

Uso colaborativo de Git

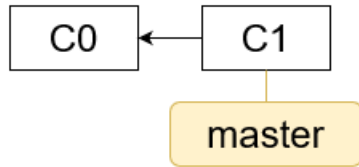
Objetivos

- Desarrollar una visión intuitiva sobre los comandos y funciones de *git*.
- Presentar el equivalente de dichos comandos en el entorno de desarrollo MPLAB X IDE.
- Poner en práctica lo aprendido en casos reales de uso.

Uso colaborativo de Git

Merge

Repositorio Remoto

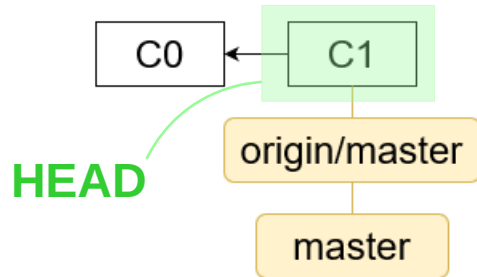
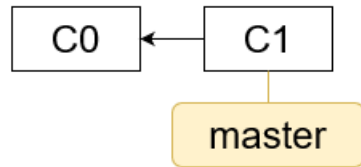


.....

Repositorio Local

git clone

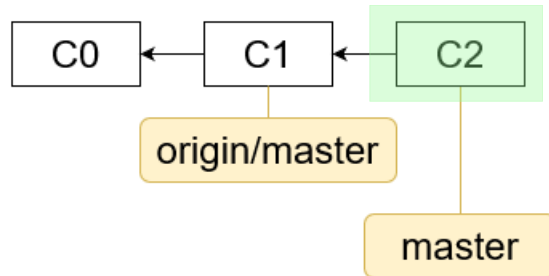
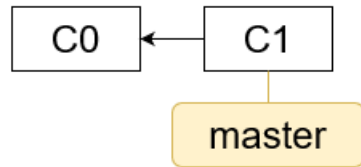
Repositorio Remoto



Repositorio Local

git commit

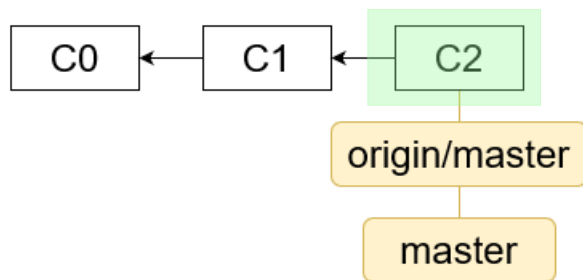
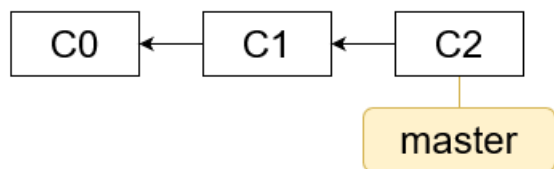
Repositorio Remoto



Repositorio Local

git push

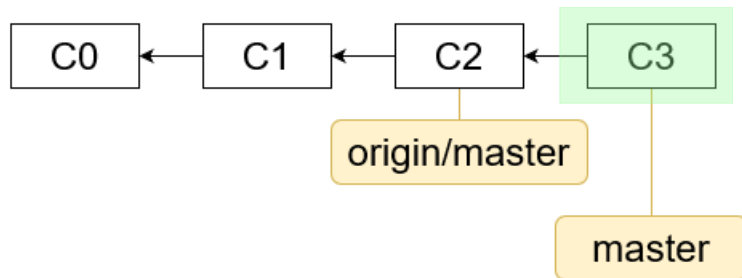
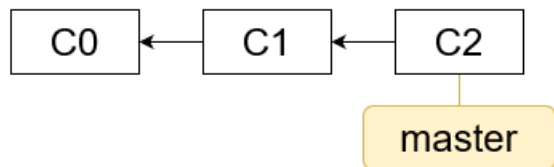
Repositorio Remoto



Repositorio Local

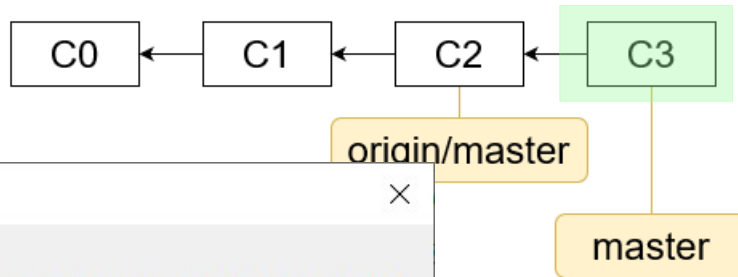
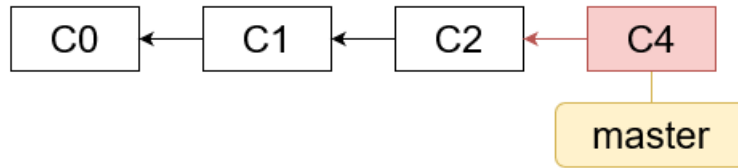
git commit

Repositorio Remoto



Repositorio Local

Repositorio Remoto



Git Push Failed



Remote repository contains commits unmerged into the local branch.
Do you want to pull the remote changes first?

