Topic	RID	Requirement	Reference
Figures	1	Serum Concentration Versus Time-Individual	v1.2.0_protocol.pdf
	2	Serum Concentration Versus Time-Groups	v1.2.0_protocol.pdf
	3	Observed Versus Predicted	v1.2.0_protocol.pdf
	4	Parameter Distribution	v1.2.0_protocol.pdf
	5	Categorical Covariance	v1.2.0_protocol.pdf
	6	Continuous Covariance	v1.2.0_protocol.pdf
	7	Correlation Pairs	v1.2.0_protocol.pdf
	8	Quantile Plot	v1.2.0_protocol.pdf
	9	Goodness of Fit	v1.2.0_protocol.pdf
	10	Variable Distribtuion	v1.2.0_protocol.pdf
	11	Bar Charts	v1.2.0_protocol.pdf
	12	VPC	v1.2.0_protocol.pdf
Usability	13	Hard reset button gives an environment with no input retained from previous sessions	v1.2.0_protocol.pdf
Reporting	14	The app creates RTF output for all specified figure, table, and listings	v1.2.0_protocol.pdf
	15	The app creates an R script that can reproduce the analysis outside of the app	v1.2.0_protocol.pdf
Deployment	16	App is under version control	v1.2.0_protocol.pdf
	17	Installation package and instructions work to create new app on a new Envision workflow	v1.2.0_protocol.pdf

RID	Topic	Test ID	Step Description	Expected Result	Qualification Note(s)	Pass/Fail
1	Serum	1	Create plot panel:	ConcvTime panel created in Figures		
	Concentration Versus Time-		Analysis Selection -> PKInputFigures -> SErum Concentration Versus	Concy time panel created in Figures		
	Individual		Time-Individual to 1			
		2	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		3	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		4	Figure specific limits work: Enter the following into "Limit": EVID != 1&DV>100	Plot is updated, respecting inputs. Screencap as evidence		
		5	Figure renders and respects changes in Theme Size Manipulation	Plot is updated, respecting inputs. Screencap as evidence		
		6	Figure renders and respects changes in Theme Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence		
			rigare renders and respects changes in Theme Colodi Manipulation	Tiot is apacited, respecting inputs. Octobricap as evidence		
2	Serum Concentration Versus Time-	1	Create plot panel: Analysis Selection -> PKInputFigures -> Serum Concentration Versus	ConcvTimeGroup panel created in Figures		
	Groups		Time-Groups to 1			
		2	Figure renders and respects inputs for "Group Plots" Marky by discrete	Plot is updated, respecting inputs. Screencap as evidence	•	
		3	Figure renders and respects inputs for "Group Plots" Marky by continuous	Plot is updated, respecting inputs. Screencap as evidence)	
		4	Figure renders and respects inputs for "Group Plots" Add text inputs	Plot is updated, respecting inputs. Screencap as evidence	•	
		5	Figure renders and respects inputs for "Group Plots" Facet by inputs	Plot is updated, respecting inputs. Screencap as evidence	,	
		6	Figure renders and respects inputs for "Group Plots" Scales Free inputs	Plot is updated, respecting inputs. Screencap as evidence	;	
		7	Figure renders and respects inputs for "Group Plots" Scales Free_x inputs	Plot is updated, respecting inputs. Screencap as evidence	•	
		8	Figure renders and respects inputs for "Group Plots" Scales Free_y inputs	Plot is updated, respecting inputs. Screencap as evidence		
		9	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	•	
		10	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence	2	
		11	Figure renders and respects inputs for all "Summarize Data?" boxes (Mean Standard Deviation)	Plot is updated, respecting inputs. Screencap as evidence		
		12	Figure renders and respects inputs for all "Summarize Data?" boxes (Median 95% confidence interval)	Plot is updated, respecting inputs. Screencap as evidence	•	
		13	Figure renders and respects inputs for all "Limits and Transformations" Inputs: DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence	2	
		14	Figure renders and respects changes in Theme Size Manipulation	Plot is updated, respecting inputs. Screencap as evidence	2	
		15	Figure renders and respects changes in Theme Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	•	
3	Observed Versus Predicted	1	Create plot panel: Analysis Selection -> Model figures -> Observed vs Predicted to 1	OBSvPRED panel created in Figures		
	1 redicted	2	Figure renders and respects inputs for all "Group Plots" inputs: Marky by Discrete	Plot is updated, respecting inputs. Screencap as evidence	•	
		3	Figure renders and respects inputs for all "Group Plots" inputs: Marky by Continuous	Plot is updated, respecting inputs. Screencap as evidence	•	
		4	Figure renders and respects inputs for "Group Plots" Facet by and add text inputs	Plot is updated, respecting inputs. Screencap as evidence	3	
		5	Figure renders and respects inputs for "Group Plots" Facet ncol and nro inputs	N Plot is updated, respecting inputs. Screencap as evidence	3	
		6	Figure renders and respects inputs for "Group Plots" Scales Free_y inputs	Plot is updated, respecting inputs. Screencap as evidence	•	
		7	Figure renders and respects inputs for all "Plots Details" and "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence		

