# Dumping game data for devs



### 1 (original by Senko)

2 It is highly recommended that you read the guide at least once before executing what's written here.

3 This guide covers everything you need to know to dump all the data you need from Escape From Tarkov.

## 4 Legend

Code

**path**	**what**
`%gamedir%`	Escape From Tarkov (Live)   `C:/games/EFT/ (Live)`

# **5** Creating the dumper

## 5.1 Theory

The game uses HTTP-secured protocol (TLS 1.2) to obtain data from the server (mostly of it not related to a raid). While the game's security is lacking, it does still block conventional tools for packet capturing. We also cannot just simply use altered assembly either, because the launcher (and the client as of 0.12.11) does an integrity check. As such, we can patch the assembly to bypass the security mechanisms in place to dump our

data. To be more specific, we alter the BattleEye, file consistency and certificate checking always return successfully. We also add logic for saving the data received from the server. We use the "swap exploit" by quickly replacing the assembly when the game starts to load our custom assembly. To be able to make patches, we deobfuscate the assembly. But since de4dot isn't capable of understanding the obfuscation algorithm fully, we use an additional specialized deobfuscator command. In addition, we save the assembly in the gamefiles before making modifications to fix a resolutionscope error.

### 5.2 Requirements

- Escape From Tarkov (Live)
- dnSpy-net472
- de4dot
- AssetStudio

### 5.3 1. Backup

- 1. Create %gamedir%/backup/
- 2. Copy-paste Assembly-CSharp.dll to %gamedir%/backup/
- 3. Rename Assembly-CSharp.dll in %gamedir%/backup/ to Assembly-CSharp.dll.bak
- 4. Copy-paste FilesChecker.dll to %gamedir%/backup/
- 5. Rename FilesChecker.dll in %gamedir%/backup/ to FilesChecker.dll.bak

## 5.4 2. Assembly-CSharp.dll

- 1. Clean the assembly (see the deobfuscation guide!)
- 2. DnSpy > File > Open... > Assembly-CSharp-cleaned-cleaned.dll
- 3. Apply request dumper patch (appendix 1.1)
- 4. Apply response dumper patch (appendix 1.2)
- 5. Apply ssl patch (appendix 1.3)
- 6. Apply battleye patch (appendix 1.4)
- 7. DnSpy > File > Save Module
- 8. Cut-paste Assembly-CSharp-cleaned-cleaned.dll to %gamedir%/backup/
- 9. Rename Assembly-CSharp-cleaned-cleaned.dll in %gamedir%/backup/ to Assembly-CSharp.dll

## 5.5 3. FilesChecker.dll

- 1. DnSpy > File > Open... > FilesChecker.dll
- 2. Apply consistency multi patch (appendix 1.5)
- 3. Apply consistency single patch (appendix 1.6)
- 4. DnSpy > File > Save Module
- 5. Cut-paste FilesChecker.dll to %gamedir%/backup/
- 6. Copy-paste %gamedir%/backup/FilesChecker.dll.bak %gamedir%/EscapeFromTarkov\_Data/Managed/
- 7. Rename FilesChecker.dll.bak to FilesChecker.dll

### 5.6 4. Battlestate Games Launcher

## 5.7 90b273a49e37a7b0a2d89a43b9be3cf5-Full.webp

Exit the launcher when the game starts AND when the launcher is closed

# 6 Dumping server data

1. Start the game.

to

- 2. Copy-paste %gamedir%/backup/Assembly-CSharp.dll %gamedir%/EscapeFromTarkov\_Data/Managed/ when the launcher closes.
- 3. %gamedir%/HTTP\_DATA/ appears when you reached the main menu.
- 4. Dump the data (appendix 2).
- 5. Close the game.
- 6. Replace Assembly-CSharp.dll with the original assembly.

## 7 Dumping asset data

- 1. Open AssetStudio.
- 2. AssetStudio > File > Load File > %gamedir%/EscapeFromTarkov\_Data/sharedassets2.assets.
- 3. Switch from Scene Hierarchy to Asset List.
- 4. AssetStudio > Filter Type > what you look for (example: TextAsset).
- 5. Select the map files you want (example: bigmap2, RezervBase6).
- 6. AssetStudio > Export > Selected Assets.