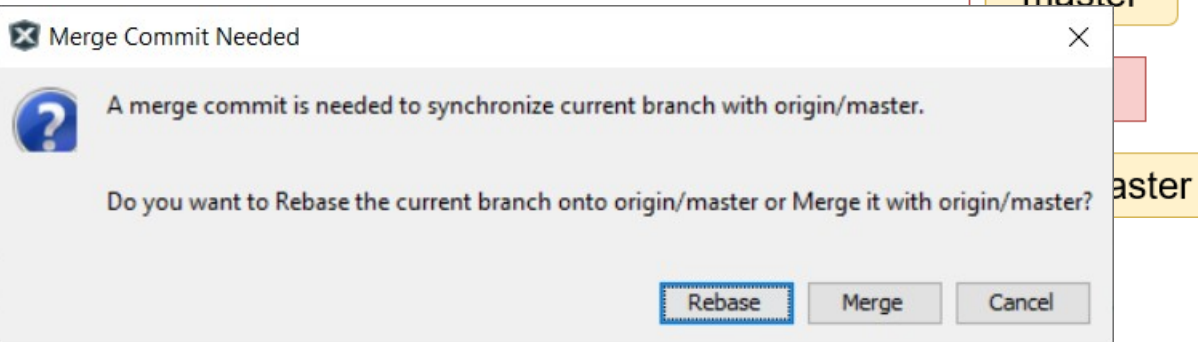
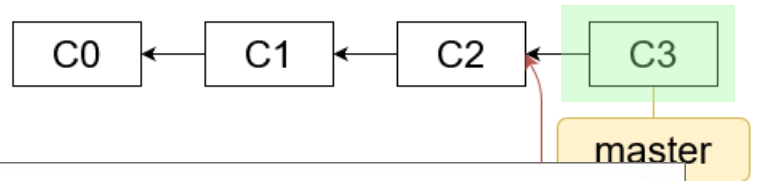
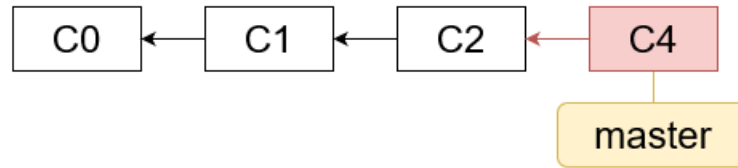
Pull Changes

Open Output

Cancel

git pull

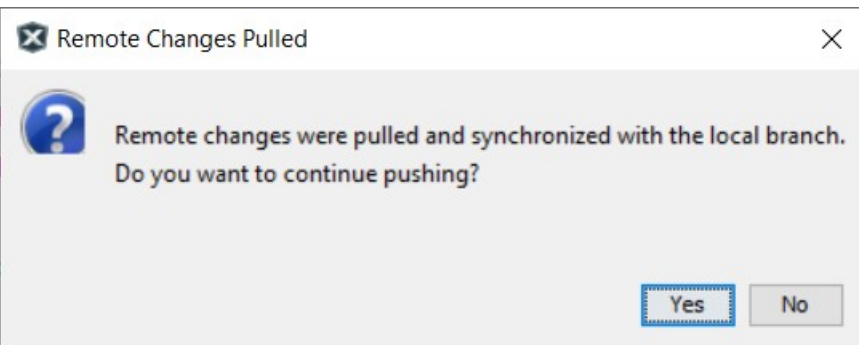
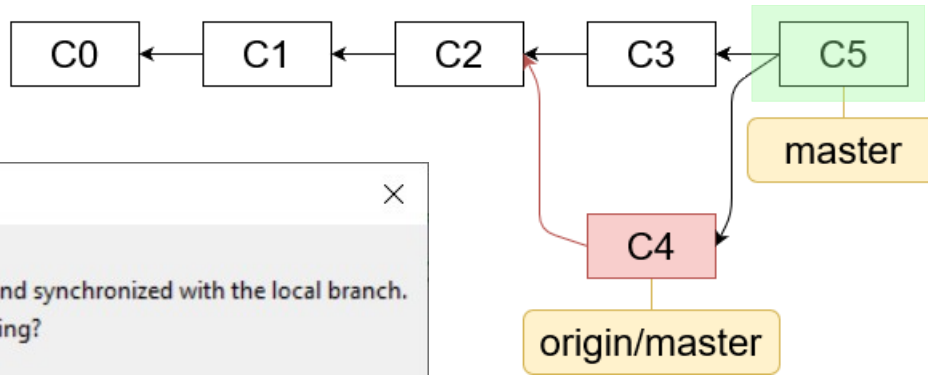
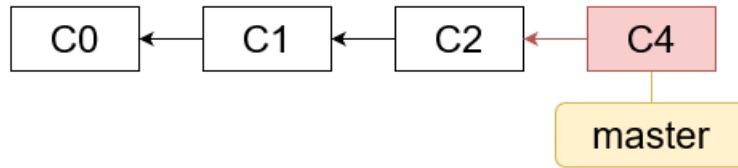
Repositorio Remoto



Si los cambios están en archivos distintos o en líneas distintas de código, el proceso es automático...

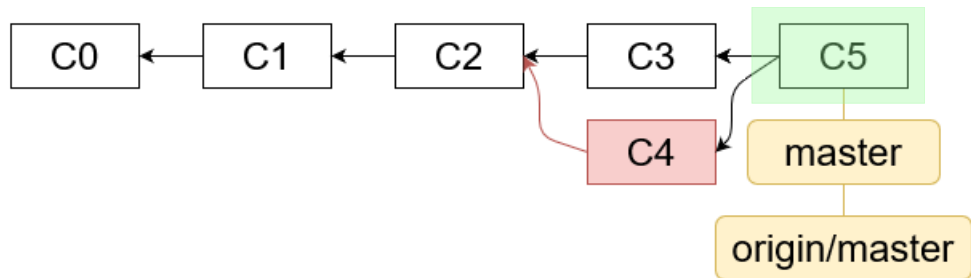
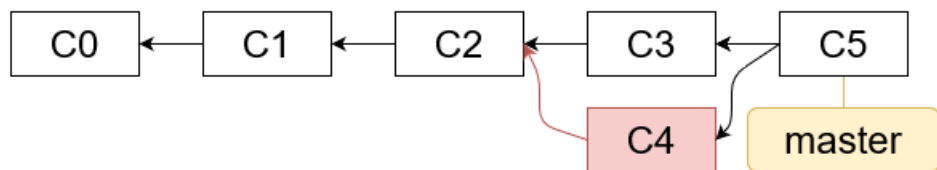
git merge