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	-	8	Figure specific limits work: Enter the following into "Limit":	Plot is updated, respecting inputs. Screencap as evidence		
			DOSE<=7			
		9		Plot is undated respecting inputs. Screenage as evidence		
		10	Figure renders and respects changes in Theme Size Manipulation Figure renders and respects changes in Theme Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence Plot is updated, respecting inputs. Screencap as evidence		
		10	Figure renders and respects changes in Theme Colodi Manipulation	Flot is updated, respecting inputs. Screencap as evidence		
	Parameter	1	Create plot panel:	paramDist panel created in Figures		
•	Distribution	i.	Groute prot parior.	paramotor parior ordated in Figures		
			Analysis Selection -> Model figures -> Parameter Distribution to 1			
		2	Figure renders and respects inputs for all "Group Plots" inputs	Plot is updated, respecting inputs. Screencap as evidence		
		3	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		4	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		5	Figure specific limits work: Enter the following into "Limit":	Plot is updated, respecting inputs. Screencap as evidence		
			DOSE<=7			
		6	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence		
5	Categorical	1	Create plot panel:	covCat panel created in Figures		
	Covariance		Analysis Selection -> Model figures -> Categorical covariance to 1			
		2	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		3	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		4	Figure specific limits work: Enter the following into "Limit":	Plot is updated, respecting inputs. Screencap as evidence		
			DOSE<=7	Tiot to appealing impate. Concernage as evidence		
		5	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence		
6	Continuous	1	Create plot panel:	covCon panel created in Figures		
	Covariance		Analysis Selection -> Model figures -> Continuous covariance to 1			
		2	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		3	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		4	Figure specific limits work: Enter the following into "Limit":	Plot is updated, respecting inputs. Screencap as evidence		
				3 p		
		_	DOSE<=7	State and the state of the stat		
		5	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence		
7	Correlation	1	Create plot panel:	corPairs panel created in Figures		
	Pairs			,		
			Analysis Selection -> Model figures -> Correlation Pairs to 1	Diet is undeted recognition involte. Consequent or suidence		
		2	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		3	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		4	Figure specific limits work: Enter the following into "Limit": DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence		
		5	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence		
8	Quantile Plot	1	Create plot panel:	QQplot panel created in Figures		
			Analysis Selection -> Model figures -> QQ Plot to 1			
			Analysis selection -> Model ligales -> QQ I lot to I			
		2	Figure renders and respects "Group Plots" facet by input	Plot is updated, respecting inputs. Screencap as evidence		

