

# Scripts

## \_ensure-venv.ps1

### NAME

```
./scripts\_ensure-venv.ps1
```

### SYNOPSIS

Helper utilities for FaceForge PowerShell scripts.

### SYNTAX

```
./scripts\_ensure-venv.ps1 [<CommonParameters>]
```

### DESCRIPTION

This file is intended to be dot-sourced by other scripts in the `scripts/` directory. It provides shared helpers for:

- Resolving the repository root.
- Creating and locating the repo-local Python virtual environment (`.venv`)
- Returning the correct `.`venv` Python executable path for downstream scripts

Design goals:

- Never depend on global Python packages at runtime.
- Prefer the Windows `py` launcher to bootstrap Python 3.12 venv creation.
- Make failures actionable with clear error messages.

### PARAMETERS

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable,

`OutBuffer`, `PipelineVariable`, and `OutVariable`. For more information, see [about\\_CommonParameters](#) (<https://go.microsoft.com/fwlink/?LinkID=113216>).

## INPUTS

## OUTPUTS

## NOTES

This file defines functions and does not execute any build/run tasks on its Usage pattern:

```
. (Join-Path $PSScriptRoot '_ensure-venv.ps1')
$repoRoot = Get-RepoRoot
$venvPython = Ensure-Venv -RepoRoot $repoRoot
```

## RELATED LINKS

## [build-core.ps1](#)

### NAME

```
./scripts\build-core.ps1
```

### SYNOPSIS

Builds the FaceForge Core executable for local bundling and releases.

### SYNTAX

```
./scripts\build-core.ps1 [-KeepBuildHistory] [-AllowTimestampFallback] [<Co
```

### DESCRIPTION

Produces a Windows executable for FaceForge Core using PyInstaller, using the r virtual environment under `venv` .

This script is designed to be safe and repeatable:

- Uses a repo-local venv (never relies on global site-packages after bootstrapping).
- Cleans previous `core/build` and `core/dist` output directories.
- When requested, falls back to timestamped output folders if directories are left over.
- Normalizes output to a stable path `core/dist/faceforge-core.exe` for downstream consumers.

Intended consumers:

- Local developers running the Desktop orchestrator.
- CI pipelines producing release artifacts.
- The all-in-one desktop bundler script (`scripts/build-desktop.ps1`).

## PARAMETERS

**-KeepBuildHistory [<SwitchParameter>]**

Preserves older timestamped output folders (e.g. `core/build-YYYYMMDD-HHMMSS`)  
By default, old timestamped output folders are pruned to keep the repo tidy.

Required?	false
Position?	named
Default value	False
Accept pipeline input?	false
Aliases	
Accept wildcard characters?	false

**-AllowTimestampFallback [<SwitchParameter>]**

If `core/build` or `core/dist` cannot be deleted (e.g. open file handles from a terminal with CWD inside those folders), the default behavior is to fail with an error. When this switch is provided, the script will instead build into timestamped folders.

Required?	false
Position?	named
Default value	False
Accept pipeline input?	false
Aliases	
Accept wildcard characters?	false

**<CommonParameters>**

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see about\_CommonParameters (<https://go.microsoft.com/fwlink/?LinkID=113216>).

## INPUTS

## OUTPUTS

On success, you will have:

- `core/dist/faceforge-core.exe`

## NOTES

### Prerequisites:

- Python 3.12.x installed (only needed to bootstrap `venv` the first time)
- Build dependencies are installed into `venv` automatically.

This script intentionally disables confirmation prompts for non-interactive

----- EXAMPLE 1 -----

PS > ./scripts/build-core.ps1

Builds Core into `core/dist/faceforge-core.exe`, cleaning old outputs.

----- EXAMPLE 2 -----

PS > ./scripts/build-core.ps1 -AllowTimestampFallback

Builds Core even if `core/dist` is locked, by using timestamped folders.

## RELATED LINKS

### [build-desktop.ps1](#)

## NAME

./scripts\build-desktop.ps1

## SYNOPSIS

Builds a full FaceForge Desktop bundle (Desktop + Core sidecar).

## SYNTAX

./scripts\build-desktop.ps1 [-Bundles <String>] [-SkipCoreBuild] [-KeepBuild]

## DESCRIPTION

This script follows the project's packaging intent:

- Build FaceForge Core as a standalone executable (PyInstaller)
- Stage it into Desktop's Tauri sidecar binaries folder
- Produce Desktop installers via `tauri build`

This script is designed for repeatable local and CI builds:

- Uses the repo-local `venv` for Core builds (never global site-packages).
- Stages the Core sidecar into `desktop/src-tauri/binaries/faceforge-core.exe`
- Runs `cargo tauri build` to produce installable artifacts.

Prerequisites (Windows):

- Rust toolchain installed (cargo).
- Tauri prerequisites (WebView2, bundler toolchains). Tauri will prompt/download

Outputs (Windows):

- desktop/src-tauri/target/release/bundle/msi/\*.msi
- desktop/src-tauri/target/release/bundle/nsis/\*-setup.exe

## PARAMETERS

**-Bundles <String>**

Which bundle target(s) to build. Allowed values: all, msi, nsis.

Default: all.

Required?	false
Position?	named
Default value	all
Accept pipeline input?	false
Aliases	
Accept wildcard characters?	false

**-SkipCoreBuild [<SwitchParameter>]**

Skip running scripts/build-core.ps1 (expects core/dist/faceforge-core.exe to be present)

Required?	false
Position?	named
Default value	False
Accept pipeline input?	false
Aliases	
Accept wildcard characters?	false

**-KeepBuildHistory [<SwitchParameter>]**

Forwarded to scripts/build-core.ps1; preserves old build/dist folders under

```
Required?           false
Position?          named
Default value      False
Accept pipeline input?  false
Aliases
Accept wildcard characters?  false
```

-AllowTimestampFallback [<SwitchParameter>]

Forwarded to scripts/build-core.ps1; if core/build or core/dist are locked,

```
Required?           false
Position?          named
Default value      False
Accept pipeline input?  false
Aliases
Accept wildcard characters?  false
```

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see about\_CommonParameters (<https://go.microsoft.com/fwlink/?LinkID=113216>).

