



Formatting F# code



```
△ nojsf *
module FantomasTools.Client.ASTViewer.Model

open ASTViewer.Shared

△ nojsf *
module Graph =
    △ nojsf *
    type Layout =
        | HierarchicalUpDown
        | HierarchicalLeftRight
        | Free

    △ new *
    type Options = {
        MaxNodes: int
        MaxNodesInRow: int
        Layout: Layout
    }

    △ new *
    type Model = { RootsPath: Node list; Options: Options }

    // The Msg type defines what events/actions can occur while the application is running
    // the state of the application changes *only* in reaction to these events
    △ nojsf
    type GraphMsg =
        | SetRoot of Node
        | RootBack
        | SetOptions of Graph.Options

    △ nojsf *
    type Msg =
        | VersionFound of string
        | SetSourceText of string
        | DoParse
        | DoTypeCheck
        | Parsed of Dto
        | Typechecked of Dto
        | Error of string
        | ShowJsonViewer
        | ShowEditor
        | ShowRaw
        | ShowGraph
        | Graph of GraphMsg
        | DefinesUpdated of string
        | SetFsfile of bool
        | Highlight of FantomasTools.Client.Editor.HighLightRange

    △ nojsf
    type EditorState =
        | Loading
        | Loaded

    △ nojsf
    type View =
        | Editor
        | JsonViewer
        | Raw
        | Graph

    △ nojsf
    type Model =
        { Source: string
        Defines: string
        IsFsfi: bool
        Parsed: Result<Dto option, string>
        IsLoading: bool
        Version: string
        View: View }
```

IT IS ABOUT PEOPLE



1. Fantomas high-level
2. Integration in Rider
3. A journey in open-source



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fsprojects / fantomas

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Code

Issues 66

Pull requests 3

Actions

Projects 0

Security 0

Insights

Settings

FSharp source code formatter <https://jindraivanek.gitlab.io/fantom...>

Edit

formatter ast fsharp Manage topics

1,589 commits

2 branches

0 packages

23 releases

44 contributors

View license

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download

nojaf Escape entire curl command as string (#771)

Latest commit d600273 yesterday

.config

Initial changes for FCS 34.0.1 (#671)

2 months ago

fantomas_logo.png

Use VS 2013 image

5 years ago

paket.dependencies

Fix for FCS API changes (#739)

9 days ago

paket.lock

Fix for FCS API changes (#739)

9 days ago

README.md

Fantomas

F# source code formatter, inspired by [scalariform](#) for Scala, [ocp-indent](#) for OCaml and [PythonTidy](#) for Python.

