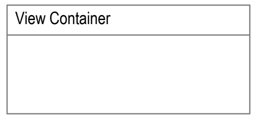
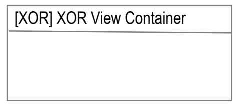
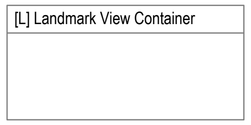
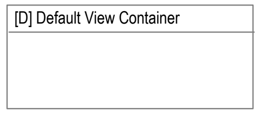
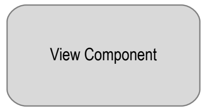
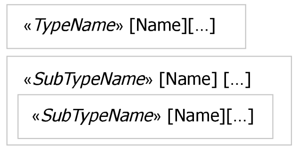
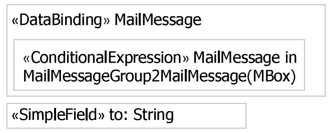
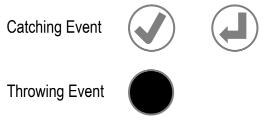
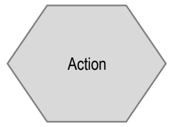
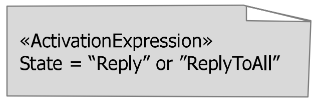
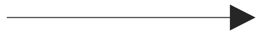
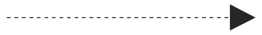
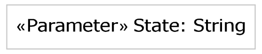
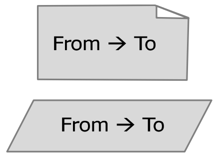
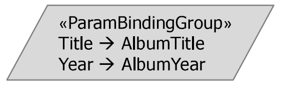
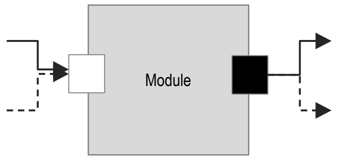
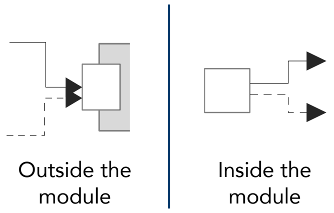
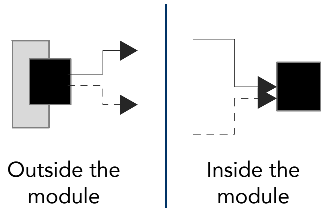
Interaction Flow Modeling Language

Quick Reference Card - Essential Concept list

Concept	Meaning	IFML Notation	Example
View Containers			
View Container	An element of the interface that comprises elements displaying content and supporting interaction and/or other View Containers.		Web page. Window. Pane.
XOR View Container	A View Container comprising child View Containers that are displayed alternatively.		Tabbed panes in Java Frames in HTML.
Landmark View Container	A View Container that is reachable from any other element of the user interface without having explicit incoming Interaction Flows.		The link to the homepage in a website.
Default View Container	A View Container that will be presented by default to the user, when its enclosing container is accessed.		A welcome page.
View Components			
View Component	An element of the interface that displays content or accepts input.		An HTML list. A JavaScript image gallery. An input form.
View Component Part	A part of a View Component that may not live by its own. It can trigger Events and have outgoing and incoming Interaction Flows. A View Component Part may contain other View Component Parts.	 «*TypeName*» [Name][...] «*SubTypeName*» [Name] [...] «*SubTypeName*» [Name][...]	Fields in a form.  «DataBinding» MailMessage «ConditionalExpression» MailMessage in MailMessageGroup2MailMessage(MBox) «SimpleField» to: String
Events			
Event	An occurrence that affects the state of the application.		Selecting an item from a list. Submitting a form.
Actions			
Action	A piece of business logic triggered by an event; it can be server-side (the default) or client-side, denoted as [Client].		A database update. The sending of an email. The spell checking of a text.
Activation Expressions			
Activation Expression	Boolean expression associated with a View Element, View Component Part or Event: if true the element is enabled.		When a user inserts contents in a text area, the send button is enabled.

