

Ontology-based Expert System for a Generic Drug Production of Pharmaceutical Dosage Forms

Traceability Record

By

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Dr. Chartchai Doungsa-ard

Document History

Document Name	Version	Status	Date	Viewable	Reviewer	Responsible
Documents						
OEGP – Traceability Record v.0.1.docx	0.1 <ul style="list-style-type: none"> • URS and SRS • URS and Class diagram • URS and Sequence diagram • URS and User interface • Class diagram and sequence diagram 	Draft	July 4, 2014	NS, PW, CD	NS, PW	NS, PW
OEGP – Traceability Record v.1.0.docx	1.0 <ul style="list-style-type: none"> • Class diagram and Unit Test Case 	Release	July 7, 2014	NS, PW, CD	NS, PW	NS, PW

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¹ NS – Narongrit Saisuwan , PW – Panupak Wichaidit , CD - Chartchai Doungsa-ard

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Traceability Matrix between URS/SRS

URS/SRS	URS-01	URS-02	URS-03	URS-04	URS-05	URS-06	URS-07	URS-08	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23	URS-24	URS-25
SRS-01	✓																								
SRS-02	✓	✓																							
SRS-03	✓	✓																							
SRS-04	✓																								
SRS-05	✓																								
SRS-06	✓																								
SRS-07	✓																								
SRS-08	✓	✓																							
SRS-09	✓																								
SRS-10	✓																								
SRS-11	✓	✓																							
SRS-12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SRS-13		✓																							
SRS-14		✓																							
SRS-15		✓																							
SRS-16			✓	✓	✓																				
SRS-17			✓	✓	✓																				
SRS-18			✓																						
SRS-19			✓																						
SRS-20			✓																						
SRS-21			✓	✓	✓																				

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URS/SRS	URS-01	URS-02	URS-03	URS-04	URS-05	URS-06	URS-07	URS-08	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23	URS-24	URS-25
SRS-22				✓																					
SRS-23				✓																					
SRS-24				✓																					
SRS-25					✓																				
SRS-26					✓																				
SRS-27					✓																				
SRS-28					✓																				
SRS-29						✓																			
SRS-30						✓																			
SRS-31						✓																			
SRS-32						✓																			
SRS-33						✓																			
SRS-34						✓																			
SRS-35						✓																			
SRS-36						✓																			
SRS-37						✓																			
SRS-38						✓		✓																	
SRS-39						✓																			
SRS-40						✓		✓																	
SRS-41						✓																			
SRS-42						✓																			
SRS-43						✓																			
SRS-44						✓																			
SRS-45						✓																			
SRS-46						✓																			

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URS/SRS	URS-01	URS-02	URS-03	URS-04	URS-05	URS-06	URS-07	URS-08	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23	URS-24	URS-25
SRS-47						✓																			
SRS-48						✓																			
SRS-49						✓																			
SRS-50						✓																			
SRS-51						✓																			
SRS-52						✓																			
SRS-53						✓		✓																	
SRS-54						✓																			
SRS-55						✓		✓																	
SRS-56						✓																			
SRS-57							✓	✓																	
SRS-58							✓	✓																	
SRS-59							✓																		
SRS-60								✓																	
SRS-61								✓																	
SRS-62								✓																	
SRS-63								✓																	
SRS-64								✓																	
SRS-65								✓																	
SRS-66									✓	✓															
SRS-67									✓	✓															
SRS-68									✓	✓															
SRS-69									✓	✓															
SRS-70									✓	✓															
SRS-71									✓	✓															

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SRS-72									✓	✓															
SRS-73									✓	✓															
SRS-74									✓	✓															
SRS-75									✓	✓															
SRS-76									✓	✓															
SRS-77									✓	✓															
SRS-78									✓	✓															
SRS-79									✓	✓															
SRS-80									✓	✓															
SRS-81									✓	✓															
SRS-82									✓	✓															
SRS-83									✓	✓															
SRS-84									✓	✓															
SRS-85									✓	✓															
SRS-86									✓	✓															
SRS-87									✓	✓															
SRS-88									✓	✓															
SRS-89									✓	✓															
SRS-90									✓																
SRS-91									✓																
SRS-92									✓	✓															
SRS-93									✓	✓															
SRS-94									✓	✓															
SRS-95									✓	✓															
SRS-96									✓	✓															