Repositorio Remoto



git push

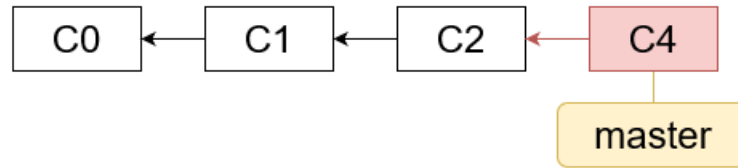
Repositorio Remoto



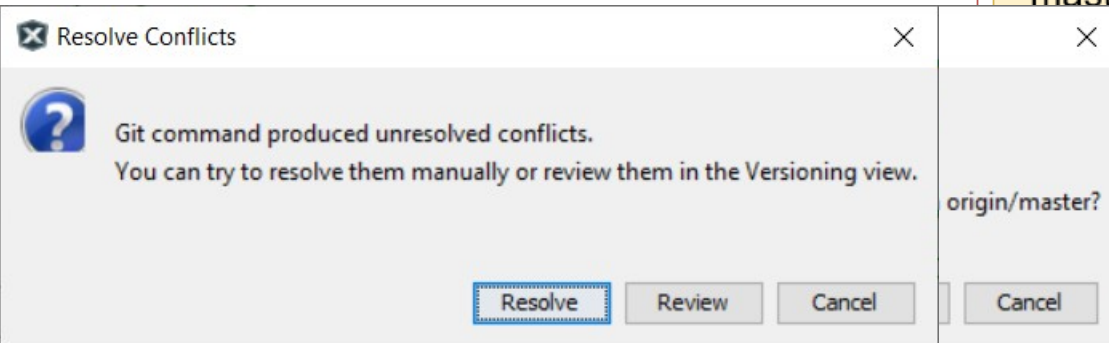
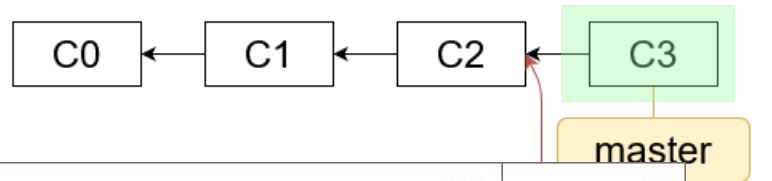
Repositorio Local

Volvamos a analizar el momento del *merge* si los cambios son en el mismo archivo...

