USER GUIDE

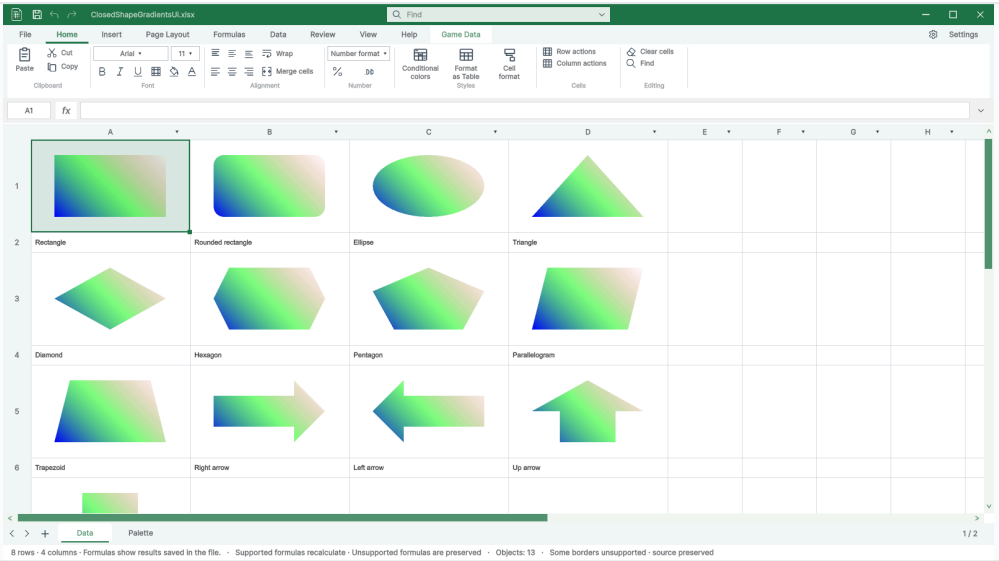
Edit sheets. Build game data.

Choose a tab. Follow the conversion steps or look up a feature.

Spreadsheets

01 Open & create

Feature	Description
XLSX / CSV	Double-click a file in Project, or select Open Table in its Inspector.
Assets > Create > Design Data Table	Create a standard XLSX, CSV, game-data XLSX or global Enum workbook.



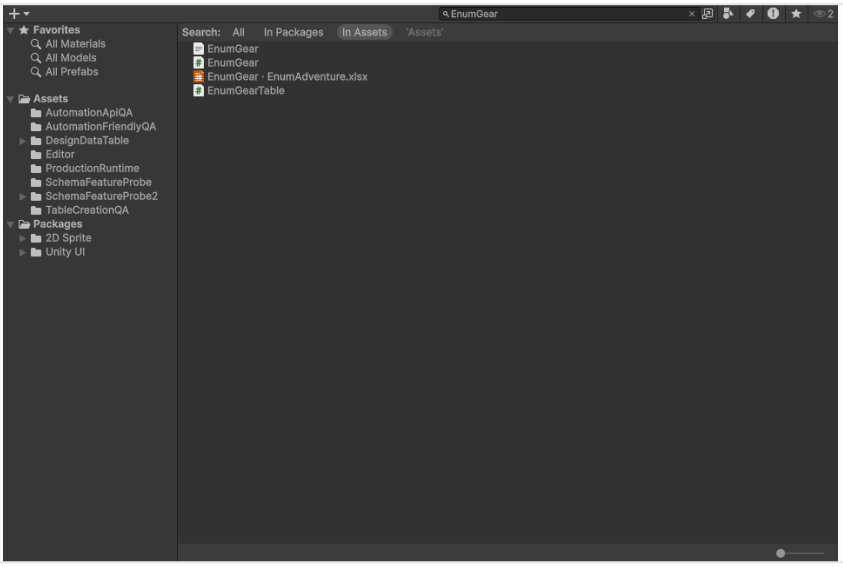
XLSX · ClosedShapeGradientsUi.xlsx

02 Edit cells

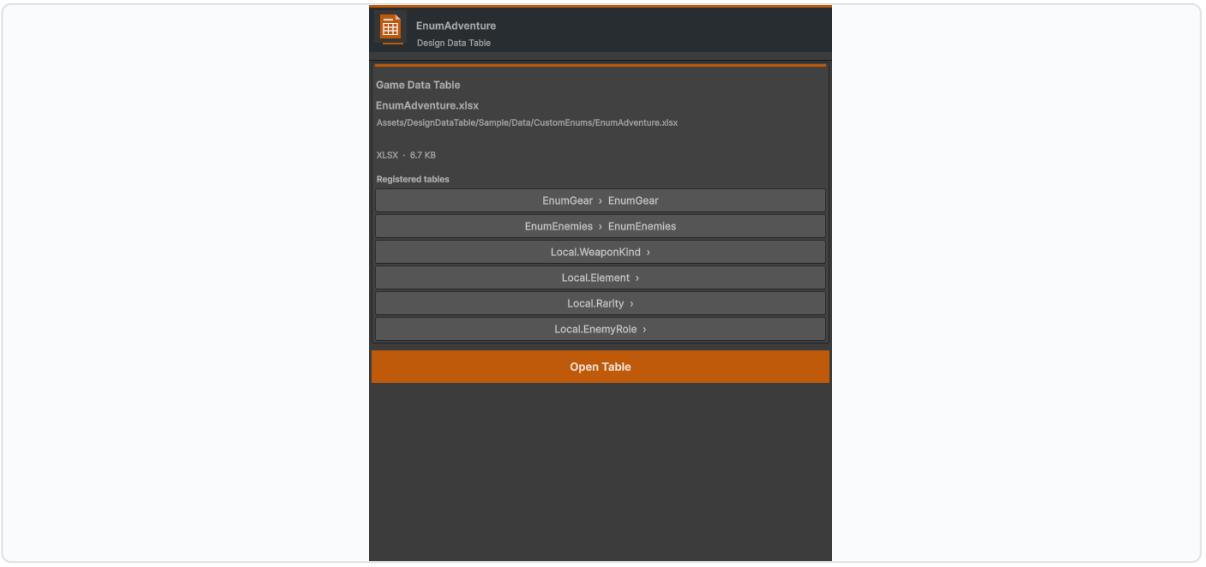
Feature	Description
Input / Enter / Tab	Type to edit; Enter moves down and Tab moves right. Esc cancels the current edit.
Copy / Paste / Fill / Find	Copy ranges, paste special, drag the fill handle, or use Find/Replace. Wildcards are optional.

03 Sheets & windows

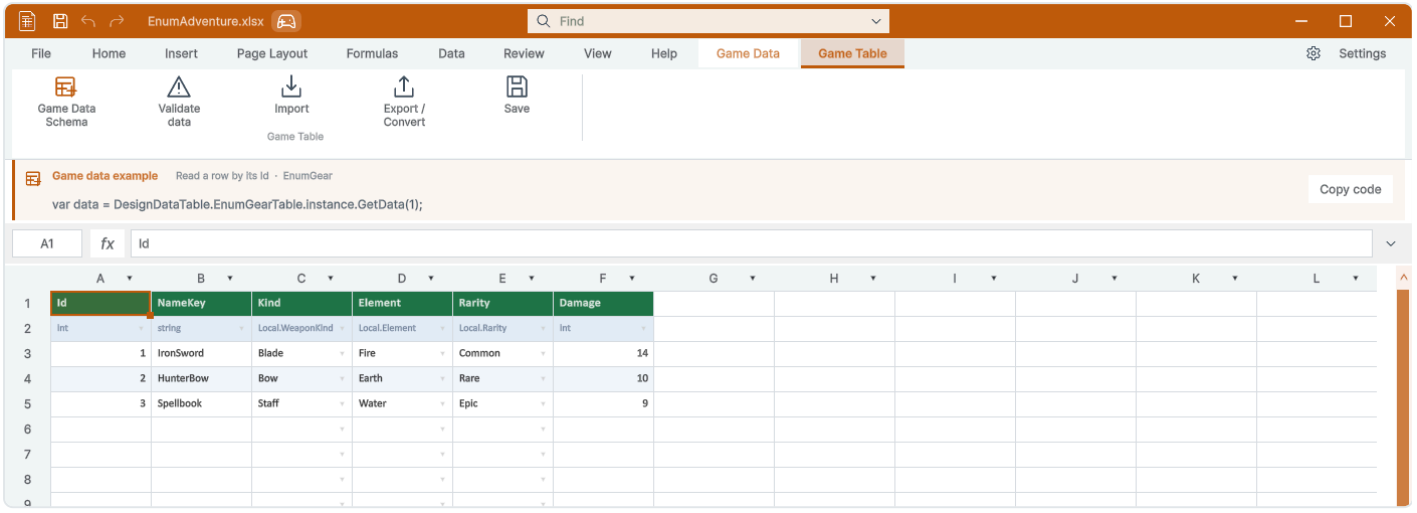
Feature	Description
Sheets	Use bottom tabs to switch sheets. The + and tab menu add, rename or delete a sheet.
Minimize / Maximize / Preview	Minimized documents appear in the bottom list. Hover for a card, then hover the card for the full preview; click to restore.
File status	Green: spreadsheet; orange: game data; blue: localization. Window and file icons follow the same status.
Close unsaved file	Closing an edited file asks Save, Cancel or Discard and shows its filename and path. Failed saves keep the file open.
Table name search	Search a registered XLSX table name in Project. The workbook result includes its original filename and opens that worksheet; one file may keep several tables.
Contextual tabs	Settings stays at the far right. Between Game Data and Settings, tools appear for the registered game/localization sheet, Enum/Summary sheet or selected table, shape, chart or picture. Object tools activate on selection and disappear on deselection.



