

## RML® Quick Reference

RML® is a language for modeling software requirements to organize and communicate large quantities of information, help identify missing requirements, give context to individual details within the overall collection of requirements, and represent different views of requirements details.

### Objectives Models

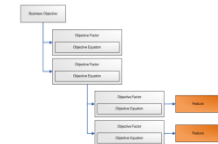
#### Business Objectives Model (BOM)

A diagram that identifies the value of a project. Use when new functionality is being added to define and control scope.



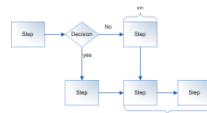
#### Objective Chain

A tree structure that measurably links features to business objectives. Use with BOM to select only the features that contribute the most value.



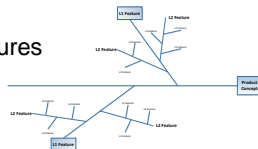
#### Key Performance Indicator Model (KPIM)

A label on Process or System Flows that associates metrics (KPIs) to business processes to evaluate the performance of the processes. Use it where existing processes or systems are in place in order to maintain or improve overall business throughput.



#### Feature Tree

A tree structure that shows all features organized into logical groupings. Use to communicate the full set of features in scope for a project.



#### Requirements Mapping Matrix (RMM)

A matrix that maps requirements and business rules to a model like Process Flows. Use to organize group information in a more easily consumable way.

UC #	User Case Name	FR #	Functional Requirement
UC01	Process New Order	FR01.01	The system shall validate all new order information against all system business rules.
UC01	Process New Order	FR01.02	The user shall be able to enter new orders which have passed business rule validation.
UC02	Ship Order	FR02.01	The user shall be able to ship an order.
UC03	Update Existing Order	FR03.01	The user shall be able to update an existing order's information.
UC03	Update Existing Order	FR03.02	The system shall validate all updated information against all system business rules.
UC04	Process Returned Order	FR04.01	The user shall be able to process an order's information when it has been returned.

### People Models

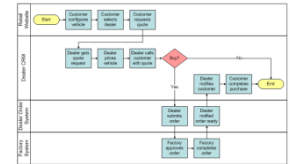
#### Org Chart

A diagram that shows all people or roles within an organization and how they relate to one another. Use to identify all stakeholders who might use the system or have requirements.



#### Process Flow

A diagram that shows the business process steps people execute. It shows the sequence of activities and decisions.



#### Use Case

Formatted text that describes the interactions between a user and a system. It is used to discover the functional requirements for each step of the interaction.

Sales Rep	System	Normal Course
1	1	1. Sales Rep selects type of quote.
2	2	2. System displays item quote based on selected quote type.
3	3	3. Sales Rep completes quote information, including amounts and quantities.
4	4	4. System suggests sales discount based on selections.
5	5	5. Sales Rep accepts suggested sales discount (see Alternative Course 1).
6	6	6. Sales Rep saves quote to disk.
7	7	7. System confirms quote saved successfully (see Alternative Course 2).

#### Roles and Permissions Matrix

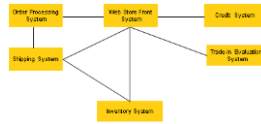
A matrix that defines the types of roles and their associated permissions to execute operations in the system. Use it to define security at the operation or menu level.

Roles and Permissions Matrix		Admin	Manager	Operator	Viewer
Requirement Group 1	Operation 1				
Requirement Group 1	Operation 2				
Requirement Group 1	Operation 3				
Requirement Group 2	Operation 4				
Requirement Group 2	Operation 5				
Requirement Group 2	Operation 6				
Requirement Group 2	Operation 7				

## System Models

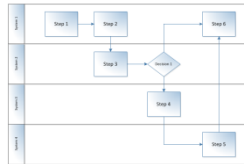
### Ecosystem Map

A diagram that shows the full set of solution components. Use it to capture software, hardware, people, and data relationships.



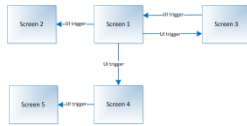
### System Flow

A diagram that shows the activities a system executes automatically. It shows the sequence of activities and decisions.



### User Interface (UI) Flow

A diagram that shows how a user will navigate between screens. Use it for non-obvious UI navigation paths.



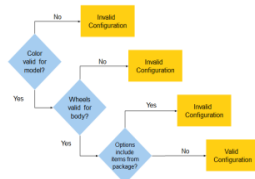
### Display Action Response Model

A combination of screen representation and tables that describes how the system displays a screen and how it responds to actions a user can take. Use for any heavily used UI screens.



### Decision Tree

A tree structure that represents relevant combinations of conditions and their corresponding outcomes. Use it to describe complex logic found in Process and System Flows.



### Decision Table

A matrix that describes all possible combinations of a set of conditions and their corresponding outcomes. Use it to describe complex logic found in Process and System Flows.

Decision Table	Condition 1	Condition 2	Condition 3	Condition 4	Condition 5	Condition 6	Condition 7	Condition 8	Condition 9	Condition 10
Outcome 1										
Outcome 2										
Outcome 3										
Outcome 4										
Outcome 5										
Outcome 6										

### System Interface Table

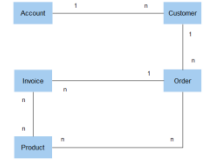
A table that describes the communication between two systems including details about information being transferred. Use it when the business cares about the interface requirements.

System Interface Table	System 1	System 2	System 3	System 4	System 5	System 6	System 7	System 8	System 9	System 10
Interface 1										
Interface 2										
Interface 3										
Interface 4										
Interface 5										
Interface 6										

## Data Models

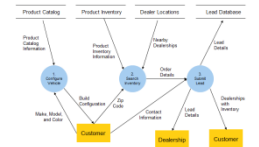
### Business Data Diagram (BDD)

A diagram that shows the relationships between business data objects. Use it to describe the data from the business's perspective.



### Data Flow Diagram (DFD)

A diagram that shows the flow of information through a system and how processes transform the business data objects. Use it when many processes manipulate the same business data objects to see the flow across the processes.



### Data Dictionary

A table used to describe business data object fields. Use one for all business data objects.

Object	Attributes	Length	Data Type	Business Rules
Order	Dealer	40	Alpha	
Order	Date	8	Date	Must be a valid date
Order	Salesperson	40	Alpha	Cannot be a future date
Order	Vehicle	30	Mixed	
Order	Quantity	3	Integer	
Order	Total Price	1,2	Number with 2 decimals	> 0

### State Table

A table used to show all possible states of a business data object and single step transitions between states. Use it to identify all possible transitions.

	State A	State B	State C	State D	State E
State A					
State B					
State C					
State D					
State E					

### State Diagram

A diagram that shows the allowed transitions between business data objects and the triggers that cause the transitions. Use it to visualize the sequence of transitions.



### Report Table

A table that captures report requirements including how data is displayed, output, drill down views, and allowed manipulations and interactions. Use one for every report in the system.

Trigger	Director needs to provide assistance
Director	Director's assistant
Audience	Director and/or CSR being presented
User Case Reference	UC48 Handling Employee Stores
Data Description	Central phone exchange record database
Format	Call
Output Fields	Call Transcription, CSR Name, Call Duration
Constants	Call Transcription is in the last quarter
Streamed by	CSR
Aggregation	The Report: Average Call Duration



requirements defined  
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