Lateralus Extensions

Distribution & Publisher-Domain Verification

Lateralus Language

bad-antics · April 2026 · Lateralus Tooling

ABSTRACT This note documents how the three Lateralus VS Code extensions — **GrugBot420**, **Antikythera Digital**, and the **Lateralus Language** pack — are packaged, dual-published to the Visual Studio Marketplace and Open VSX, and how the lateralus.dev publisher domain is verified end-to-end. We cover the vsce and ovsx tool flows, Personal Access Token (PAT) scope pitfalls (the TF400813 trap), the Open VSX namespace claim process, the Marketplace TXT-record verification for an apex-served Cloudflare zone, and the R2 + Pages hosting topology for direct VSIX downloads. The goal is reproducibility: any maintainer should be able to ship a signed, domain-verified extension from a clean checkout in under thirty minutes.

1. What Shipped

Three extensions are now live across all three distribution channels (Marketplace, Open VSX, and direct download from lateralus.dev):

```
grug-group420.grugbot420            v1.1.0   17.4 KB
grug-group420.antikythera-digital   v0.2.0   42.1 KB
grug-group420.lateralus-language    v0.3.0   58.7 KB
```

All three are signed with the same publisher identity and ship under matching MD5s across every mirror; the manifests advertise lateralus.dev as the verified publisher domain.

2. Dual-Publishing Flow

Both registries accept the same VSIX artifact, so the build is a single vsce package invocation followed by two uploads:

```
# build once
npx vsce package --no-dependencies

# publish to Visual Studio Marketplace
npx vsce publish --packagePath grugbot420-1.1.0.vsix \
    --pat "$VSCE_PAT"

# publish to Open VSX
npx ovsx publish grugbot420-1.1.0.vsix \
    --pat "$OVSX_PAT"
```

2.1 The TF400813 PAT Trap

The Marketplace publish step initially failed with TF400813: The user is not authorized to access this resource. The fix is non-obvious: the PAT must be scoped to **Marketplace** → **Manage** and the "Organization" selector must be set to **All accessible organizations**. A token scoped to a single Azure DevOps org cannot publish, even if the publisher account itself has no AzDO org affiliation. Regenerating the PAT with the correct scope resolved it on the first retry.

3. Open VSX Namespace Claim

Open VSX namespaces are first-come-first-served but require a verified claim before extensions show the "verified" badge. The claim is a GitHub issue against EclipseFdn/open-vsx.org using the Publisher Agreement & Namespace Claim template. Our request is tracked as issue **#9925** for the lateralus namespace, filed under the grug-group420 organization on Open VSX.

Until the claim resolves, extensions still publish and install normally; only the verified badge is gated on the claim landing.

4. Verifying the Publisher Domain

The Marketplace verifies a publisher domain by issuing a UUID and asking the publisher to expose it as a TXT record at a well-known label:

```
_visual-studio-marketplace-<publisher>.<domain>   IN TXT  "<UUID>"

# our concrete record:
_visual-studio-marketplace-lateralus.lateralus.dev IN TXT \
    "1b17ce53-8f77-4155-9e4e-8f779ac79620"
```

4.1 Cloudflare Apex Gotcha

Because lateralus.dev is served from Cloudflare Pages on the apex, naively adding the TXT through the dashboard sometimes hides it under a "proxied" toggle that does not apply to TXT records. The reliable path is to add it via the API or the dashboard's DNS → Records view with type TXT explicitly — not via the Custom hostnames panel. Verification was confirmed live via DNS-over-HTTPS before clicking "Verify" in the Marketplace publisher portal.

5. Hosting the Direct Downloads

Direct VSIX downloads live at downloads.lateralus.dev, which is bound to a Cloudflare R2 bucket (lateralus-downloads). Bucket listing is disabled, so the bucket cannot be enumerated; only known object paths resolve.

```
https://downloads.lateralus.dev/extensions/grugbot420-1.1.0.vsix
https://downloads.lateralus.dev/extensions/antikythera-digital-0.2.0.vsix
https://downloads.lateralus.dev/extensions/lateralus-language-0.3.0.vsix
```

The /extensions/ page on lateralus.dev is a Pages-served HTML index that links the three artifacts and surfaces their MD5s. The Pages site itself deploys via wrangler pages deploy using a Pages-scoped CF token; no Git connector is configured (the project is direct-upload).

6. Security Posture

The site ships A+ security headers via Pages _headers:

```
Content-Security-Policy:  default-src 'self'; ...
Strict-Transport-Security: max-age=63072000; includeSubDomains; preload
X-Content-Type-Options:    nosniff
Referrer-Policy:           strict-origin-when-cross-origin
Permissions-Policy:        accelerometer=(), camera=(), microphone=()
```

TLS is terminated by Google Trust Services WE1 (valid through 2026-07-04). MD5 checksums for every VSIX are published alongside the download links and match the Marketplace/Open VSX bytes verbatim, so a user who installs from any of the three channels gets the identical artifact.

7. What's Next

Short term: land the Open VSX namespace verification (#9925) and add a publisher verification link from the extension manifests back to lateralus.dev/extensions/.

Medium term: automate the dual-publish flow from a tagged release on the bad-antics/lateralus-lang repository, with reproducible builds keyed off the commit SHA so the MD5 in the release notes is verifiable from source.

Long term: a Lateralus-native package format (.ltlpkg) that the OS package manager and the editor extensions both consume, eliminating the divergence between "tooling I install in VS Code" and "tooling I install on Lateralus OS".