## INPUTS

## OUTPUTS

## NOTES

Outputs (Windows):

- desktop/src-tauri/target/release/bundle/msi/\*.msi
- desktop/src-tauri/target/release/bundle/nsis/\*-setup.exe

This script sets `PositionalBinding = \$false` to discourage ambiguous invoc

----- EXAMPLE 1 -----

PS > ./scripts/build-desktop.ps1

Builds Core + Desktop, producing both MSI and NSIS artifacts.

----- EXAMPLE 2 -----

```
PS > ./scripts/build-desktop.ps1 -Bundles nsis  
Builds only the NSIS installer.
```

#### ----- EXAMPLE 3 -----

```
PS > ./scripts/build-desktop.ps1 -SkipCoreBuild -Bundles msi  
Fast path when nothing changed in Core.
```

## RELATED LINKS

### **check-core.ps1**

#### NAME

```
./scripts\check-core.ps1
```

#### SYNOPSIS

```
Runs FaceForge Core quality gates (format, lint, tests).
```

#### SYNTAX

```
./scripts\check-core.ps1 [<CommonParameters>]
```

#### DESCRIPTION

Installs FaceForge Core in editable mode with development dependencies into the virtual environment (`.venv`), then runs:

- ruff format --check
- ruff check
- pytest

This is intended for local verification and CI usage. It will stop on the first return a non-zero exit code.

#### PARAMETERS

## <CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see about\_CommonParameters (<https://go.microsoft.com/fwlink/?LinkID=113216>).

## INPUTS

## OUTPUTS

Console output from tooling. Exits non-zero on failure.

## NOTES

### Prerequisites:

- Python 3.12.x is recommended (used only to bootstrap `venv` on first run). This script does not rely on global Python packaging once `venv` exists.

### ----- EXAMPLE 1 -----

```
PS > ./scripts/check-core.ps1
Runs format, lint, and tests.
```

## RELATED LINKS

## [dev-core.ps1](#)

## NAME

`./scripts\dev-core.ps1`

## SYNOPSIS

Runs FaceForge Core locally in development mode.

## SYNTAX

```
./scripts\dev-core.ps1 [<CommonParameters>]
```

## DESCRIPTION

Bootstraps the repo-local virtual environment (`.venv`) if needed, installs FaceForge in editable mode with development dependencies, then launches the Core server.

Environment variables (optional):

- FACEFORGE\_BIND: bind host for Uvicorn/FastAPI (default: 127.0.0.1)
- FACEFORGE\_PORT: bind port for Core (default: 8787)

This script is intended for local development. For Desktop orchestration, run the Dockerfile and let it start Core.

## PARAMETERS

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see about\_CommonParameters (<https://go.microsoft.com/fwlink/?LinkID=113216>).

## INPUTS

## OUTPUTS

## NOTES

This script intentionally uses `.\venv\Scripts\python.exe` for all Python executions. External command failures (pip install, server start) cause the script to fail.

----- EXAMPLE 1 -----

```
PS > ./scripts/dev-core.ps1
Starts Core at http://127.0.0.1:8787
```

----- EXAMPLE 2 -----

```
PS > $env:FACEFORGE_PORT = '43210'
```

```
./scripts/dev-core.ps1  
Starts Core at http://127.0.0.1:43210
```

## RELATED LINKS

# set-version.ps1

## NAME

```
./scripts\set-version.ps1
```

## SYNOPSIS

Bumps FaceForge version across Core + Desktop manifests.

## SYNTAX

```
./scripts\set-version.ps1 -Version <String> [-WhatIf] [-Confirm] [<CommonPa
```

## DESCRIPTION

Updates version strings in the following files:

- core/pyproject.toml
- core/src/faceforge\_core/app.py
- desktop/src-tauri/Cargo.toml
- desktop/src-tauri/Cargo.lock
- desktop/src-tauri/tauri.conf.json

The script supports -WhatIf / -Confirm for safe previews.

## PARAMETERS

**-Version <String>**  
The semantic version to set (e.g. 0.1.2).

Required?	true
Position?	named

```
Default value
Accept pipeline input?    false
Aliases
Accept wildcard characters? false

-WhatIf [<SwitchParameter>]

Required?          false
Position?          named
Default value
Accept pipeline input?    false
Aliases
Accept wildcard characters? false

-Confirm [<SwitchParameter>]

Required?          false
Position?          named
Default value
Accept pipeline input?    false
Aliases
Accept wildcard characters? false
```

#### <CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see about\_CommonParameters (<https://go.microsoft.com/fwlink/?LinkID=113216>).

## INPUTS

## OUTPUTS

## NOTES

If a target file or pattern is not found, the script emits a warning and co

#### ----- EXAMPLE 1 -----

```
PS > ./scripts/set-version.ps1 -Version 0.1.2
Updates all known manifests to 0.1.2.
```

#### ----- EXAMPLE 2 -----

```
PS > ./scripts/set-version.ps1 -Version 0.1.2 -WhatIf  
Shows what would change without modifying files.
```

## RELATED LINKS

### [update-docs.ps1](#)

update-docs.ps1 [-ConfigPath] [-Force] [-SkipScriptsReadme] [-WhatIf] [-Confirm] []