Concept	Meaning	IFML Notation	Example
Flows			
Navigation Flow	An input-output dependency. The source of the link has some output that is associated with the input of the target of the link.		Sending and receiving of parameters in the HTTP request.
Data Flow	Data passing between View Components or Action as consequence of a previous user interaction.		Transferring the amount of a shopping cart to payment action.
Parameters			
Parameter	A typed and named value.	Optionally show. If necessary can be denoted as follows: 	HTTP query string parameters. HTTP post parameters. JavaScript variables and function parameters.
Parameter Binding	Specification that an input parameter of a source is associated with an output parameter of a target.		Connecting the album title in input from a component to the input parameter of another component.
Parameter Binding Group	Set of Parameter Bindings associated to an Interaction Flow (being it navigation or data flow).	 «ParamBindingGroup» Title → AlbumTitle Year → AlbumYear	Connecting the album title and the album year in input from a component to the input parameter of another component.
Modules			
Module	Piece of user interface and its corresponding actions, which may be reused for improving IFML models maintainability.		The payment execution process to buy products.
Input Port	An interaction point between a Module and its environment that collects Interaction Flows and parameters arriving at the module.		The interaction point for the payment execution that collects the products info.
Output Port	An interaction point between a Module and its environment that collects Interaction Flows and parameters going out from the module.		The interaction point that provides the payment execution confirmation to the external environment (the external IFML model).