# 8 Conclusion

Congratulations, you've succesfully dumped Escape From Tarkov's data. In order to use it in Aki's database, you have 2 options:

- Manually convert the data.
- Use a tool like senko-debug to convert the data into a format the server accepts.

The data does contain sensitive information such as you account id, so be careful whom you share it with. senko-debug strips out the sensitive information when it converts the data to the right format. And no, the data dumped from the game server cannot be uploaded back to the game server.

# 9 Appendix 1: Code

All code is based on Escape From Tarkov 0.12.12.16069.

### 9.1 1.1. Request dumper patch

#### Code

vpaf\$hstem.IO.Directory.GetCurrentDirectory{\HTTP\_DATA\\").Replace("\\\\"\\"); file uri.LocalPath.Replace('/', '.').Remove(0, var = time DateTime.Now.ToString("yyyyvar = if (System.IO.Directory.CreateDirectory(path).Exists && obj ! = null) { System.IO.File.WriteAllText(\$@"{path}req.{file } }

Display More 9.2 1.2. Response dumper patch Code

```
// Token: 0x06001EA5 RID: 7845 RVA: 0x001A5BB8 File Offset:
                                                                             0x001A3DB8
        [postfix]
       Class180.method_12()
        ł
                          11
                                 add
                                         this
                                                        the
                                                                        before
                                                 at
                                                                end,
                                                                                   "return
                                                                                               te
                                                                                 uri
                                                                var
vpaf$hstem.IO.Directory.GetCurrentDirectory{\HTTP_DATA\\").Replace("\\\\"\\");
                                                  uri.LocalPath.Replace('/',
                                    file
                                                                                 '.').Remove(0,
                            var
                                            =
                                                 time
                                                                     DateTime.Now.ToString("yyyy-
                                       var
            {
                            11
                                in case you turn this into a patch, text3 =
                                                                                            resu
                                    System.IO.File.WriteAllText($@"{path}resp.{file}_{time}.json",
            }
        }
       Display More
       9.3 1.3. SSL cert patch
       Code
        // Token: 0x06005017 RID: 20503 RVA: 0x0027CF90 File Offset: 0x0027B190
        [prefix]
       Class669.ValidateCertificate(byte[]
                                                                       certificateData)
```

}

#### 9.4 1.4. Battleye patch

Code

```
// Token: 0x06006ABB RID: 27323 RVA: 0x002D3354 File Offset: 0x002D1554
[prefix]
Class966.RunValidation(globallat:Elaryheignallegiation)
{
}
```

}

## 9.5 1.5. Consistency multi patch

Code

```
// Token: 0x06000054 RID: 84 RVA: 0x00002A38 File Offset: 0x00000C38
// target with return type: Task<ICheckResult>
[prefix]
ConsistencyController.EnsureConsistency()
```

```
t>(ConsistencyController.CheckResult.SuddienedS(pagew()));
```

### 9.6 1.6. Consistency multi patch

#### Code

}

```
// Token: 0x06000053 RID: 83 RVA: 0x000028D4 File Offset: 0x00000AD4
[prefix]
ConsistencyController.EnsureConsistencySingle()
```

t>(ConsistencyController.CheckResult.SuddienedSpacew()));

# 10 Appendix 2: Obtaining specific data

This discusses how you can obtain certain data with the dumper installed.

Code \*\*Type\*\* \_\_\_\_\_ Startup locales Start the game in the locale you want to dump. locales settings. Game Select the locale in game Common data Start Assort Open the trader you want to Do offline raid containing Bots an on а map that specific Item events Do the item tainiingagid Tim ####EMP%\Battlest& Tames\EscapeFrom Tarkov\files`. Location (loot) | Rip from game files OR do an offline raid on that map. Models Textures Audio | Rip from game files **Display More**  Additional information – Programming skills 1 required Technical knowledge High requirement