SDEVEN Software Development & Engineering Methodology

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Branches (SDEVEN.40-BRAN)

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Preamble

This section refers the current policies regarding git repository branches.

Classification

The branches are classified like that:

- mandatory (always required). As example is the master (or main) branch. The name master is preferred (as it is already used in automation scripts), but sometimes the name main can be found (as with best practices recommendations starting with spring of 2021 year).
- with a long life cycle (aka just development). In this category is **development** branch which is required up to a minor release, then the name can be changed if needed to reflect versioning policy. Another example could be release beach intended for documentation review and finalizing and packaging of system.
- test branches which are created usually from an alpha or beta tag and kept until the required tests are passed. This kind of branches can return (merge) back to development corresponding branch or to a release branch if tests passed for preparing a potential release. In both cases, after test finalizing and branch merge, it will be deleted.
- · developer dedicated branches local kept on remote git for a quick reference for all developers without requiring a git client
- personal branches reflecting current work for developers that: (i) have a git client installed or (ii) remote for developers using mobile devices without a git client installed. For such as branches open on public remote¹ git, the name of developer and phrase "dev" or "phone" and these branches need to be requested from DevOps person in order to crete them, give them enough rights and not to be (automatically) dropped.

Branches used and their names

Usually, as not stated otherwise in a project, the following branches should be used:

- development consolidates development of all team. Branch is permanent and set as default
- ${\it master}$ current version of system in production. Branch is ${\it permanent}$
- xxx-dev work branch for team member xxx . Branch is temporary and should be administered by the DevOps person. This kind of branch is made to work from different devices where a git client cannot be used and files must be individually uploaded or edit using the git system web interface. The person for whom it was created can receive full rights on this branch
- qa_test / test used according to classification. Branch is temporary*
- $\bullet \ \ \textbf{release} \ / \ \ \textbf{version_string} \ \textbf{-rel} \ \ \textbf{used} \ \ \textbf{according to classification}. \ \ \textbf{Branch is} \ \ \textbf{temporary}$



master branch name

starting from 2022 new git systems are default configured to name default base branch as main instead of master. Please check to avoid mistakes due to branch name use in different automation / configuration yaml scripts.

Frequent mistakes

- names containing "dev " are used to signify a "local" developer work. These should not be confused with development branch which has already an explained purpose. They are used by people that need a repository for their current work and cannot install a local client.
- names containing "re1" or "tst" or "qa" are intended for test purposes. This situation could appear (i) for own tests, (ii) for tests done by other people or (iii) for tests made before a release. Also, instead of making "release or test branches" when intention is for example not commit work but have a kind of snapshot with "AS IS NOW", a tag can be created and transformed latter in a branch. This method is STRONGLY RECOMMENDED for any kind of snapshots that are needed. Just pay attention with these tags and DO NOT EXPECT a long life cycle for them as anytime can be dropped by a DevOps that remarks they are out of used conventions and policies a better option is just to communicate the intention.

Tagging recommendations

- for consistency, long term and reference tags should be named using RENVER conventions
- working tags should contain words like dev or adev (from alpha dev) if not an alpha release is intended. This will help for a right alphabetically sort, normally their preceding an alpha or upper release.

Graphic basic flow

This diagram shows the basic flow for master (main), development and one xxx-dev branch. Also on graphic the practices ref tagging are shown:



Names and codes used in diagram:

- |iss-001 is an issue that needs to be closed (and coded)
- personA-dev is a personal branch created for "person A" to work (in example for issue 001)
- personX-dev is a personal branch created for another developer (persona X)

Also diagram shows different tags created as occasioned by "issue 001".

1. the internal git used by team \leftarrow

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