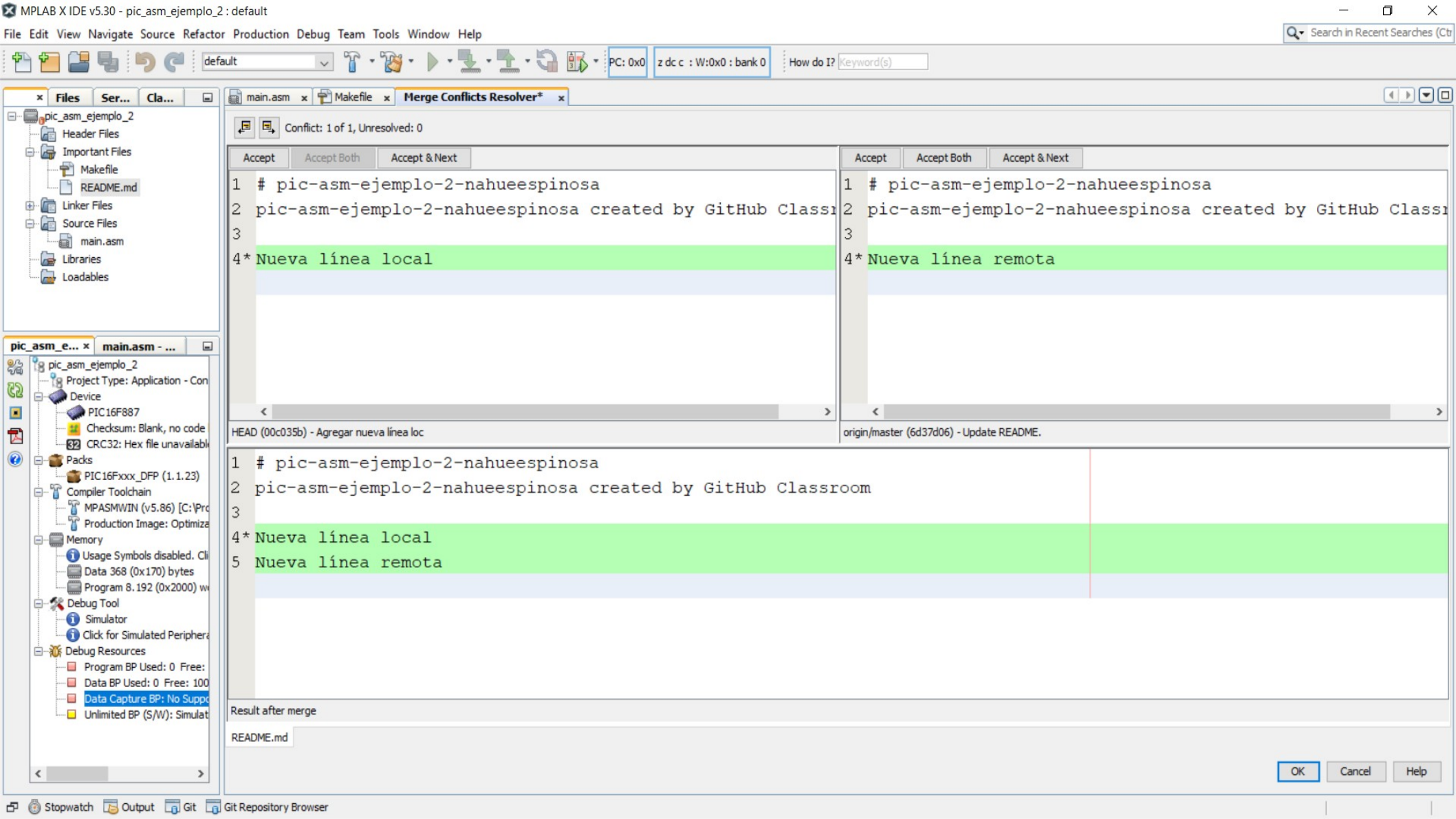
Repositorio Remoto



Si los cambios están en los mismos archivos y en las mismas líneas, el proceso es manual...



git merge



En este punto se mezclaron los cambios pero no se hizo el commit.

Es un buen momento para comprobar que el código sigue compilando sin errores y funciona como debería.

pic_asm_ejemplo_2

Header Files

Important Files

Makefile

README.md

Linker Files

Source Files

main.asm

Libraries

Loadables

pic_asm_ejemplo_2

Project Type: Application - Con

Device

PIC16F887

Checksum: Blank, no code

CRC32: Hex file unavailable

Packs

PIC16Fxxx_DFP (1.1.23)

Compiler Toolchain

MPASMWIN (v5.86) [C:\Pr

Production Image: Optimiz

Memory

Usage Symbols disabled. Cli

Data 368 (0x170) bytes

Program 8.192 (0x2000) w

Debug Tool

Simulator

Click for Simulated Peripher

Debug Resources

Program BP Used: 0 Free:

Data BP Used: 0 Free: 100

Data Capture BP: No Supp

Unlimited BP (S/W): Simulat

File Edit View Navigate Source Refactor Production Debug Team Tools Window Help

default

PC: 0x0 z dc c : W:0x0 : bank 0 How do I? Keyword(s)

Files Ser... Cla... main.asm x

Asm Source

1 ; **

2 ;

3 ;

4 ;

5 ;

6 ;

7 ;

8 ;

9 ;

10 ; **

11 #in

12

13 ; B

14

15

16

17 ; D

18

19

20

21 endc

22 ; *****

23 ; Inicio del programa *

24 ; *****

25 org 0x00 ; Vector de reset

26 nop

27

Show Changes

Diff

Add

Commit...

Checkout

Revert Modifications...

Show Annotations

Show History

Resolve Conflicts

Ignore

Patches

Branch/Tag

Remote

Revert/Recover

Repository

Shelve Changes

Disconnect...

Other VCS

History

Find Tasks...

Report Task...

Create Build Job...

hivo - main.asm

Espinosa

ama utiliza una subrutina para togglear el bit 7 de una

lamada "dato".

ombre y apellido en este encabezado.

simular el programa.