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URS/SRS	URS-01	URS-02	URS-03	URS-04	URS-05	URS-06	URS-07	URS-08	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23	URS-24	URS-25
SRS-97									✓	✓															
SRS-98									✓	✓															
SRS-99									✓	✓															
SRS-100									✓	✓															
SRS-101									✓	✓															
SRS-102									✓	✓															
SRS-103									✓	✓															
SRS-104									✓	✓															
SRS-105									✓	✓															
SRS-106									✓	✓															
SRS-107									✓	✓															
SRS-108									✓	✓															
SRS-109									✓	✓															
SRS-110									✓	✓															
SRS-111									✓	✓															
SRS-112									✓	✓															
SRS-113									✓	✓															
SRS-114									✓	✓															
SRS-115									✓	✓															
SRS-116										✓	✓														
SRS-117										✓	✓														
SRS-118										✓															
SRS-119										✓															
SRS-120											✓														

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URS/SRS	URS-01	URS-02	URS-03	URS-04	URS-05	URS-06	URS-07	URS-08	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23	URS-24	URS-25
SRS-121											✓														
SRS-122											✓														
SRS-123												✓	✓												
SRS-124												✓	✓												
SRS-125												✓	✓												
SRS-126												✓	✓												
SRS-127												✓	✓												
SRS-128												✓	✓												
SRS-129												✓	✓												
SRS-130												✓	✓												
SRS-131												✓	✓												
SRS-132												✓	✓												
SRS-133												✓	✓												
SRS-134												✓	✓												
SRS-135												✓	✓												
SRS-136												✓	✓												
SRS-137												✓	✓												
SRS-138												✓													
SRS-139												✓													
SRS-140												✓	✓												
SRS-141												✓	✓												
SRS-142												✓	✓												
SRS-143												✓	✓												
SRS-143												✓	✓												
SRS-144												✓	✓												

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URS/SRS	URS-01	URS-02	URS-03	URS-04	URS-05	URS-06	URS-07	URS-08	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23	URS-24	URS-25
SRS-145												✓	✓												
SRS-146												✓	✓												
SRS-147												✓	✓												
SRS-148												✓	✓												
SRS-149												✓	✓												
SRS-150												✓	✓												
SRS-151												✓	✓												
SRS-152												✓	✓												
SRS-153												✓	✓												
SRS-154													✓	✓	✓										
SRS-155													✓	✓	✓										
SRS-156													✓												
SRS-157													✓												
SRS-158														✓											
SRS-160														✓											
SRS-161															✓										
SRS-162																✓	✓								
SRS-163																✓	✓								
SRS-164																✓	✓								
SRS-165																✓	✓								
SRS-166																✓	✓								
SRS-167																✓									
SRS-168																✓									
SRS-169																✓									
SRS-170																✓	✓								

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URS/SRS	URS-01	URS-02	URS-03	URS-04	URS-05	URS-06	URS-07	URS-08	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23	URS-24	URS-25
SRS-171																✓	✓								
SRS-172																✓	✓	✓							
SRS-173																	✓	✓	✓						
SRS-174																	✓		✓						
SRS-175																	✓								
SRS-176																	✓								
SRS-177																		✓							
SRS-178																		✓							
SRS-179																		✓							
SRS-180																			✓						
SRS-181																				✓					
SRS-182																				✓					
SRS-183																				✓	✓				
SRS-184																				✓	✓				
SRS-185																				✓	✓				
SRS-186																				✓	✓				
SRS-187																				✓					
SRS-188																				✓					
SRS-189																				✓					
SRS-190																				✓	✓				
SRS-191																				✓	✓				
SRS-192																				✓	✓				
SRS-193																				✓	✓				
SRS-194																				✓					
SRS-195																					✓				
SRS-196																					✓	✓	✓		

