GIT Workflow for COTS

Last updated on 10/19/18 by Sungwook Kwon

Version: 1.1

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# Introduction

This is a workflow for the team, COTS to maintain the version of FileNet/Kofax Projects using GIT.

# Architecture

## Git Repositories



### Local

This is the repository that each user has in their local workstation. Once a user is involved in a project, the user will clone a whole copy of the target project from the remote, COTS. Users will maintain their own version locally until the change is completely tested and ready for production.

### User (Remote – P: Optional)

This is an optional repository that each user can have to make a backup of their local repository. Through this repository, users store any changes that they are working so that they will not be tied to a single workstation. If changes are small and it can be made quickly, users will use COTS repository directly.

### Origin (Remote – G: \\jfsdata\shares\DevOps\COTS)

This is the main repository of the team, COTS residing on ms-kofax-pa10 server. This is the repository that the entire team members copy a project from and submit the changes that have been made, tested and ready for production. This repository is not a working repository.

### Deployment Manager (Local)

Deployment Manager takes care of the deployment of all the changes that have been pushed to COTS repository. This repository should be on deployment server so that the change can easily be deployed to the designated environment. The manager pulling the most updated version from COTS repository and synchronize the changes with Dimension and perform the deployment.

### Dimension

Dimension is the official version management system in JFS, therefore all the changes to be deployed to production must be stored in Dimension. This repository will be synchronized with Deployment Manager’s repository.

## Folder Structure

Each project will have its own root folder under GIT folder and the structure should be remained the same consistently with other project. New folders can be added as needed.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **COTS GIT Folder Structure**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Git |  | | | | | Proj-A | .git | | Git Repository | | Document | | Folder for documents | | FDM | | FileNet Deployment Manager Repository | | ICM Assets | | Artifacts from IBM Case Manager | | KC Batch Class | Dev | Batch Classes for each environment | | Tst | | Uat | | Prd | | KTM | | KTM project | | Sample | | Samples | |

# Installation

The current version as of 4/27/2014 is 2.8.1. Get the code from the following site.   
<http://git-scm.com/downloads>

# Operation

## Initial Setup

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| Setup Identity | |
|  | KWONS@JFS398323 /c/git/owd-ccmep (master)  $ git config --global user.name "Sungwook Kwon"  KWONS@JFS398323 /c/git/owd-ccmep (master)  $ git config --global user.email "sungwook.kwon@jfs.ohio.gov"  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ |

## Basic Operation

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| --- | --- |
| Create a local repository | |
|  | $ cd c:\git  KWONS@JFS398323 /c/git  $ mkdir OFC-ICPCDMS  KWONS@JFS398323 /c/git  $ cd OFC-ICPCDMS  KWONS@JFS398323 /c/git/OFC-ICPCDMS  $ git init  Initialized empty Git repository in c:/git/OFC-ICPCDMS/.git/  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ |

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| Create a remote repository | |
|  | (remote repository can be different that P: drive)  $ cd p:\git  KWONS@JFS398323 ~/git  $ mkdir OFC-ICPCDMS  KWONS@JFS398323 ~/git  $ cd OFC-ICPCDMS  KWONS@JFS398323 ~/git/OFC-ICPCDMS  $ git init --bare  Initialized empty Git repository in p:/git/OFC-ICPCDMS/  KWONS@JFS398323 ~/git/OFC-ICPCDMS (BARE:master)  $ |

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| Link the remote repository from the local repository | |
|  | KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git remote add KWONS file://p:/git/OFC-ICPCDMS  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git remote add COTS file://ms-kofax-pa10/git/OFC-ICPCDMS  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git remote -v  COTS file://ms-kofax-pa10/git/OFC-ICPCDMS (fetch)  COTS file://ms-kofax-pa10/git/OFC-ICPCDMS (push)  KWONS file://p:/git/OFC-ICPCDMS (fetch)  KWONS file://p:/git/OFC-ICPCDMS (push) |

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| Clone a remote repository to a local location | |
|  | KWONS@JFS398323 /c  $ cd git2  KWONS@JFS398323 /c/git2  $ ls -al  total 12  drwxr-xr-x 1 KWONS Administ 0 Mar 14 09:28 .  drwxr-xr-x 1 KWONS Administ 24576 Apr 25 00:36 ..  drwxr-xr-x 1 KWONS Administ 0 Mar 14 09:30 HelloWorld  KWONS@JFS398323 /c/git2  $ git clone file://p:/git/OFC-ICPCDMS  Cloning into 'OFC-ICPCDMS'...  remote: Counting objects: 6, done.  remote: Compressing objects: 100% (5/5), done.  remote: Total 6 (delta 0), reused 0 (delta 0)  Receiving objects: 100% (6/6), 284.86 KiB | 0 bytes/s, done.  Checking connectivity... done.  KWONS@JFS398323 /c/git2  $ cd OFC-ICPCDMS  KWONS@JFS398323 /c/git2/OFC-ICPCDMS (master)  $ git branch  \* master |

