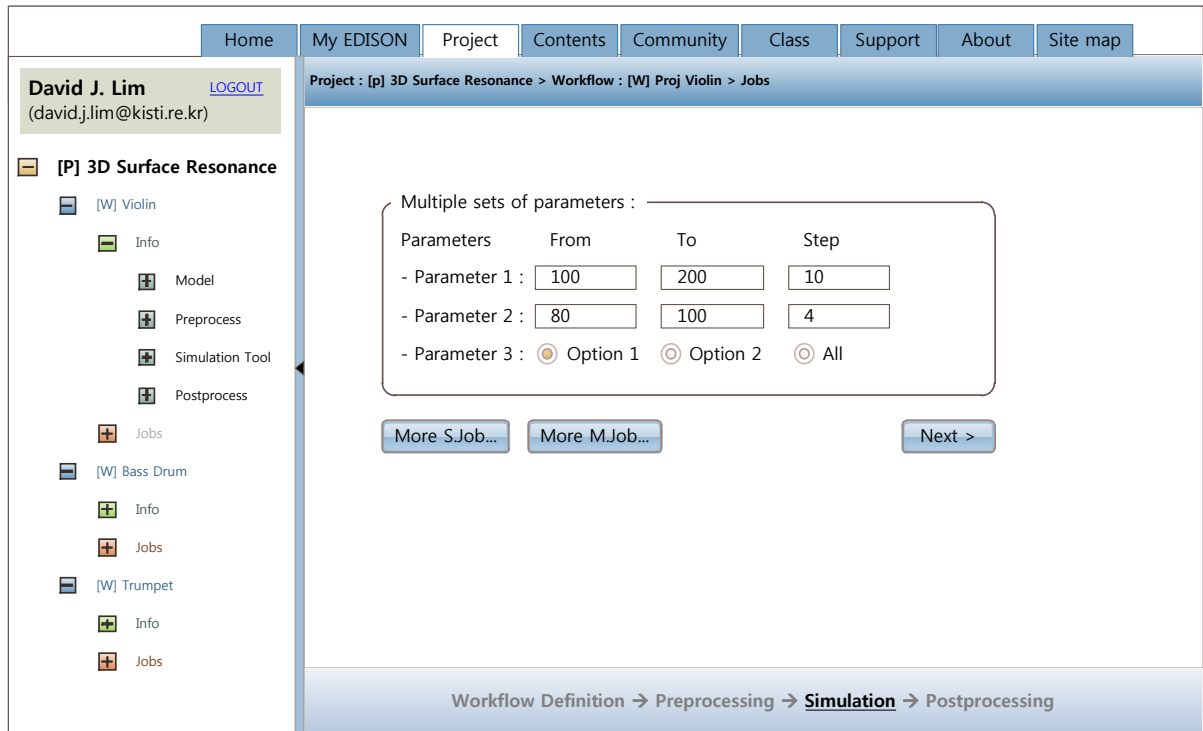
Scenario

- Prerequisite Condition
 - C1: Selected 'Add single set of parameters'
- Outcome
 - N1: S1 → Move to [14 Jobs/Parameter Review - Pre-Param Review]
 - N2: S2 → Move to [11 Sim-Param Single]
 - N3: S3 → Move to [12 Sim-Param Multi]
- Scenario
 - S1
 - ◆ Enter all parameters then click 'Next' button → N1
 - S2
 - ◆ Enter all parameters then click 'More S.Job...' button → N2
 - S3
 - ◆ Enter all parameters then click 'More M.Job...' button → N3

