

# xPPM-neo alpha 2 User Manual

## 1. Introduction

### 1.1 How to Install xPPM-neo alpha 2

- Download the installation file using the link below.

## Cospec Innolab xPPM-Neo alpha 2.0

**Name:** xPPM-Neo alpha 2.0

**Version:** 1.0.0.53

**Publisher:** Cospec Innolab

The following prerequisites are required:

- Microsoft .NET Framework 4.6.2(x86 및 x64)

If these components are already installed, you can [launch](#) the application now. Otherwise, click the button below to install the prerequisites and run the application.

Install

[ClickOnce & .NET Framework Resources](#)

Download link: <http://www.inno-lab.co.kr/xppm-alpha2/>

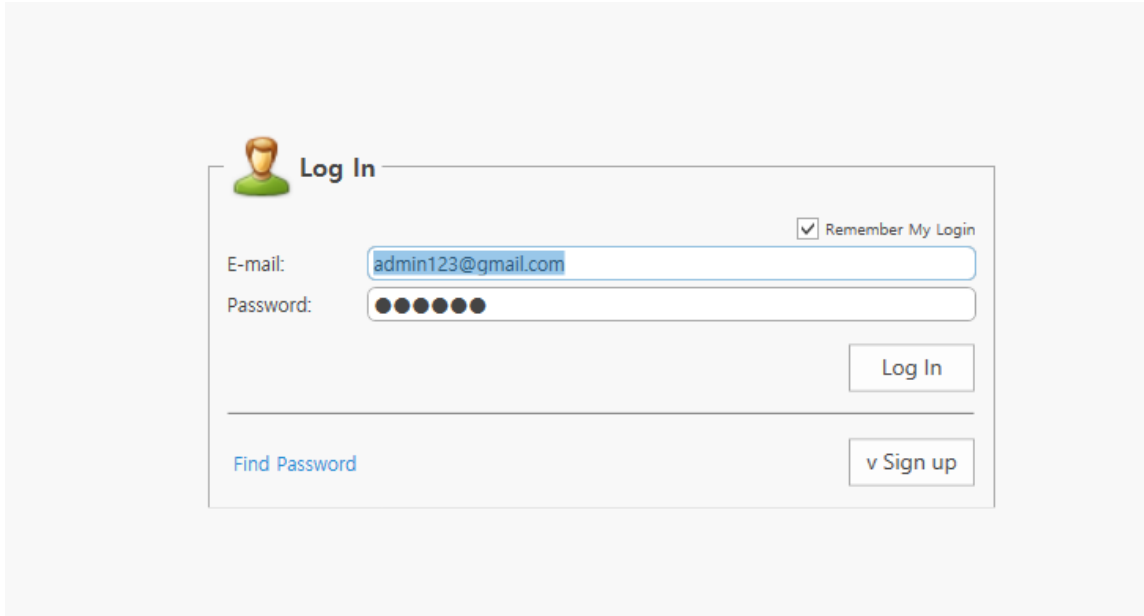
- Double-click setup.exe to install xPPM-neo alpha 2.0.



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## 1.2 Log In

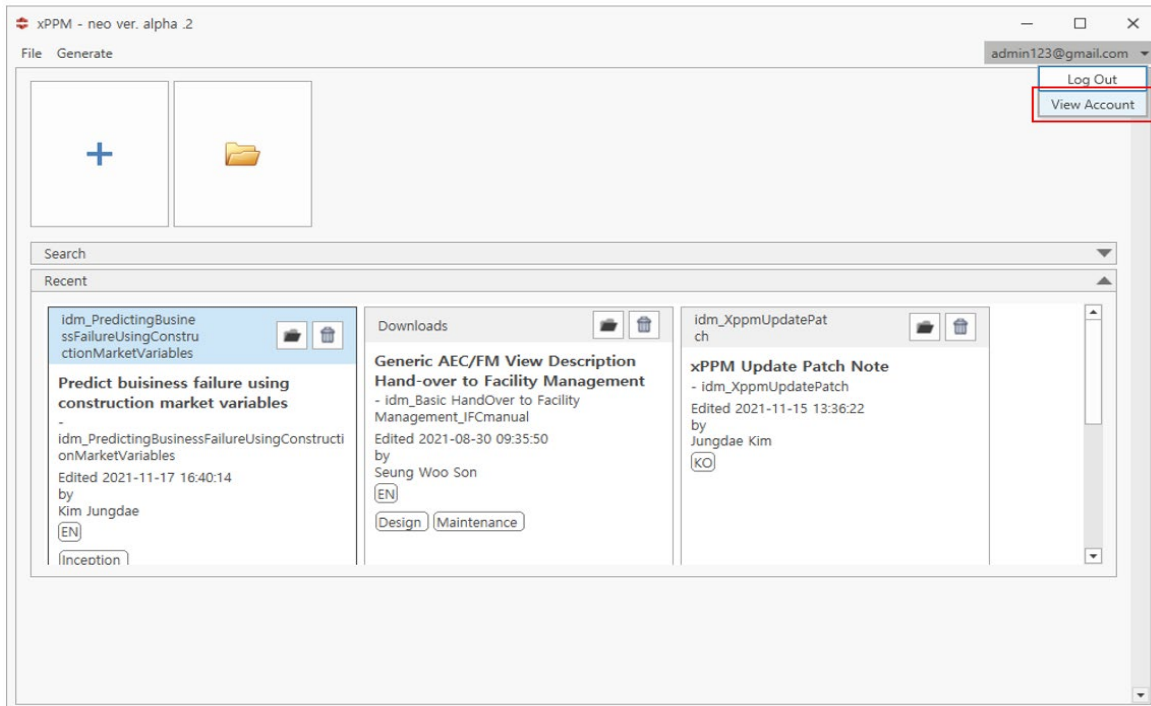
- Sign up for a new alpha test account and log in.



The screenshot shows a web-based login form titled "Log In" with a user icon. It includes a "Remember My Login" checkbox, an "E-mail" field containing "admin123@gmail.com", and a "Password" field with masked characters. There are "Log In", "Find Password", and "v Sign up" buttons.

## 1.3 Account Management

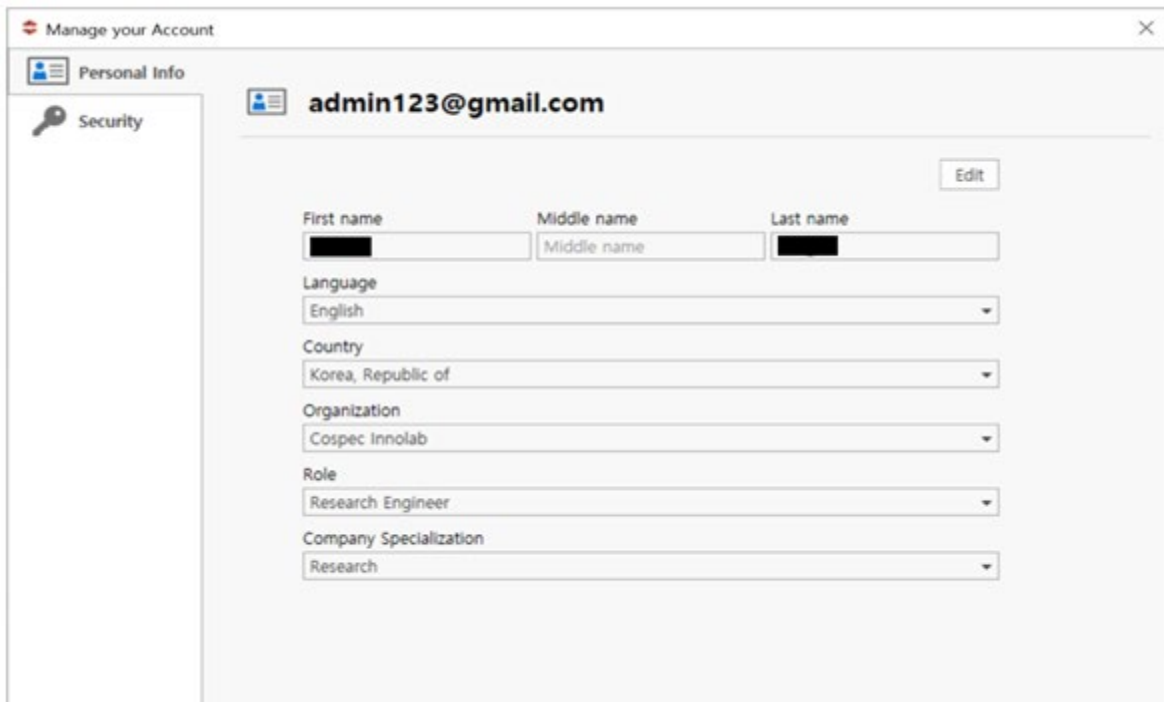
- To manage your account, click on your account ID (email address) and select "View Account."



The screenshot shows the xPPM application interface. The top right corner displays the user's email address "admin123@gmail.com" with a dropdown menu containing "Log Out" and "View Account" options. The "View Account" option is highlighted with a red box. The main content area shows a "Recent" list of documents, including "Predict business failure using construction market variables", "Generic AEC/FM View Description Hand-over to Facility Management", and "xPPM Update Patch Note".