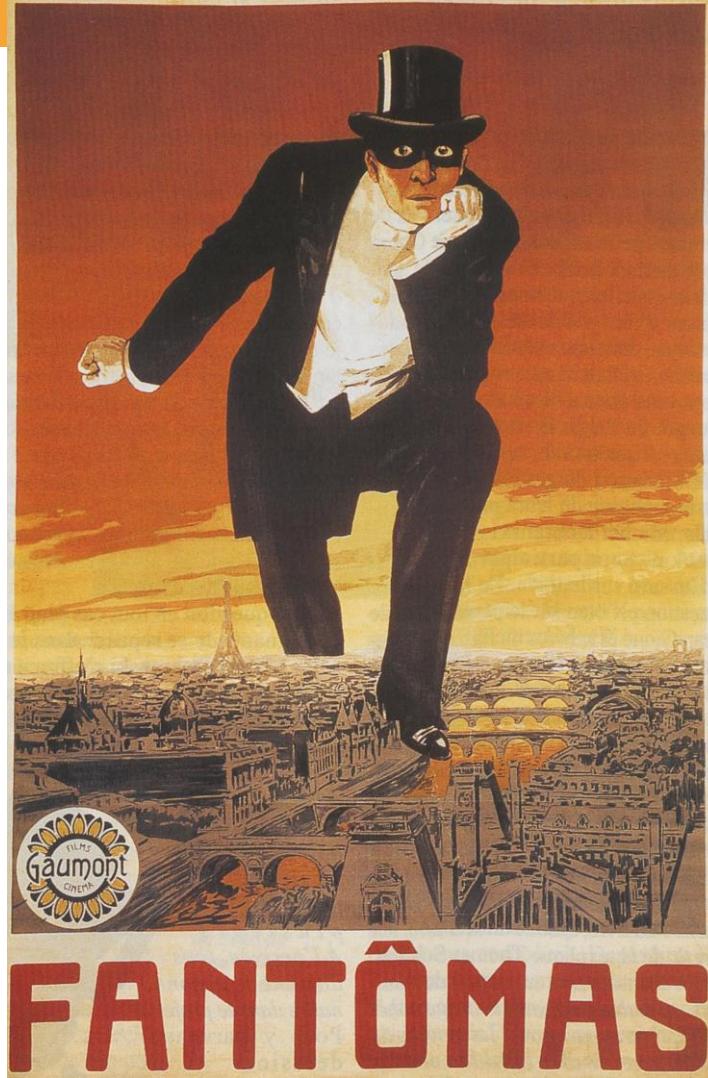
Build master passing

BUILDING...

chat on gitter

Fantomas

string -> FormatConfig -> string

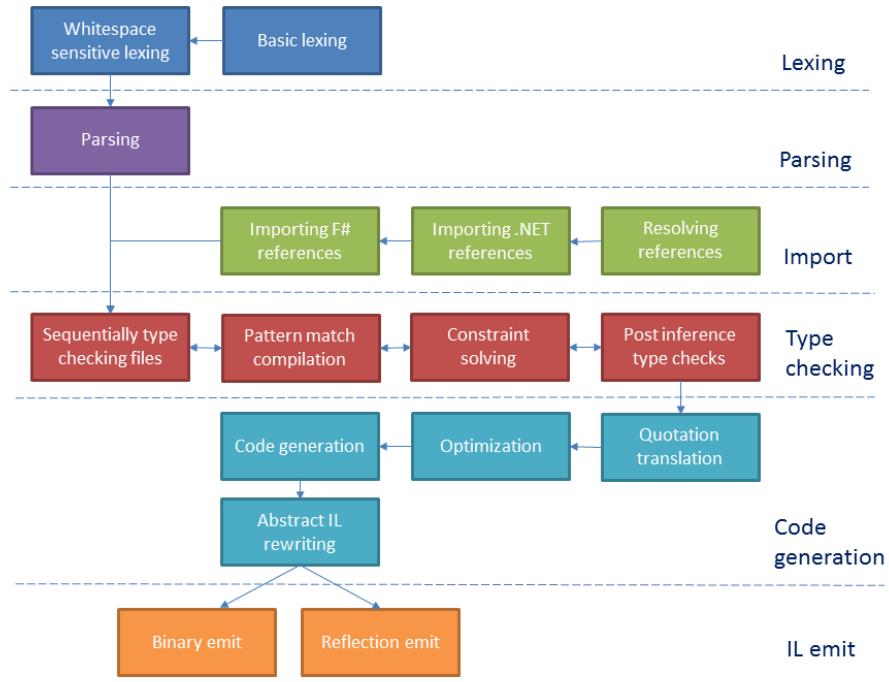


Fantomas internal

- `FSharp.CompilerService`
 - Tokenizer
 - Untyped AST

Key Compiler Phases

Below, you can see a diagram of how different phases of F# compiler work:



IT IS ABOUT PEOPLE

Fantomas internal



- 1 AST
- 2 Trivia
- 3 Writer Events
- 4 Merge result

```
1  ///·Formatting F# code
2  ///·A case study
3
4  type FormatConfig = {
5    ... PageWidth: int
6    ... Indent: int } // The number of spaces
7
8  let binaryUIntValue = 0x4000u
9
10 type ILogger =
11   ... member this.LogDebug message = printfn (*TODO: implement something*) ()
12
13 let run (req: HttpRequest) (log: ILogger) =
14   ... Http.main getFantomasVersion format FormatConfig.FormatConfig.Default log req
15   ... |> Async.StartAsTask
```

```
1  ///·Formatting·F#·code
2  ///·A·case·study
3
4  type FormatConfig = {
5    ...PageWidth: int
6    ...Indent: int } //·The·number·of·spaces
7
8  let binaryUIIntValue = 0x4000u
9
10 type ILogger =
11   ...member this.LogDebug message = printfn (*·TODO:·implement something·*) ()
12
13 let run (req: HttpRequest) (log: ILogger) =
14   ...Http.main getFantomasVersion format FormatConfig.FormatConfig.Default log req
15   ...|> Async.StartAsTask
```

```
let events = ctx.WriterEvents // Seq.toArray events: Count = 119
printfn "%A" ctx.WriterEvents
D> Context.dump
// if config.StrictMode then id
// else integrateComments config.formatContext.ProjectOptions.ConditionalCompilationDefines normalizedSourceCode

// Sometimes F# parser gives a partial AST for incorrect input
```