12

Multiple Parameter Set – Sim-Param Multi

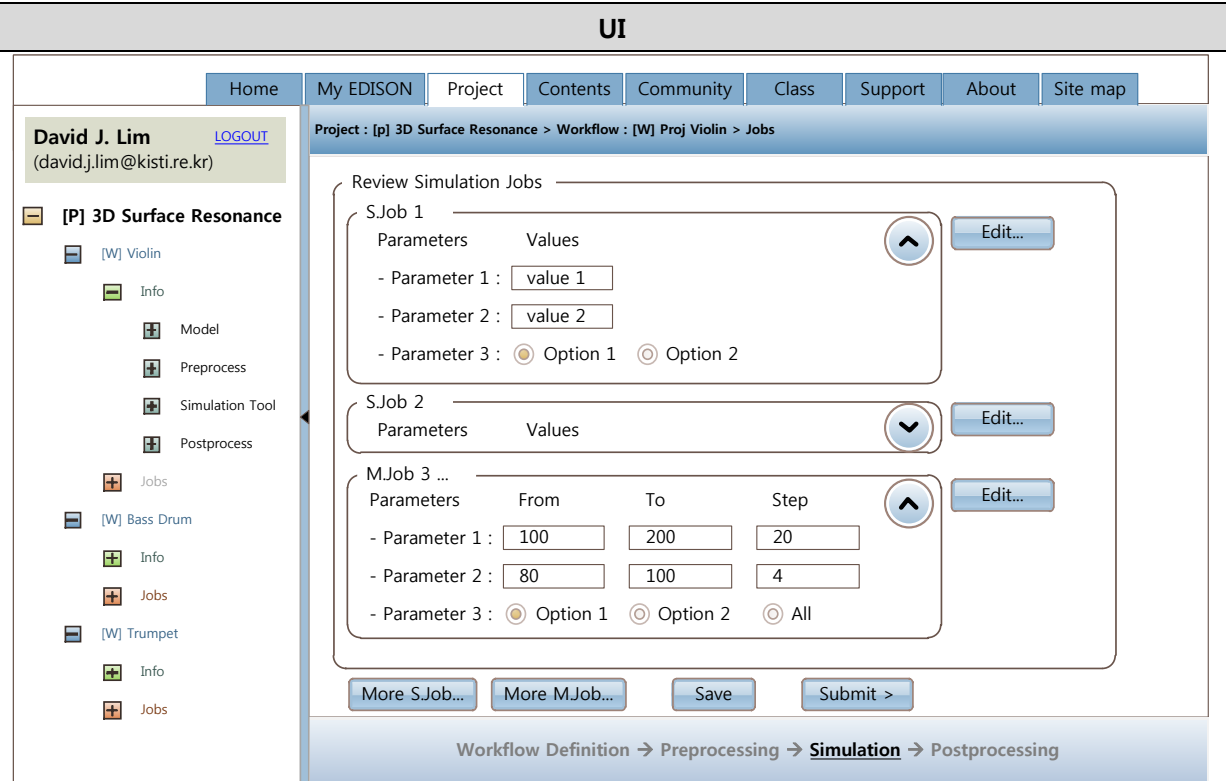
UI



Scenario

- Prerequisite Condition
 - C1: Selected 'Add multiple sets of parameters'
- Outcome
 - N1: S1 → Move to [13 Jobs/Parameter Review - Pre-Param Review]
 - N2: S2 → Move to [11 Sim-Param Single]
 - N3: S3 → Move to [12 Sim-Param Multi]
- Scenario
 - S1
 - ◆ Enter all parameters then click 'Next' button → N1
 - S2
 - ◆ Enter all parameters then click 'More S.Job...' button → N2
 - S3
 - ◆ Enter all parameters then click 'More M.Job...' button → N3