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| Relating branches to the issues | |
|  | * Git is not tied into any particular issue-tracking system. * The main should be “Remedy” to log the issues.   $ git checkout -b "INC000000742322"  Switched to a new branch 'INC000000742322'  KWONS@JFS398323 /c/git/OFC-ICPCDMS (INC000000742322)  $ git branch -a  \* INC000000742322  master  remotes/KWONS/ACL  remotes/KWONS/master  KWONS@JFS398323 /c/git/OFC-ICPCDMS (INC000000742322)  $ |

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| Add the files in local directory | |
|  | $ git add \*  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git status  On branch master  Initial commit  Changes to be committed:  (use "git rm --cached <file>..." to unstage)  new file: DOCS/ICPC\_RetentionSchedule.pdf  new file: DOCS/OFC ICPCDMS\_ACL.xlsx  new file: DOCS/OFC ICPCDMS\_Configuration.xlsx  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git commit -m "Initial Commit for ICPCDMS"  [master (root-commit) d0fb245] Initial Commit for ICPCDMS  3 files changed, 0 insertions(+), 0 deletions(-)  create mode 100644 DOCS/ICPC\_RetentionSchedule.pdf  create mode 100644 DOCS/OFC ICPCDMS\_ACL.xlsx  create mode 100644 DOCS/OFC ICPCDMS\_Configuration.xlsx  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git status  On branch master  nothing to commit, working directory clean  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git log  commit d0fb2450d7961d295fdd158d1550ad8b9cbacf5b  Author: Sungwook Kwon <swooki@gmail.com>  Date: Wed Apr 30 11:40:36 2014 -0400  Initial Commit for ICPCDMS  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ |

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| Push the changes to the remote repository | |
|  | $ git log  commit d0fb2450d7961d295fdd158d1550ad8b9cbacf5b  Author: Sungwook Kwon <swooki@gmail.com>  Date: Wed Apr 30 11:40:36 2014 -0400  Initial Commit for ICPCDMS  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git push KWONS master  Counting objects: 6, done.  Delta compression using up to 4 threads.  Compressing objects: 100% (5/5), done.  Writing objects: 100% (6/6), 284.86 KiB | 0 bytes/s, done.  Total 6 (delta 0), reused 0 (delta 0)  To file://p:/git/OFC-ICPCDMS  \* [new branch] master -> master  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master) |

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| Create a branch | |
|  | $ cd c:/git/OFC-ICPCDMS  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git branch ACL  KWONS@JFS398323 /c/git/OFC-ICPCDMS (master)  $ git checkout ACL  M DOCS/OFC ICPCDMS\_ACL.xlsx  Switched to branch 'ACL'  KWONS@JFS398323 /c/git/OFC-ICPCDMS (ACL)  $ git branch -a  \* ACL  master  remotes/KWONS/master |

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| Commit to the new branch Make a change to one of the file and commit the change to the branch. | |
|  | KWONS@JFS398323 /c/git/OFC-ICPCDMS (ACL)  $ git status  On branch ACL  Changes not staged for commit:  (use "git add <file>..." to update what will be committed)  (use "git checkout -- <file>..." to discard changes in working directory)  modified: DOCS/OFC ICPCDMS\_ACL.xlsx  no changes added to commit (use "git add" and/or "git commit -a")  KWONS@JFS398323 /c/git/OFC-ICPCDMS (ACL)  $ git add \*  KWONS@JFS398323 /c/git/OFC-ICPCDMS (ACL)  $ git status  On branch ACL  Changes to be committed:  (use "git reset HEAD <file>..." to unstage)  modified: DOCS/OFC ICPCDMS\_ACL.xlsx  KWONS@JFS398323 /c/git/OFC-ICPCDMS (ACL)  $ git log  commit d0fb2450d7961d295fdd158d1550ad8b9cbacf5b  Author: Sungwook Kwon <swooki@gmail.com>  Date: Wed Apr 30 11:40:36 2014 -0400  Initial Commit for ICPCDMS  KWONS@JFS398323 /c/git/OFC-ICPCDMS (ACL)  $ git commit -m "ACL file has been cleaned"  [ACL a56fbde] ACL file has been cleaned  1 file changed, 0 insertions(+), 0 deletions(-)  KWONS@JFS398323 /c/git/OFC-ICPCDMS (ACL)  $ git log  commit a56fbde4aad276f8d5c2289060b5bcd9344e0e5e  Author: Sungwook Kwon <swooki@gmail.com>  Date: Wed Apr 30 13:37:16 2014 -0400  ACL file has been cleaned  commit d0fb2450d7961d295fdd158d1550ad8b9cbacf5b  Author: Sungwook Kwon <swooki@gmail.com>  Date: Wed Apr 30 11:40:36 2014 -0400  Initial Commit for ICPCDMS  KWONS@JFS398323 /c/git/OFC-ICPCDMS (ACL)  $ |

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| Delete a remote branch | |
|  | $ git push COTS --delete <branch name> |