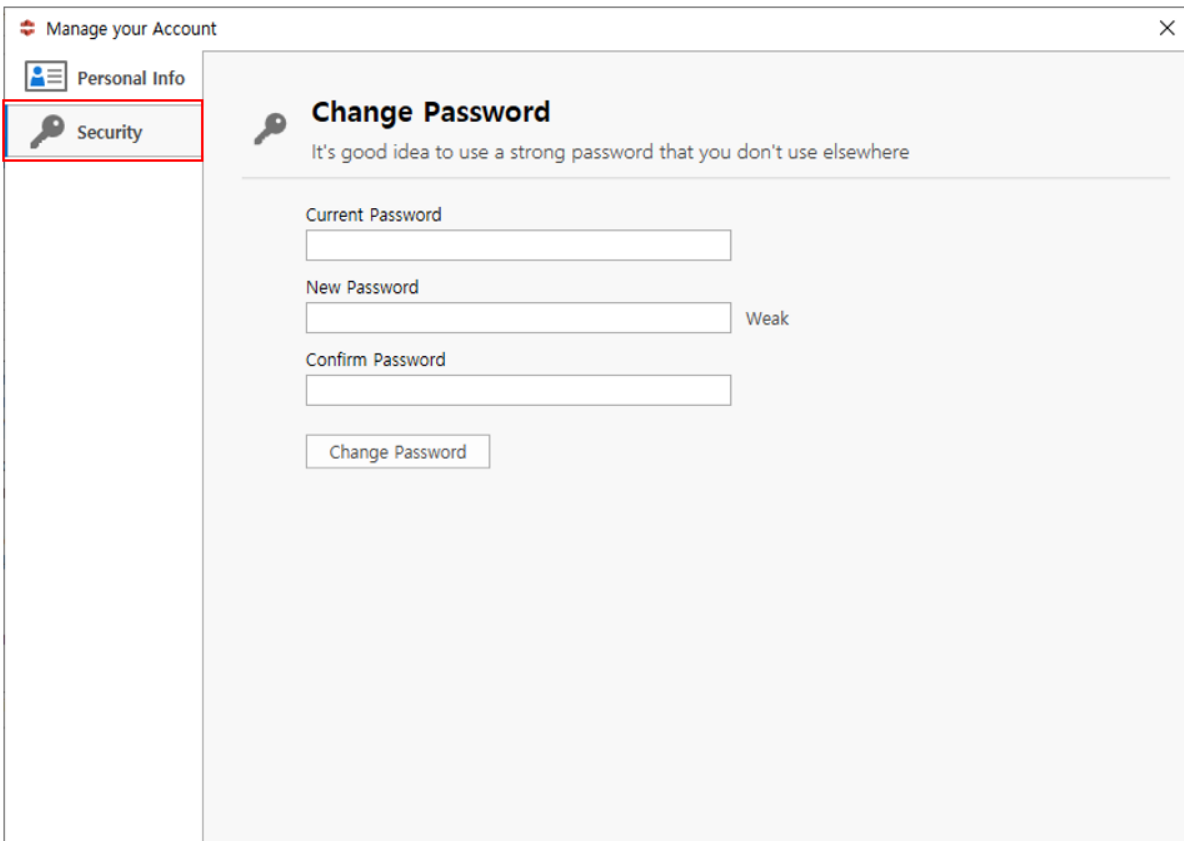
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- You can check or modify your account information from the “Personal Info” tab.



The screenshot shows the 'Manage your Account' window with the 'Personal Info' tab selected. The user's email address is 'admin123@gmail.com'. The form includes fields for First name, Middle name, and Last name (with redacted values), Language (English), Country (Korea, Republic of), Organization (Cospec Innolab), Role (Research Engineer), and Company Specialization (Research). An 'Edit' button is located at the top right of the form.

- You can change your password from the “Security” tab.

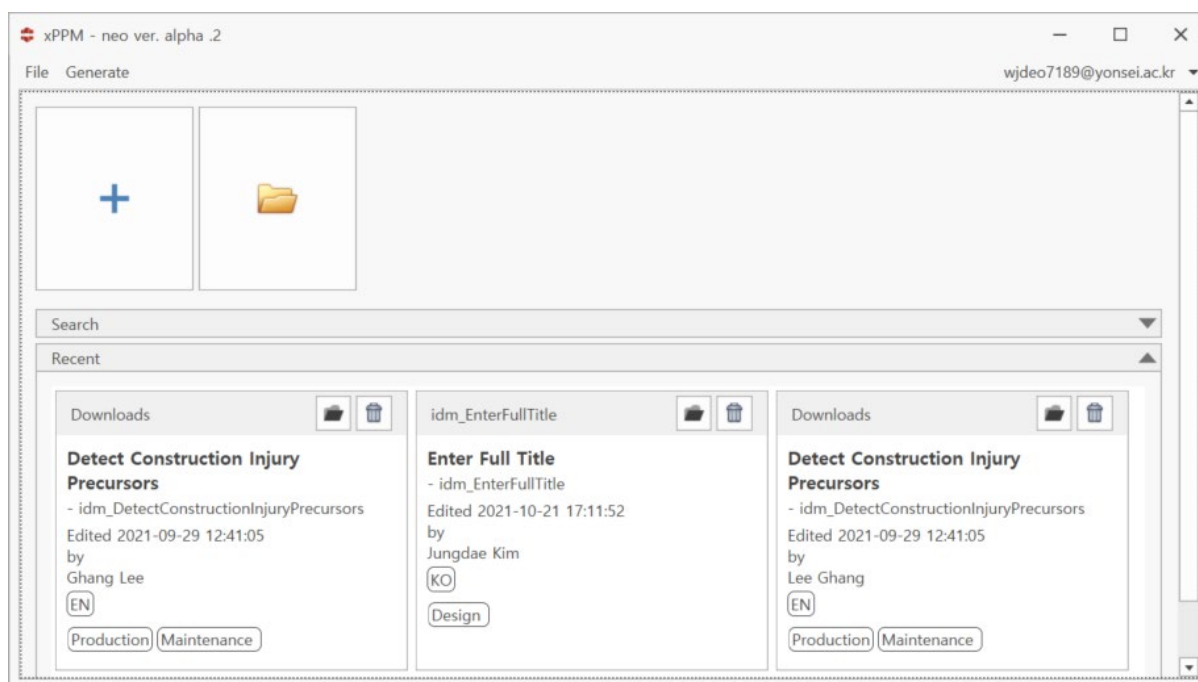


The screenshot shows the 'Manage your Account' window with the 'Security' tab selected. The main heading is 'Change Password' with a sub-heading 'It's good idea to use a strong password that you don't use elsewhere'. The form contains three password input fields: 'Current Password', 'New Password', and 'Confirm Password'. The 'New Password' field has a 'Weak' status indicator. A 'Change Password' button is located at the bottom of the form.

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## 1.4 My Library

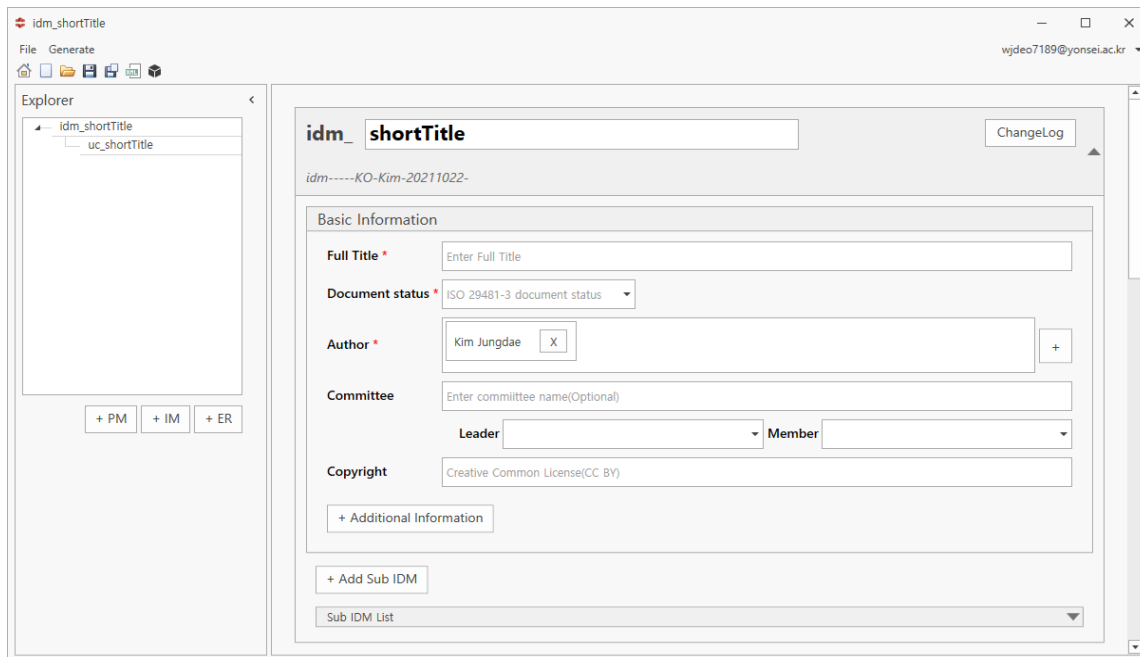
- To create a new IDM document, click on the large “+” button.
- To open an existing IDM document, click on the folder button.
- Existing IDM documents can be located using the “Search” tab. Search options will appear when you click on the triangle button on the right.
- Recent IDM documents can be browsed from the “Recent” tab.



