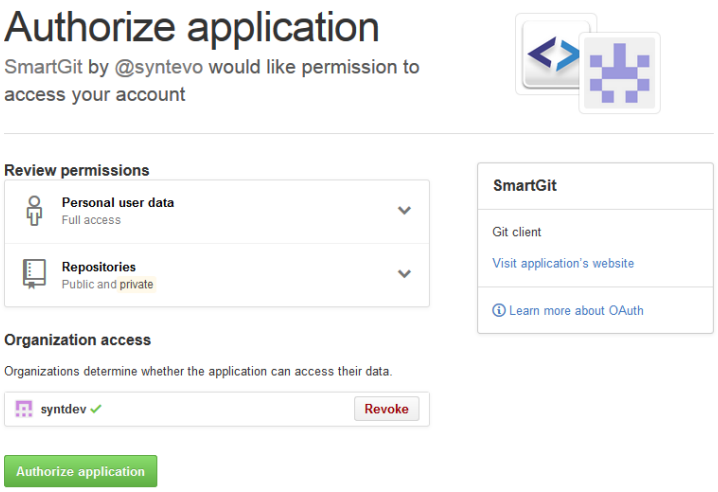
GitHub integration

Created by admin, last modified by Marc on Mar 26, 2016

SmartGit integrates GitHub workflows in various places, provided that the connection to *github.com* or a custom *GitHub Enterprise instance* has been configured in the Preferences.

Setup

To set up the GitHub integration, go to **Preferences**, section **Hosting Providers** and use **Add** there. In the **Add Hosting Provider** dialog, have **GitHub** selected and invoke **Generate API token**. This should open up your default web browser where you will have to confirm by **Authorize Application**. Be sure to also **Grant Access** to all of your organizations, otherwise the corresponding organization repositories won't show up/can't be accessed.



Once you have confirmed this page, you will be redirected to *syntevo.com*, where the generated access code will be displayed. Copy&paste this code into SmartGit's **Generate API Token** dialog and invoke **Authenticate**. The code will be used to create an *application access token* which will be used to populate the **Token** field. Finally, confirm the **Add Hosting Provider** dialog using **Add**.

> Once you have authorized SmartGit, it will show up in your GitHub **Settings**, section **Applications**. If you need to rerun through the Authorization process outlined above, **Revoke** access there and start over.

Clone

When cloning a repository, you can select your repository from a list, instead of entering the URL. SmartGit will display your own (*user*) repositories, as well as repositories of your *organization* (*org*).

Main Window

The main window contains a light-weight GitHub integration which gives you an overview of incoming Pull Requests in the **Branches** view.

> Pull request operations are only available in the **Log** (see below).

Log

In the *Log* window of your repository, you can interact with GitHub in following ways.

Pull Requests

When initially loading the Log, SmartGit will also refresh information on related *Pull Requests* from the GitHub server:

- **Incoming** pull requests are those which other users are requesting to pull from their repositories. They are displayed in a separate category called **Pull Requests** in the **Branches** view.
- **Outgoing** pull requests are those which you have sent to other users/repositories, requesting them to pull your changes. They are display directly below the local (or if it does not exist), the remote branch in the **Branches** view.

Incoming pull requests, in first place, are just known on the server. To get the commits, which such a pull request includes, locally, use invoke **Fetch Pull Request** from the context menu of the pull request. This will fetch all commits from the foreign repository to a special branch in your local repository and will create an additional *merge* node between the *base* commit from which the pull request has been forked and the latest (foreign) pull request commit. When selecting this *merge* node in the **Graph**, you can see the entire changes which a multi-commit pull request includes and you can comment on these changes, if necessary. After commenting changes, it's probably a good idea to **Reject** the pull request to signal the initiator of the pull request, that modifications are required before you are willing to pull his changes. If you are fine with a pull request, you may **Merge** it. This will request the GitHub server to merge the pull request and then SmartGit will pull the corresponding branch, so you will have the merged changes locally available.

Outgoing pull requests can be **Fetch**ed as well, however this is usually not necessary, as the pull request belongs to you and it contains your own commits. If you decide that you want to take a pull request back, use **Retract**.