13 **Jobs/Parameter Review – Sim-Param Review**



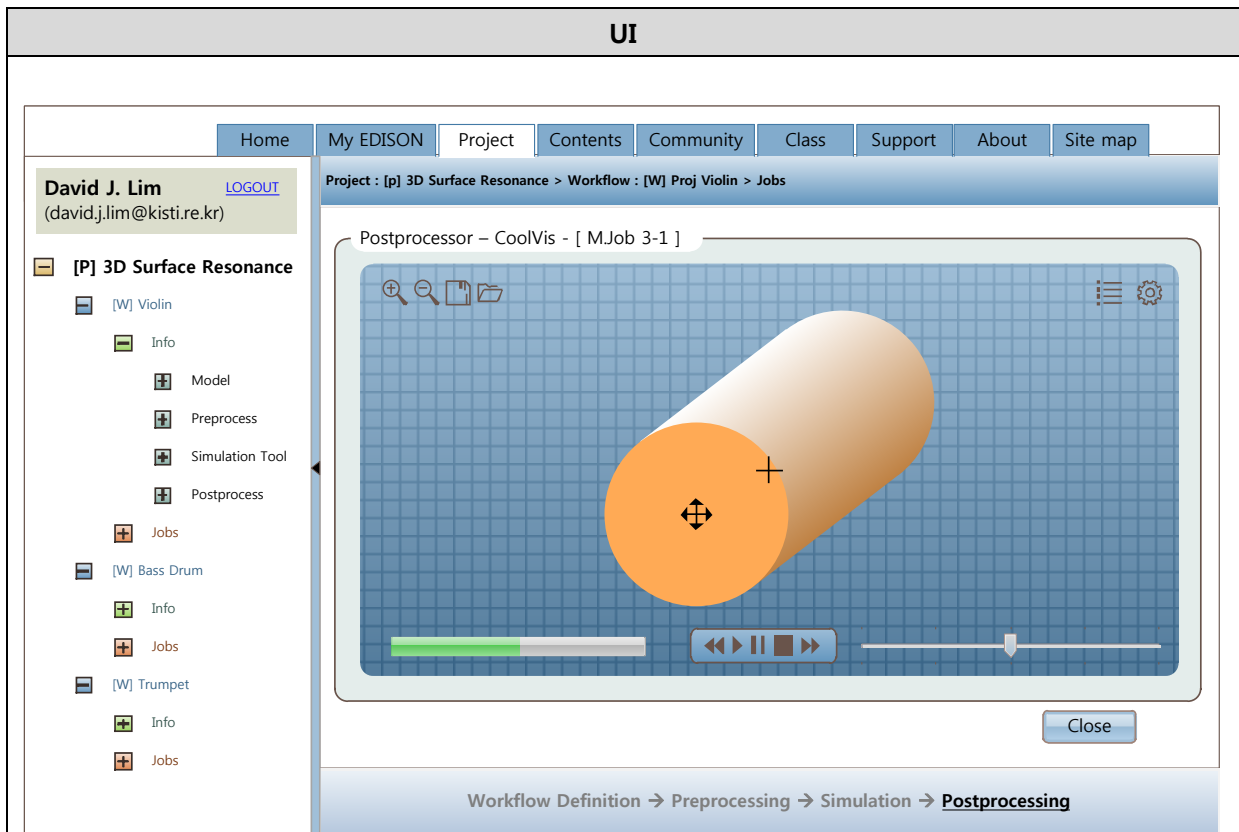
Scenario

- Prerequisite Condition
 - C1: Defined all information about workflow and parameters
- Outcome
 - N1: S1 → Submit all jobs and Move to [14 Simulation Monitoring]
 - N2: S2 → Move to [11 Sim-Param Single], S3 → Move to [12 Sim-Param Multi]
 - N3: For S.Job, move to [13-A Single Param Edit] (to be designed),
For M.Job, move to [13-B Multi Param Edit] (to be designed)
 - N4: S4 → Store workflow info and set of parameters on local/remote server
- Scenario
 - S1
 - ◆ Click 'Submit' button → N1
 - S2
 - ◆ Click 'More S.Job...' button or 'More M.Job...' button → N2
 - S3
 - ◆ Click 'Edit' on jobs to modify → N3
 - S4
 - ◆ Click 'Save' button to store current state → N4