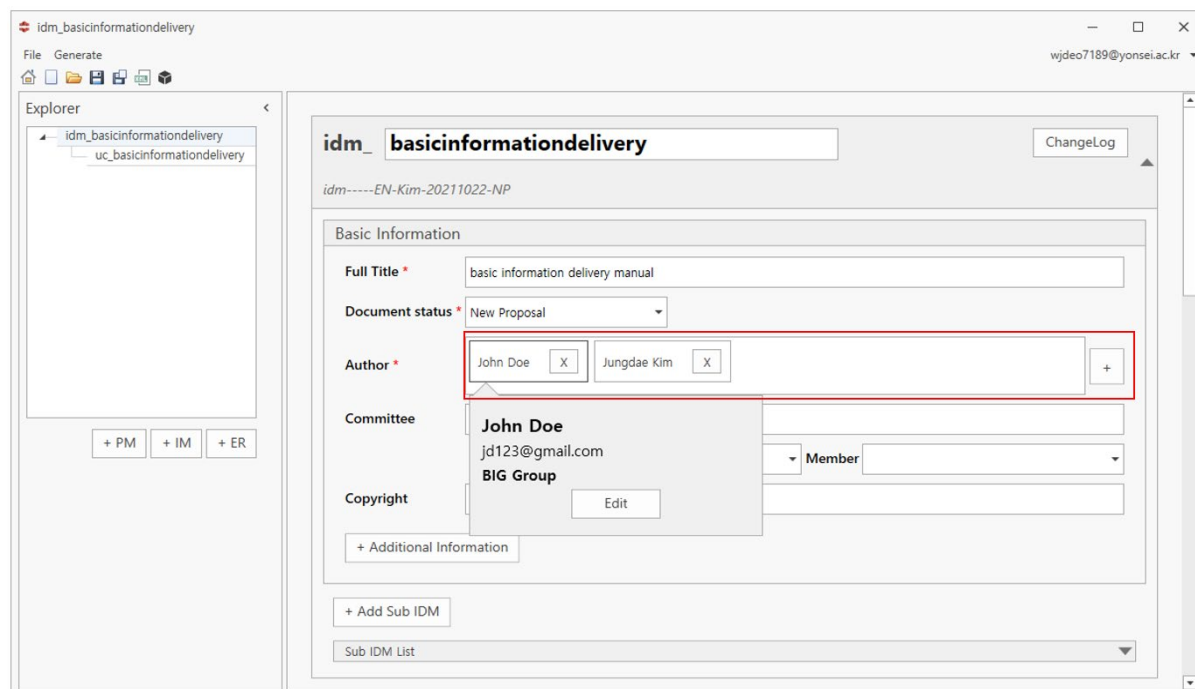
## 2. IDM Documentation

### 2.1 IDM Basic Information

- Input basic information about your IDM (title, status, author, committee, etc.).
- Do not miss any required information. Required information items are marked with asterisks (\*).



- Multiple authors' information can be entered and edited.



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- You may also add further information, such as subtitle, local code, local standard status, version, and publisher, by clicking on the “Additional Information” button below “Version” and checking the items that you would like to add in the “Additional Information” pane on the right side.

The screenshot shows the 'idm\_basicidm' application window. The main form is titled 'idm\_ basicinformationdelivery' and contains the following fields: Full Title (basic information delivery manual), Status (New Proposal), Author (Ransijn Lex, Lee Ghang, Kim Jungdae), Committee (bSI IDM Toolkit Project Group), Copyright (Creative Common License(CC BY)), and Version (1.0). A red box highlights the 'Additional Information' pane on the right, which contains checkboxes for Subtitle, Local Code, Local Standard Status, Version, and Publisher. The 'Version' and 'Publisher' checkboxes are checked. The 'Apply' and 'Close' buttons are visible at the bottom of the pane.

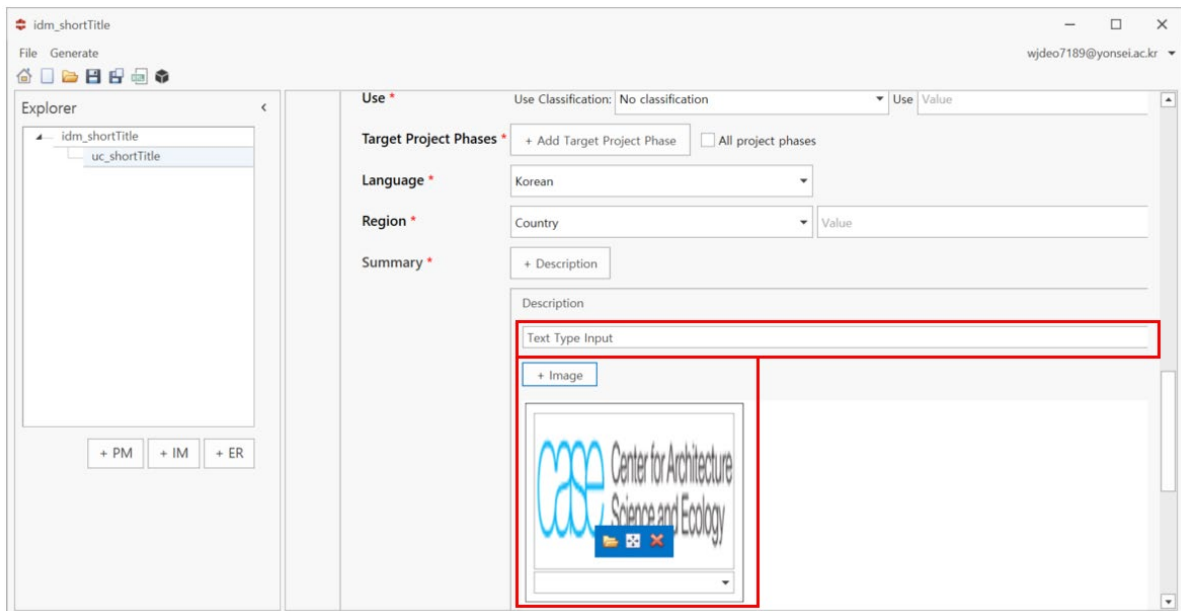
## 2.2 Use Case (UC) Specification

- Check “Same as the IDM basic information” if a use case (UC) is specified by the same author group. If not, you may input new values for each field.

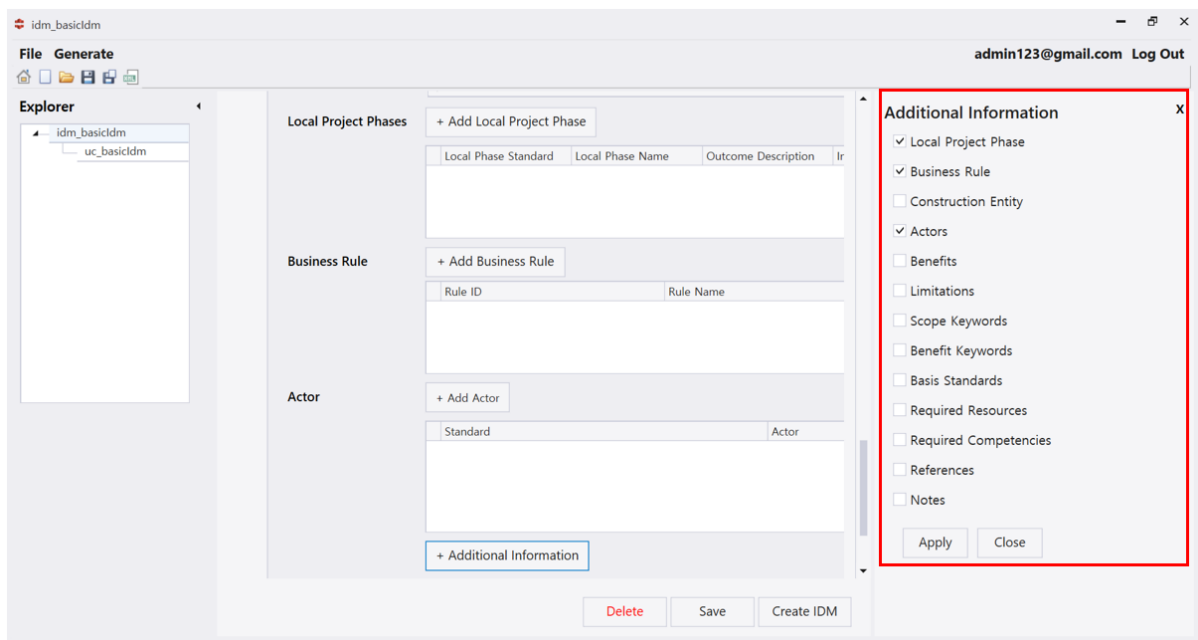
The screenshot shows the 'uc\_basicidm' application window. The main form is titled 'uc\_ basicinformationdelivery' and contains the following fields: Full Title (basic information delivery manual), Status (New Proposal), Author (Ransijn Lex, Lee Ghang, Kim Jungdae), Committee (bSI IDM Toolkit Project Group), Copyright (Creative Common License(CC BY)), and Version (1.0). A red box highlights the 'Additional Information' pane on the right, which contains a checkbox labeled 'Same as the IDM basic information' that is checked. The 'Apply' and 'Close' buttons are visible at the bottom of the pane.

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- Input “Target Project Phases,” “Language,” “Region,” “Summary,” and “Aim and Scope” to explain your UC.
- A summary can consist of a series of descriptions, including text and matching images.



- There are further optional elements for UC definition. Some elements, such as actors and business rules, can also be referenced by the other IDM components (i.e., PM and ER).



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- A business rule describes the constraints that can be applied to the set of data used for a particular process or activity. Multiple business rules can be added.
- A unique rule ID should be given to each business rule so that business rules can be referenced by constraints in the ER. The main difference between a business rule and a constraint is that a business rule is a restriction from a work process perspective, whereas a constraint is a restriction from an information requirement perspective.