Sheets & windows



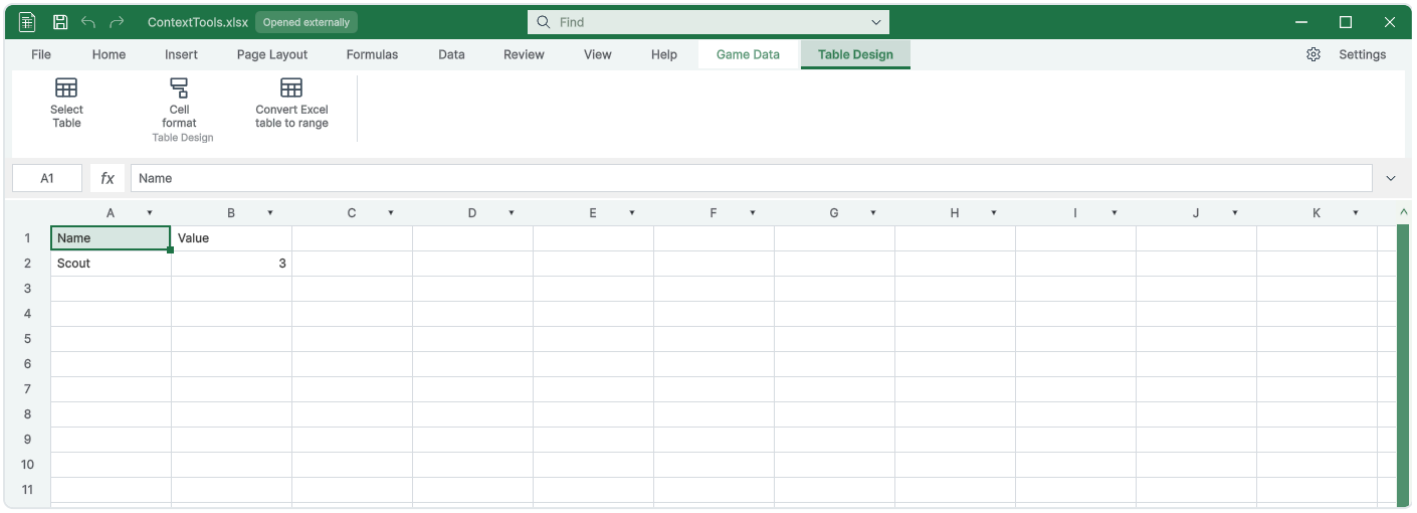
Sheets & windows



Sheets & windows

04 Format & arrange

Feature	Description
Cell format	Set fonts, alignment, number formats, fills and borders. Resize rows and columns or freeze headers.
Sort / Filter	Use column-header menus. Sorting changes row order; filters hide rows without deleting records.
Table Design	Selecting a structured Excel table reveals Table Design. Select its range, open cell formatting, or convert the table to an ordinary range; Undo restores the table and its contextual tab.



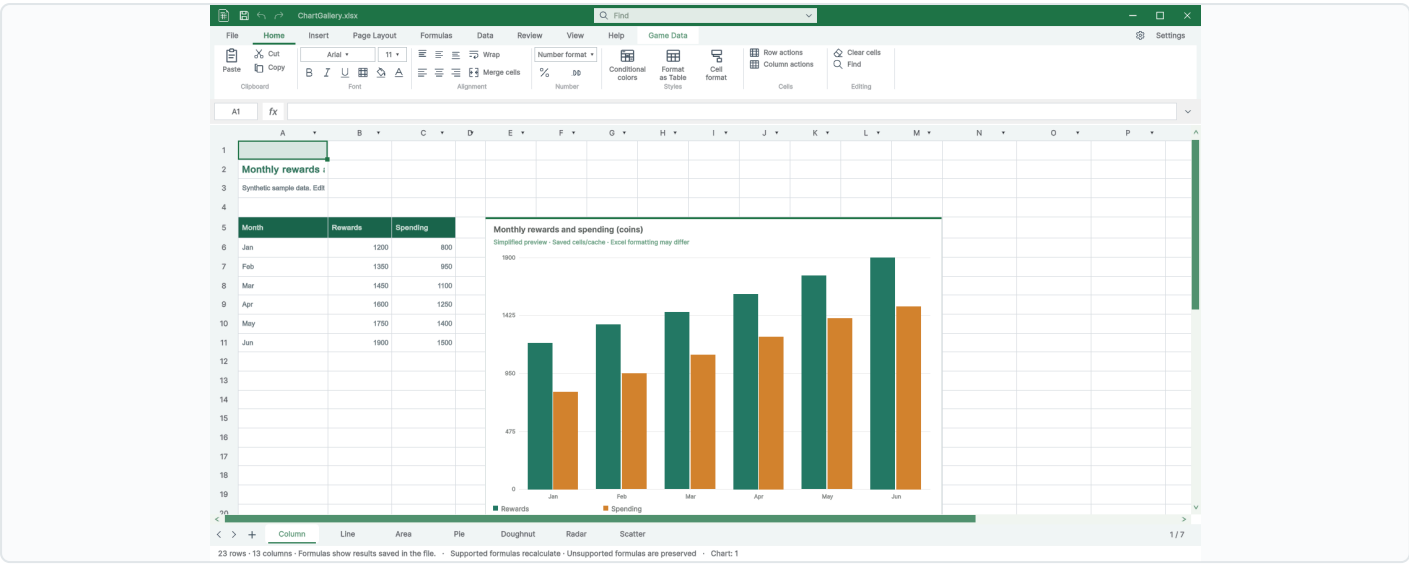
Format & arrange

05 Formulas

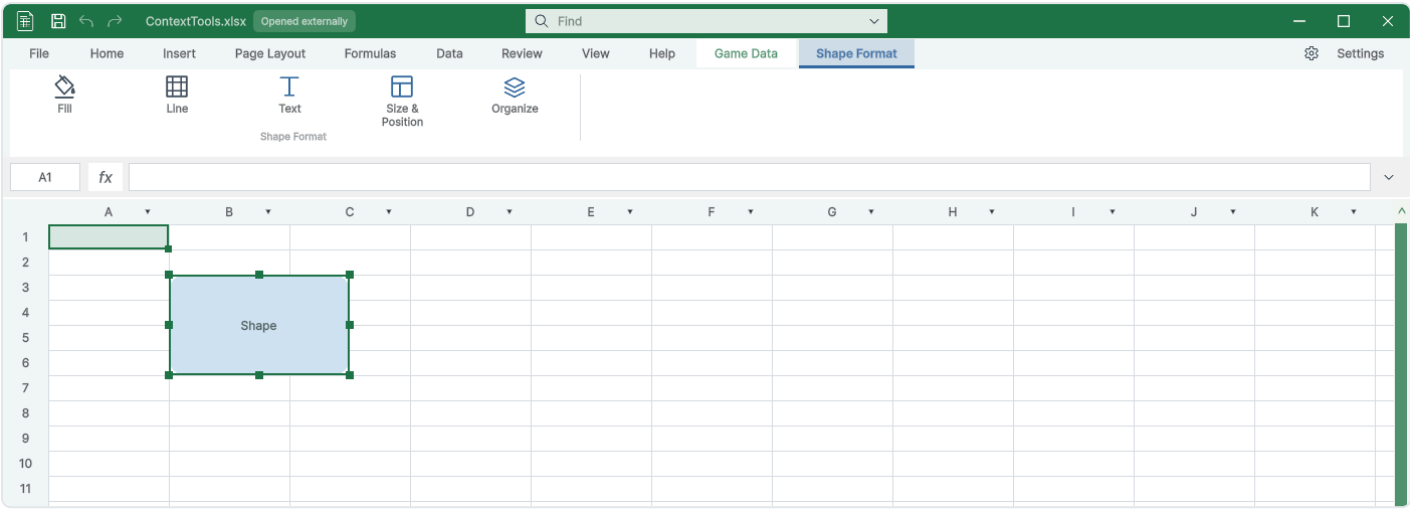
Feature	Description
Formula bar	Enter =SUM(A3:A6) and other supported formulas. Unsupported formulas retain the original and cached result.

