Mergetools

- vimdiff

vimdiff

Description ^^^^^^^^^^^^

When specifying `--tool=vimdiff` in `git` `mergetool` Git will open Vim with a 4 windows layout distributed in the following way:

```
----------------------------------------
|             |           |              |
|   LOCAL     |   BASE    |   REMOTE     |
|             |           |              |
----------------------------------------
|                                        |
|                MERGED                  |
|                                        |
----------------------------------------
```

`LOCAL`, `BASE` and `REMOTE` are read-only buffers showing the contents of the conflicting file in specific commits ("commit you are merging into", "common ancestor commit" and "commit you are merging from" respectively)

`MERGED` is a writable buffer where you have to resolve the conflicts (using the other read-only buffers as a reference). Once you are done, save and exit Vim as usual (`:wq`) or, if you want to abort, exit using `:cq`.

Layout configuration ^^^^^^^^^^^^^^^^^^^^^^

You can change the windows layout used by Vim by setting configuration variable `mergetool.vimdiff.layout` which accepts a string where the following separators have special meaning:

- `+` is used to "open a new tab"
- `,` is used to "open a new vertical split"
- `/` is used to "open a new horizontal split"
- `@` is used to indicate the file containing the final version after solving the conflicts. If not present, `MERGED` will be used by default.

The precedence of the operators is as follows (you can use parentheses to change it):

```
`@` > `+` > `/` > `,`
```

Let’s see some examples to understand how it works:

- `layout` `=` `"(LOCAL,BASE,REMOTE)/MERGED"`
  This is exactly the same as the default layout we have already seen.
  Note that `/` has precedence over `,` and thus the parenthesis are not needed in this case.
  The next layout definition is equivalent:

```
layout = "LOCAL,BASE,REMOTE / MERGED"
```

- `layout` `=` `"LOCAL,MERGED,REMOTE"`
  If, for some reason, we are not interested in the `BASE` buffer.

```
----------------------------------------
|             |           |              |
|             |           |              |
|   LOCAL     |   MERGED  |   REMOTE     |
|             |           |              |
|             |           |              |
----------------------------------------
```

- `layout` `=` `"MERGED"`
  Only the `MERGED` buffer will be shown. Note, however, that all the other ones are still loaded in vim, and you can access them with the "buffers" command.

```
----------------------------------------
|                                      |
|                                      |
|                MERGED                |
|                                      |
|                                      |
----------------------------------------
```

- `layout` `=` `"@LOCAL,REMOTE"`
  When `MERGED` is not present in the layout, you must "mark" one of the buffers with an arobase (`@`). That will become the buffer you need to edit and save after resolving the conflicts.

```
----------------------------------------
|                  |                   |
|                  |                   |
|                  |                   |
|     LOCAL        |    REMOTE         |
|                  |                   |
|                  |                   |
```

```
|                  |                  |
-----------------------------------------
```

- `layout` `=` `"LOCAL,BASE,REMOTE` `/` `MERGED` `+` `BASE,LOCAL` `+` `BASE,REMOTE"`
  Three tabs will open: the first one is a copy of the default layout, while the other two only show the differences between (`BASE` and `LOCAL`) and (`BASE` and `REMOTE`) respectively.

```
-----------------------------------------
| <TAB #1> |  TAB #2  |  TAB #3  |       |
-----------------------------------------
|             |           |              |
|   LOCAL     |   BASE    |   REMOTE     |
|             |           |              |
-----------------------------------------
|                                        |
|                MERGED                  |
|                                        |
-----------------------------------------


-----------------------------------------
|  TAB #1  | <TAB #2> |  TAB #3  |       |
-----------------------------------------
|                   |                    |
|                   |                    |
|                   |                    |
|     BASE          |    LOCAL           |
|                   |                    |
|                   |                    |
|                   |                    |
-----------------------------------------


-----------------------------------------
|  TAB #1  |  TAB #2  | <TAB #3> |       |
-----------------------------------------
|                   |                    |
|                   |                    |
|                   |                    |
|     BASE          |    REMOTE          |
|                   |                    |
|                   |                    |
```

```
|                 |                   |
-----------------------------------------
```

- `layout` `=` `"LOCAL,BASE,REMOTE` `/` `MERGED` `+` `BASE,LOCAL` `+` `BASE,REMOTE` `+` `(LOCAL/BASE/REMOTE),MERGED"`
  Same as the previous example, but adds a fourth tab with the same information as the first tab, with a different layout.

  ```
  -----------------------------------------
  |  TAB #1  |  TAB #2  |  TAB #3  | <TAB #4> |
  -----------------------------------------
  |       LOCAL         |                   |
  |---------------------|                   |
  |       BASE          |       MERGED      |
  |---------------------|                   |
  |       REMOTE        |                   |
  -----------------------------------------
  ```

  Note how in the third tab definition we need to use parentheses to make `,` have precedence over `/`.

Variants ^^^^^^^^

Instead of `--tool=vimdiff`, you can also use one of these other variants:

- `--tool=gvimdiff`, to open gVim instead of Vim.
- `--tool=nvimdiff`, to open Neovim instead of Vim.

When using these variants, in order to specify a custom layout you will have to set configuration variables `mergetool.gvimdiff.layout` and `mergetool.nvimdiff.layout` instead of `mergetool.vimdiff.layout` (though the latter will be used as fallback if the variant-specific one is not set).

In addition, for backwards compatibility with previous Git versions, you can also append `1`, `2` or `3` to either `vimdiff` or any of the variants (ex: `vimdiff3`, `nvimdiff1`, etc...) to use a predefined layout. In other words, using `--tool=[g|n]vimdiff<x>` is the same as using `--tool=[g|n]vimdiff` and setting configuration variable `mergetool.[g|n]vimdiff.layout` to...

- `<x>=1`: `"@LOCAL,` `REMOTE"`
- `<x>=2`: `"LOCAL,` `MERGED,` `REMOTE"`
- `<x>=3`: `"MERGED"`

Example: using `--tool=gvimdiff2` will open `gvim` with three columns (`LOCAL`, `MERGED` and `REMOTE`).