The screenshot shows the Visual Studio debugger's variable dump window. The current variable being examined is 'events', which is a sequence of 24 writer events. The dump window has a tree view where each event is represented as a Write or WriteBeforeNewline object. The stack trace on the left shows the code flow through various F# and Microsoft.FSharp.Control libraries, including Fantomas, Microsoft.FSharp.Control, and System.Threading.

Index	Type	Value
[0]	{Write}	Write "/// Formatting F# code"
[1]	{WriterEvent}	WriteLine
[2]	{Write}	Write ""
[3]	{Write}	Write "/// A case study"
[4]	{WriterEvent}	WriteLine
[5]	{Write}	Write ""
[6]	{WriterEvent}	WriteLine
[7]	{Write}	Write ""
[8]	{Write}	Write "type "
[9]	{Write}	Write "FormatConfig"
[10]	{Write}	Write "="
[11]	{Write}	Write "
[12]	{Write}	Write "{ "
[13]	{Write}	Write "
[14]	{Write}	Write "PageWidth"
[15]	{Write}	Write ":"
[16]	{Write}	Write "int"
[17]	{Write}	Write ";"
[18]	{Write}	Write ""
[19]	{Write}	Write "Indent"
[20]	{Write}	Write ":"
[21]	{Write}	Write "int"
[22]	{Write}	Write " }"
[23]	{WriteBeforeNewline}	WriteBeforeNewline " // The number of spaces"
[24]	{WriterEvent}	WriteLine

A skateboarder is captured in mid-air, performing a trick at a beachside skate park. The background shows a sandy beach, ocean waves, and distant mountains under a hazy sky.

Formatting in action

A photograph of a paved path made of grey concrete pavers, surrounded by green grass and fallen tree branches. The path leads from the foreground towards the background, where a large, leafy plant is visible.

Multiple defines

A close-up, low-angle shot of a person's hands interacting with a large, dark-colored audio mixing console. The hands are positioned over several rows of knobs and faders. The person is wearing a dark long-sleeved shirt. In the background, more of the console and some equipment are visible in a dimly lit studio environment.

Settings



How to use?



Fantomas

4.0.0-alpha-002

This library aims at formatting F# source files based on a given configuration.

Fantomas will ensure correct indentation and consistent spacing between elements in the source files.

Some common use cases include

- (1) Reformatting a code base to conform a universal page width
- (2) Converting legacy code from verbose syntax to light syntax
- (3) Formatting auto-generated F# signatures.

ⓘ This is a prerelease version of Fantomas.

Package Manager .NET CLI PackageReference **Paket CLI**

```
> paket add Fantomas --version 4.0.0-alpha-002
```

⚠ The NuGet Team does not provide support for this client. Please contact its [maintainers](#) for support.



fantomas-tool

4.0.0-alpha-002

This library aims at formatting F# source files based on a given configuration.

Fantomas will ensure correct indentation and consistent spacing between elements in the source files.

Some common use cases include

- (1) Reformatting a code base to conform a universal page width
- (2) Converting legacy code from verbose syntax to light syntax
- (3) Formatting auto-generated F# signatures.

ⓘ This is a prerelease version of fantomas-tool.

.NET CLI

```
> dotnet tool install --global fantomas-tool --version 4.0.0-alpha-002
```

ⓘ This package contains a .NET Core Global Tool you can call from the shell/command line.

FsAutoComplete

Azure Pipelines succeeded

The FsAutoComplete project (FSAC) provides a backend service for rich editing or intellisense features for editors.