06 Charts & shapes

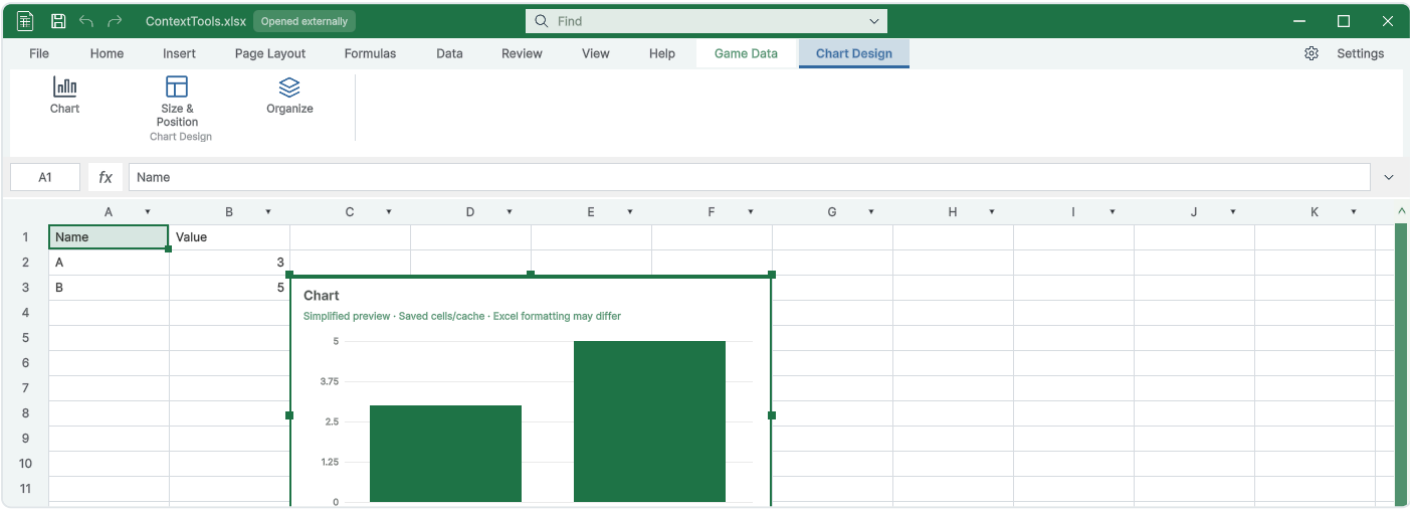
Feature	Description
Charts	Select a chart to edit its supported series and display options.
Objects	Double-click for fill, line, text, size and position. Preset and custom paths are supported; read-only objects remain preserved.
Shape Format / Chart Design	Select a shape, chart or picture to open its contextual tools. Fill, line, text, chart settings, size/position and organization open the existing property editor on the matching page. Available operations follow the selected object's support and protection limits.



ChartGallery.xlsx



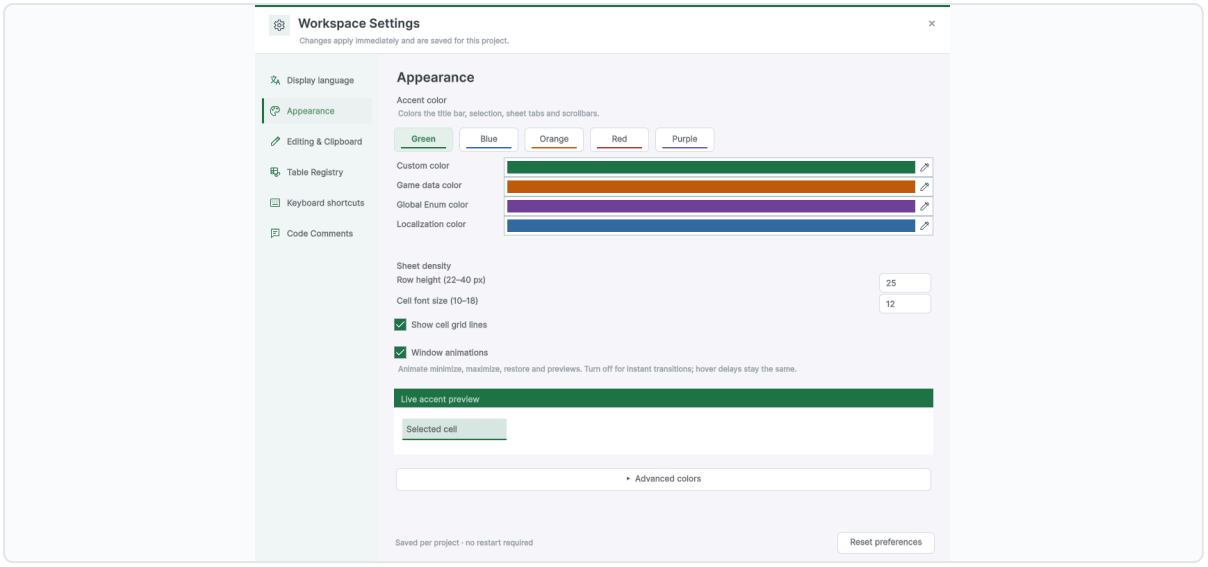
Charts & shapes



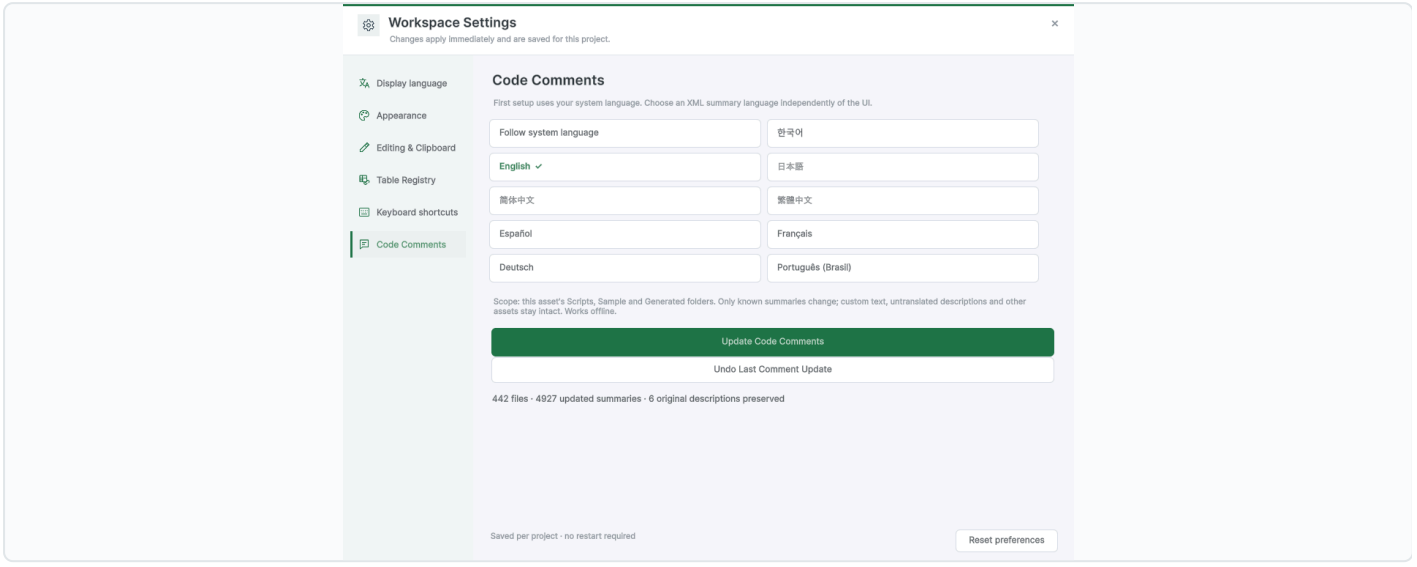
Charts & shapes

07 Save & preferences

Feature	Description
Save / Recovery	Save updates the original file. Unsaved-close prompts show its name. Recovery drafts do not overwrite the original automatically.
Document colors	In Settings > Appearance, set the normal, game-data, global Enum and localization colors independently. Title bars, selection, sheet tabs and source icons update immediately. Colors are saved per project and Reset restores their defaults. The Game Data ribbon tab follows the active window color.
Settings > Appearance > Window animations	Turn minimize, maximize, restore and preview effects on or off. Default: on. Hover delays stay unchanged.
Option windows	Use the left categories; advanced colors, formatting and table details expand only when needed. Shape fill shows one paint type at a time.
Play appearance	Options retain their normal brightness during Play. Disabled commands remain unavailable.
Settings > Code Comments	First setup uses the system language. Select a separate comment language and choose Update Code Comments. Known XML summaries in this asset are updated offline; custom and untranslated descriptions stay intact. Generated code uses the selected language. Undo Last Comment Update preserves files edited since the update.
Command icons	Ribbon, settings and file menus use matching image icons. Localization has separate icons for rebuilding translations, viewing generated data and changing the default language. Semantic icons follow the document color; title-bar controls stay white.
Usage examples	A card below the ribbon shows code for the active game table, Enum or localization sheet. Selecting an Id, member or translation key updates the example. Copy code copies the complete expression. Localization labels its fallback language; Summary explains column synchronization.

