



DEV DIARY 5

Requirements

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Requirements

Hey Folks! Just like all of our Dev Diaries, long overdue!

This particular Dev Diary is the result of a community poll. I told the community that we were hesitant to make a Dev Diary about our current status in preparation for Devcycle 3 as it was a long process that we had partially covered before. However, I decided there were some things of relevance we could cover, especially our new roadmap, but potentially the overall product may end up being a bit dull.

So we put it to a poll, and the pro-Dev Diary team won. The final total for our poll for this diary ended up being 188 for and 59 against.

In the end, I decided we would talk a little bit about the requirements process and share some important news at the end that if you're not in our Discord or watching our streams, you may have missed...

But let's get to requirements. Joethepro is our main requirements person and the one who knows the most about them. I asked him to explain what requirements are:

“Requirements track and document the status of all the project's software functionality. When developed, they directly feed into tests for that functionality so we can prove the game works as intended. Without them, we'd be assessing the project state by eye and gut feel.”



Requirements

Essentially, requirements are the backbone of our development process and facilitate the surprisingly (or unsurprisingly) difficult task of scaling the codebase of a project with a large team of volunteers that drop in and out of working on it.

“The main benefit is traceability, which means linking test outcomes and development to requirements so we can track the progress across all stages of development. The most powerful feature is then being able to test and quickly find where the software is implemented in the codebase.”