It can be hosted using the Language Server Protocol.

Currently it is used by:

- Emacs
- Vim
- Visual Studio Code



An aerial photograph showing a winding asphalt road cutting through a dense, lush green forest. The road has several sharp turns and is surrounded by various types of tropical trees. Interspersed along the road are numerous small houses with red-tiled roofs, some with surrounding compound walls. The overall scene is one of a rural or semi-rural area where human habitation is integrated with a natural, forested landscape.

Fantomas as library

A white Lamborghini Huracan sports car is shown from a front-three-quarter angle, parked on a dark asphalt road. The car's headlights are illuminated, casting a bright glow. In the background, there are green trees and a range of mountains under a clear sky.

Fantomas in Rider

F# Code



A photograph of a two-lane asphalt road curving through a dense forest. The trees are a mix of dark evergreens and deciduous trees showing autumn colors like yellow and orange. The road has white dashed lines and a solid yellow center line. In the distance, the road disappears into a bright, hazy horizon. A diamond-shaped road sign is visible on the left side of the road.

Road to ownership

Code

Issues 798

Pull requests 85

Projects 0

Security

Insights

[WIP] Service formatting #3542

Closed vasily-kirichenko wants to merge 15 commits into [dotnet:master](#) from [vasily-kirichenko:service-formatting](#) [View changes](#)

Conversation 91

Commits 15

Checks 0

Files changed 41

+10,464 -67



vasily-kirichenko commented on Sep 2, 2017

Contributor



...

No description provided.



6



8

Reviewers

forki



KevinRansom



dsyme



Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Notifications

Customize

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you were mentioned.

22 participants

F# Mentorship program

Many of us have been lucky to have mentors in our careers who have helped us become better programmers (and people).

We think that mentorship is a powerful way to help you learn and be inspired, especially in a new paradigm such as functional programming. So we here at the F# Software Foundation (FSSF) would like to help make mentorship possible for those in the F# community who would benefit from it.

Read more about the program [here](#).

Who is it for? How does it work? How much does it cost?

This program will be useful for developers at all levels, with or without F# experience.

The program is free-of-charge (the mentors are volunteering their time to benefit the F# community), but you must be a member of the FSSF to participate in the program. Membership is free. Learn more about membership [here](#). If you're ready to [join](#), you can do that [here](#).

More details [here](#).

How do I participate?

If you want to be a mentor or mentee, please review the application guidelines [here](#).

What is the current status of the program?

- Applications for the 2019 Fall round are now open. They will close on August 31st, 2019.
- Applications for the 2020 winter round will open in January.

Thanks for your patience, we will provide further information soon [here](#) and on twitter [@fsharporg](#).

[Overview](#)

Repositories 20

Projects 0

Stars 7

Followers 56

Following 0

Pinned

[haf/expecto](#)

A smooth testing lib for F#. APIs made for humans! Strong testing methodologies for everyone!

● F# ⭐ 376 📈 62

[Elm](#)

Implementation of The Elm Architecture

● C# ⭐ 30 📈 7

[Event](#)

Functional Event Sourcing meets The Elm Architecture

● F# ⭐ 16 📈 3

[AnthonyLloyd.github.io](#)

My personal blog at <http://anthonylloyd.github.io>

● HTML ⭐ 4 📈 1

Anthony Lloyd

[AnthonyLloyd](#)[Unfollow](#)

Prefer simplicity. Interested in maths, physics, risk models, F#, event sourcing, functional UIs.

