

## Opportunities

This document lists out some of the items that CFDSource does not do and that would definitely benefit from community input. Please fork thegaffer/CFDSource and provide me with pull requests or patch files for review.

There is no particular order to this list. In brief:

- Testing
- GitHub / Passwords
- UI
- Dependencies
- Windows File Repository Performance
- Patching
- Multi Project Namespace / Management Portal Integration
- Validation/Error handling

This is not necessarily exhaustive, I welcome your feedback!

## Testing

The set of tests (Test.x) are not currently proper unit tests and should be turned into such. There is also not full coverage of the important conditions, such as merges and conflicts.

## GITHUB

The GitHub integration relies on needing a ssh private key that has no passphrase on it. As Caché/Ensemble are server side technologies (and the communication with GIT is done from the machine hosting Caché/Ensemble) this may not be an issue (i.e. if someone can get on the box to get the private key you have bigger concerns than they can access GitHub!).

That said the project would benefit from better integration if it were possible. The main limitation is that when the Caché engine runs a GIT command it does this by issue a command, but only one way communication is possible once started, it is not in an interactive shell so we only get output back. It may be possible to provide some callback code or otherwise setup GIT on the Caché server to allow us to use passwords. This needs investigation.

This may also open up the world of HTTPS repositories. Please do feedback how you get this working if you do.

## UI

There are many issues with the current UI:

- In the function vs form debate I've gone with function exclusively so far! Combo's down line up, comments span and don't wrap. There is a whole bunch of work to do here.
- Project settings can be changed outside a feature, this should not be possible.
- Better feedback to user that the tool is working is required, particularly on long operations.

This is not necessarily an exclusive list!

## Dependencies

Right now CFDSorce is managing the current project. In the real world projects have dependencies. It would be nice to be able to list projects dependencies and then import those dependencies is to the Caché environment.

## Windows File Repository Performance

This may be specific to my environment, but on windows any operation involving accessing a file:// based external GIT Repository involves an approx 30 second wait, which is clearly a timeout of some sort. If this is more widespread than just me, any help in resolving it welcome!

On linux, which is my main test environment there is no problem and all operations are over in a few seconds max.

## Patching

At present CFDSorce will attempt to push any changes to a remote repository. It strikes me in some working environments that developers should always create patches of features for submission to a review body rather than directly push. It would be good to allow CFDSorce to be configured to do this.

## Multi Project Namespaces / Management Portal

The Management Portal will show the CFDSorce menu. However, this menu works in conjunction with the currently open project in Studio – in the management portal this is not applicable. Therefore, it would be good to amend these dialogs to have a drop-down on the project name so that it can be selected. This way one can more easily work with multiple projects in the same namespace.

The additional complexity of course is to detect when two or more projects reference the same artefact. Then to edit that artefact one needs to have started features on all projects. Or perhaps warnings should be put up in the situation to prevent CFDSorce managing the artefact in more than one project.

## Validation / Error Handling

The validation and error handling is somewhat simplistic! There is an opportunity to further test and refine this.