The screenshot shows the IDM BasicIDM application interface. On the left is the Explorer pane showing a tree view with 'idm\_basictdm' and 'uc\_basictdm'. The main workspace is divided into three sections: 'Local Project Phases', 'Business Rule', and 'Actor'. The 'Business Rule' section is active, displaying a table with one row: Rule ID 'f02f88da-acf0-4f37-9f16-81a7a2a465a1' and Rule Name 'countryRegulation'. A 'BusinessRule' dialog box is open on the right, showing the same rule details. The dialog includes fields for Rule ID, Rule Name, Proposition, and Reference, with the Proposition text: 'All of the conditions are following each country regulation.' Buttons for 'Save' and 'Cancel' are at the bottom of the dialog.

- Define actors. If actor names/roles are specified according to a certain actor classification standard, such as OmniClass™ Table 33, the standard can also be specified.

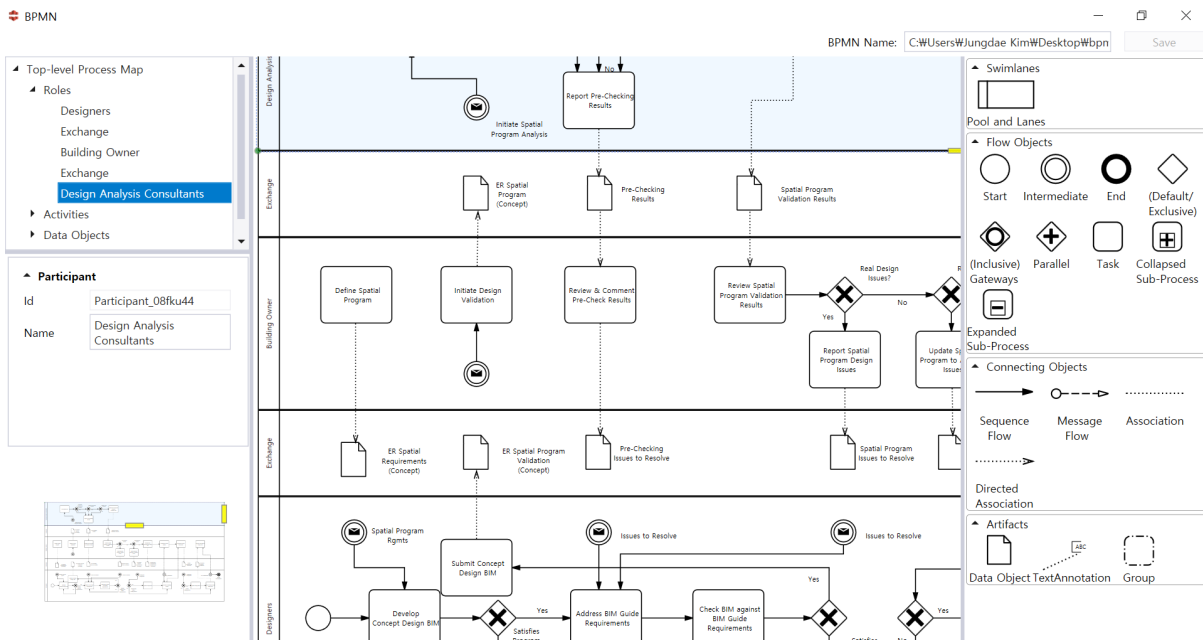
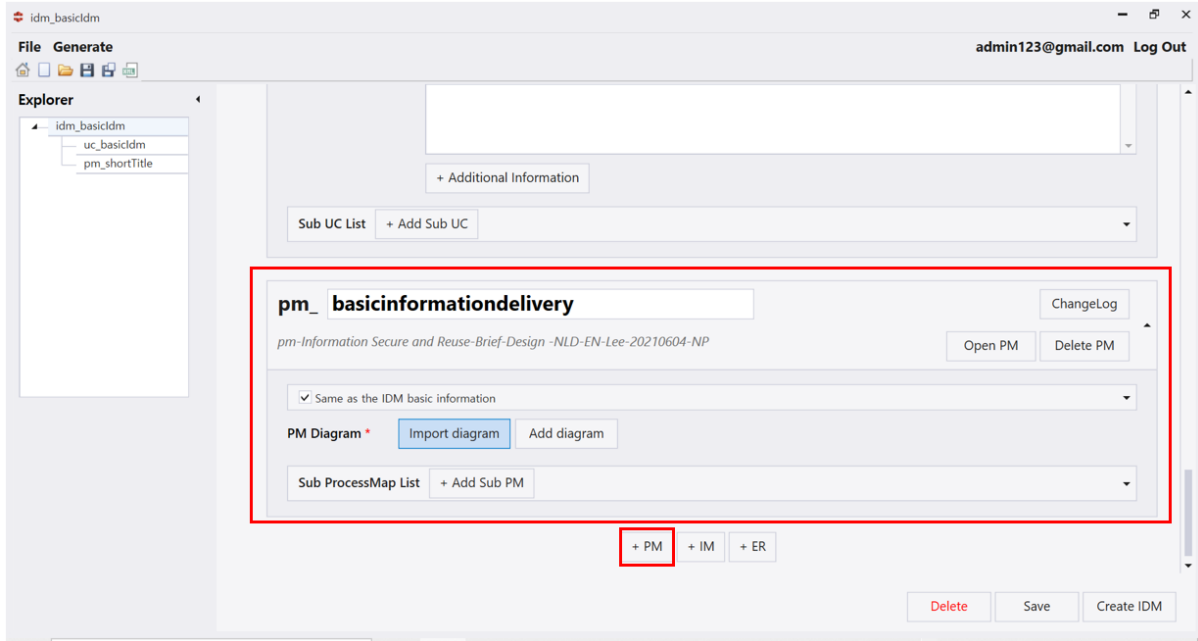
The screenshot shows the IDM BasicIDM application interface with the 'Actor' section active. The 'Local Project Phases' table has columns for 'Local Phase Standard', 'Local Phase Name', 'Outcome Description', 'Information Requirement...', and 'Exchange Requirement'. The 'Business Rule' table has columns for 'Rule ID', 'Rule Name', and 'Proposition'. The 'Actor' table has columns for 'Standard', 'Actor', and 'Exchange Requirement'. A row is highlighted in the Actor table with Standard 'Omniclass Table 33' and Actor 'architect'. A red box highlights the Actor table area. Buttons for 'Delete', 'Save', and 'Create IDM' are at the bottom.



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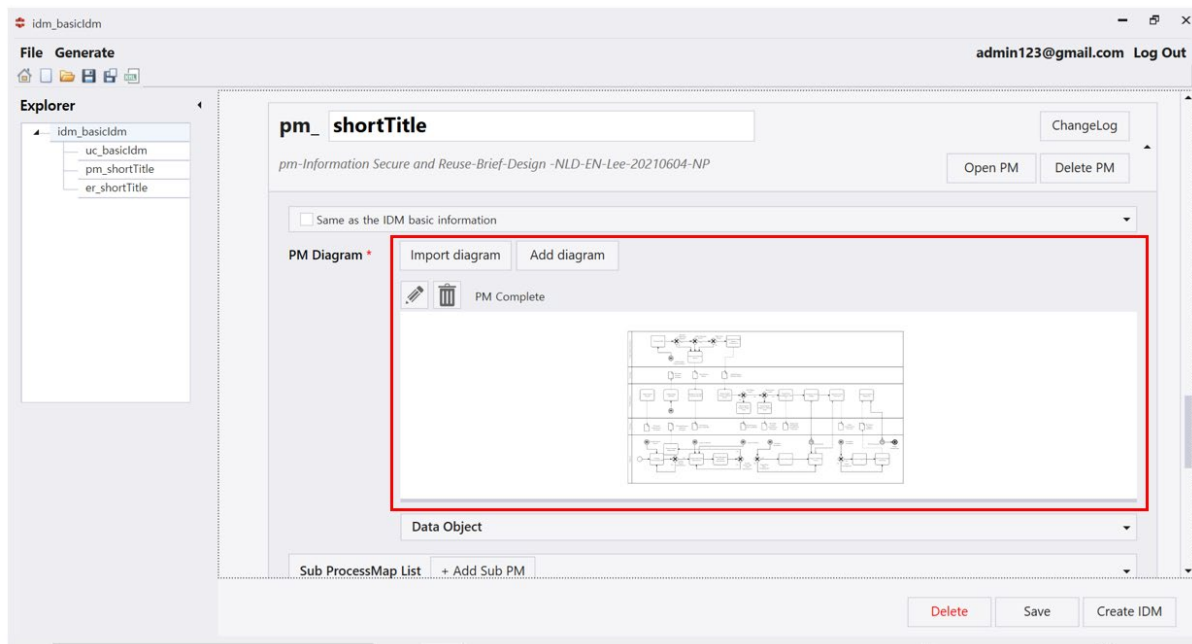
### 2.3 Business Context Map

- A business context map can be specified as a process map (PM) or an interaction map (IM). Currently, xPPM-neo has a PM editor in the business process modeling notation (BPMN) format but does not have an IM editor. IMs can be read only as images.
- To add a PM, click on the PM button, then click on the “Add diagram” button to create a new PM using the BPMN editor.