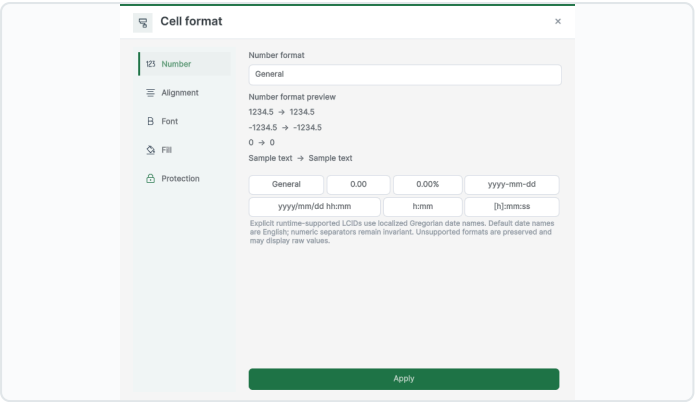


Settings · Appearance · Independent document colors · English UI

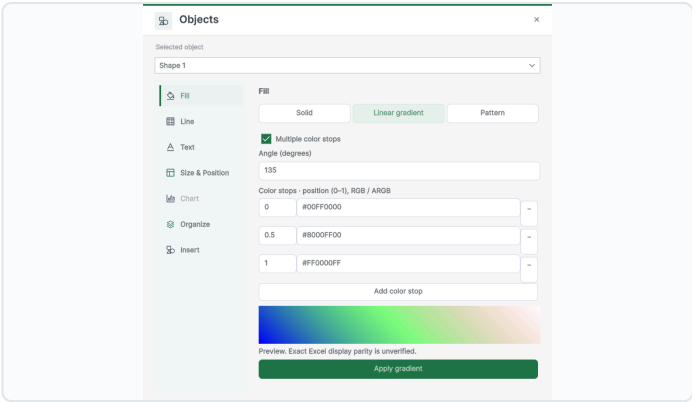


Save & preferences

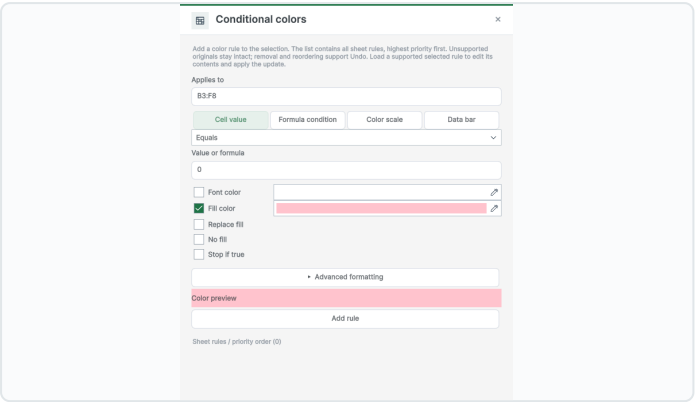
▼ Option windows



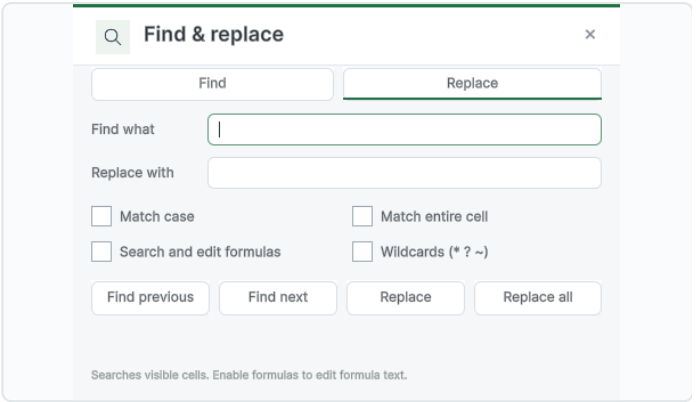
Cell format



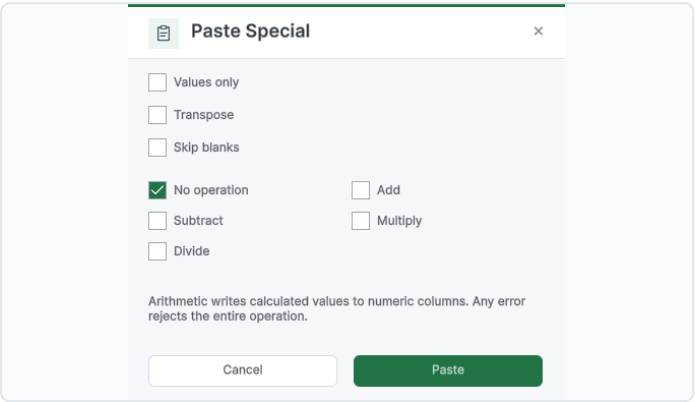
Objects · Fill



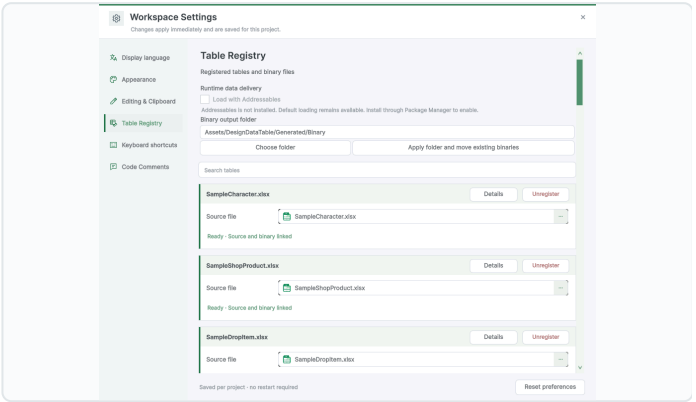
Conditional colors



Find & replace



Paste Special



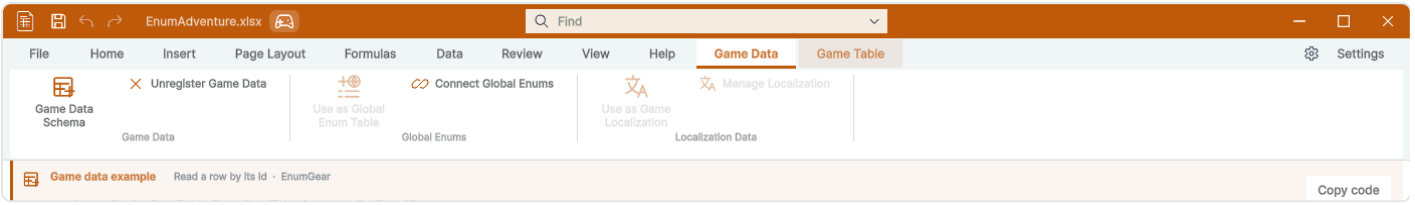
Settings · Table Registry

Game data

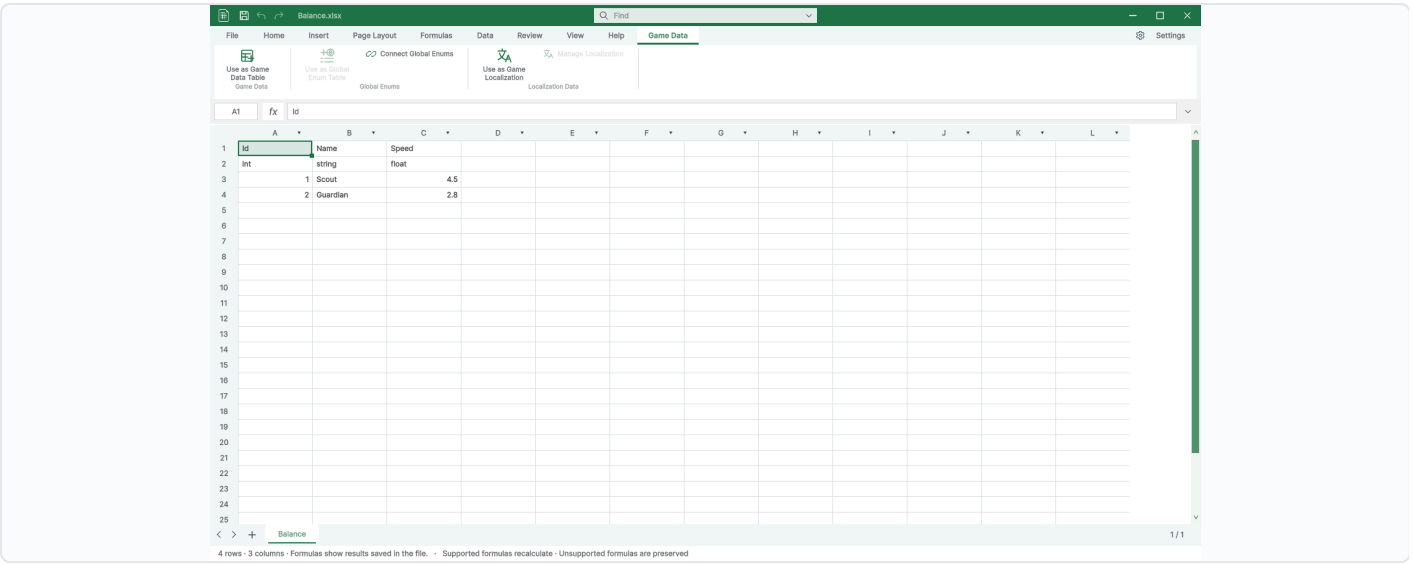
01 Convert to game data

Feature	Description
1 · Prepare	Save an XLSX inside Assets. Row 1: column names; row 2: types; row 3 onward: records. Start with Id : int.
2 · Register	Save, select a data sheet, then Game Data > Use as Game Data Table. Summary and Enum definition sheets cannot be registered.
3 · Validate & save	Registration adds Summary and an orange tab. Save validates types and Ids, then refreshes generated C# and binary data.
4 · Use in game	Read generated Table.instance.GetData(id). After changing column types, wait for Unity compilation before Play.