📍 Edinburgh & London

✉️ anthony@lloydhq.com

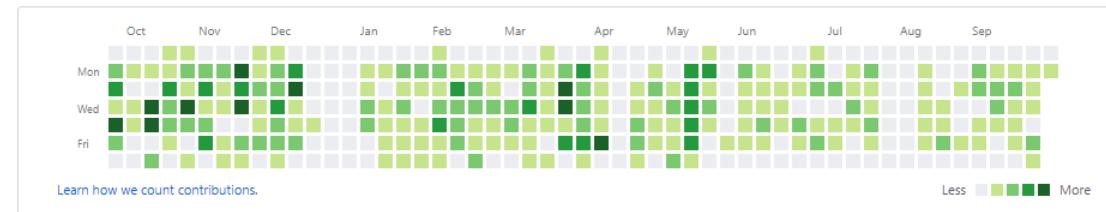
🌐 <http://anthonylloyd.github.io/>

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Organizations



889 contributions in the last year



Contribution activity

September 2019

2019

2018

2017

2016

2015

2014

Created 15 commits in 1 repository

[AnthonyLloyd/BenchmarksGame](#) 15 commits

2019

2018

2017

2016

2015

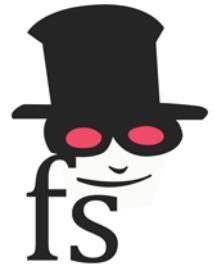
2014

43 contributions in private repositories

Sep 2 – Sep 30

FOR F#





Code

Issues 26

Pull requests 2

Actions

Projects 0

Security

Insights

Settings

Migrate to dotnet core #236

Edit

- Merged dungpa merged 31 commits into [fsprojects:master](#) from [nojaf:master](#) on May 2, 2018

Conversation 14

Commits 31

Checks 0

Files changed 36

+1,593 -708



nojaf commented on Mar 22, 2018 • edited ▾

Collaborator



...

We hope to get more people involved in this project by migrating it to dotnet core 2.0.
All projects currently build and you can run the tests (but 5 fail).

Todo:

- Create new dotnet core projects and reference existing files
- Update all paket dependencies to latest
- Fix failing unit tests *
- Add support for full framework
- Update build.fsx script (Fake 5 stable?)
- Setup continuous integration
- Change Cmd.Core to be a cli tool, so that dotnet fantomas works
- Remove the old projects

** unit test output

```
PS C:\Users\nojaf\Projects\fantomas\src\Fantomas.Tests.Core> dotnet test .\Fantomas.Tests.Core.fsproj
Build started, please wait...
C:\Users\nojaf\Projects\fantomas\src\Fantomas.Tests\SpecialConstructsTests.fs(16,4): warning FS0906: Build completed.
```

```
Test run for C:\Users\nojaf\Projects\fantomas\src\Fantomas.Tests.Core\bin\Debug\netcoreapp2.0\Fantomas.Tests.Core.dll
Microsoft (R) Test Execution Command Line Tool Version 15.3.0-preview-20170628-02
Copyright (c) Microsoft Corporation. All rights reserved.
```

```
Starting test execution, please wait...
NUnit Adapter 3.10.0.21: Test execution started
Running all tests in C:\Users\nojaf\Projects\fantomas\src\Fantomas.Tests.Core\bin\Debug\netcoreapp2.0\Fantomas.Tests.Core.dll
NUnit3TestExecutor converted 285 of 285 NUnit test cases
```

Reviewers



Assignees



No one—assign yourself

Labels



None yet

Projects



None yet

Milestone



No milestone

Notifications

Customize

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5 participants





nojaf commented on Apr 25, 2018

Author Collaborator + 😊 ...

@dungpa could you please review this? We think it is finished and can be released.



4



4

AnthonyLloyd and others added 2 commits on May 1, 2018

-> add Dbg module

aabd31c

-> Merge pull request #2 from AnthonyLloyd/master ...

Verified ✓ 31babab3



dungpa approved these changes on May 2, 2018

[View changes](#)

dungpa left a comment

Member + 😊 ...

Wow. Great work!

dungpa merged commit a97e521 into fsprojects:master on May 2, 2018

[View details](#)

[Revert](#)

2 checks passed



nojaf commented on May 2, 2018

Author Collaborator + 😊 ...

@dungpa many thanks for the merge! Let us know if it needs any more changes in order to be published on nuget.



dungpa commented on May 2, 2018

Member + 😊 ...

@nojaf I have some problems with NuGet keys (couldn't push new packages).

Could I add you as a NuGet owner for pushing packages? If you agree, please give me your NuGet user name. Thanks.



Published
1 Year Ago

Tags

Fable
Docker
Fsharp

Fantomas rejuvenated: .NET cli tool

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Introduction

As part of the [F# mentorship program](#) my mentor [Anthony Lloyd](#) and I have been working on the [Fantomas project](#).