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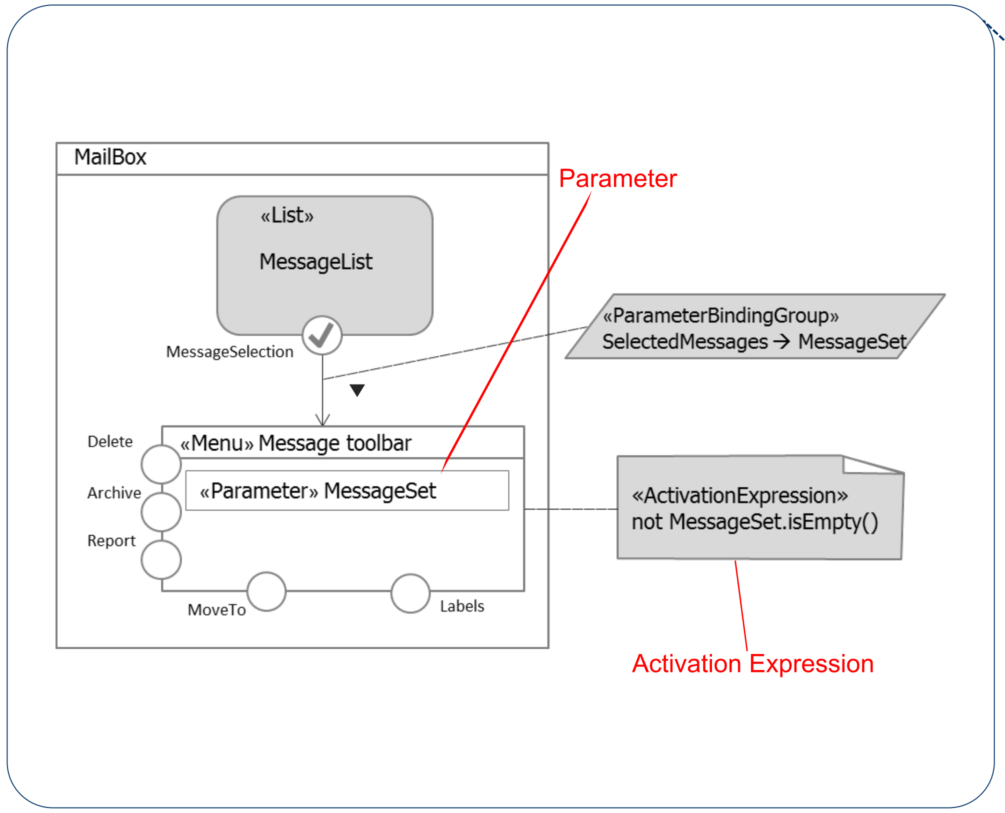
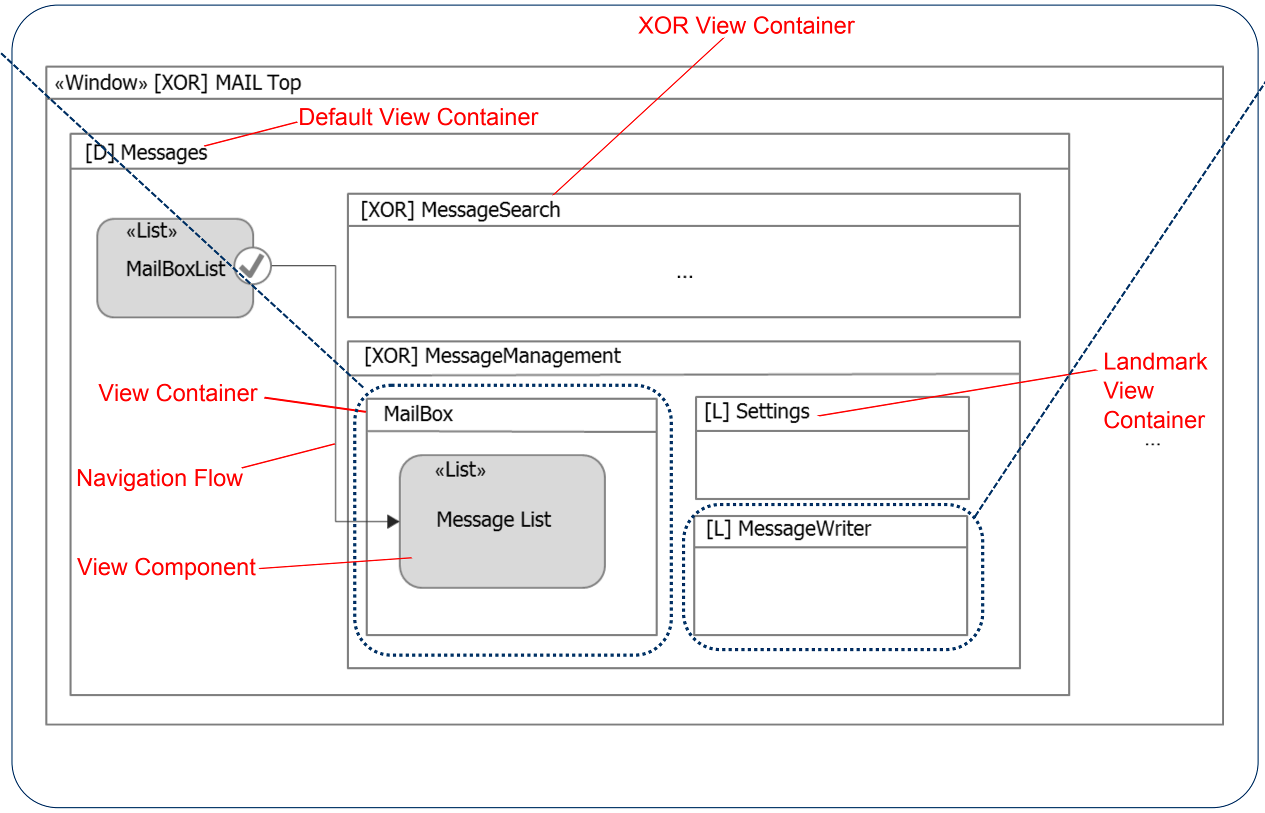
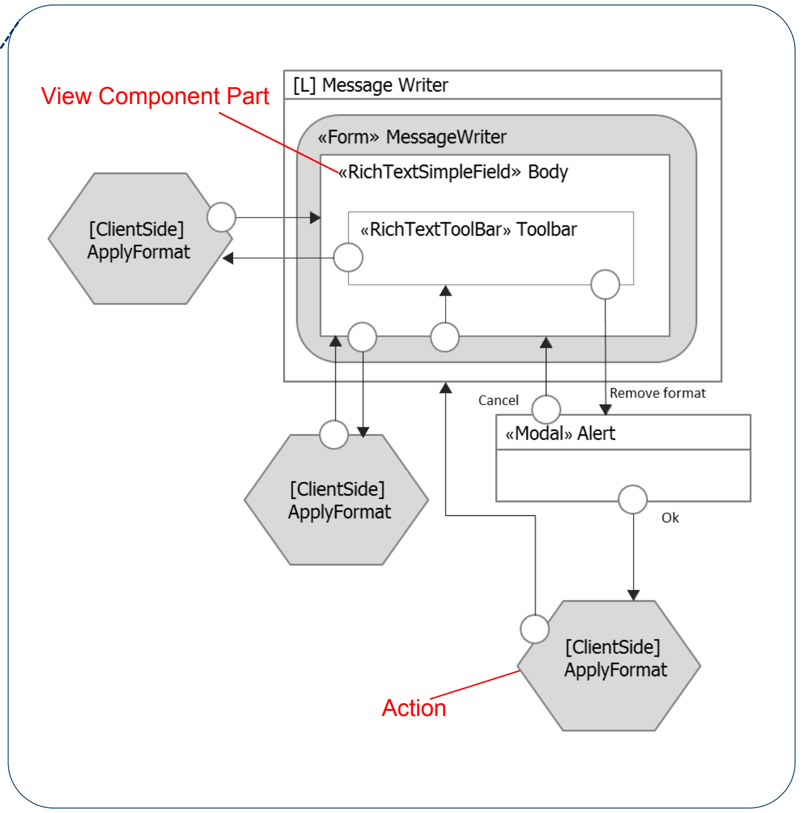
Interaction Flow Modeling Language