Type	Status	Priority	ID	Uplinks	Downlinks	Test	Author	Reviewer	Developer	Tester	PR Link	Acceptance Criteria	Test Method	Test Script	Last VRM Res	Version	Change	Histo	Comments	
Decision	N/A	N/A	55-1			1.0 Base Functionality	jeffrey05	hubert	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	None Selected
Non-Functional	In-Production	C-Could Have	55-2			\$5-100: \$5-100 The application shall support Windows 10 x11, OS 10 15h and Linux distributions	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The application passes all tests on Windows 10 x11, OS 10 15h and Linux distributions	All	All	Not Run	1.0.0				
Non-Functional	In-Production	C-Could Have	55-108	55-2		The application shall support Windows 10	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The application passes all tests on Windows 10	All	All	Not Run	1.0.0				
Non-Functional	In-Production	C-Could Have	55-109	55-2		The application shall support Windows 11	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The application passes all tests on Windows 11	All	All	Not Run	1.0.0				
Non-Functional	In-Production	C-Could Have	55-110	55-2		The application shall support OS 10 15h	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The application passes all tests on OS 10 15h	All	All	Not Run	1.0.0				
Non-Functional	In-Production	C-Could Have	55-91	55-2		The application shall support Linux distributions supporting x11 and GL 3.3	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The application passes all tests on Linux distributions supporting x11 and GL 3.3	All	All	Not Run	1.0.0				
Non-Functional	In-Production	B-Should Have	55-23			The application shall support graphics cards supported by the Vulkan Engine OpenCL	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The application passes all tests on supported graphics cards	All	All	Not Run	1.0.0				Discontinue only
Non-Functional	In-Production	B-Should Have	55-24			The application shall support the AMD architecture when running under OS 10 15h	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The application passes all tests while running on an AMD APU	All	All	Not Run	1.0.0				
Non-Functional	In-Production	B-Should Have	55-25			The application shall support the x86 architecture when running under any supported OS	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The application passes all tests while running on the x86 APU	All	All	Not Run	1.0.0				
Non-Functional	In-Testing	M-Must Have	55-26		55-100, 55-101	The application shall make every reasonable effort to support monitors with a resolution of 1000x1000 (1024x768)	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The application supports testing by monitors primary / Manual Script	T_001_test_monitors	Not Run	1.0.1					
Non-Functional	In-Testing	B-Should Have	55-102	55-26		The application shall support monitors with a resolution of 1000x1000 (1024x768)	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The application is playable and legible on 1000x1000 monitors	Manual Script	T_011_games_session	Not Run	1.0.0				
Non-Functional	In-Testing	M-Must Have	55-101	55-26		The application shall support monitors with a resolution of 1000x1000 (1024x768)	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The application is playable and legible on 1000x1000 monitors	Manual Script	T_011_games_session	Not Run	1.0.0				
Non-Functional	In-Testing	B-Should Have	55-103	55-26		The application shall support monitors with a resolution of 1000x1000 (1024x768)	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The application is playable and legible on 1000x1000 monitors	Manual Script	T_011_games_session	Not Run	1.0.0				
Non-Functional	In-Testing	M-Must Have	55-30	U-44		The application shall support being played in a regular native window	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The application supports and is capable of being windowed	Manual Script	T_002_testing_menu	Not Run	1.0.0				
Non-Functional	In-Testing	B-Should Have	55-31	U-44		The application shall support being played in a fullscreen window	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The application supports and is capable of being windowed	Manual Script	T_002_testing_menu	Not Run	1.0.0				
Non-Functional	In-Testing	B-Should Have	55-32	U-44		The application shall support being played in a fullscreen window	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The application supports and is capable of being windowed	Manual Script	T_002_testing_menu	Not Run	1.0.0				
Decision	N/A	N/A	55-2			1.1 Application	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The application supports and is capable of being windowed	Manual Script	T_002_testing_menu	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-3	U-17, U-13		The user shall be able to open the game application	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can see the application is open	Manual Script	T_001_games_session	Not Run	1.0.0				Assumption that
User Req.	In-Testing	M-Must Have	55-4	U-2		The user shall be able to close the game application	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	When the game is open and the user has interacted to close Manual Script	T_001_games_session	Not Run	1.0.0					
Non-Functional	In-Testing	M-Must Have	55-5	U-2		The user shall be able to interact with the application using a keyboard and mouse	jeffrey05	hubert	jeffrey05	Unassigned	55-1-2	User inputs can be interacted with using a keyboard and mouse	Manual Script	T_001_games_session	Not Run	1.0.0				
Non-Functional	In-Production	B-Should Have	55-6			The user shall be able to interact with the application using a touch or dual touch screen	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	User inputs can be interacted with using a touch or dual touch screen	Manual Script	T_002_testing_menu	Not Run	1.0.0				Needs later work
User Req.	In-Testing	B-Should Have	55-8			A user shall be able to start the application in Debug Mode	Oveylan	jeffrey05	jeffrey05	Unassigned	55-1-2	The application has started in Debug Mode	Manual Script	T_001_games_session	Not Run	1.0.0				
Functional	In-Testing	B-Should Have	55-8	U-78		The application shall support being controlled by touch	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The application has started in Debug Mode	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	B-Should Have	55-9	U-79		The user shall be able to change their locale	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can change their locale	Manual Script	T_001_games_session	Not Run	1.0.0				
Non-Functional	In-Testing	B-Should Have	55-9			If no locale is specified by the user the application shall use the default locale	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	If no locale is specified by the user the application shall use the default locale	Manual Script	T_001_games_session	Not Run	1.0.0				
Non-Functional	In-Testing	B-Should Have	55-9			If a translation for a certain locale isn't implemented it shall fall back to the target	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	Unimplemented locales fall back to implemented locales	Manual Script	T_001_games_session	Not Run	1.0.0				
Non-Functional	In-Testing	B-Should Have	55-61			If a language is not available it shall fall back to the en_US locale	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	Unimplemented languages fall back to American English	Manual Script	T_001_games_session	Not Run	1.0.0				en_US > en_GB
Functional	In-Production	C-Could Have	55-42	U-18		Users shall be able to define their own translations	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	Users are able to translate their own text	Manual Script	T_002_testing_menu	Not Run	1.0.0				
