OpenVic

Dev Diary 5

Requirements

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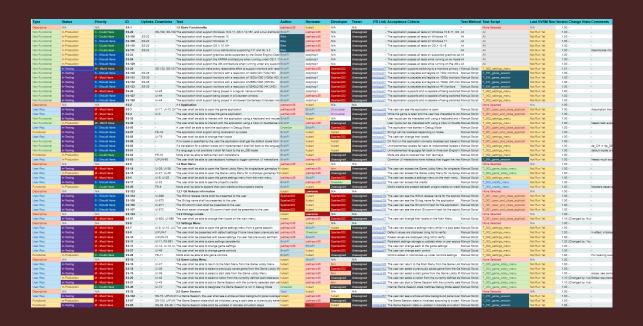
But let's get to requirements. Joethepro is our main requirements person and the one who knows the most about them. I asked him to explain what requirements are:

"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."

"As the codebase expands to 10,000s and then 100,000s of lines of code, this makes it easier to track down where problems are. In the long term, when tracking networking issues, it will be invaluable to diagnose and fix bugs."

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This is especially important because of our team's commitment to two main things (which Joe touches on there): modability and multiplayer 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."

	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	!SS-77, UI	FS-333, MAP-5,	The map shall be defined by a 2D plane divided into multually 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 defir	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/	!ECON-83, !EC(	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 finisl	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 l(	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 changeable 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!