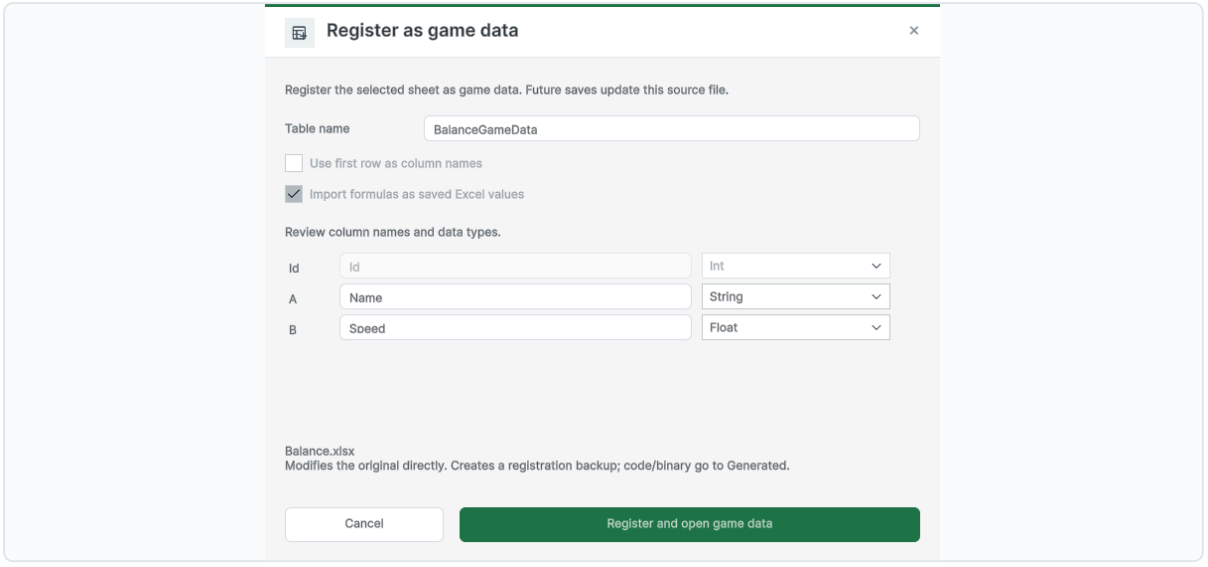
Id	Name	Speed
int	string	float
1	Scout	4.5
2	Guardian	2.8