Fantomas is like [prettier](#) or [elm-format](#) but for F#.

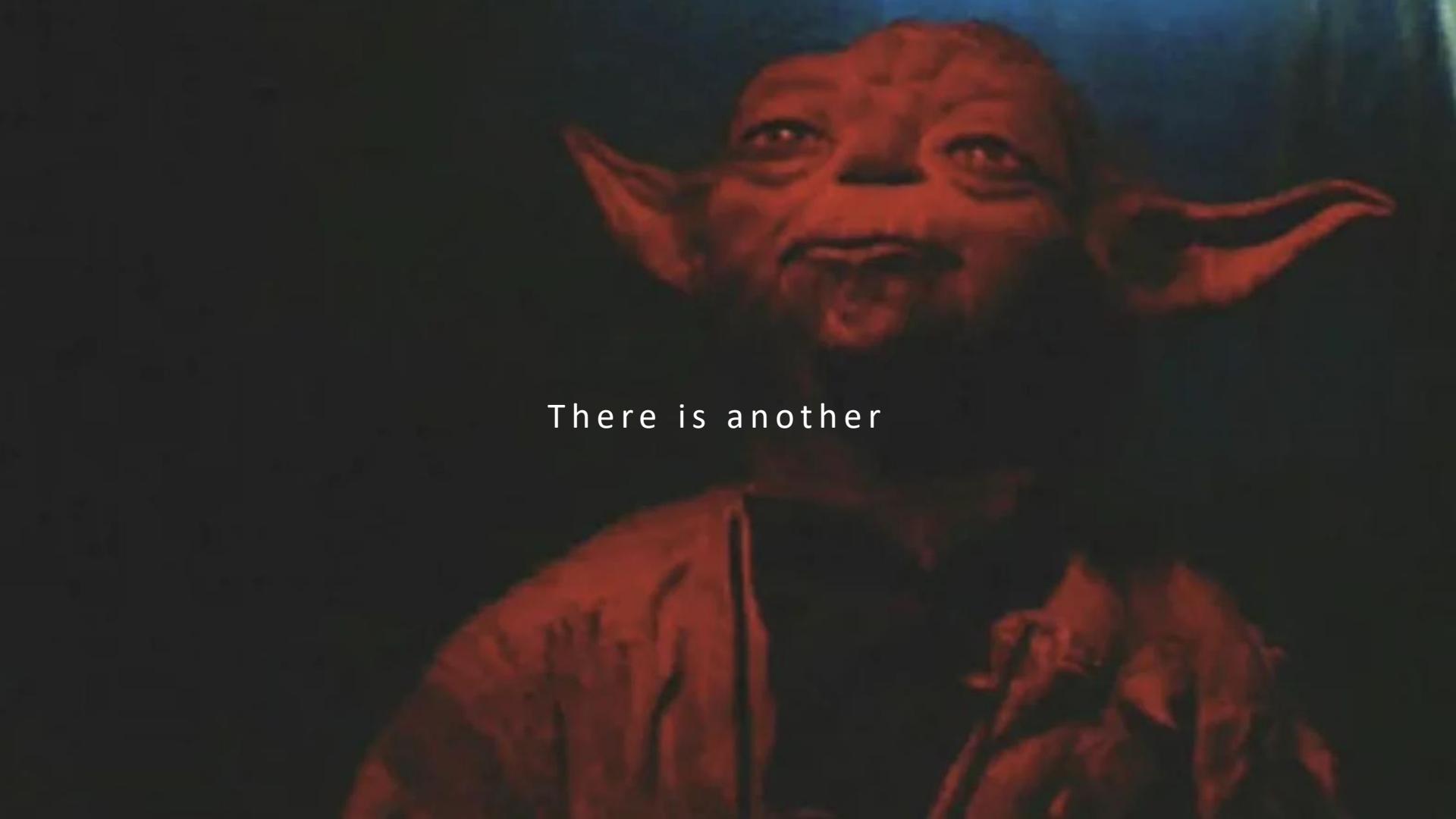
It was originally created by Anh-Dung Phan and people have suggested that it could be a part of the [F# Compiler Service](#).

Fantomas is like prettier or elm-format but for F#.