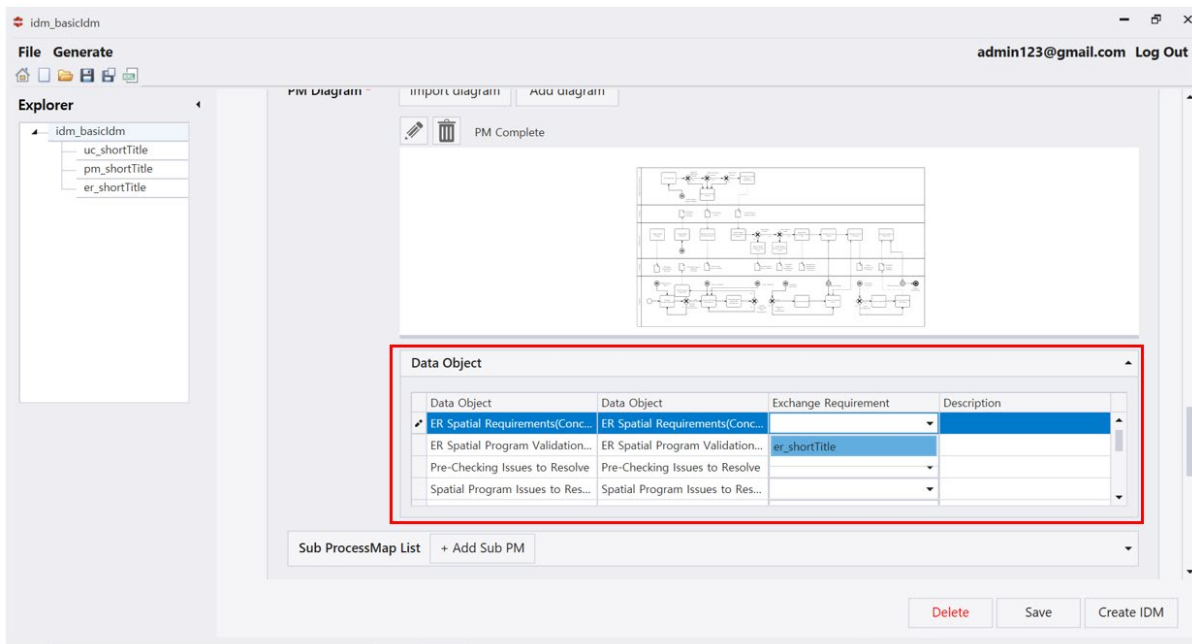


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- To import an existing PM, click on “Import diagram” and select a desired BPMN file (\*.bpmn).

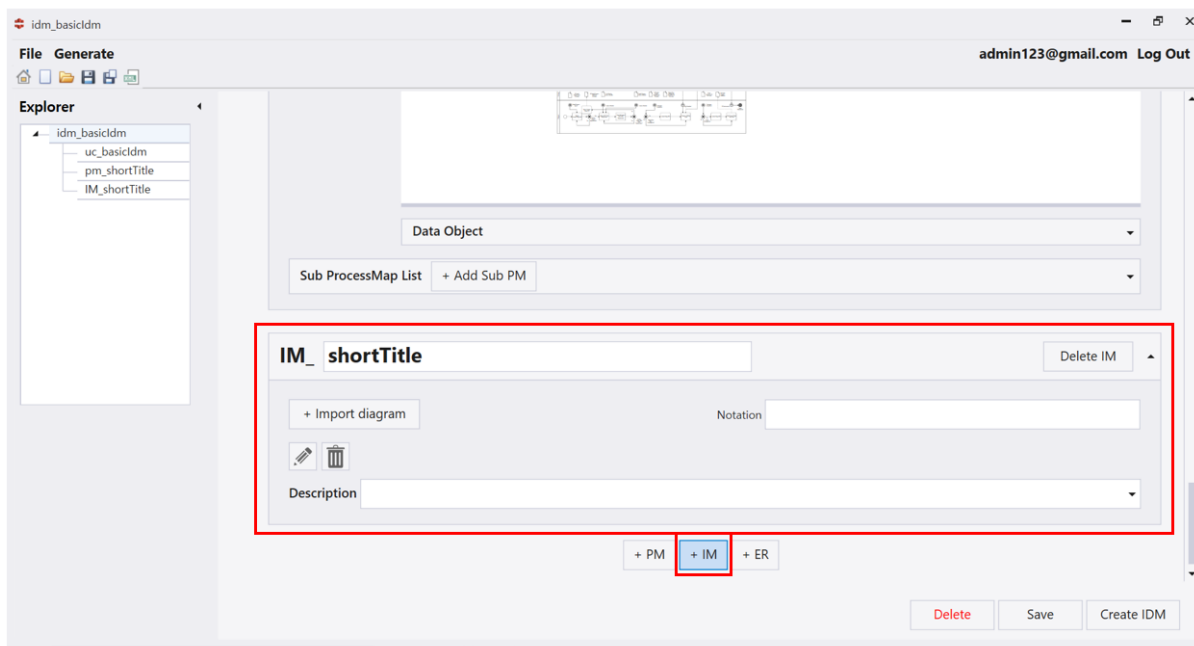


- Once a BPMN diagram is registered, the data objects in your PM will automatically be listed in the data object table.
- Data objects can be mapped to ERs after you finish registering the ERs. The ER specification method is explained in the next section.



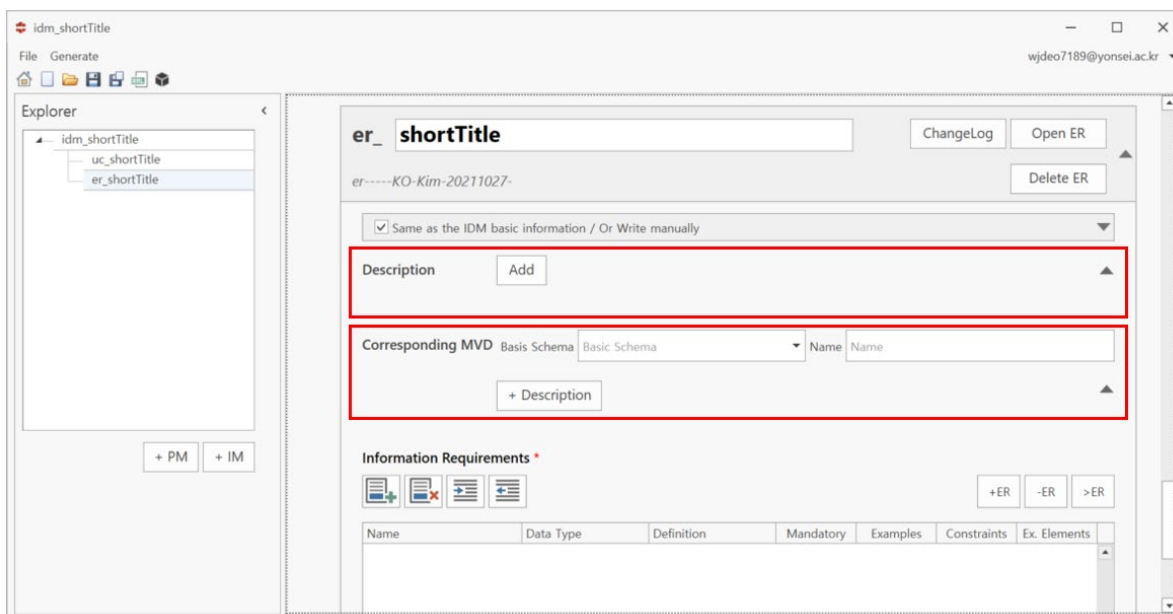
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- IMs can be uploaded as image files.

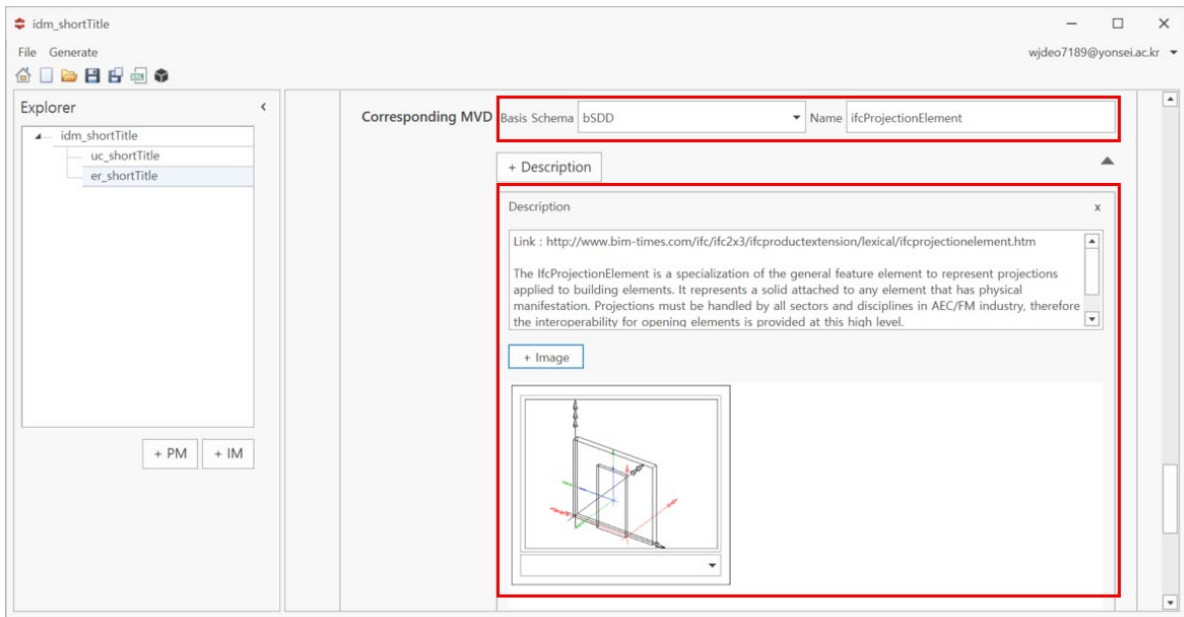


## 2.4 ERs

- Input a description for your ER.
- Specify an MVD corresponding to your ER if required. When defining a corresponding MVD, you can define the basis schema and name of the MVD and add a description with relevant images. The basis schema is the data schema, such as IFC or OpenGIS, that an MVD is based on.