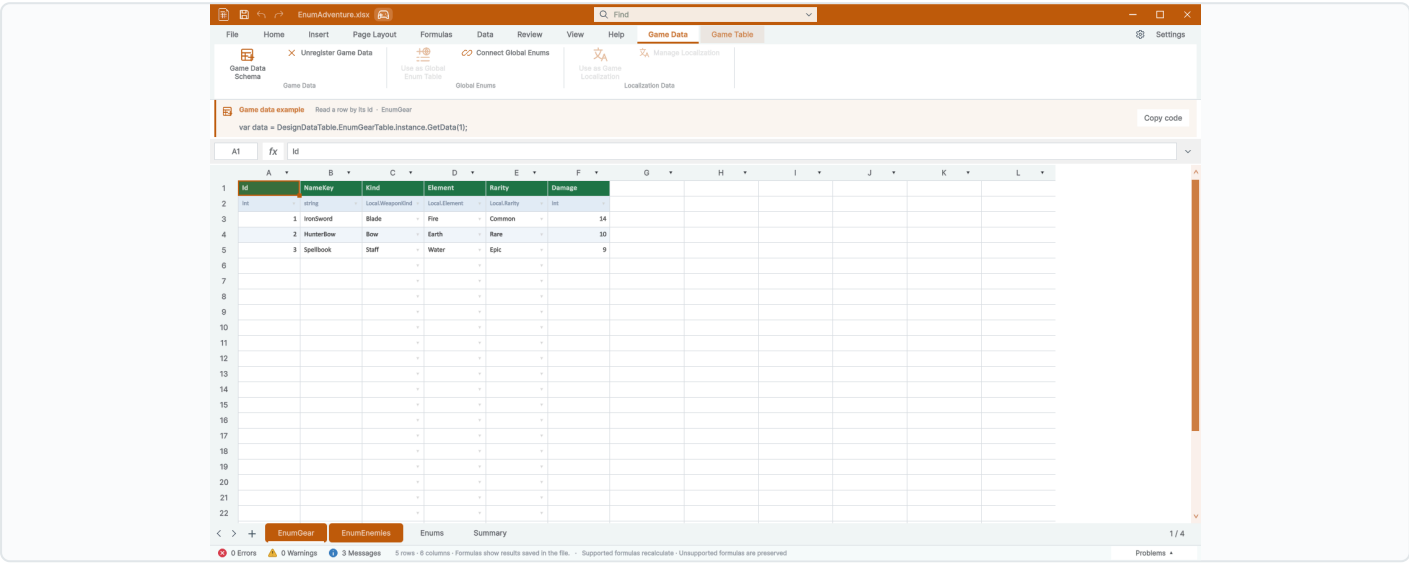
Convert to game data



Balance.xlsx · Id / Name / Speed



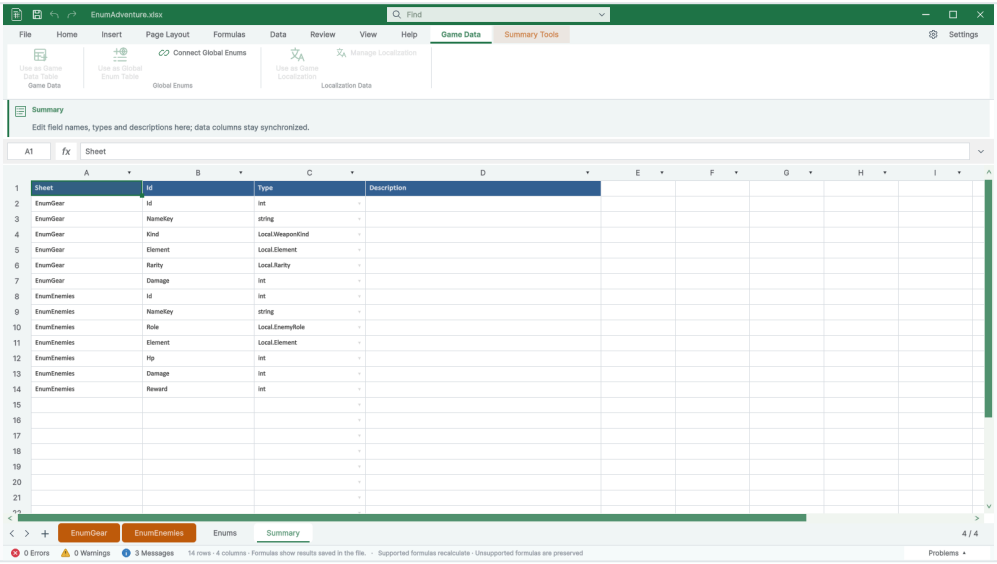
Use as Game Data Table



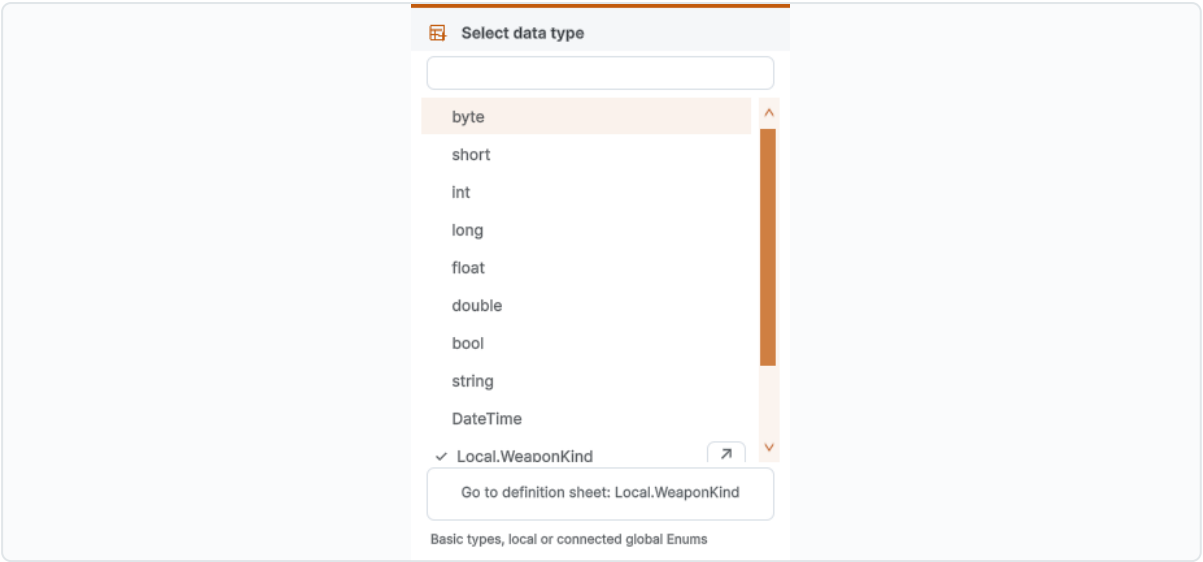
EnumAdventure.xlsx · EnumGear

02 Schema & Summary

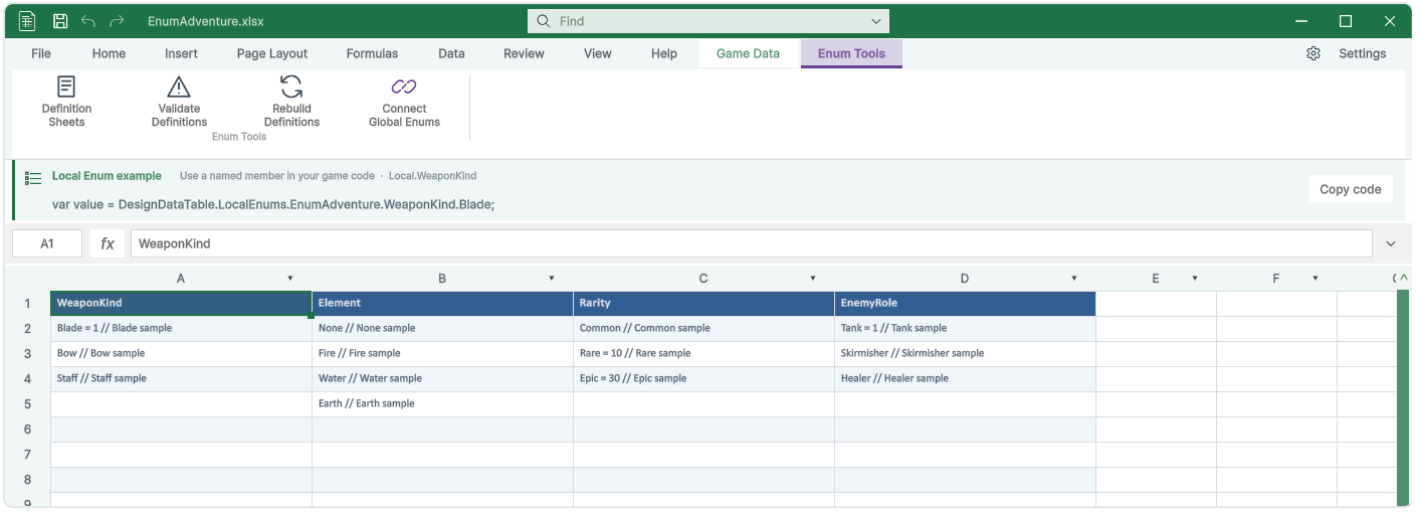
Feature	Description
Game Data ribbon	Three sections: Game Data, Global Enums and Localization. Large actions and smaller supporting commands follow the Home ribbon layout.
Row 2	Use the type dropdown: byte, short, int, long, float, double, bool, string, DateTime or a defined Enum.
Two-way sync	Adding a named source column updates Summary. Completing a Summary row inserts its source column. Existing values are retained.
Workbook / Sheets	One workbook can register several data sheets. Summary identifies their columns by Sheet.
Integer codes	Leading-zero codes and integer text outside Int64 are inferred as strings to preserve their digits.
Summary	Created automatically for game tables, including existing registered tables when opened. Required Summary cannot be deleted; there is no Create Summary button.
Game Table / Enum Tools	Game Table: schema, validation, import/export and save. Enum Tools: definition-sheet navigation, validation and code rebuilding. Summary Tools links back to the registered game sheets.



EnumAdventure.xlsx · Summary



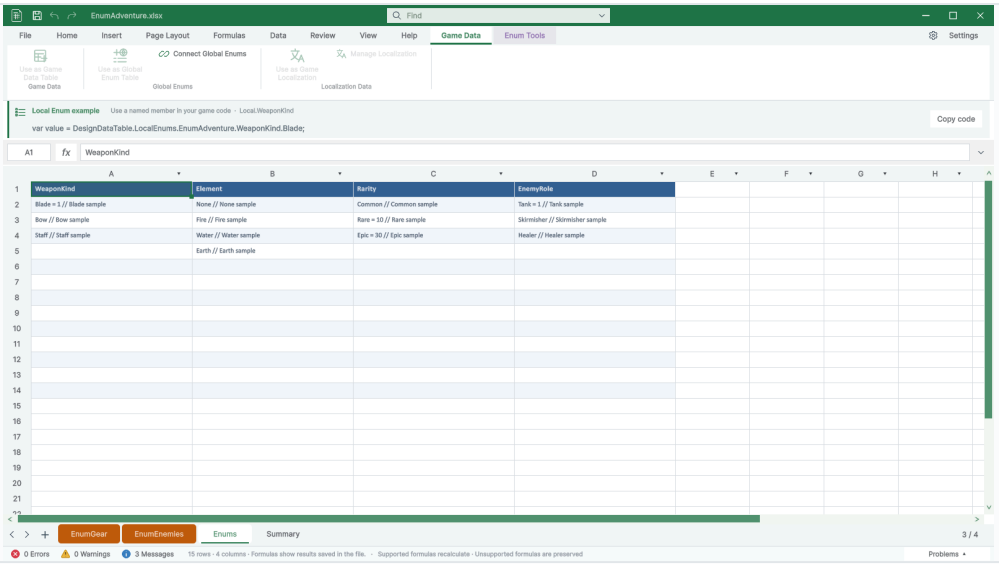
Row 2 · Local.WeaponKind



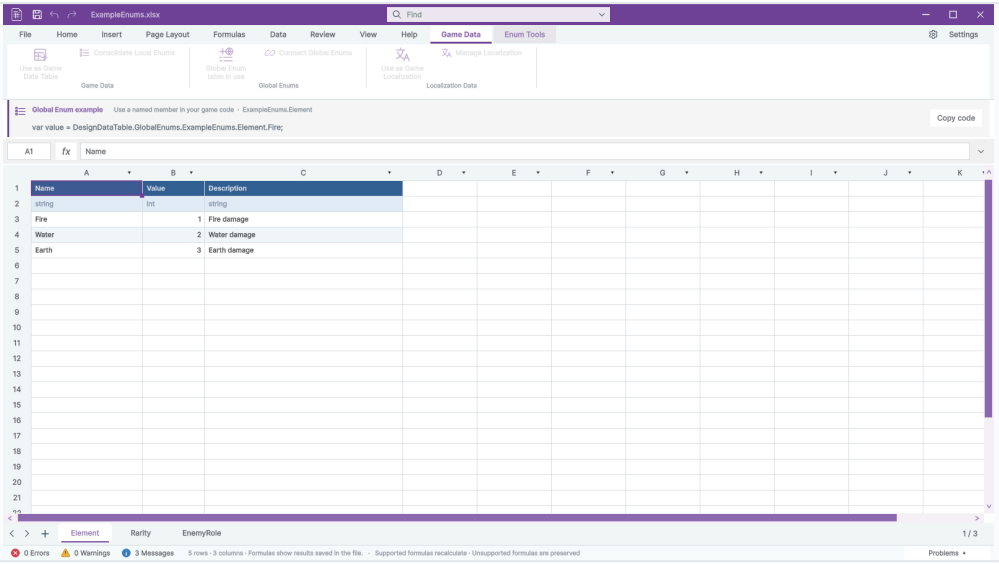
Schema & Summary

03 Local & global Enums

Feature	Description
Local · Enums	Each column defines one Enum. Row 1 is the type name; rows below contain members such as Blade or Rare = 10 // Description.
Values & dropdowns	Numbers and descriptions are optional. Automatic numbering starts at 0, then continues from the previous value. Select members in data cells.
Global · Connect Global Enums	Register a global Enum workbook, connect it in a consumer, then choose Group.Enum in row 2 to share one C# type.