nc>

ción *****

ONFIG1, 0x20F1 ; FOSC = XT, WDTE = OFF, MCLRE = ON

ONFIG2, 0x3FFF

iables *****

20 ; Dirección de almacenamiento de datos

Inicio del programa

org 0x00 ; Vector de reset

nop

main

Stopwatch

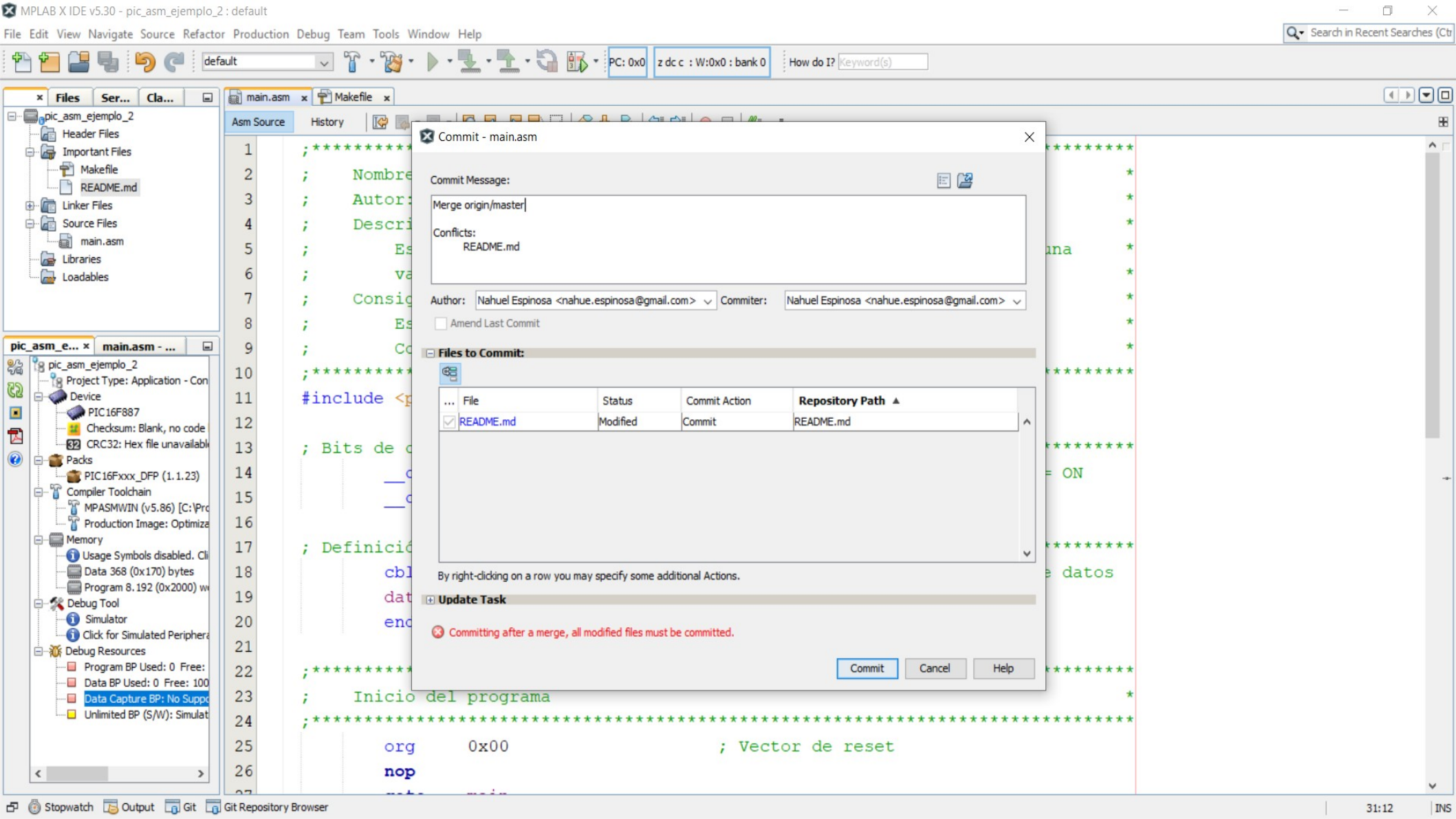
Output

Git

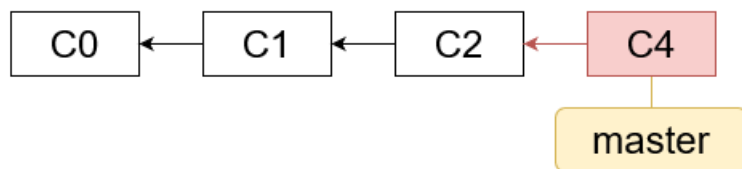
Git Repository Browser

31:12

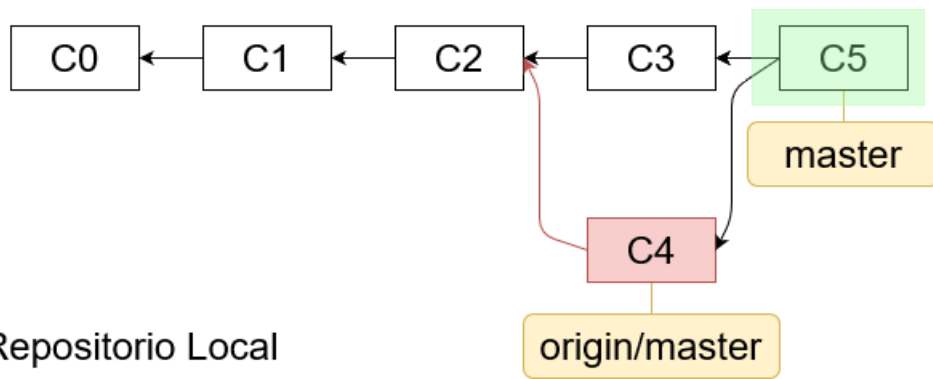
INS



Repositorio Remoto



.....



Repositorio Local

git push

MPLAB X IDE v5.30 - pic_asm_ejemplo_2 : default

File Edit View Navigate Source Refactor Production Debug Team Tools Window Help

default

Files Ser... Cla...

main.asm x

pic_asm_ejemplo_2

Header Files

Important Files

Makefile

README.md

Linker Files

Source Files

main.asm

Libraries

Loadables

pic_asm_e... x main.asm - ...

pic_asm_ejemplo_2

Project Type: Application - Con

Device

PIC16F887

Checksum: Blank, no code

CRC32: Hex file unavailable

Packs

PIC16Fxxx_DFP (1.1.23)

Compiler Toolchain

MPASMWIN (v5.86) [C:\Pro

Production Image: Optimiza

Memory

Usage Symbols disabled. Cli

Data 368 (0x170) bytes

Program 8.192 (0x2000) w

Debug Tool

Simulator

Click for Simulated Peripher

Debug Resources

Program BP Used: 0 Free:

Data BP Used: 0 Free: 100

Data Capture BP: No Supp

Unlimited BP (S/W): Simulat

Asm Source

Histo

1 ; **

2 ;

3 ;

4 ;

5 ;

6 ;

7 ;

8 ;

9 ;

10 ; **

11 #in

12

13 ; B

14

15

16

17 ; D

18

19

20

21 endc

22 ; *****

23 ; Inicio del programa *

24 ; *****

25 org 0x00 ; Vector de reset

26 nop

27

Team

Show Changes

Diff

Add

Commit...

Checkout

Revert Modifications...

Show Annotations

Show History

Resolve Conflicts

Ignore

Patches

Branch/Tag

Remote

Revert/Recover

Repository

Shelve Changes

Disconnect...

Other VCS

History

Find Tasks...

Report Task...