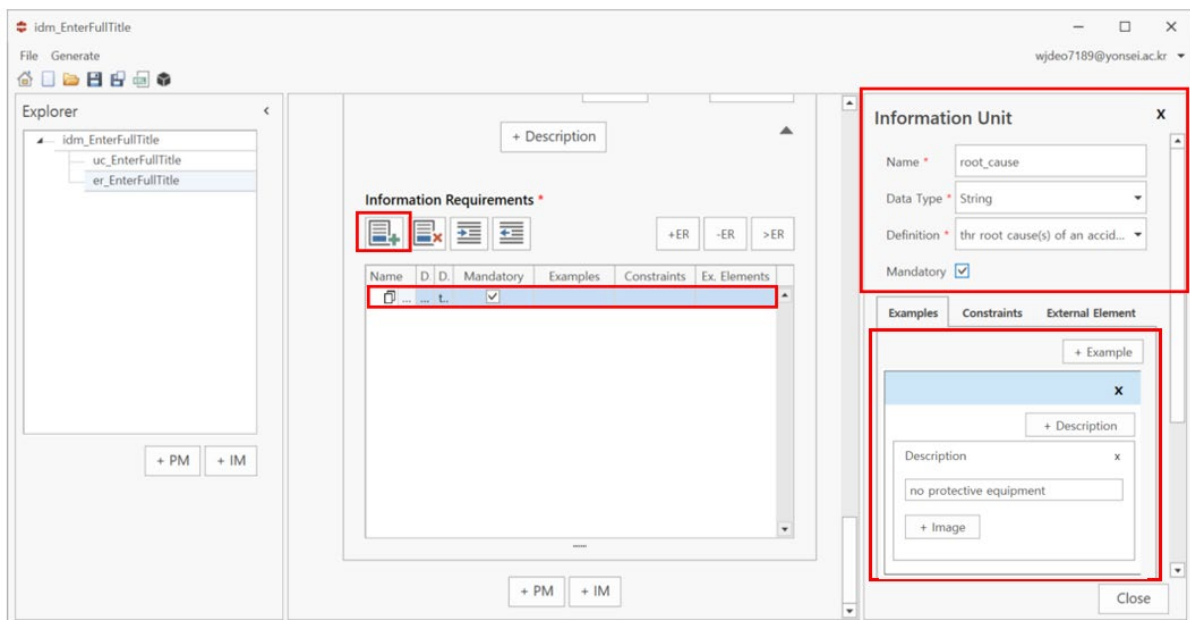


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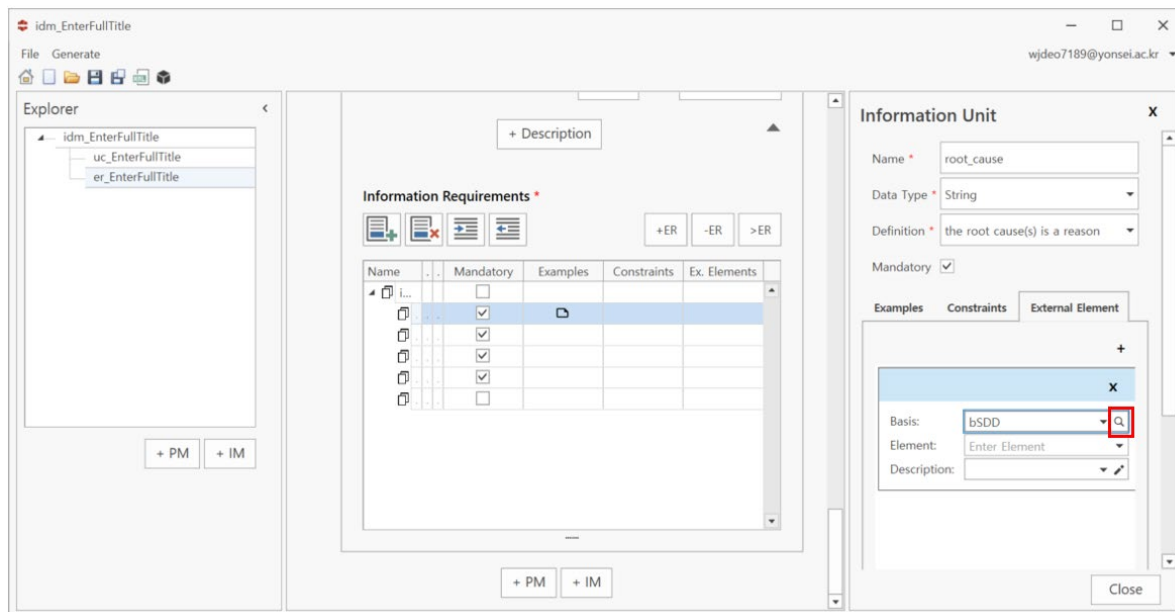
#### 2.4.1 Information Unit

- Click “Add Information Unit” to add a new information unit.
- Double click to define the name, the data type, whether the information is mandatory, the definition, and examples for the selected information units.



### 2.4.2 External Element

- You can also map an information unit to an element of an existing open standard data schema, such as IFC, OpenGIS, CityGML, or bSDD, from the “External Element” tab on the “Information Unit” pane on the right side.
- To specify the basis standard for a corresponding external element, select “Basis Standard.”
- xPPM-neo alpha 2 supports direct connection to the bSDD database. To map information units to bSDD elements, select bSDD as the basis standard and click the magnifier icon to search for corresponding bSDD elements.



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- Search for corresponding external elements (e.g., IFC elements in bSDD) using the element name, description, keywords, etc.

The screenshot shows the 'buildingSMART Data Dictionary' application window. At the top, there is a search bar with the text 'ifcbearing' and a 'Search' button. Below the search bar, a table titled 'Classification' is displayed. The table has three columns: 'Domain Name', 'Name', and 'Description'. The 'ifcBearing.POT' row is highlighted in blue. Below the table, there is a 'Property' section with a table that is currently empty. A 'Select' button is located at the bottom right of the window.

Domain Name	Name	Description
IFC	ifcBearing	Type of building element that is us...
IFC	ifcBearing.CYLINDRICAL	The bearing functionality is provide...
IFC	ifcBearing.DISK	A disk bearing consist of an elasto...
IFC	ifcBearing.ELASTOMERIC	A pad bearing which carries vertica...
IFC	ifcBearing.GUIDE	A bearing that ensures that the str...
IFC	ifcBearing.POT	A bearing which carries vertical loa...
IFC	ifcBearing.ROCKER	The bearing functionality is provide...
IFC	ifcBearing.ROLLER	The bearing functionality is provide...
IFC	ifcBearing.SPHERICAL	The bearing functionality is provide...

- You can also view the properties of a selected element by double-clicking on the selected element. If you find any properties that are relevant to an ER, you can select them to automatically add them as the information subunits of the initially selected information unit.

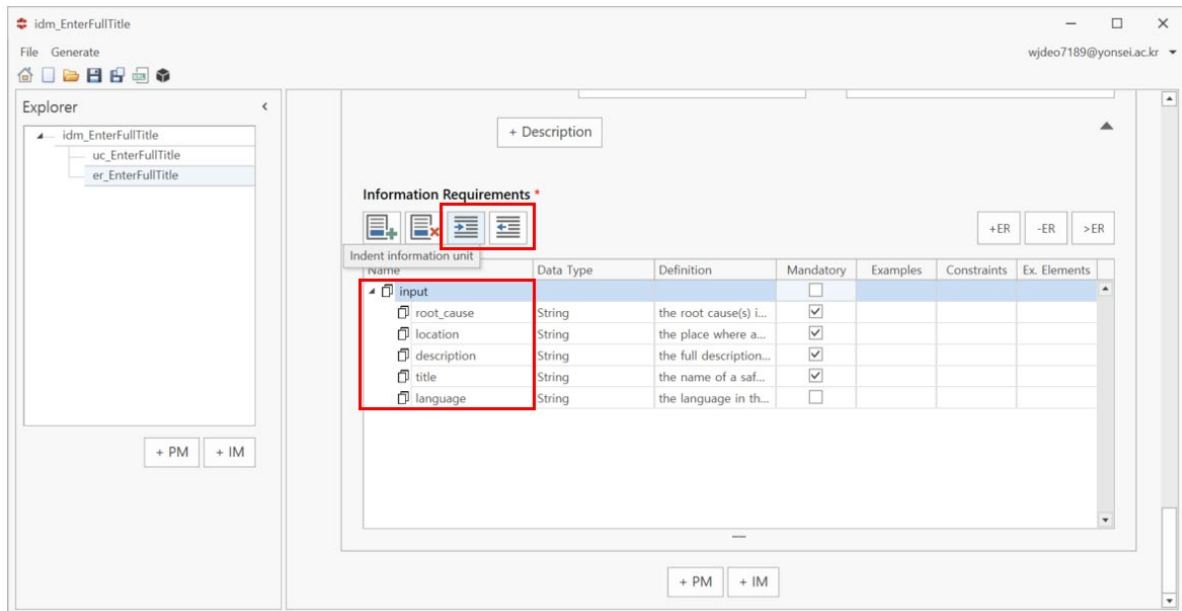
The screenshot shows the 'buildingSMART Data Dictionary' application window. At the top, there is an 'Element' search bar with 'ifcbearing' and a 'Search' button. To the right of the search bar, there are two radio buttons: 'Classification' (checked) and 'Property'. Below the search bar, there are two tables. The first table, titled 'Classification', is the same as in the previous screenshot, with 'ifcBearing.POT' highlighted. The second table, titled 'Property - ifcBearing', has four columns: a checkbox, 'Classification', 'Property name', and 'Description'. Two rows are selected and highlighted in blue: 'ifcBearing' with 'DisplacementAccomodated' and 'ifcBearing' with 'RotationAccomodated'. A 'Select' button is located at the bottom right of the window.