EnumAdventure.xlsx · Enums

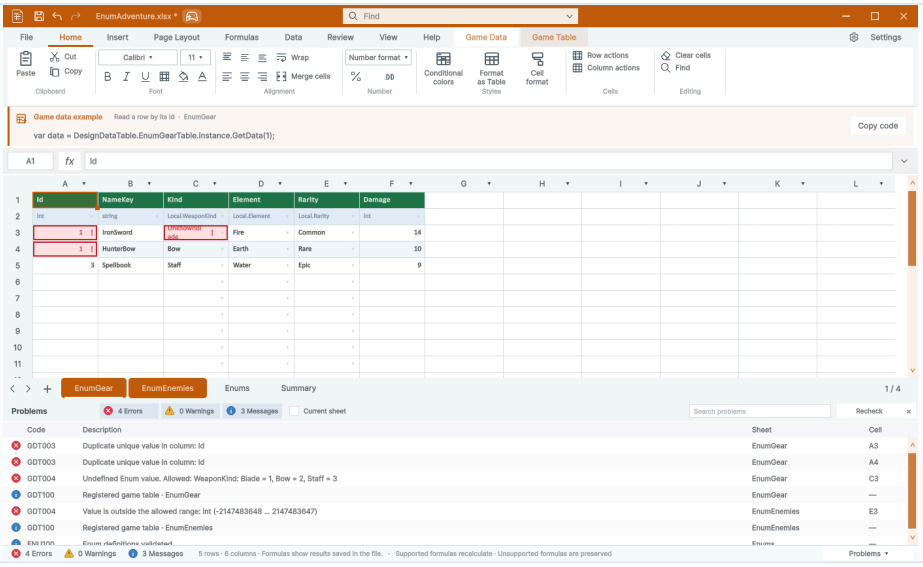


ExampleEnums.xlsx · Element

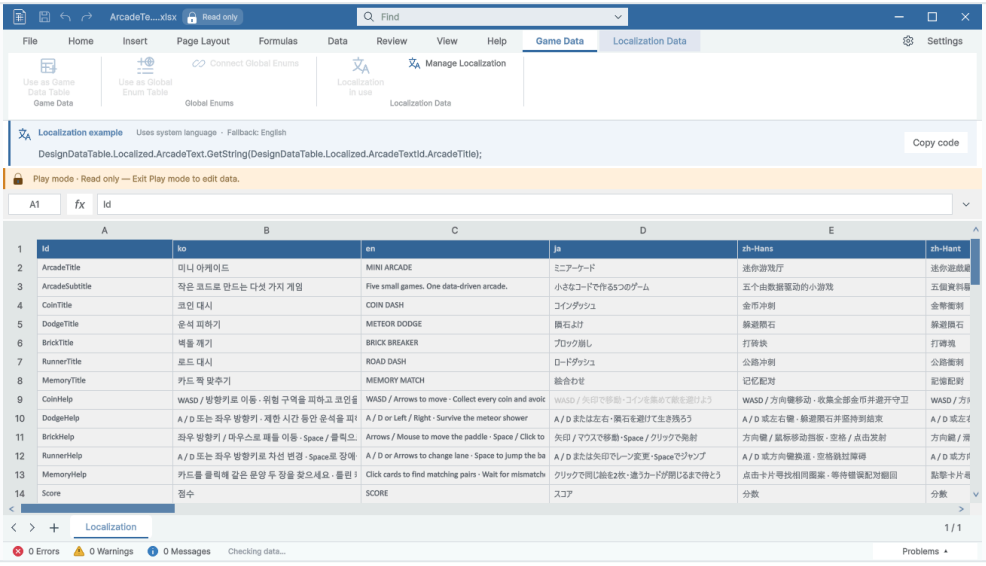
04 Validation & safe editing

Feature	Description
Warnings	Invalid, reserved or duplicate columns, missing Enums and format/range errors are marked red. Fix errors before saving.
Play mode / External files	Game data, localization and local/global Enum workbooks are read-only during Play, including other sheets in the same file. A lock badge, notice and dimmed grid show the state. Editing, saving and rebuilding are blocked; leaving Play restores editing. External files require an Assets source for registration.

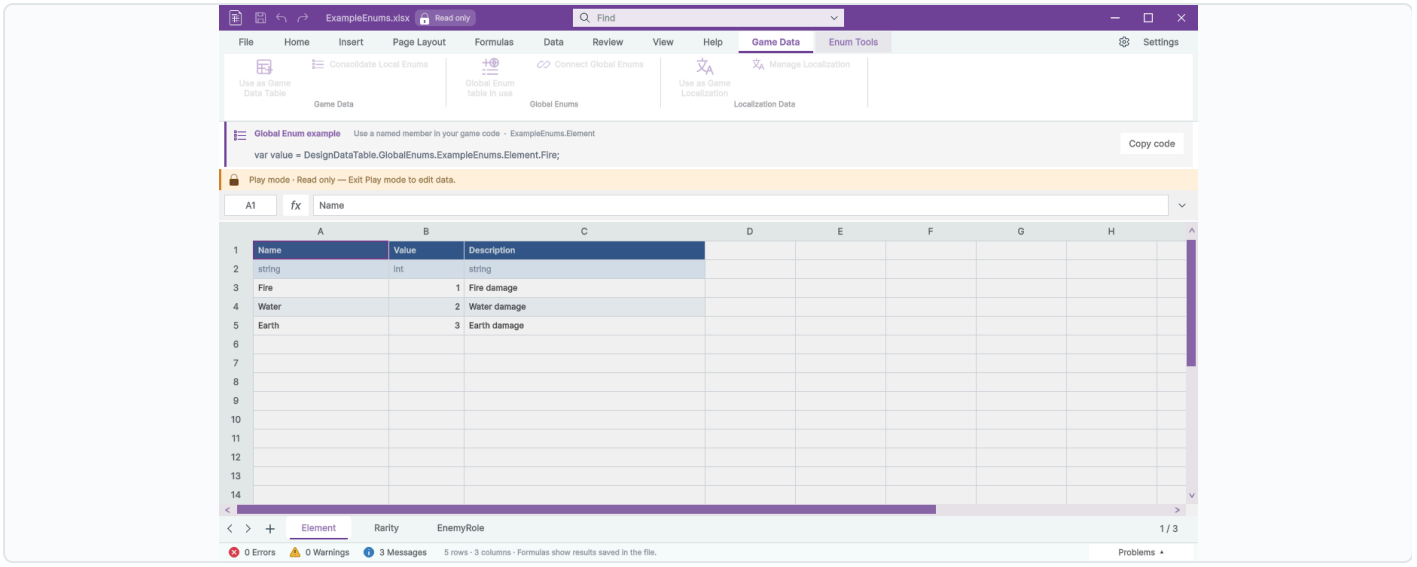
Feature	Description
Problems	Bottom status shows error, warning and message counts for registered game data, Enums and localization. Click a count or Problems to expand. Filter by severity or sheet, search codes/messages, and click a row to select its source cell. Drag the top edge to resize. Changes refresh validation incrementally; Recheck starts a fresh scan.



EnumAdventure.xlsx · UnknownBlade



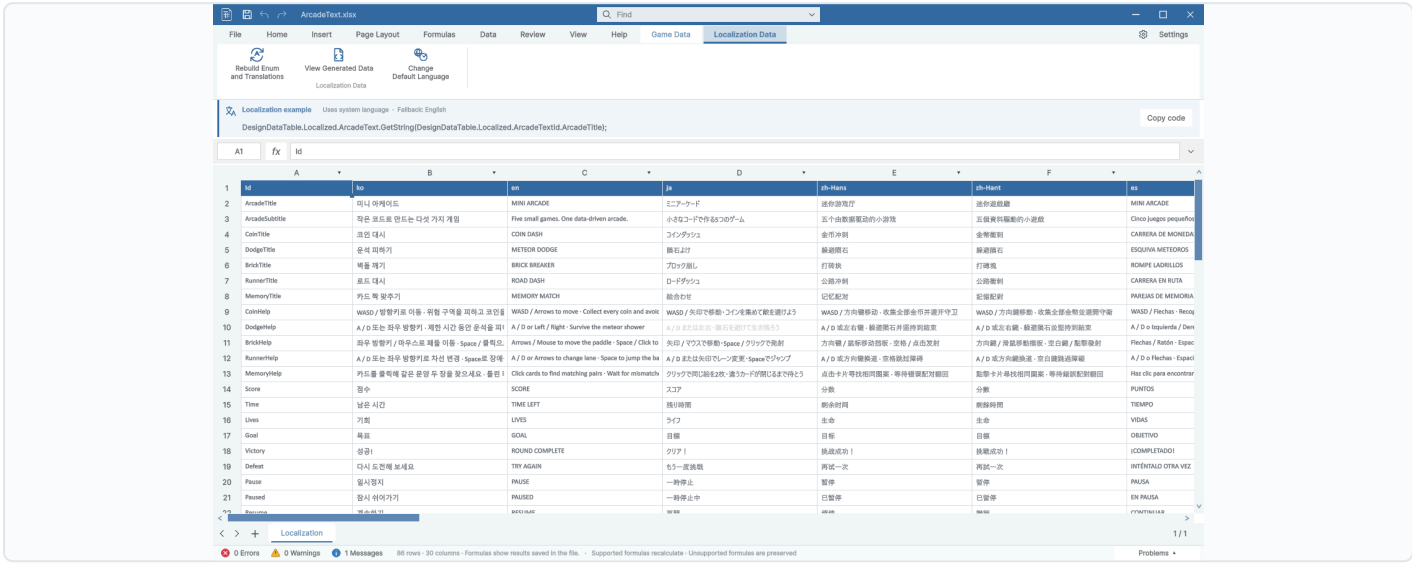
Play mode · Localization · Read only · English UI



Play mode · Global Enums · Read only · English UI

05 Localization

Feature	Description
Id / korea / english / france	Row 1 contains Id and language names. Each following row maps an Enum key to translated strings. No type row.
Use as Game Localization	Register from Game Data, then call the generated GetString(Enum). It selects the active system language or configured override.