RID	Topic	Test ID	Step Description	Expected Result		Qualification Note(s)	Pass/Fail
		4	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs.	Screencap as evidence		
		5	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs.	Screencap as evidence		
		6	Figure specific limits work: Enter the following into "Limit":	Plot is updated, respecting inputs.	Screencap as evidence		
			DOSE<=7				
		7	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs.	Screencap as evidence		
	Goodness of Fi	+ 1	Create plot panel:	GOF panel created in Figures			
	Oodiless of the		Analysis Selection -> Model figures -> GOF to 1	Oor paner created in rigures			
		2	Figure renders and respects inputs for "Group Plots" Marky by discrete	Plot is updated, respecting inputs.	Screencap as evidence		
		3	Figure renders and respects inputs for "Group Plots" Marky by continuous	Plot is updated, respecting inputs.	· · · · · · · · · · · · · · · · · · ·		
		4	Figure renders and respects inputs for "Group Plots" plot loess	Plot is updated, respecting inputs.	Screencap as evidence		
		5	Figure renders and respects inputs for all "Plot Details" boxes	Plot is updated, respecting inputs.	· · · · · · · · · · · · · · · · · · ·		
		6	Figure renders and respects inputs for all "IPRED Details" boxes	Plot is updated, respecting inputs.			
		7	Figure renders and respects inputs for all "PRED Details" boxes	Plot is updated, respecting inputs.	•		
		8	Figure renders and respects inputs for all "DV Details" boxes	Plot is updated, respecting inputs.			
		9	Figure renders and respects inputs for all "RESID Details" boxes				
		10	Figure renders and respects inputs for all "NPDE Details" boxes	Plot is updated, respecting inputs. Plot is updated, respecting inputs.			
		11			•		
		11	Figure specific limits work: Enter the following into "Limit": DOSE<=7	Plot is updated, respecting inputs.	Screencap as evidence		
		12	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs.	Screencap as evidence		
			manipalation				
)	Variable Distribution	1	Create plot panel:	distMult panel created in Figures			
			Analysis Selection -> Model figures -> distMult to 1				
		2	Figure renders and respects inputs for all "Plot Details" boxes	Plot is updated, respecting inputs.	Screencap as evidence		
		3	Figure renders and respects inputs for all "Manipulate Data" boxes	Plot is updated, respecting inputs.	Screencap as evidence		
		4	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs.	Screencap as evidence		
	Bar Charts	1	Create plot panel:	barchartMult panel created in Figur	es		
			Analysis Selection -> Model figures -> barchartMult to 1				
		2	Figure renders and respects inputs for all "Plot Details" boxes	Plot is updated, respecting inputs.	Screencap as evidence		
		3	Figure renders and respects inputs for all "Manipulate Data" boxes	Plot is updated, respecting inputs.	Screencap as evidence		
		4	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs.	Screencap as evidence		
2	VPC	1	Simulation data can be loaded, merged with source data, and displayed on screen. The mi210 510 and 511 runs will be used for this RID. Verif that the data parser runs on the VPC data.				
		2	Additional csv dataset can be loaded and displayed. Use the parser to demonstrate that it runs on the additional data.				
		3	Figure renders and respects inputs for all figures of the shading type "simulated percentiles"				
		4	Figure renders and respects inputs for all figures of the shading type "predicted median"				
		5	Figure renders and respects inputs for all figures of the shading type "none"				
		6	Figure renders and respects inputs for all figures of the shading type "prediction interval"				

RID	Topic	Test ID	Step Description	Expected Result	Qualification Note(s)	Pass/Fail
		7	Figure renders and respects inputs for all "Manipulate Data" boxes	Plot is updated, respecting inputs. Screencap as evidence		
		8	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence		

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13	Hard reset button gives an environment with no input retained from previous sessions	1	Pressing "Hard reset" button, check input fields to verify they have been reset to the defaults	Input fields are reset to the defaults		

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14	The app creates RTF output for all specified figure, table, and listings	1	Load the attached validation template into the application (510-template.R)	Template is loaded		
		2	Select ordering of objects to printed in TFL	Scrrenshot which RTF will be checked against		
		3	Generate the RTF and write the companion R script In "Save and Export" select "Construct *.Doc" and "Reveal Function Text". In filename enter "validation" Press save	validation doc and R script are created		
		4	All objects are located in the RTF, and ordering respects that of the user	Yes. Attach the doc file		
15	The app creates an R script that can reproduce the analysis outside of the app		Using the R script created in step 35.3, run the file in R to recreate the RTF file. Verify that the RTF matches that generated in 35.3	Matches. Attach the doc file and R script.		

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16	The app is under version control	1	Record commit ID for tagged release	git commit ID		
17	Installation package and instructions work to create new app on a new Envision workflow	1	Launch a new Envision workflow	Launch successful		
		2	Upload installation package to Envision workflow via Rstudio	Upload successful		
		3	Update nginx by running: cd script sudo ./nginx-update.sh Report output of: nginx -v	>= 1.10.1		
		4	As user, run pkgSetup.R: cd script R CMD BATCH pkgSetup.R	No errors in pkgSetup. Rout		
		5	Copy shiny-server config file to correct location: sudo cp script/shiny-server.conf /etc/shiny-server/shiny-server.conf	Copy successful		
		6	Ensure application is running: Log in to Metworx dashboard, click "Envision", click "TFL Generator",	Application is running		