14	Simulation Monitoring																								
UI																									
<div style="display: flex; justify-content: space-between; border-bottom: 1px solid #ccc; margin-bottom: 5px;"> Home My EDISON Project Contents Community Class Support About Site map </div> <div style="display: flex; align-items: flex-start;"> <div style="width: 25%; border-right: 1px solid #ccc; padding-right: 5px;"> <p style="margin: 0;">David J. Lim LOGOUT (david.j.lim@kisti.re.kr)</p> <p style="margin: 5px 0;">[P] 3D Surface Resonance</p> <ul style="list-style-type: none"> <li style="margin: 2px 0;">[W] Violin <ul style="list-style-type: none"> Info Model Preprocess Simulation Tool Postprocess <li style="margin: 2px 0;">Jobs <li style="margin: 2px 0;">[W] Bass Drum <ul style="list-style-type: none"> Info Jobs <li style="margin: 2px 0;">[W] Trumpet <ul style="list-style-type: none"> Info Jobs </div> <div style="width: 75%; padding-left: 5px;"> <p style="margin: 0;">Project : [p] 3D Surface Resonance > Workflow : [W] Proj Violin > Jobs</p> <div style="border: 1px solid #ccc; padding: 10px; margin: 5px 0;"> <p style="margin: 0;">Job Monitoring</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Jobs</th> <th style="text-align: left;">Status</th> <th style="text-align: left;">Download</th> </tr> </thead> <tbody> <tr> <td>■ SJob 1</td> <td><div style="width: 100%; height: 10px; background-color: green;"></div> Done</td> <td>Visualize <input checked="" type="checkbox"/></td> </tr> <tr> <td>■ SJob 2</td> <td><div style="width: 80%; height: 10px; background-color: green;"></div> Running</td> <td>Visualize <input checked="" type="checkbox"/></td> </tr> <tr> <td>■ MJob 3 ...</td> <td><div style="width: 20%; height: 10px; background-color: green;"></div> 1 of 4</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding-left: 20px;">- MJob 3-1</td> <td><div style="width: 100%; height: 10px; background-color: green;"></div> Done</td> <td>Visualize <input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding-left: 20px;">- MJob 3-2</td> <td><div style="width: 80%; height: 10px; background-color: green;"></div> Running</td> <td>Visualize <input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding-left: 20px;">- MJob 3-3</td> <td><div style="width: 80%; height: 10px; background-color: green;"></div> Running</td> <td>Visualize <input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding-left: 20px;">- MJob 3-3</td> <td><div style="width: 80%; height: 10px; background-color: green;"></div> Running</td> <td>Visualize <input checked="" type="checkbox"/></td> </tr> </tbody> </table> <p style="text-align: right; margin-top: 5px;">Download</p> </div> </div> <div style="margin-top: 5px; text-align: center; background-color: #e0e0e0; padding: 5px; border: 1px solid #ccc;"> Workflow Definition → Preprocessing → Simulation → Postprocessing </div> </div>		Jobs	Status	Download	■ SJob 1	<div style="width: 100%; height: 10px; background-color: green;"></div> Done	Visualize <input checked="" type="checkbox"/>	■ SJob 2	<div style="width: 80%; height: 10px; background-color: green;"></div> Running	Visualize <input checked="" type="checkbox"/>	■ MJob 3 ...	<div style="width: 20%; height: 10px; background-color: green;"></div> 1 of 4	<input checked="" type="checkbox"/>	- MJob 3-1	<div style="width: 100%; height: 10px; background-color: green;"></div> Done	Visualize <input checked="" type="checkbox"/>	- MJob 3-2	<div style="width: 80%; height: 10px; background-color: green;"></div> Running	Visualize <input checked="" type="checkbox"/>	- MJob 3-3	<div style="width: 80%; height: 10px; background-color: green;"></div> Running	Visualize <input checked="" type="checkbox"/>	- MJob 3-3	<div style="width: 80%; height: 10px; background-color: green;"></div> Running	Visualize <input checked="" type="checkbox"/>
Jobs	Status	Download																							
■ SJob 1	<div style="width: 100%; height: 10px; background-color: green;"></div> Done	Visualize <input checked="" type="checkbox"/>																							
■ SJob 2	<div style="width: 80%; height: 10px; background-color: green;"></div> Running	Visualize <input checked="" type="checkbox"/>																							
■ MJob 3 ...	<div style="width: 20%; height: 10px; background-color: green;"></div> 1 of 4	<input checked="" type="checkbox"/>																							
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- MJob 3-2	<div style="width: 80%; height: 10px; background-color: green;"></div> Running	Visualize <input checked="" type="checkbox"/>																							
- MJob 3-3	<div style="width: 80%; height: 10px; background-color: green;"></div> Running	Visualize <input checked="" type="checkbox"/>																							
- MJob 3-3	<div style="width: 80%; height: 10px; background-color: green;"></div> Running	Visualize <input checked="" type="checkbox"/>																							
Scenario																									
<ul style="list-style-type: none"> ● Prerequisite Condition <ul style="list-style-type: none"> ■ C1: Submitted jobs of '[W] WF1' ● Outcome <ul style="list-style-type: none"> ■ N1: S1 → Move to [15 Postprocessing – Visualization] ■ N2: S2 → Move to [15-A Downloading Result] (to be designed) ● Scenario <ul style="list-style-type: none"> ■ S1 <ul style="list-style-type: none"> ◆ Check 'Status' of the jobs ◆ For Multiple job (M.Job), the panel is collapsible ◆ Click 'Visualize' button for a job finished ('DONE') → N1 ■ S2 <ul style="list-style-type: none"> ◆ Check 'Download' for finished jobs ◆ Click 'Download' button → N2 																									

15

Postprocessing – Visualization



Scenario

- Prerequisite Condition
 - C1:Job, M.Job 3-1, has been done
- Outcome
 - N1: Move to [14 Simulation Monitoring]
 - N2: * or Move to [15-B Job List] (to be designed)
- Scenario
 - S1
 - ◆ Visualize the result with 'CoolVis'
 - ◆ Click 'Close' → N1 [or N2]