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URS/SRS	URS-01	URS-02	URS-03	URS-04	URS-05	URS-06	URS-07	URS-08	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23	URS-24	URS-25
SRS-197																					✓	✓	✓		
SRS-198																					✓				
SRS-199																					✓				
SRS-200																						✓			
SRS-201																						✓			
SRS-202																						✓			
SRS-203																							✓	✓	
SRS-204																								✓	
SRS-205																								✓	
SRS-206																								✓	
SRS-207																								✓	
SRS-208																								✓	
SRS-209																								✓	
SRS-210																								✓	
SRS-211																									✓
SRS-212																									✓

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Traceability Matrix between URS/Class diagrams

URS/ Class Diagram	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23
CD-01	✓	✓	✓												
CD-02	✓	✓	✓												
CD-03	✓	✓	✓												
CD-04	✓	✓	✓												
CD-05	✓	✓	✓												
CD-06	✓	✓	✓												
CD-07	✓	✓	✓												
CD-08	✓	✓	✓												
CD-09	✓	✓	✓												
CD-10	✓	✓	✓												
CD-11	✓	✓	✓												
CD-12				✓	✓	✓	✓								
CD-13								✓	✓	✓	✓				
CD-14												✓	✓	✓	✓

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Traceability Matrix between URS/Sequence diagrams

URS/ Sequence Diagram	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23
SQD-09A	✓														
SQD-09B	✓														
SQD-09C	✓														
SQD-09D	✓														
SQD-09E	✓														
SQD-09F	✓														
SQD-09G	✓														
SQD-09H	✓														
SQD-09I	✓														
SQD-09J	✓														
SQD-09K	✓														
SQD-10A		✓													
SQD-10B		✓													
SQD-10C		✓													
SQD-10D		✓													
SQD-10E		✓													
SQD-10F		✓													
SQD-10G		✓													
SQD-10H		✓													
SQD-10I		✓													

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URS/ Sequence Diagram	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23
SQD-10J		✓													
SQD-10K		✓													
SQD-11A			✓												
SQD-11B			✓												
SQD-11C			✓												
SQD-11D			✓												
SQD-11E			✓												
SQD-11F			✓												
SQD-11G			✓												
SQD-11H			✓												
SQD-11I			✓												
SQD-11J			✓												
SQD-11K			✓												
SQD-12				✓											
SQD-13					✓										
SQD-14						✓									
SQD-15							✓								
SQD-16								✓							
SQD-17									✓						
SQD-18										✓					
SQD-19											✓				
SQD-20												✓			
SQD-21													✓		
SQD-22														✓	
SQD-23															✓

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Traceability Matrix between URS/User interface

URS/ User Interface	URS-09	URS-10	URS-11	URS-12	URS-13	URS-14	URS-15	URS-16	URS-17	URS-18	URS-19	URS-20	URS-21	URS-22	URS-23
UI-01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
UI-02	✓	✓	✓												
UI-03	✓	✓	✓												
UI-04	✓														
UI-05		✓	✓												
UI-06		✓	✓												
UI-07				✓	✓	✓	✓								
UI-08				✓											
UI-09					✓	✓	✓		✓	✓	✓				
UI-10					✓	✓	✓								
UI-11								✓	✓	✓	✓				
UI-12								✓							
UI-13									✓	✓	✓				
UI-14												✓	✓	✓	✓
UI-15												✓			
UI-16													✓	✓	✓
UI-17													✓	✓	✓

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Traceability Matrix between Class Diagram/Sequence diagrams

Class Diagram/ Sequence Diagram	CD-01	CD-02	CD-03	CD-04	CD-05	CD-06	CD-07	CD-08	CD-09	CD-10	CD-11	CD-12	CD-13	CD-14
SQD-09A	✓													
SQD-09B		✓												
SQD-09C			✓											
SQD-09D				✓										
SQD-09E					✓									
SQD-09F						✓								
SQD-09G							✓							
SQD-09H								✓						
SQD-09I									✓					
SQD-09J										✓				
SQD-09K											✓			
SQD-10A	✓													
SQD-10B		✓												
SQD-10C			✓											
SQD-10D				✓										
SQD-10E					✓									
SQD-10F						✓								
SQD-10G							✓							
SQD-10H								✓						
SQD-10I									✓					
SQD-10J										✓				
SQD-10K											✓			