Create Build Job...

Clone...

Fetch from Upstream

Fetch...

Pull from Upstream

Pull...

Push to Upstream

Push...

Show Incoming

Show Outgoing

PC: 0x0 z dc c : W:0x0 : bank 0

How do I? Keyword(s)

hivo - main.asm *

Espinosa *

ama utiliza una subrutina para togglear el bit 7 de una *

lamada "dato". *

ombre y apellido en este encabezado. *

ograma. *

; FOSC = XT, WDTE = OFF, MCLRE = ON

; Dirección de almacenamiento de datos

Inicio del programa *

org 0x00 ; Vector de reset

nop

main

Stopwatch

Output

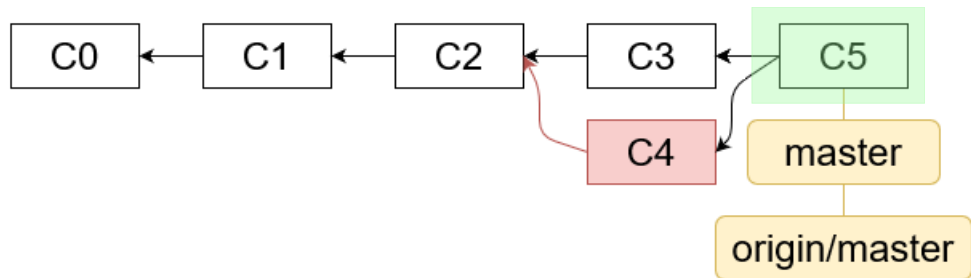
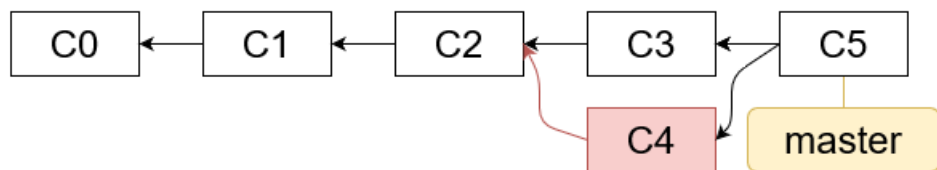
Git

Git Repository Browser

31:12

INS

Repositorio Remoto



Repositorio Local

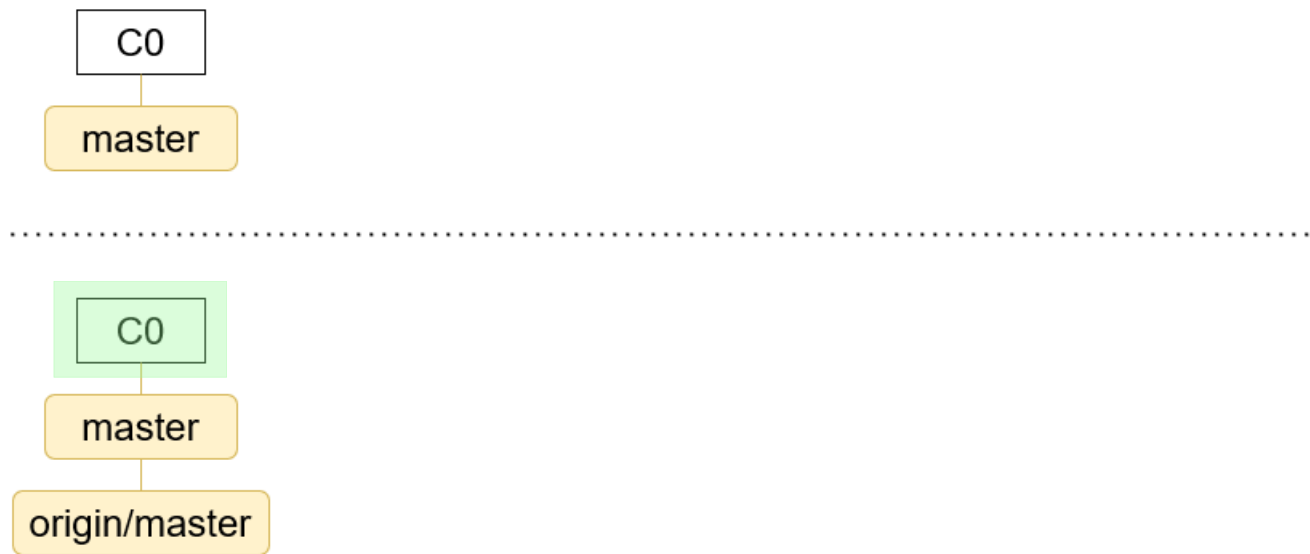
Uso colaborativo de Git

Branches

git checkout develop



Repositorio Remoto



Repositorio Local

File

Edit

View

Navigate

Source

Refactor

Production

Debug

Team

Tools

Window

Help

Search in Recent Searches (Ctrl+K)

default

main.asm

pic_asm_ejemplo_2

Header Files

Important Files

Makefile

README.md

Linker Files

Source Files

main.asm

Libraries

Loadables

pic_asm_ejemplo_2

Project Type: Application - Con...

Device

PIC16F887

Checksum: Blank, no code

CRC32: Hex file unavailable

Packs

PIC16Fxxx_DFP (1.1.23)

Compiler Toolchain

MPASMWIN (v5.86) [C:\Prc...

Production Image: Optimiza...

Memory

Usage Symbols disabled. Cl...

Data 368 (0x170) bytes

Program 8.192 (0x2000) w...

Debug Tool

Simulator

Click for Simulated Periph...

Debug Resources

Program BP Used: 0 Free:

Data BP Used: 0 Free: 100

Data Capture BP: No Supp...