Quick Reference Card - Examples

Email service application







Web page describing the content of the mailbox.

MessageList displays the list of the received messages and allows the selection of messages. If one or more messages are selected, the Message toolbar is displayed, enabling various events to be triggered (delete/archive/report/move/label).
The selected messages are passed to the toolbar as parameters.

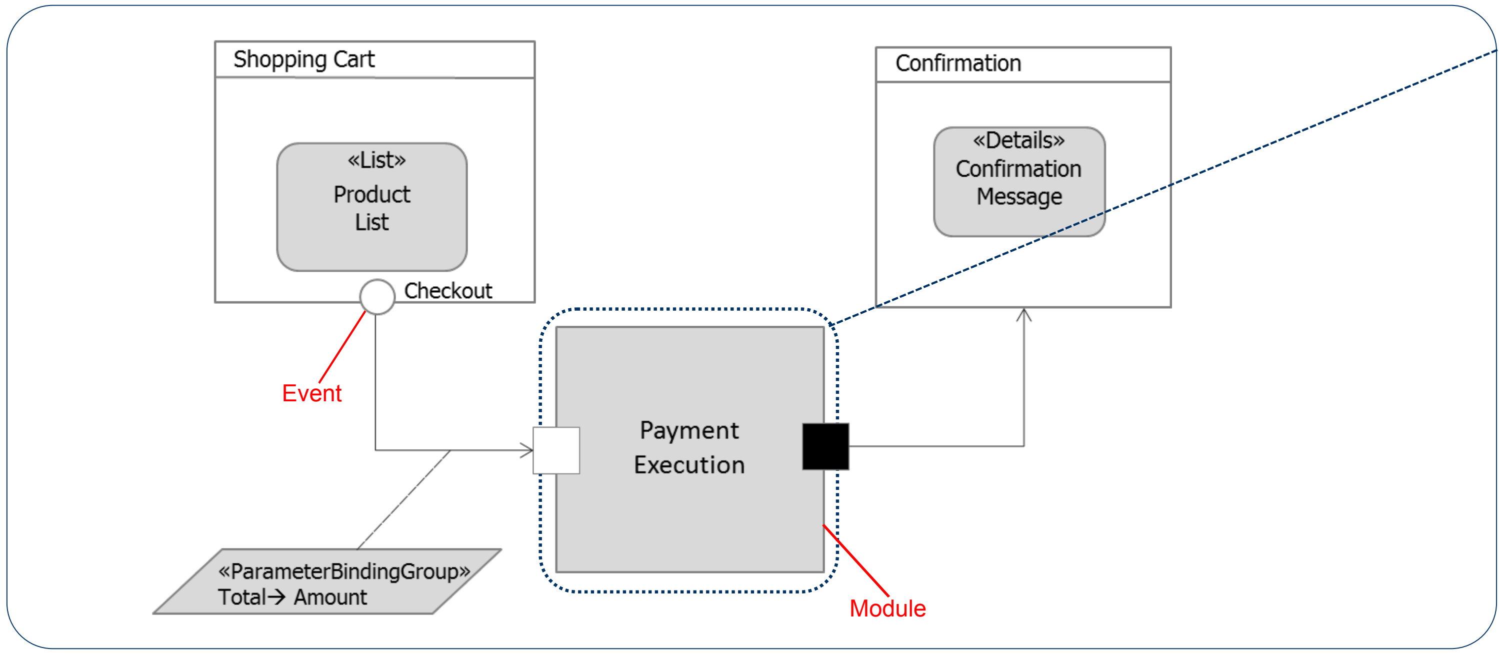
High level view of the interface structure of an email service application.