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Class Diagram/ Sequence Diagram	CD-01	CD-02	CD-03	CD-04	CD-05	CD-06	CD-07	CD-08	CD-09	CD-10	CD-11	CD-12	CD-13	CD-14
SQD-11A	✓													
SQD-11B		✓												
SQD-11C			✓											
SQD-11D				✓										
SQD-11E					✓									
SQD-11F						✓								
SQD-11G							✓							
SQD-11H								✓						
SQD-11I									✓					
SQD-11J										✓				
SQD-11K											✓			
SQD-12												✓		
SQD-13												✓		
SQD-14												✓		
SQD-15												✓		
SQD-16													✓	
SQD-17													✓	
SQD-18													✓	
SQD-19													✓	
SQD-20														✓
SQD-21														✓
SQD-22														✓
SQD-23														✓

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Traceability Matrix between Class Diagram/ Unit Test Case

Class diagram/ Unit Test Case	CD-01	CD-02	CD-03	CD-04	CD-05	CD-06	CD-07	CD-08	CD-09	CD-10	CD-11	CD-12	CD-13	CD-14
UTC-01	✓													
UTC-02	✓													
UTC-03	✓													
UTC-04	✓													
UTC-05	✓													
UTC-06	✓													
UTC-07		✓												
UTC-08		✓												
UTC-09		✓												
UTC-10		✓												
UTC-11		✓												
UTC-12		✓												
UTC-13			✓											
UTC-14			✓											
UTC-15			✓											
UTC-16			✓											
UTC-17			✓											
UTC-18			✓											
UTC-19				✓										
UTC-20				✓										
UTC-21				✓										
UTC-22				✓										
UTC-23				✓										

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Class diagram/ Unit Test Case	CD-01	CD-02	CD-03	CD-04	CD-05	CD-06	CD-07	CD-08	CD-09	CD-10	CD-11	CD-12	CD-13	CD-14
UTC-24				✓										
UTC-25					✓									
UTC-26					✓									
UTC-27					✓									
UTC-28					✓									
UTC-29					✓									
UTC-30					✓									
UTC-31						✓								
UTC-32						✓								
UTC-33						✓								
UTC-34						✓								
UTC-35						✓								
UTC-36						✓								
UTC-37							✓							
UTC-38							✓							
UTC-39							✓							
UTC-40							✓							
UTC-41							✓							
UTC-42							✓							
UTC-43								✓						
UTC-44								✓						
UTC-45								✓						
UTC-46								✓						
UTC-47								✓						
UTC-48								✓						
UTC-49									✓					
UTC-50									✓					

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Class diagram/ Unit Test Case	CD-01	CD-02	CD-03	CD-04	CD-05	CD-06	CD-07	CD-08	CD-09	CD-10	CD-11	CD-12	CD-13	CD-14
UTC-51									✓					
UTC-52									✓					
UTC-53									✓					
UTC-54									✓					
UTC-55										✓				
UTC-56										✓				
UTC-57										✓				
UTC-58										✓				
UTC-59										✓				
UTC-60										✓				
UTC-61											✓			
UTC-62											✓			
UTC-63											✓			
UTC-64											✓			
UTC-65											✓			
UTC-66											✓			
UTC-67												✓		
UTC-68												✓		
UTC-69												✓		
UTC-70												✓		
UTC-71												✓		
UTC-72												✓		
UTC-73													✓	
UTC-74													✓	
UTC-75													✓	
UTC-76													✓	

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Class diagram/ Unit Test Case	CD-01	CD-02	CD-03	CD-04	CD-05	CD-06	CD-07	CD-08	CD-09	CD-10	CD-11	CD-12	CD-13	CD-14
UTC-77													✓	
UTC-78														✓
UTC-79														✓
UTC-80														✓
UTC-81														✓
UTC-82														✓
UTC-83														✓

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