Creator Companion and Package Manager Guide

A guide for using VRChat Creator Companion and authoring packages compatible with VRChat Package Manager

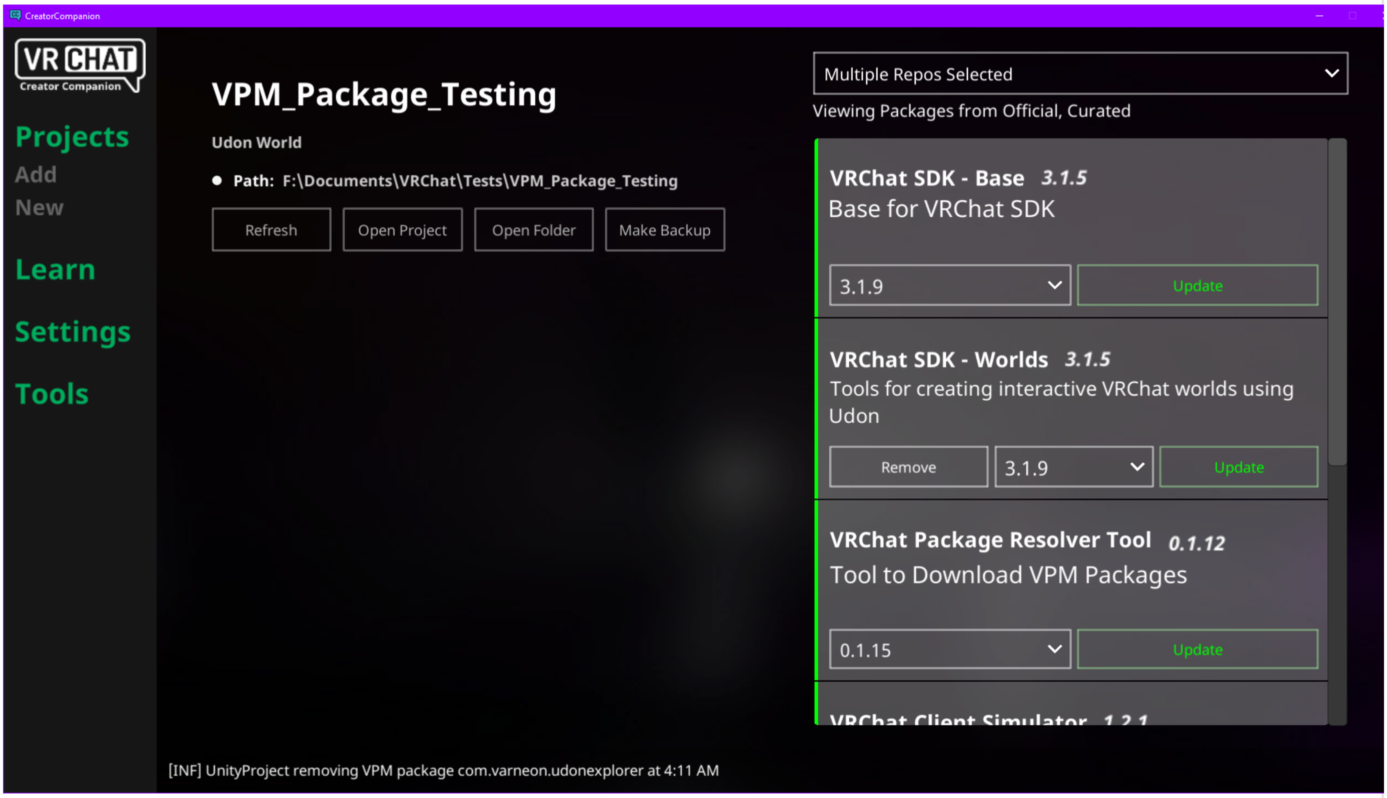
Terminology

"VCC", "VPM", "Repo", "Package"? - This page is for giving you an overview of what everything means

VRChat Creator Companion (VCC)

Standalone application developed by VRChat for managing Unity projects for world and avatar creation and the packages in those projects: https://vcc.docs.vrchat.com/

Creator Companion also includes sections for accessing learning material and other tools developed by VRChat.



VPM_Package_Testing

Udon World

- **Path:** F:\Documents\VRChat\Tests\VPM_Package_Testing

Viewing Packages from Official, Curated

VRChat SDK - Base *3.1.5*
Base for VRChat SDK
3.1.9

VRChat SDK - Worlds *3.1.5*
Tools for creating interactive VRChat worlds using Udon
3.1.9

VRChat Package Resolver Tool *0.1.12*
Tool to Download VPM Packages
0.1.15

VRChat Client Simulator *1.2.1*

```
[INF] UnityProject removing VPM package com.varneon.udonexplorer at 4:11 AM
```

VRChat Package Manager (VPM)

Core feature of VRChat Creator Companion for managing VPM packages in your projects (VRCSDK, ClientSim, UdonSharp, etc.)

https://vcc.docs.vrchat.com/vpm/

Repository Listing / Repo

JSON file which contains a list of packages and available versions for VRChat Package Manager to download and add into a project.