User Req.	In-Production	B-Should Have	55-59	U-19, U-40		The user shall be able to use keyboard hotkeys to trigger common UI interactions	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	Common UI interactions have hotkeys that trigger the UI	Manual Script	T_011_games_session	Not Run	1.0.0				
Decision	N/A	N/A	55-8			1.2 Game Menu	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	Common UI interactions have hotkeys that trigger the UI	Manual Script	T_011_games_session	Not Run	1.0.0				Needs more work
User Req.	In-Testing	M-Must Have	55-14	U-25, U-26		The user shall be able to open the Game Lobby Menu for singleplayer, gamanet	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can access the Game Lobby Menu for singleplayer, gamanet	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Production	M-Must Have	55-15	U-27, U-28		The user shall be able to open the Game Lobby Menu for multiplayer, gamanet	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can access the Game Lobby Menu for multiplayer, gamanet	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-6	U-8, U-29		The user shall be able to open the game settings menu from the main menu	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can access a settings menu from the main menu	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	B-Should Have	55-17	U-32		The user shall be able to see the project credits	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can access the credits	Manual Script	T_001_games_session	Not Run	1.0.0				
Functional	In-Production	C-Could Have	55-30	U-34		Users shall be able to access their user credits in the project credits	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	Users credits are visible in the project credits	Manual Script	T_001_games_session	Not Run	1.0.0				
Decision	N/A	N/A	55-123			1.2.1 GUI Release Information	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The user can see the Official release name for the application	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	B-Should Have	55-105	U-88		The Official release name shall be presented to the user	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can see the Official release name for the application	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	B-Should Have	55-105	U-87		The Official release name shall be presented to the user	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can see the Official release name for the application	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	B-Should Have	55-106	U-87		The Official release name shall be presented to the user	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can see the Official release name for the application	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	B-Should Have	55-107	U-87		The short name shall be presented to the user	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can see the short OS name for the application	Manual Script	T_001_games_session	Not Run	1.0.0				
Decision	N/A	N/A	55-104			1.2.2 Change Locale	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The user can change their locale on the main menu	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-67	U-80, U-89		The user shall be able to change their locale on the main menu	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can change their locale on the main menu	Manual Script	T_001_games_session	Not Run	1.0.0				
Decision	N/A	N/A	55-8			1.2 Settings Menu	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The user can access a settings menu when in a lobby	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-7	U-8, U-10, U-14		The user shall be able to open the game settings menu from a game session	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can access a settings menu when in a lobby	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-8	U-19, U-21		The user shall be presented with default settings if none have been previously	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	Default values are displayed (long list to verify)	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-10	U-10		The user shall be presented with saved settings if a user has previously used them	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	Previous values are displayed (long list to verify)	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-91	U-11, U-90		The user shall be able to save settings persistently	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	Persistent settings storage is available when user applies	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-13	U-12, U-14		The user shall be able to save game settings	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can save game settings	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-27	U-49		The user shall be able to change game controls	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can change game controls	Manual Script	T_001_games_session	Not Run	1.0.0				
Functional	In-Production	C-Could Have	55-28	U-11		Users shall be able to save game controls	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	Control added in mod press on under controls change	Manual Script	T_001_games_session	Not Run	1.0.0				
Decision	N/A	N/A	55-103			1.4 Game Lobby Menu	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The user can return to the Main Menu from the Game Lobby Menu	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-16	U-37		The user shall be able to return to the Main Menu from the Game Lobby Menu	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can return to the Main Menu from the Game Lobby Menu	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-18	U-38		The user shall be able to select a previously saved game from the Game Lobby Menu	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can select a previously saved game from the Game Lobby Menu	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Production	M-Must Have	55-19	U-39		The user shall be able to select a game from the Game Lobby Menu	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can select a game from the Game Lobby Menu	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Production	M-Must Have	55-20	U-42		The user shall be able to select a session from the currently defined data sessions	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can select a session from the currently defined data sessions	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-21	U-43		The user shall be able to select a Game Session with the currently selected user can	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The user can select a Game Session with the currently selected user can	Manual Script	T_001_games_session	Not Run	1.0.0				
User Req.	In-Production	C-Could Have	55-48	U-73		The user shall be able to designate if a Game Session is run in Debug Mode	Oveylan	jeffrey05	jeffrey05	Unassigned	55-1-2	Internal Game Session state matches Debug Mode when Manual Script	Manual Script	T_001_games_session	Not Run	1.0.0				
Decision	N/A	N/A	55-23			2.0 Game Session	jeffrey05	jeffrey05	N/A	Unassigned	55-1-2	The user can see a windowed background panel over	Manual Script	T_011_games_session	Not Run	1.0.0				
User Req.	In-Testing	M-Must Have	55-102	U-75, U-19, U-20		The Game Session shall be windowed according to a user Manual Script	jeffrey05	jeffrey05	jeffrey05	Unassigned	55-1-2	The Game Session state is windowed according to a user Manual Script	Manual Script	T_011_games_session	Not Run	1.0.0				
Functional	In-Production	M-Must Have	55-28	U-25, U-26		The Game Session shall be windowed according to a user Manual Script	jeff													