Classification	Property name	Description
<input checked="" type="checkbox"/>	DisplacementAccomodated	A list of exactly three boelea...
<input checked="" type="checkbox"/>	RotationAccomodated	A list of exactly three boelea...

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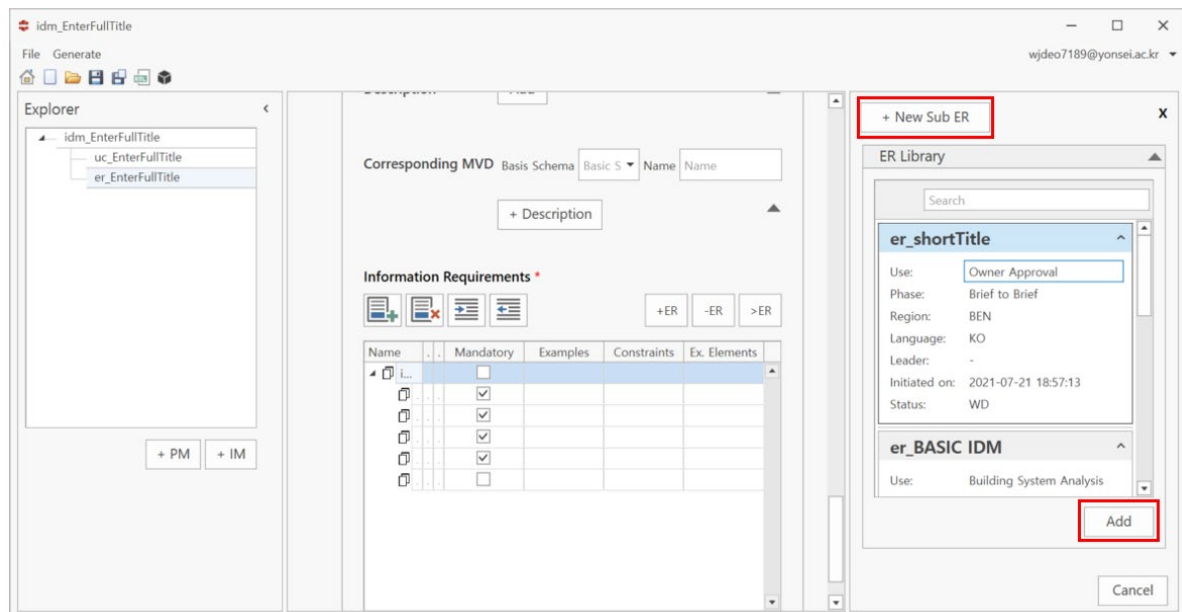
### 2.4.3 Information Subunits

- Use the indentation buttons to specify and modify hierarchical relationships between information units and information subunits.



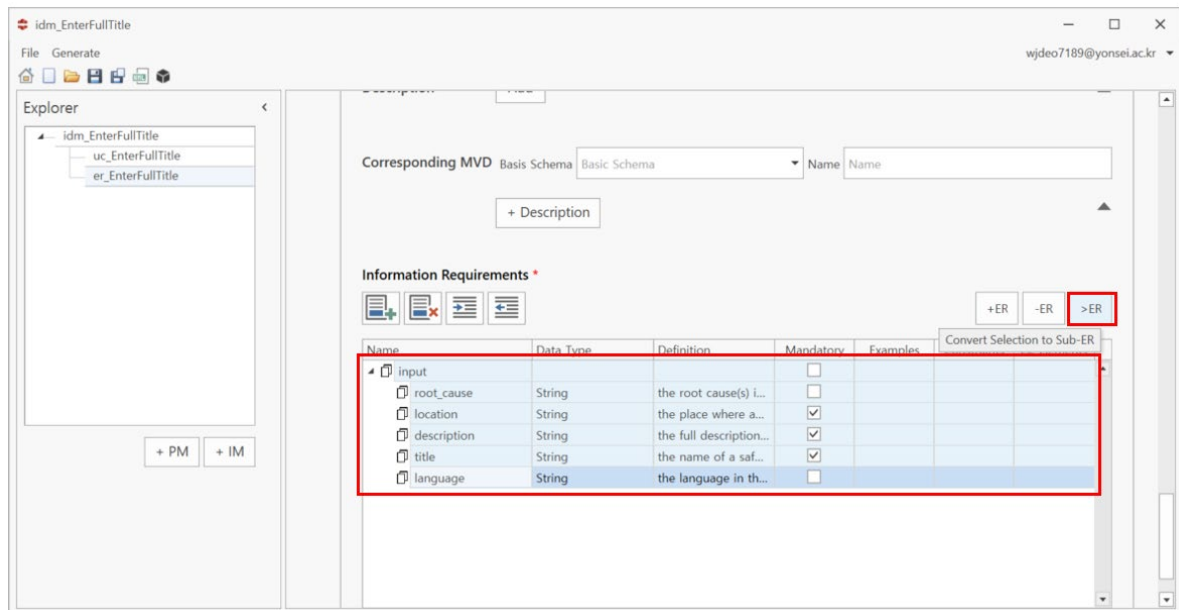
### 2.4.4 Sub-ERs

- To add an existing ER as a sub-ER of the current information requirements list, click on the "+ER" button.
- To remove a sub-ER from the information requirements list, click on the "ER" button.



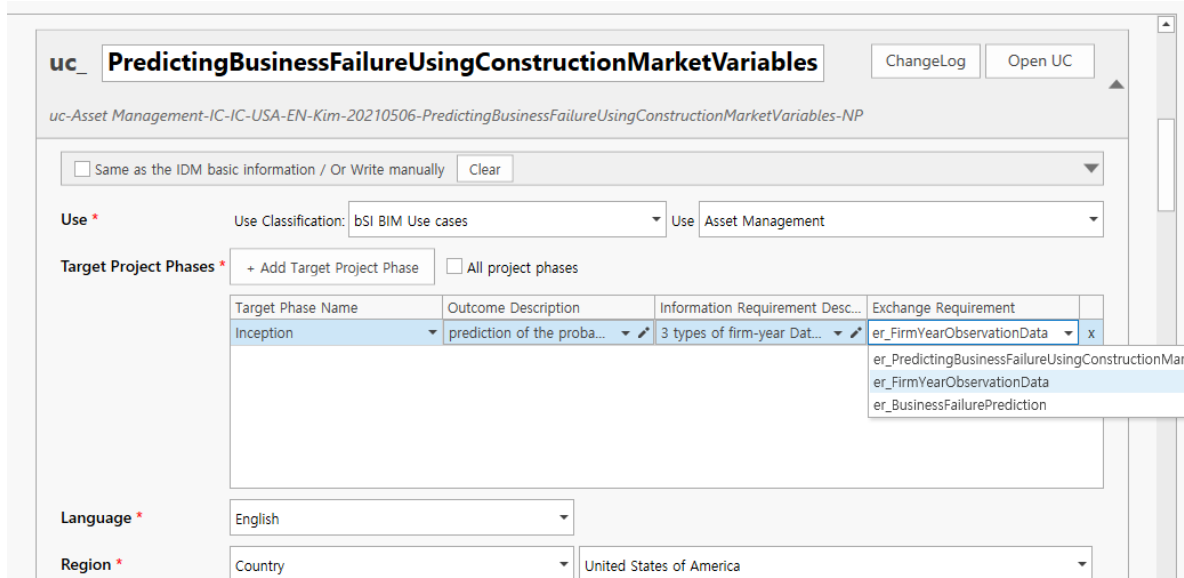
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- To convert a list of information units into an independent sub-ER, select existing information units to convert them and click on the “>ER” button.



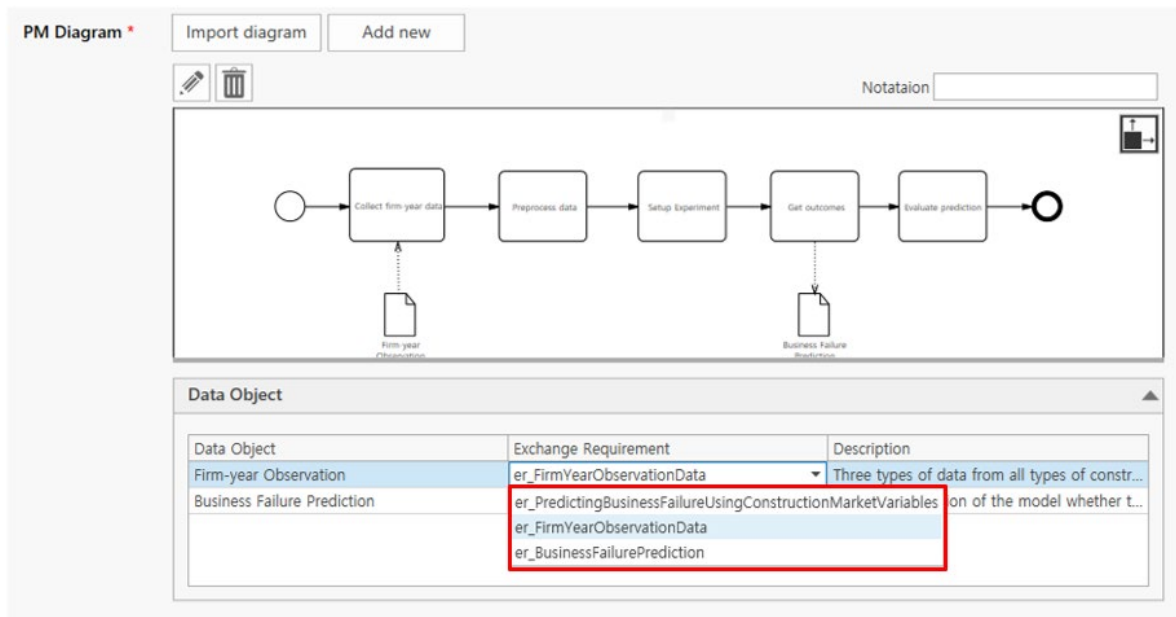
#### 2.4.5 Referencing an ER by Other IDM Components

- After completing an ER registration, ERs can be referenced by the other IDM components, such as target project phases in the UC (Section 2.2) or data objects in the PM (Section 2.3).





