

TDU2Emploder / XMBEdit

User Guide

Exploring and Editing Test Drive Unlimited 2 Game Files

Version 1.0 • .NET 9 / Windows
Generated June 2026

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1. What Is TDU2Emploder?

TDU2Emploder is a **file explorer and editor** for **Test Drive Unlimited 2** game files. It lets you open, view, and modify the binary files used by the game — without needing any programming skills.

Think of it as a swiss-army knife for TDU2 modding:

- Browse the contents of `.big` / `.map` archives (the game's main package files)
- Open and edit vehicle physics (suspension, tires, shocks)
- View and modify missions, effects, animations, particles, and scenes
- Extract textures and 3D models
- Listen to audio files from the game's sound banks
- Pack your modified files back into a working game archive (via the **ModPacker** tool)

All editors use a clean dark-themed interface. Fields you can edit are clearly labeled — no hex code required.

2. Getting Started

2.1 Opening Files

There are three ways to open a file:

1. **File** → **Open** (or `ctrl+o`) — browse to any file on your hard drive 2. **Drag & drop** — drag a file from Windows Explorer directly onto the tool window 3. **Browse a folder** — open a directory to browse all files inside it

The tool automatically detects what kind of file you opened and switches to the right editor. No need to pick a mode manually.

2.2 Opening a BIG Archive (.big / .map)

BIG archives are the main package files of TDU2. A `.big` file always comes with a matching `.map` file.

1. Open either the `.big` or the `.map` file 2. The **BIG Viewer** shows a tree of all files inside the archive, organized by path 3. Each file is shown with an icon representing its type (texture, model, audio, etc.) 4. **Double-click** any entry to open it in its dedicated editor 5. When you're done editing, click **Save** on the archive to write all changes

> **Tip:** The tool includes a built-in file list of ~600 known TDU2 file paths. Files you edit are tracked with a "Modified" badge.

2.3 Opening a Folder

1. Click **File** → **Open Folder** (or open a directory) 2. Browse your local filesystem in the tree view 3. Double-click any file to open it

2.4 Saving Your Work

Each editor has a **Save** button in its top bar. You can also use `ctrl+s` or **File** → **Save**.

- Saving a single file writes changes back to that file
- Saving a BIG archive re-packs **all** modified entries at once
- Use **File** → **Save As** to save a copy under a different name

2.5 Searching

Use the search bar at the top to filter tree entries or find text. Press `F3` for "Find Next" and `shift+F3` for "Find Previous".

3. What You Can Edit

3.1 Archives & Containers

File Type	What You Can Do
BIG / MAP .big .map	Browse the archive tree, open any file inside, save modified archives
BNK Sound Banks .bnk	Browse hierarchical file tree, play audio entries, extract sounds
XMB / CPR / SOB .xmb .cpr .sob	View and edit structured game data in a tree view, export/import as JSON

3.2 Vehicles & Physics

File Type	What You Can Do
Tire Physics .bpjka	Edit grip, slip, force curves with sliders and live charts
Suspension / Shock .shk	Edit spring rates, damping, and other shock absorber parameters
Havok Physics .dhk .hkx	View Havok physics data (read-only)

3.3 Missions & Game Data

File Type	What You Can Do
Mission Files .ige .ig2	Edit mission parameters, checkpoints, and objectives
Speed Traps .spt	View and edit speed camera/radar data
Cruising Zones .crz	Edit cruising meeting point definitions
Road Paths .pth	View road/path inspection data

3.4 Graphics & Models

File Type	What You Can Do
3D Models .3dg .3dd	View models in 3D (rotate, zoom), export as OBJ for Blender
2D Materials .2dm	Edit material colors, texture layers, export texture images
Textures .2db .dds	View textures with alpha channel toggle, export as PNG
Images .jpg .png .bmp .tga	View and export images

3.5 Effects & Animation

File Type	What You Can Do
FX Effects .fxe	Edit visual effect parameters
Binary FX .bfx	Edit effect locale data (names, matrices, parameters)
Cinematics (magic CIN!)	Edit cinematic sequence data blocks
Particle Systems .prt	Edit particle effect definitions, entries, and data sections
Animations (magic ANM!)	View and edit animation data
UV Animations .uva	Edit UV coordinate animation data
Scene Files (magic SCE!)	Browse scene sections with per-section hex view

3.6 Audio

File Type	What You Can Do
WAV Audio .wav	Play audio with waveform display

File Type	What You Can Do
BNK entries	Play sounds directly from sound banks

3.7 Other

File Type	What You Can Do
LED Data led.txt	Edit simple lighting/LED data
Install Config install.bin	Installation configuration viewer
Text Files .xml .txt .ini .cfg .json	Basic text viewer

4. Format Parsing Status

How well each format is understood by the tool:

Format	Parsing	Saving	Notes
BIG / MAP	Full	Full	Archiving browsing and repacking
BNK	Full	Full	Sound bank read/write
XMB / CPR / SOB	Full	Full	Structured data tree + JSON
IGE / IG2	Full	Full	Missions with parameter names
3DG / 3DD	Full (mesh)	No	View + OBJ export
2DM	Full (segments)	No	Material editing + texture export
BPJKA	Full	Full	Tire curves with live chart
SHK	Full	Yes	Shock parameters
FXE	Full	Yes	Effect parameters
CIN	Full	Yes	Cinematic data blocks
PRT	Partial	Yes	Particles (C/D/E sections unconfirmed)
BFX	Full	Yes	Effect locale entries
UVA	Partial	Yes	UV animation data
ANM	Partial	Yes	Animation data
SPT	Full	Yes	Speed traps
CRZ	Partial	Yes	Cruising zones
PTH	Partial	Yes	Road paths
SCE	Section scan only	Raw bytes	Scene boundaries known, contents not
LED	Full	Yes	Lighting data
InstallBin	Full	Yes	Install config
Havok / DHK	Packfile tree	No	Read-only viewer
Text files	Full	Yes	Basic text

5. ModPacker — Creating Mod Archives

The **ModPacker** is a separate tool included with TDU2Emploder. It takes a folder of modified game files and packs them into a working `.big / .map` pair that TDU2 can read.

How to use it

1. **Prepare your mod folder** — place your modified files in the exact same folder structure as they appear in the game (e.g., `Euro/Bnk/vehicles/...`) 2. **Open ModPacker** — launch `ModPacker.exe` 3. **Select your TDU2 game folder** — this is important! So you can browse and pick your modified files directly from the game folder, and the packer will build the correct folder structure automatically 4. **Select your source folder** — the folder containing your modified files 5. **Enter a mod name and version** (optional) 6. Click **Pack**

The tool will:

- Scan your source folder for files
- Match them to game paths using hash lookup
- Generate a `.big + .map` pair ready to drop into your game

> **Important:** Always point ModPacker to your TDU2 installation folder so it can resolve file paths correctly. The packer has a maximum file size of 3.8 GB (TDU2 engine limit).

6. Tips & Workflow

Common Modding Workflow

1. **Extract** — open a BIG archive and extract files (or use a file ripper) 2. **Edit** — modify files using the appropriate editor 3. **Pack** — use ModPacker to create a mod archive 4. **Test** — drop the `.big + .map` into your TDU2 installation and test

What To Watch Out For

- **Always keep backups** of original files before editing
- Some editors save by patching the raw file **in-place** — if you add or remove data, the file may break
- **Unknown fields** are marked with generic names like `Field1, Field2` — change them carefully
- The **hex viewer** is read-only — it's a fallback for formats the tool doesn't recognize yet

7. Keyboard Shortcuts

Key	Action
Ctrl+O	Open file
Ctrl+S	Save file
F3	Find next
Shift+F3	Find previous
Drag & drop	Open file

8. What Is Still Unknown / Missing

Format Knowledge Gaps

- **SCE** — only section boundaries are known, contents are raw hex
- **PRT** — sections C/D/E are parsed as numbers but their meaning is unconfirmed

- **ANM / UVA** — animation data field meanings not fully documented
- **CRZ / PTH** — some sub-field semantics unknown
- **Havok** — read-only viewer, no structured editing

Feature Gaps

- No undo/redo system
- No hex editor (view only)
- No batch processing or bulk editing
- No image editing (view + export only)
- No 3D model import (export to OBJ only)
- No animation playback on 3D models
- No in-app help or format documentation

9. Appendix: File Extension Reference

Extension	Opens With	Icon
.xmb .cpr .sob	XMB Tree Editor	Table
.ige .ig2	IGE Editor (missions)	Flag
.bnk	BNK Viewer (sound banks)	Drum
.big .map	BIG Viewer (archives)	Box
.2db .dds	Image Viewer	Image
.jpg .jpeg .png .bmp .tga	Image Viewer	Image
.wav	WAV Player	Audio
.3dg .3dd	3D Model Viewer	Cube
.2dm	Material2DM Editor	PaintBrush
.dhk .hkx	Havok Viewer	Cogs
.spt	SPT Editor (speed traps)	MapPin
.wtps	Spotworld Viewer	Globe
.bpjka	BPJKA Editor (tire physics)	ChartLine
.shk	SHK Editor (suspension)	Shield
.fxe	FXE Editor (effects)	Wand
.bfx	BFX Editor (effects)	Bolt
.prt	PRT Editor (particles)	Star
.sce	SCE Editor (scenes)	Film
.uva	UVA Editor (UV animation)	Play
.anm	ANM Editor (animation)	Film
.pth	RoadInsp Editor (paths)	Route
.crz	CRZ Editor (cruising zones)	Star
.cin	CIN Editor (cinematics)	Film
led.txt	LED Editor	Lightbulb
install.bin	InstallBin Editor	Toolbox
.xml .txt .ini .cfg .json	Text Editor	FileAlt
(unknown)	Hex Viewer (read-only)	File