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Documentation: In progress **Quick start: In progress**

Offline copy from ModDocs. Source links remain clickable.

Source game modding: Half-Life 2, Portal, Portal 2, Left 4 Dead 2 and Team Fortress 2

These games share parts of Valve's **Source** family, but each has its own authoring tools, content rules and Workshop route. A Source SDK 2013 code mod is not the same thing as a Portal 2 puzzle or a Left 4 Dead 2 campaign. Valve's Developer Community is the broad reference; choose the game's own tool page before making files.

> **Quick start:** make one tiny, playable map for the game you own. Give it a player start and a clear way to test completion, compile it with that game's tools, then load it in game. Do not begin by changing engine code.

Pick the right editor and result

Game	Practical first project	Relevant source
Half-Life 2	A short room or encounter made in Hammer	Source SDK
Portal	A single test chamber with a working entrance and exit	Portal level design

Game	Practical first project	Relevant source
Portal 2	A small in-game Puzzle Maker chamber, then Hammer for more control	Portal 2 authoring tools
Left 4 Dead 2	A short cooperative map with required navigation and flow	Left 4 Dead 2 authoring tools
Team Fortress 2	A small map that loads in the correct game mode	TF2 level creation

For Half-Life: Alyx, use its separate Source 2 Workshop tools; for Counter-Strike 2, use its own Source 2 tools. Neither should be treated as a Source 1 Hammer project just because the editor name is familiar.

Build a first map

Install the authoring tools associated with the **target game**, then open Hammer or the game's simpler editor. Make a small enclosed space, add the required player start, lighting and an obvious objective. Compile it and run it in the target game. A map that compiles without errors can still fail at runtime because a spawn entity is wrong, a door never opens or a puzzle cannot be solved.

Test the whole loop: spawn, traverse, interact, complete, restart. Watch for leaks and missing textures during compilation. If the map is dark or a surface is missing, inspect the material path and compile output before adding more props. Save a copy of the small working map as a checkpoint.

Each game adds requirements. A Portal chamber needs a reliable entry, exit and puzzle state; a multiplayer TF2 map needs the entities for its mode; a Left 4 Dead 2 map needs navigation and cooperative flow. Use that game's level-design page before decorating. For Portal 2, the in-game Puzzle Maker is the easiest way to confirm a puzzle idea; Hammer and the authoring tools give deeper control later.

When code is actually needed

Valve's Source SDK 2013 repository is a code base for supported Source SDK 2013 mod projects, not a universal way to change every listed game. Its README describes project generation and building. Verify the branch and target before compiling. If your goal is a map, material or sound, start with the game's content tools and avoid a code fork until the content-only path cannot express the behavior you need.

Keep source maps, compiled maps, custom assets and code in separate folders. Track which assets are yours, which are provided by the game, and which are dependencies. Do not copy Valve's game assets into a public download just because they are visible in the editor.

Package and verify

Use the target game's expected package and Workshop route; these differ across titles. Test from a clean installation or profile without loose development assets. Ask another player to load the package if possible. A map that works only while your working folder is present is missing content. Check spawn, progression, multiplayer connections where relevant, and the compiled map's required assets.

This guide is **unfinished**: it gives a map-first route across five games but does not replace each game's entity reference, compile settings, navigation workflow or Workshop submission guide. Follow the game-specific Valve pages above for those details, especially when a tutorial was written for another Source branch.

Sources / References

External project and documentation links cited in this guide. Check the upstream release and version before following version-sensitive steps.

- Developer Community
- Portal level design
- Portal 2 authoring tools
- Left 4 Dead 2 authoring tools
- TF2 level creation

- Source SDK 2013 repository