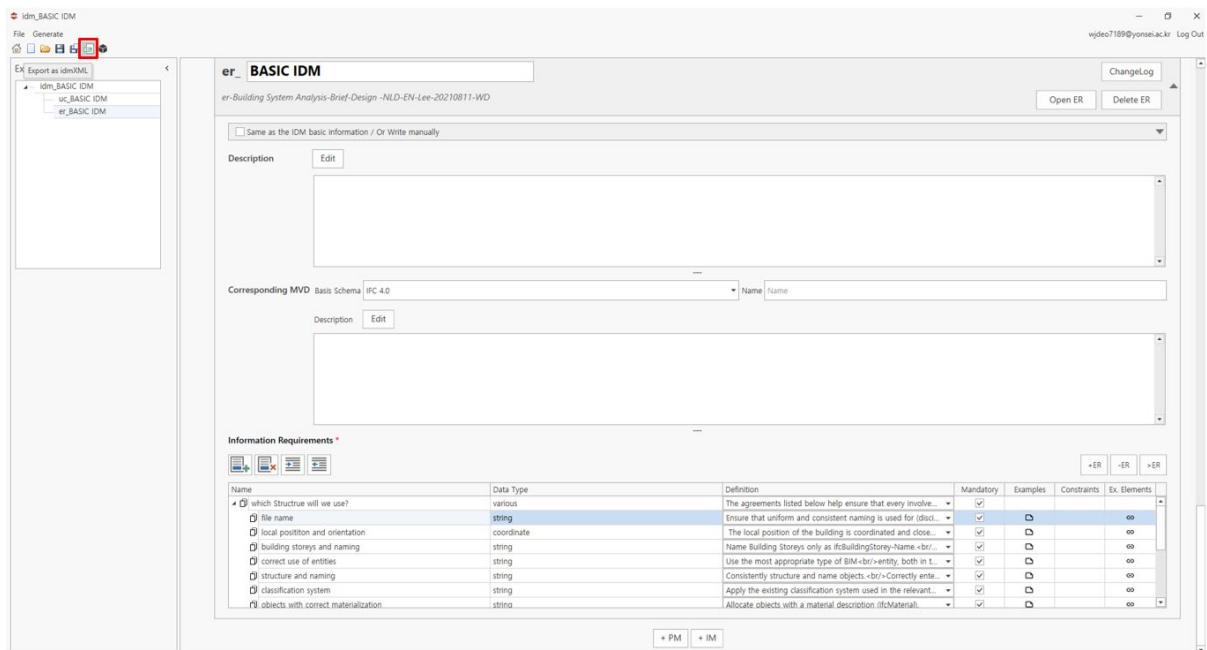
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### 3 IDM Export

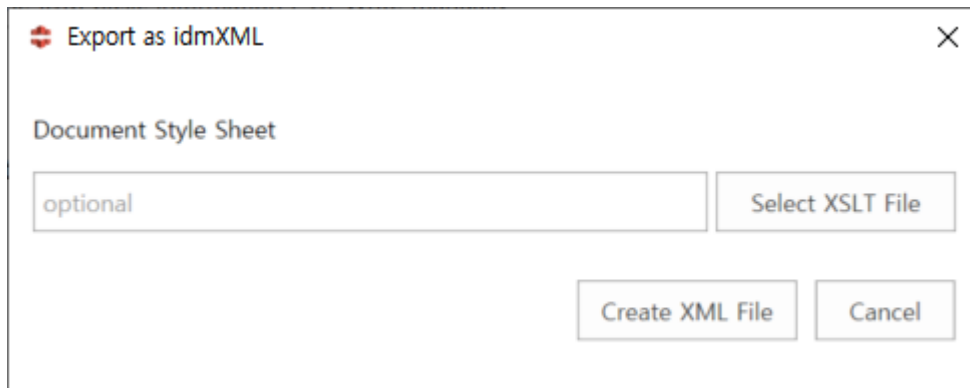
#### 3.1 Exporting an IDM Document as an idmXML File

- Click on the "Export" icon on the menu bar or menu ribbon to export an IDM document as an idmXML file.



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- Optionally, you can select an eXtensible Stylesheet Language transformation file (\*.xslt) to format the idmXML file.
- Select the path by which to export the \*.xml file.



### 3.2 Browsing Documents

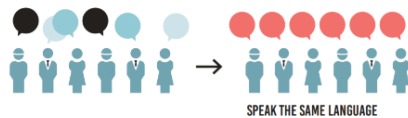
- You can browse for an exported XML file in the Internet Explorer environment.



## BIM BASIC INFORMATION DELIVERY MANUAL (IDM)

### 1. WHY ARE WE SHARING THIS INFORMATION UNAMBIGUOUSLY?

To secure and reuse information more efficiently and effectively.



### 2. HOW ARE WE GOING TO SHARE THIS INFORMATION UNAMBIGUOUSLY?

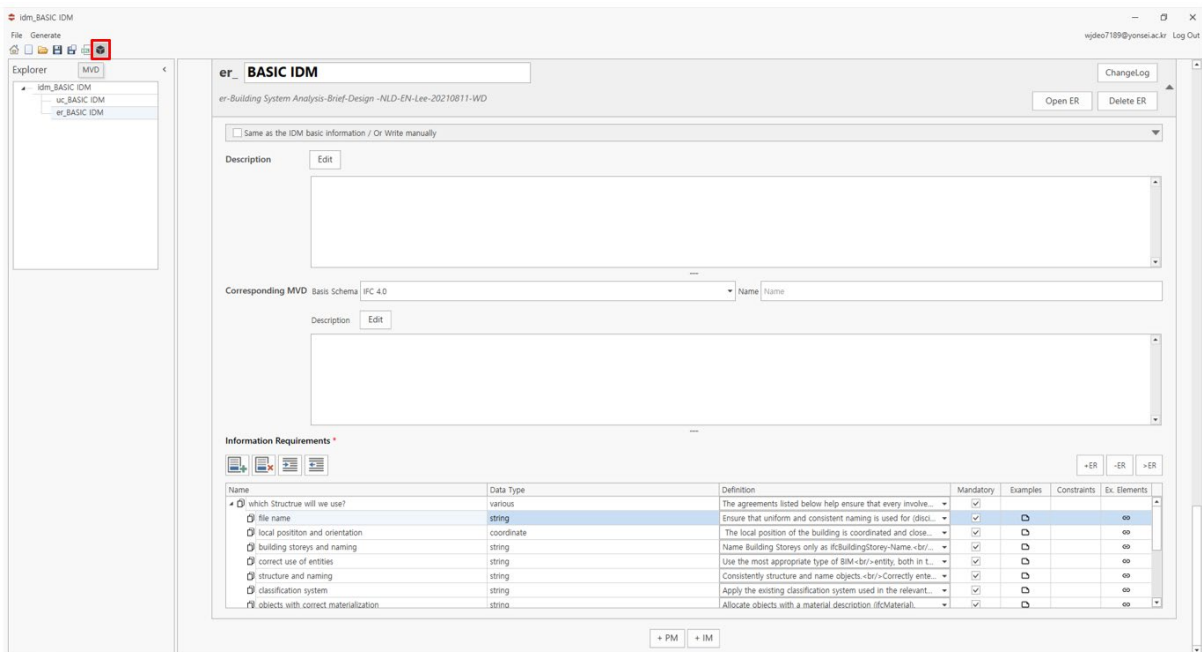
Knowledge and practical experiences have shown that there is a significant common denominator. We are not developing something new, but rather using existing structures, based on openBIM IFC.



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### 3.3 Generating an MVD

- Click on “Generate MVD” on the Menu bar. Currently, xPPM-neo only supports the generation of an MVD based on IFC 2x3 and IFC 4x2:
  - Lee, G. (2009). “Concept-based method for extracting valid subsets from an EXPRESS schema.” *Journal of Computing in Civil Engineering*, 23(2), 128–135.
- Note that an MVD will not be generated if information units are not mapped to corresponding external elements (i.e., IFC elements).



- Name your MVD Schema and select the basis IFC version, then click on “Generate” to create an MVD in EXPRESS (\*.exp).

The screenshot shows the 'Generate MVD' dialog box. It contains a 'Schema Name' field with the text 'Name your new MVD', an 'IFC Version' section with radio buttons for 'IFC 2x3' and 'IFC 4x2' (selected), and a 'Generate' button.