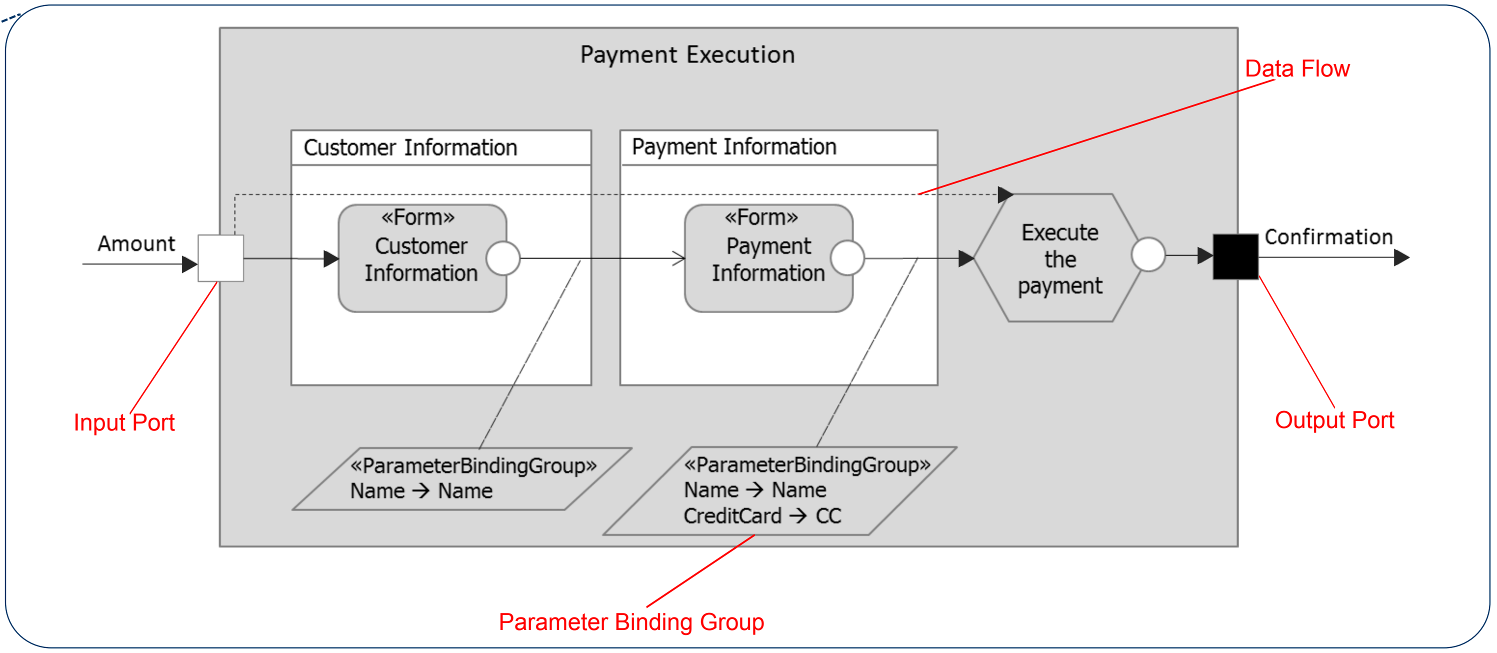
The MailBoxList ViewComponent displays the available mailboxes. By selecting one, the user can see the contained mail messages. Alternatively, he can write a new message (by selecting the MessageWriter container) or edit the Settings. The two latter options are tagged as Landmark [L] and thus are reachable within the messagemanagement XOR container. Containers within the XOR are shown alternatively.
The MessageSearch container may contain various alternative interfaces for searching messages.

Detailed model of the MessageWriter page.

It contains the form for entering the message, including a rich text editor description which allows the user to apply the formatting at client side and to remove it. In case of removal, a confirmation message (modal window) is displayed before applying the action.

E-Commerce application





The interface of an online shopping app, comprising the shopping cart interface and the payment process.

The user navigates from the shopping cart page to the payment execution through the Checkout event.
The Payment module receives in input the total amount to be paid according to the product list in the shopping cart.
After the Payment execution, the user lands on a confirmation page displaying a message.

Definition of the Payment Execution module.

The amount to be paid received in input. The customer submits a first form with his personal information, then a second forms with the payment information (such as his credit card number). The amount and the submitted information are sent to the Execute the payment action. Finally, the module provides a confirmation token in output.

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