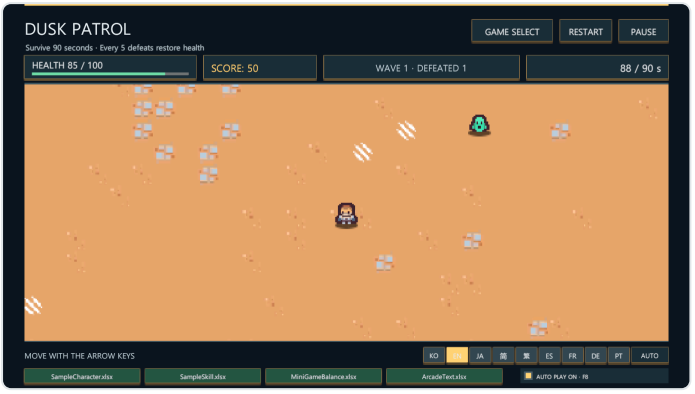


ArcadeText.xlsx

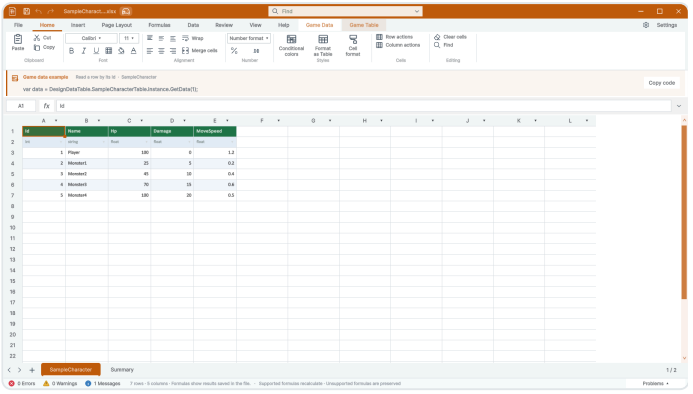
06 Game examples

Feature	Description
24 scenes · 2D / 3D	Open a scene under Sample/Scenes and press Play. Saved UI is visible before Play; each example has its own gameplay code.
Data buttons / Auto Play / Esc	Bottom data buttons open each source table. Auto Play defaults off; enable it for recording. Esc pauses and resumes supported examples.

Dusk Patrol



Game example · Dusk Patrol



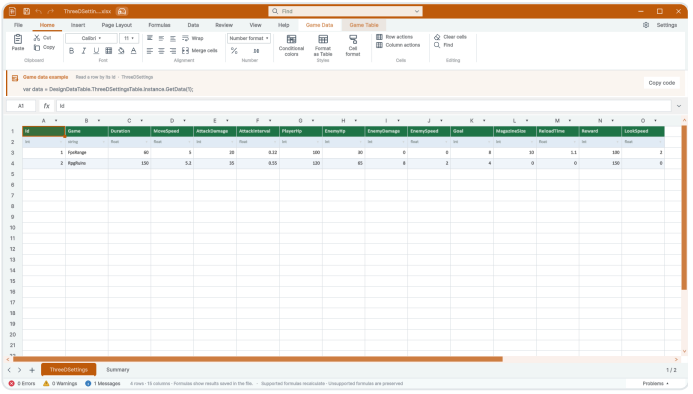
Source table · Sample/Data/Common/SampleCharacter.xlsx

`Sample/Data/Common/SampleCharacter.xlsx`

Neon Range · FPS



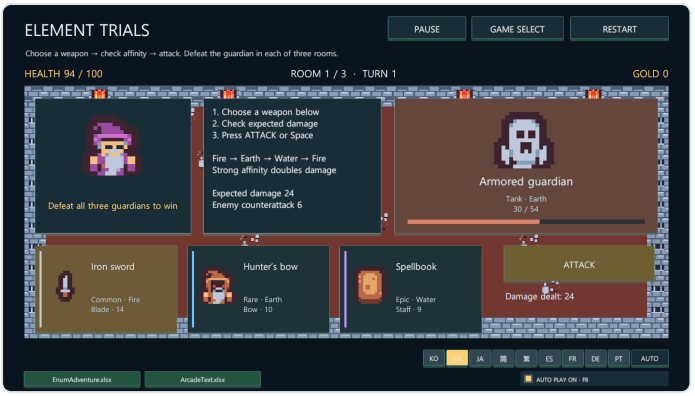
Game example · Neon Range · FPS



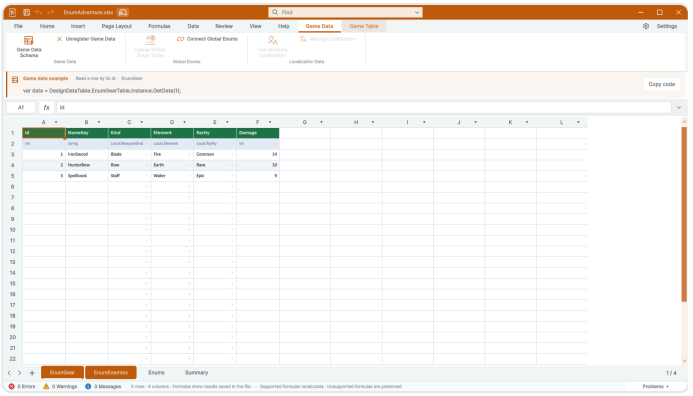
Source table · Sample/Data/ThreeD/ThreeDSettings.xlsx

`Sample/Data/ThreeD/ThreeDSettings.xlsx`

Element Trials



Game example · Element Trials



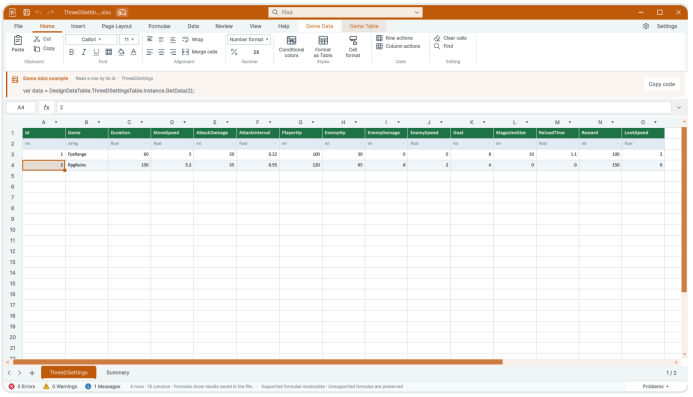
Source table · Sample/Data/CustomEnums/EnumAdventure.xlsx

`Sample/Data/CustomEnums/EnumAdventure.xlsx`

Crystal Ruins · RPG



Game example · Crystal Ruins · RPG



Source table · Sample/Data/ThreeD/ThreeDSettings.xlsx

`Sample/Data/ThreeD/ThreeDSettings.xlsx`

▼ 24 · Game examples

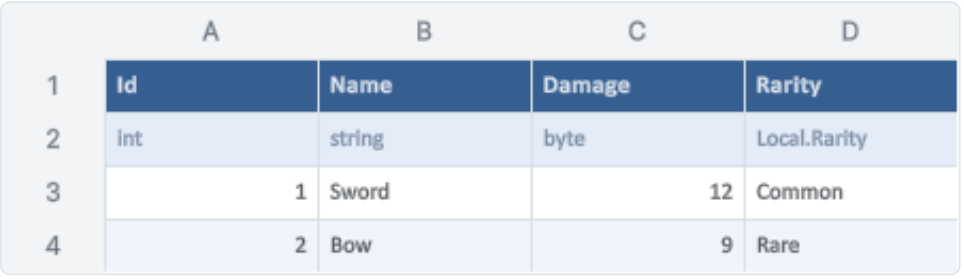
3D FPS	3D RPG
Beat Beacon	Block Harbour
Brick Breaker	Canyon Sprint
Coin Dash	Comet Pinball
Custom Enum Battle	Drone Arena
Dusk Patrol	Lantern Defense
Lunar Lander	Marble Circuit
Memory Match	Meteor Dodge
Neon Runner	Potion Match
Putter Garden	Quiet Courier
Skybound Steps	Strike Lane
UI (Shop)	Warehouse Push

07 Runtime & outputs

Feature	Description
Generated / Code & Binary	Game-data save refreshes typed C# and binary records. Prefer the generated API; keep sample assemblies separate from your own code.
Unregister Game Data	Removes the selected sheet registration and generated outputs. The source workbook is retained.
AI API / MCP / CLI	MCP, CLI and Python share one Unity API: search tables, edit by Id, manage schema/Enums, read/write/format ranges and manage sheets. Inspect the real schema and revision first. The English API reference contains setup and short examples.
Validated batch / PNG	Validate one workbook batch with dryRun, inspect its native PNG, then commit with the unchanged revision. Any validation failure rejects the batch. Unity must be open, idle and outside Play. Unsaved drafts block edits. Check a timed-out request Id before retrying.

```
using DesignDataTable;
using DesignDataTable.Localized;

var hero = SampleCharacterTable.instance.GetData(1);
string title = ArcadeText.GetString(ArcadeTextId.ArcadeTitle);
```



	A	B	C	D
1	Id	Name	Damage	Rarity
2	int	string	byte	Local.Rarity
3	1	Sword	12	Common
4	2	Bow	9	Rare

AI API · native range preview · Unity 6000.0.83f1 · English

MCP · CLI · Python — API reference (English)

Supported features only; not complete Excel compatibility. Original files are preserved where an object or formula cannot be edited.

Screenshots: English UI · Unity 6000.0.83f1 · Windows. Other language layouts are not visually certified.

Design Data Table · 2026-10-29