Repository listings are used to receive information new versions for packages.

https://vcc.docs.vrchat.com/vpm/repos

CreationInfo

The repository listing stub JSON for initializing the full repository listing file.

Example:

```
{
  "CreationInfo": {
    "url": "https://vpm.varneon.com/editor-extensions"
  }
}
```

> CreationInfo property containing the URL which points to the full repository listing is the only thing required to be present in the JSON file in VRChat Creator Companion's appdata folder in order to create the full listing

VPM Package

A package used to add assets into a project for world or avatar creations.

Based on Unity Package Manager packages with few additions for added functionality specific to VPM.

Generally identified by the UPM compatible name *(e.g. "com.vrchat.udonsharp")*, not to be mixed with the Display Name, which is the user-friendly name for viewing the package in Package Manager window or Creator Companion.

Package Manifest (package.json)

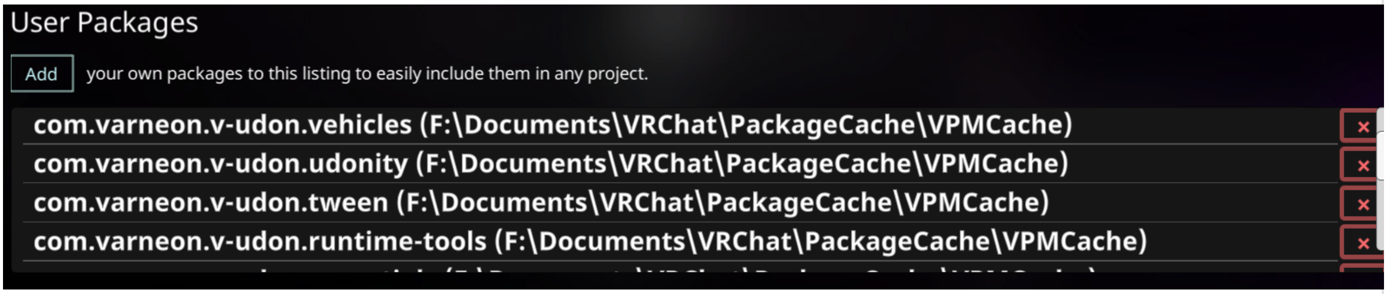
A JSON file for managing information about a UPM/VPM package:

https://docs.unity3d.com/Manual/upm-manifestPkg.html

> The package manifest is the only file required to be present in order to add it into a project using Unity Package Manager

Local User Package

A package that a user has manually downloaded in form of the r/aw package contents and linked to VRChat Creator Companion:



User Packages

Add your own packages to this listing to easily include them in any project.

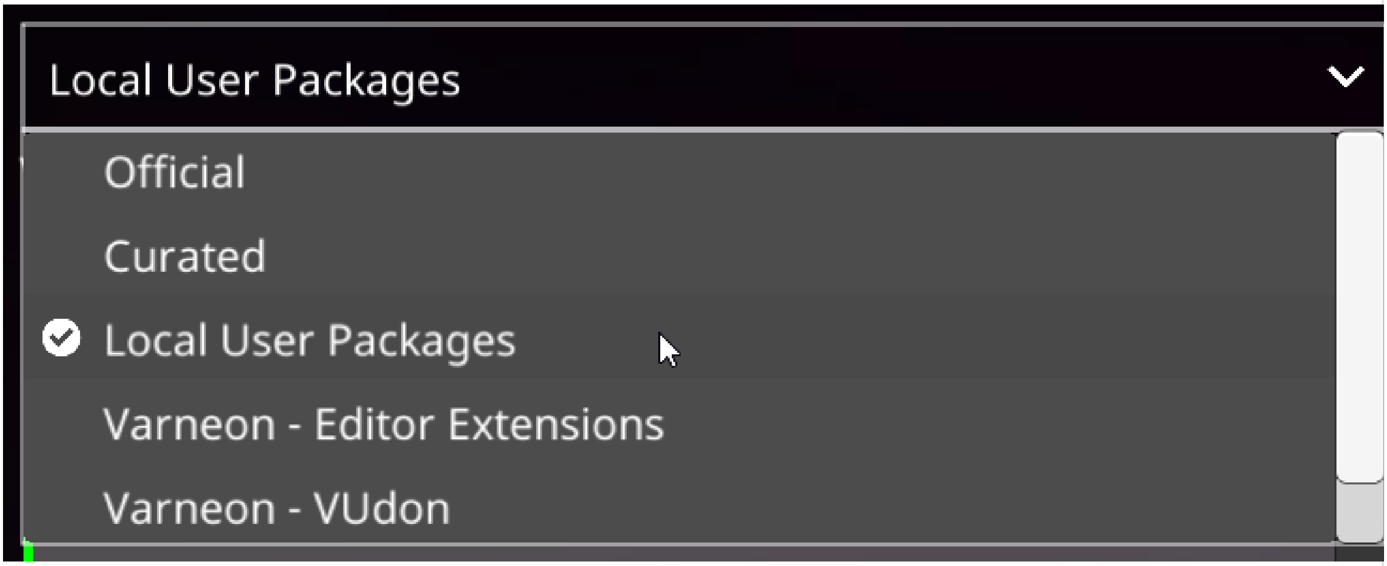
com.varneon.v-udon.vehicles (F:\Documents\VRChat\PackageCache\VPMCache) ×

com.varneon.v-udon.udonity (F:\Documents\VRChat\PackageCache\VPMCache) ×

com.varneon.v-udon.tween (F:\Documents\VRChat\PackageCache\VPMCache) ×

com.varneon.v-udon.runtime-tools (F:\Documents\VRChat\PackageCache\VPMCache) ×

Local user packages can be added to a project by selecting **"Local User Packages"** in the repository listing dropdown:



Local User Packages

Official

Curated

✓ Local User Packages

Varneon - Editor Extensions

Varneon - VUdon

https://vcc.docs.vrchat.com/vpm/packages#user-packages

VPM Package

VPM Package

Package Manifest

VPM Package Manifest

Package manifest is a JSON file contained at the root of the package and is used to define the properties of the package, such as name, version, author, dependencies, etc.

UPM Properties

> Unity UPM package manifest documentation:
> https://docs.unity3d.com/Manual/upm-manifestPkg.html

Property	JSON Type	Description
`name` *	String	The officially registered package name. *(e.g. com.vrchat.udonsharp)*
`version` *	String	The package version number. Documentation
`displayName`	String	User-friendly name displayed in VRChat Creator Companion, Unity Package Manager and Project Window
`description`	String	Brief description of the package
`author`	Object	The author of the package. `name` * - Name of the author `email` - Email of the author `url` - URL to author's page *(e.g. GitHub, GitLab, Booth)*
`unity`	String	Lowest compatible Unity version version for this package, e.g. `2019.4`. *(In case of VPM packages, recommended to set to current version used by VRChat.)*

Property	JSON Type	Description
`unityRelease`	String	Lowest compatible release of the Unity version defined in `unity`, e.g. `29f1`
`dependencies`	Object	A map of package dependencies. Keys are package names, and values are specific versions. They indicate other packages that this package depends on. **Note:** The Package Manager doesn't support range syntax, only SemVer versions.
`keywords`	String[]	An array of keywords used by the Package Manager search APIs. This helps users find relevant packages.
`samples`	Object[]	List of samples included in the package. Each sample contains a display name, a description, and the path to the sample folder starting at the Samples~ folder itself.
`license`	String	Identifier for an OSS license using the SPDX identifier format, or a string such as *"See LICENSE.md file"*.
`licensesUrl`	String	Custom location for this package's license information specified as a URL.
`changelogUrl`	String	Custom location for this package's changelog specified as a URL.
`documentationUrl`	String	Custom location for this package's documentation specified as a URL.

* - Property required by UPM

`Example package.json`

```
{
    "name": "com.varneon.vpm-test-package",
    "displayName": "VPM Test Package",
    "version": "1.0.1",
    "unity": "2019.4",
    "unityRelease": "29f1",
    "description": "Test package for VPM.",
    "author": {
        "name": "Varneon",
        "email": "developer@varneon.com",
        "url": "https://github.com/Varneon"
    },
    "documentationUrl": "https://example.com/documentation.html",
    "changelogUrl": "https://example.com/changelog.html",
    "licensesUrl": "https://example.com/licensing.html",
    "license": "MIT",
    "keywords": [
        "vpm",
        "vrchat",
        "udon"
    ],
    "dependencies": {
        "com.vrchat.worlds": "3.1.9"
    },
    "samples": [
        {
            "displayName": "My Sample",
            "description": "Sample from the test package.",
            "path": "Samples~/MySample"
        }
    ]
}
```

VPM Additions

> VPM manifest additions documentation: https://vcc.docs.vrchat.com/vpm/packages/#vpm-manifest-additions

Property	JSON Type	Description

`url` *	String	Direct download link to a zip file for a version of the package defined in the manifest *(Typically appended by automated system, e.g. GitHub Action for repository listing)*
`vpmDependencies`	Object	VPM-based dependencies your package requires. *(Dependencies are required to be available in the repository listings in your Creator Companion)*.
`legacyFolders`	Object	Path-GUID properties for defining folders in the Assets directory used by old .unitypackage-based versions of this package. Matching folders will be removed when importing the new VPM package. *(If no GUID is provided, only path will be matched)*.
`legacyFiles`	Object	Same as `legacyFolders` above, but for files.

* - Property required by VPM

Example package.json

```
{
    "url" : "https://packages.vrchat.com/com.vrchat.avatars-3.1.0.zip",
    "vpmDependencies" : {
        "com.vrchat.avatars" : "3.1.0"
    },
    "legacyFolders" : {
      "Assets\\FolderName" : "vr031f928e5c709x9887f6513084aaa51"
    },
    "legacyFiles" : {
      "ProjectVersion.txt" : "jf988739jfdskljf098323jjhf"
    }
}
```

VPM Package Authoring

How to author packages compatible with VRChat Package Manager