For a pull request which had been fetched once, there was a special *ref* created which will make it show up in the **Pull Requests** category, even if it is not present on the server anymore. In this case, you may use **Drop Local Data** on such a pull request to get rid of the corresponding ref, the local merge commit, all other commits of the pull request and the entry in **Pull Requests** as well. It's safe to use **Drop Local Data**, as it will only affect the local repository and you can re-fetch a pull request anytime you like using **Fetch** again.

You can invoke **Review|Sync** to manually update the displayed information. Usually you will want to do that, if you know that server-side information has changed since the Log has been opened.

To create a pull request, use **Create Pull Request** from the context menu of the **Branches** view.

Comments

GitHub allows to comment on a commit itself or individual line changes (*diffs*). Comments can be applied to a commit or to a Pull Request. Comments will be refreshed together with pull requests after opening a Log or when manually invoking **Review|Sync**.

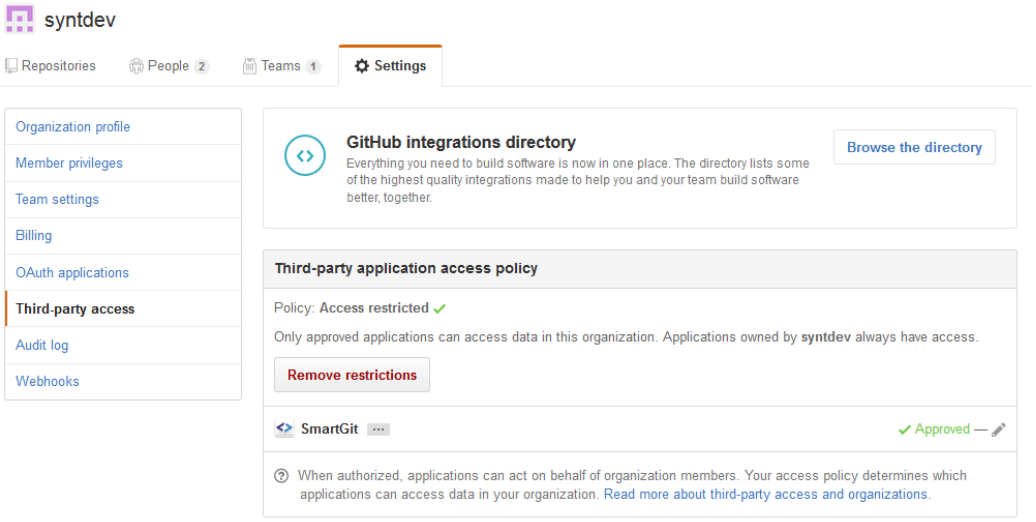
Commit comments will show up in the **Graph** view. Comments on individual lines will show up in the **Changes** view and the affected files will be highlighted in the **Files** and **Graph** view, too. This works the same way for line-comments of Pull Requests, provided that the pull request has been **Fetch**ed and the local pull request *merge* commit has been selected.

Comments can be created, modified and removed using the corresponding actions from the **Comments** menu or context menu actions in the **Graph** and **Changes** view. If a pull request *merge* commit is selected, only line-comments of the pull request can be manipulated.

Some behavior of the GitHub integration can be customized by system properties .

Possible Problems & Solutions

If you are authenticating using *OAuth* and you can't see private repositories of your GitHub *organization* or pushing to your organization's repositories fails with HTTP error code *403*, make sure that your organization allows **Third-party access** and SmartGit is **Approved**. Your organization settings might look like this:


syntdev
Repositories
People 2
Teams 1
Settings
Organization profile
Member privileges
Team settings
Billing
OAuth applications
Third-party access
Audit log
Webhooks
GitHub integrations directory
Everything you need to build software is now in one place. The directory lists some of the highest quality integrations made to help you and your team build software better, together.
Browse the directory
Third-party application access policy
Policy: Access restricted
Only approved applications can access data in this organization. Applications owned by syntdev always have access.
Remove restrictions
SmartGit
Approved
When authorized, applications can act on behalf of organization members. Your access policy determines which applications can access data in your organization. Read more about third-party access and organizations.

No labels