Requirements

This is especially important because of our team’s commitment to two main things (which Joe touches on there): modability and multi-player stability, two objectives that are often at odds with each other. To reconcile these issues, we use our requirement model.

“A secondary benefit is that by documenting the requirements, we partly design the game up front. It gives us a pause for thought on how the game logically fits together. In the absence of a structure, we’re building the foundations, beams, and girders that the code will fit into.”

1	Type	Status	Priority	ID	Uplinks	Downlinks	Text	Author
602	Descriptive	N/A	N/A	MAP-1	-	-	2.2 Map	joethepro36
603	Descriptive	N/A	N/A	MAP-2	-	-	2.2.1 Province	joethepro36
604	Functional	In-Testing	M - Must Have	MAP-47	MAP-4	FS-335	Each province shall have a unique id.	Youri
605	Functional	In-Testing	M - Must Have	MAP-43	UI-57	-	Each province shall have a province name.	Youri
606	Functional	In-Production	M - Must Have	MAP-49	-	-	Each land province shall belong to a single state.	Youri
607	Functional	In-Testing	M - Must Have	MAP-4	ISS-77, UI	FS-333, MAP-5	The map shall be defined by a 2D plane divided into mutually exclusive regions ca	hubert
608	Functional	In-Production	M - Must Have	MAP-19	MAP-4	MAP-84, MAP-8	Each province shall have a list of adjacent provinces	hubert
609	Functional	In-Production	M - Must Have	MAP-84	MAP-19	FS-333	Province adjacency lists shall be generated based on adjacency of the pixels defin	hubert
610	Functional	In-Production	M - Must Have	MAP-85	MAP-19	FS-336	Province adjacency lists shall be supplemented by a list of extra adjacencies (e.g.	hubert
611	Functional	In-Testing	M - Must Have	MAP-5	MAP-4	FS-334, MAP-1	Each province shall be either a land or water province	hubert
612	Functional	In-Production	M - Must Have	MAP-16	MAP-5, M	MAP-17	Each land province adjacent to a water province shall either be a coastal province	hubert
613	Functional	In-Production	M - Must Have	MAP-17	MAP-16	-	Each coastal province shall have an associated adjacent water province on which	hubert
614	Functional	In-Testing	M - Must Have	MAP-7	UI-100, M	IECON-83, IEC	Each land province shall have an associated good (RGO, Resource Gathering Op	hubert
615	Functional	In-Testing	M - Must Have	MAP-8	UI-62	-	Each land province shall have a life rating value	hubert
616	Functional	In-Production	M - Must Have	MAP-9	UI-310, M	MAP-18	Each land province shall have an owner nation	hubert
617	Functional	In-Production	M - Must Have	MAP-10	UI-99, MA	-	Each land province shall have a controller nation	hubert
618	Functional	In-Testing	M - Must Have	MAP-11	UI-184, UI	-	Each land province shall have a fort level	hubert
619	Functional	In-Testing	M - Must Have	MAP-12	UI-192, UI	-	Each coastal land province shall have a naval base level	hubert
620	Functional	In-Testing	M - Must Have	MAP-13	UI-200, UI	-	Each land province shall have a railroad level	hubert
621	Functional	In-Production	M - Must Have	MAP-64	UI-119, M	POP-23	Each province shall be able to calculate the average militancy of its pops.	Youri
622	Functional	In-Testing	M - Must Have	MAP-65	UI-121, M	POP-18	Each province shall be able to calculate the number of pops living in it.	Youri
623	Functional	In-Development	M - Must Have	MAP-68	UI-125	POP-26	Each province shall be able to calculate the distribution of pop types in it.	Youri
624	Functional	In-Development	M - Must Have	MAP-70	UI-127, M	POP-20	Each province shall be able to calculate the distribution of pop cultures in it.	Youri
625	Functional	In-Development	M - Must Have	MAP-234	-	POP-21	Each province shall be able to calculate the distribution of pop religions in it.	hubert
626	Functional	In-Testing	M - Must Have	MAP-71	UI-189	MAP-72, MAP-7	Each province shall be able to calculate the expansion progress of its fort level.	Youri
627	Functional	In-Testing	M - Must Have	MAP-72	MAP-71	-	Each province shall have a date at which the expansion of its fort level started.	Youri
628	Functional	In-Testing	M - Must Have	MAP-73	MAP-71	-	Each province shall have a date at which the expansion of its fort level will be finish	Youri
629	Functional	In-Testing	M - Must Have	MAP-74	UI-197	MAP-75, MAP-7	Each province shall be able to calculate the expansion progress of its naval base k	Youri

“It’s a powerful documentation system that allows a user to quickly see what is and isn’t done for the game. Furthermore, it’s also change-able and extendable, so if requirements need to change or we want to add requirements, we can make those changes while understanding all the knock-on impacts around it.”



Requirements

Requirements are the most thorough form of documentation we can make, and we consider that documentation part of our end product.

Other than requirements, however, we have two major updates that have yet to be put into a Dev Diary. One being that we now have a proper roadmap to show you! Remember, this is a work in progress indefinitely, and expect it to get longer, not shorter...



(A note on optimization, specifically multithreading. Our multithreading implementation is an ongoing task and isn't limited to the optimization stage; it's simply the stage where we'll be finalising many of those aspects.)

Another piece of exciting news, however, that you may have heard is that in return for changing our name to "OpenVic", we have the go-ahead from Paradox to go ahead with our idea! Paradox was extremely gracious with this, actually, and our conversations were constructive and all around quite positive.

So yeah! Here's to OpenVic, and I hope to see you in the next one!