Meeting Don

- NDC Oslo
- From dungpa to fsprojects
- Admin rights

A close-up portrait of the character Yoda from Star Wars. He has his signature large, bulbous nose, long ears, and wrinkled skin. His eyes are looking directly at the viewer with a serious, contemplative expression. The lighting is dramatic, casting deep shadows on one side of his face while highlighting the other. The background is dark and out of focus.

There is another



Type or paste F# code

F# code formatted with Fantomas

1

1
2

Format

Config

File name:

tmp.fsx

IndentSpaceNum

4

MaxIfThenElseShortWidth

40

PageWidth

120

IndentOnTryWith

ReorderOpenDeclaration

Preserve end of line

Screenshot of a GitHub repository page for `fsprojects / fantomas`.

The repository has 5 pull requests, 70 issues, 0 projects, 0 security vulnerabilities, and 374 forks.

A specific pull request, Fix 143 #259, is shown. It was merged by `nojaf` on Jun 29, 2018, from `s-trooper:fix-143` into `fsprojects:master`. The PR has 6 commits, 7 files changed, and +506 -21 lines of code.

The pull request details:

- Conversation:** 8 comments
- Commits:** 6
- Checks:** 0
- Files changed:** 7
- Reviewers:** `dsyme` (green checkmark), `dungpa` (yellow dot)
- Assignees:** No one—assign yourself
- Labels:** None yet
- Projects:** None

Comments on the pull request:

- s-trooper** commented on May 31, 2018:

This closes #143, this PR preserve original end of lines, disables auto insert/remove of EOLs by Formatter.
As it give control to line breaking to developer, it implicit solves #43, #130, #132, #133? but that of course depends of expectations of issue creators.
- fix-143** (9638607) responded with a green checkmark.
- s-trooper** changed the title to `fix-143 Fix 143` on May 31, 2018.

Preserve end of line



X Remove TokenMatcher and PerserveEOL 🔥🔥🔥

[Browse files](#)

master (#434) ↗ v3.3.0 ... build-number-141

 nojaf committed on Jul 3, 2019

1 parent fe99bf8 commit 69c98881b9ef19ca5e694222079894c201a15515

Commits on Mar 8, 2019

Merge with master, genTrivia

 jindraivanek committed on Mar 8, 2019

[Edit](#) [413c21e](#) [🔗](#)

Merge branch 'master' into trivia

 jindraivanek committed on Mar 8, 2019

[Edit](#) [4322616](#) [🔗](#)

Merge remote-tracking branch 'upstream/master'

 jindraivanek committed on Mar 8, 2019

[Edit](#) [d1ccabb](#) [🔗](#)

trivia base

 jindraivanek committed on Mar 8, 2019

[Edit](#) [38f2156](#) [🔗](#)

