Proposal: ICSF Documents on GitHub

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Abstract

Since their previous revision, both ICSF's Constitution and Standing Orders have been kept under revision control - meaning that all "checked-in" versions are always available. What we proposed is a mechanism for members to be able to suggest changes in a controlled manner at any time, backed on external purpose built software for handling distributed revision of documents.

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1 Proposal

1.1 Revision Control

Revision control does pretty much what it says - it tracks and controls revision of some data. In this case, we're looking at keeping track of revisions to the core document of the society - the Constitution, and the Standing Orders - and the potential amendments to them.

The suggested method of revision control is called Git, a system which is currently in use with over 2 million projects[1] including several high profile open source systems, such as the core of all Linux systems, the Linux Kernel project. It would be used in conjunction with the we service GitHub (`github.com`).

Git is appropriate for a variety of reasons, the major one being that it is a distributed revision control system. Each version ('clone' or 'fork') of the original data in entirely independent of the original, allowing people to work in private on any git project. Inside this private copy, ever single version is always accessible; furthermore, versions do not have to come one after another - there can also be different branches of the tree.

Changes, called 'commits' are uniquely identified, allowing for comparisons between different versions of the same project, and determining where their histories diverged. This functionality also allows changes to be pushed and pulled between the different forks of a project.

Git also does a lot more, but this covers the core ideas for the functions that would be mainly used in a project of this nature.

1.2 GitHub

GitHub is a popular, mature website which hosts Git repositories. A reasonable number of ICSF members already have a GitHub account, so it is not an unknown to all of the editors. Furthermore, at the time of writing, it hosts the main repository for the Linux Kernel project, which forms the backbone of all Linux distributions.

GitHub accounts for free projects are free, and always will be (unless GitHub decide to lose all their customers). The versions of the data under revision control are kept in a Git repository (repo for short). Each clone (copy) of the repo is entirely stand alone - it has data on all of the revisions, the ability to create new ones, and the ability to send and receive other changes from other repos.

1.3 Structure of Proposing an Amendment

A somewhat common misconception is that this will let anyone just wander by and change the contents of the files. In fact, the exact opposite is true - the files in a repo can only be directly altered by the controller of that repo. Changes are made by a third party cloning the repo - creating an equivalent copy of the original under their control. They can alter the files as much as they want, creating any number of revisions, and can also copy in changes from other sources. The ability to

[1] Github alone claims around 2.8 million repositories

copy in ('pull') other's changes will also be available to the original user, allowing them to incorporate other's work.

GitHub automates large chunks of this process - the main repo's files will have edit buttons, which silent cause the repo to be cloned and so forth. It also has the option of creating 'pull-requests', a way of proposing what changes should be merged into the original repo.

GitHub also draws a lot from the world of social networking sites, in that virtually everything can be commented upon and discussed, in much the same way as a change to an important document should be. Discussion of pull-requests, revisions, and even individual lines within revisions will be a proving ground for changes.

1.4 Affects on the Society

Being a free, public repository would mean that anyone would be able to see the constitution source code which, for all intents and purposes, is the same as being able to see the constitution itself; the constitution is already publicly available on the web.

The constitution and standing orders are normally brought up at the AGM by a certain subset of the society who care a great deal about the paperwork. These people are also the ones most likely to want to discuss changes made by others, which might cause them to do a lot of work without any input from the rest of the society.

However, in many ways, this is an optimal solution. The changes still have to be passed as stated within the documents, and thus will still under go the scrutiny of the committee and or membership in much the same way as they always did. The difference would be that the changes being proposed will have been argued out at least as much on the internet than just being proposed in a meeting.

The extreme end of this is to require that all non-formatting and non-proofing changes be accompanied with a document explaining their rationale.

Either way, these can all be collated an distributed in advance of the appropriate meetings, allowing those who will vote slightly more time than has been available in past years to review the proposals.

2 Implementation

2.1 Set up

Firstly, a GitHub account would be created using ICSF's root email account, `icsflib@gmail.com`. This account would contain the canonical master version of the data on GitHub; the official 'origin' may well remain on ICSF's servers - the difference is entirely semantic, giving us a redundant backup either way.

Then, the repository as it stands would be pushed to GitHub.

2.2 Ongoing Administration

Requests made via GitHub would have to be reviewed. It makes most sense to assign this to be one of the duties of one of the committee members - the Tech Priest should already have the requisite knowledge to understand the workings, and an additional guide would be added to the wiki.

The email account system would be modified to forward notifications of GitHub pull requests to the chosen committee member, allowing them to review the proposed changes. Those who choose to watch the repository on GitHub will also be informed in accordance with their settings, allowing them to contribute their thoughts.

Before a meeting at which the documents would be discussed, proposals can be merged into the 'integration branch' - a list of things we're interested in looking at.

Git's in built tools allow for the generation of a list of changes, and including the comments already collected should not be too complicated. This can then be distributed to the committee and voted on as a series of propositions, as submitted. This procedure would still be governed (and, as described, is within) the tenants set out by the Union Constitution and the Society's Constitution.

2.3 Analysis of Costs

There are no monetary costs to switching to this procedure, and the initial setup is likely to take less time than reading this document. The main cost is the extra commitment from a committee member to manage it; the main benefit is having shorter general meetings, thus keeping the discontentment from the general membership (who, perhaps rightly, see many of the changes to these changes to be purely pedantry) to a minimum.

3 Future and Further Uses

This idea is also useful for any documents which we use on a regular basis, and change slightly now and again. It would perhaps make sense to include the rest of the current union documentation: the risk assessment, code of conduct, etc. Two further examples come to mind - firstly, changing the method of the database backup to use git; this, however, raises major privacy concerns with regards to personal data, and would probably require us to get a private repository. The other public use is for the outline for the current additions of Wyrmtounge, which use a similar development system and tools as the constitution files.