Unlimited BP (S/W): Simulat...

Show Changes

Diff

Add

Commit...

Checkout

Revert Modifications...

Show Annotations

Show History

Resolve Conflicts

Ignore

Patches

Branch/Tag

Remote

Revert/Recover

Repository

Shelve Changes

Disconnect...

Other VCS

History

Find Tasks...

Report Task...

Create Build Job...

Create Branch...

Switch To Branch...

Set Tracked Branch...

Create Tag...

Manage Tags...

Merge Revision...

Rebase...

Cherry Pick...

PC: 0x0

z dc c : W:0x0 : bank 0

How do I?

nc>

ción *****

ONFIG1, 0x20F1 ; FOSC = XT, WDTE = OFF, MCLRE = ON

ONFIG2, 0x3FFF

iables *****

; Dirección de almacenamiento de datos

; Vector de reset

n

- main *****

main nop ; No hay nada que inicializar

nop

main_loop

call toggle_bit ; Llamo a una subrutina

goto main_loop ; Super loop

; Subrutina - toggle bit *****

Stopwatch

Output

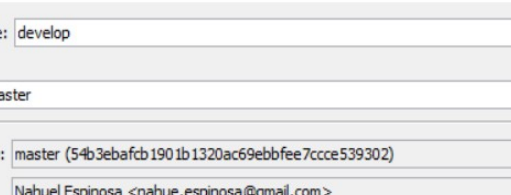
Git

24:77

INS

main.asm x Makefile x README.md x

Asm Source History

[illegible]

Create Branch

Branch Name:

Revision: Select

Commit ID:

Author:

Message:

Conflicts:

- README.md

☒ Checkout Created Branch

Create Cancel Help

git commit



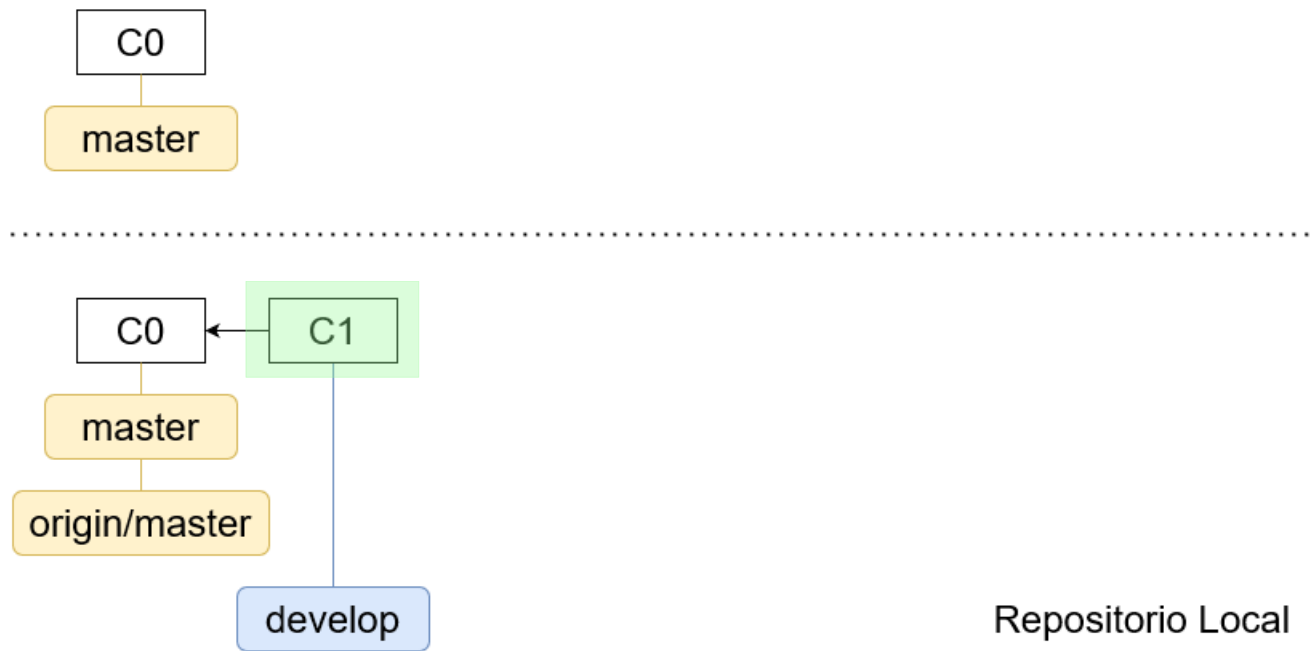
Repositorio Remoto



git commit



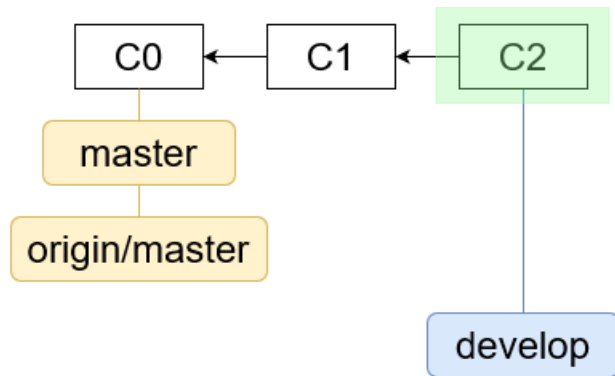
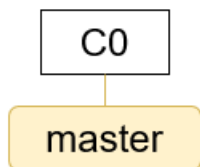
Repositorio Remoto