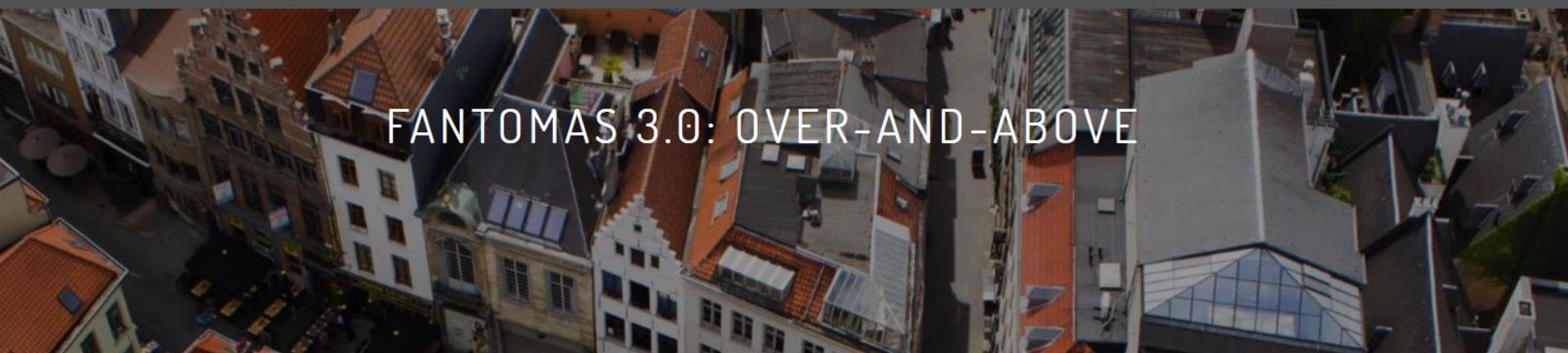




G-RESEARCH







FANTOMAS 3.0: OVER-AND-ABOVE

PROLOGUE

[Fantomas](#) is a tool that can format F# code, like how [Prettier for JavaScript](#) works. The project was in rough shape when I first came across it and wasn't actively maintained anymore. My F# mentor and I picked it up and started with some minor bugfixes and [the port to .NET Core](#).

I asked [Jindřich Ivánek](#) to become co-maintainer due to his numerous contributions to the project. Last year at [FableConf](#) in Berlin, I had the opportunity to meet Jindřich in person and things have really gone up since then. We started to collaborate more, made useful tools to debug Fantomas and organize occasional Skype calls.

While the project was gaining some traction, [new functionality](#) was added to preserve the line ends after formatting. This change meant that the end of each formatted line was still more or less on the

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> F# language reference

F# style guide

F# style guide

F# code formatting guidelines

F# coding conventions

F# component design guidelines

> Use F# on Azure

F# code formatting guidelines

11/04/2019 • 18 minutes to read • +10

This article offers guidelines for how to format your code so that your F# code is:

- More legible
- In accordance with conventions applied by formatting tools in Visual Studio and other editors
- Similar to other code online

These guidelines are based on [A comprehensive guide to F# Formatting Conventions](#) by [Anh-Dung Phan](#).

General rules for indentation

F# uses significant white space by default. The following guidelines are intended to provide guidance as to how to juggle some challenges this can impose.

Using spaces

When indentation is required, you must use spaces, not tabs. At least one space is required. Your organization can create coding standards to specify the number of spaces to use for indentation; two, three, or four spaces of indentation at each level where indentation occurs is typical.

We recommend four spaces per indentation.

That said, indentation of programs is a subjective matter. Variations are OK, but the first rule you should follow is *consistency of indentation*. Choose a generally accepted style of indentation and use it systematically throughout your codebase.

Code

Issues 0

Pull requests 0

Actions

Projects 0

Wiki

Security 0

Insights

G-Research F# code formatting guidelines

4 commits

1 branch

0 packages

0 releases

2 contributors

Apache-2.0

Branch: master ▾

New pull request

Create new file

Upload files

Find file

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jgiannuzzi Add table of contents

Latest commit 031f7fd 3 days ago

LICENSE

Initial commit

2 days ago

README.md

Add table of contents

2 days ago





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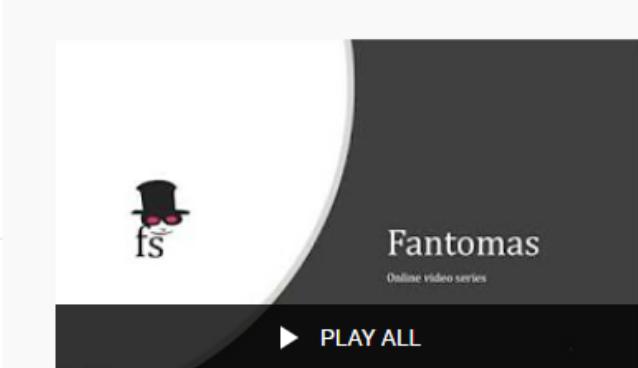
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Fantomas



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...

SORT BY



Fantomas - Untyped AST

nojaf



Fantomas - Context & WriterEvents

nojaf



Fantomas - Trivia

nojaf



Fantomas - Conditional Compiler Directives



A photograph of a winding asphalt road through a landscape of rolling hills. The hills are covered in dry, golden-brown grass. The road curves from the bottom right towards the center of the frame, then continues into the distance. In the background, a range of hills stretches across the horizon under a clear, light blue sky.

Closing thoughts



Florian Verdonck

.NET consultant @ Axxes

 @verdonckflorian

 @nojaf



The end

IT IS ABOUT PEOPLE