Repositorio Local



Repositorio Remoto

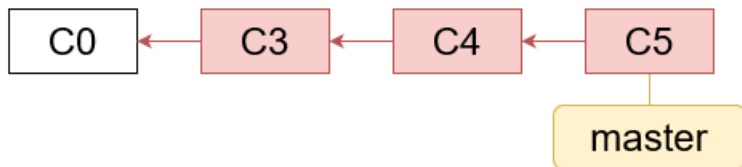


Repositorio Local

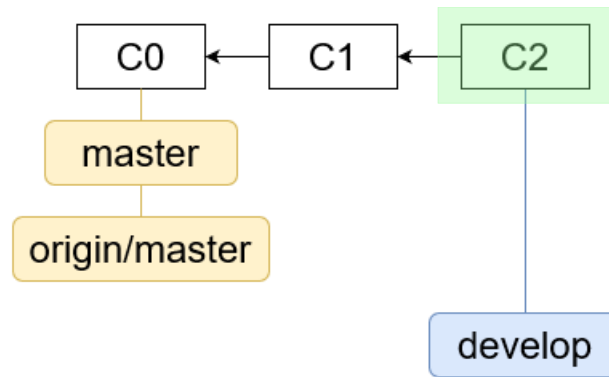
git checkout master



Repositorio Remoto



.....

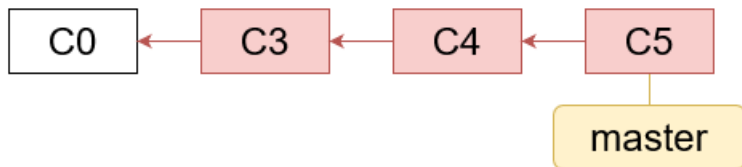


Repositorio Local

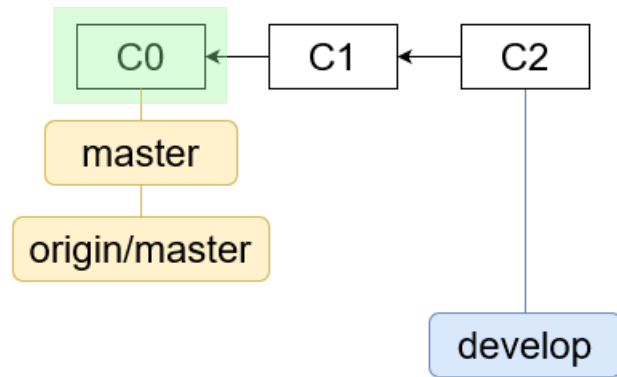
git pull



Repositorio Remoto



.....

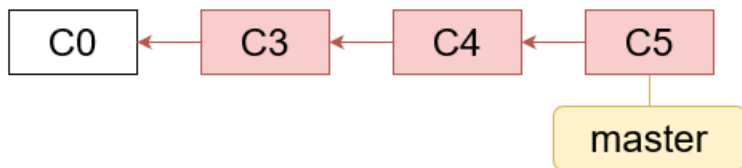


Repositorio Local

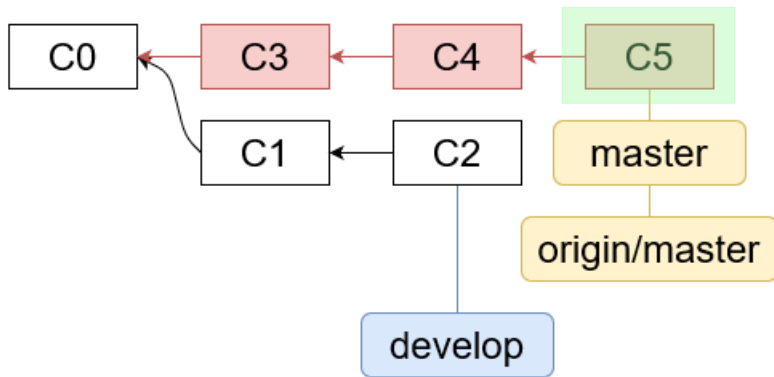
git merge



Repositorio Remoto



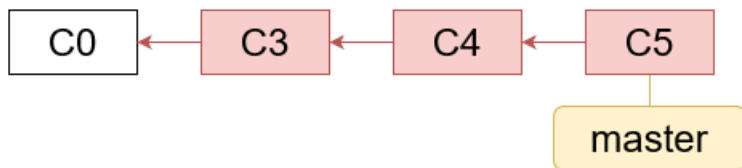
.....



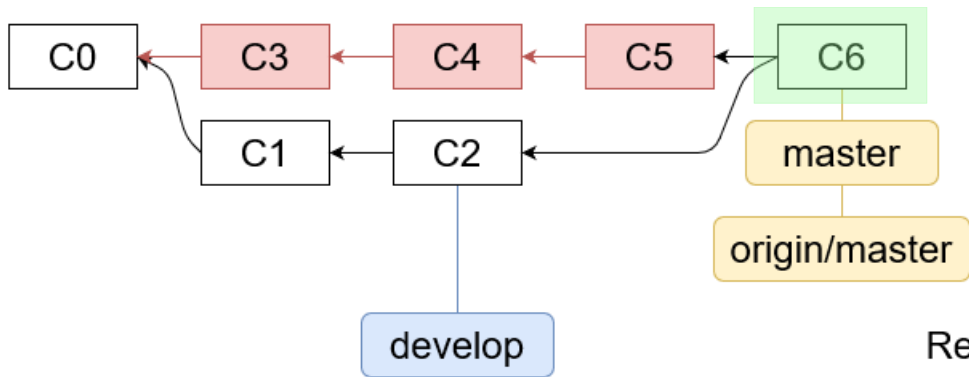
Repositorio Local



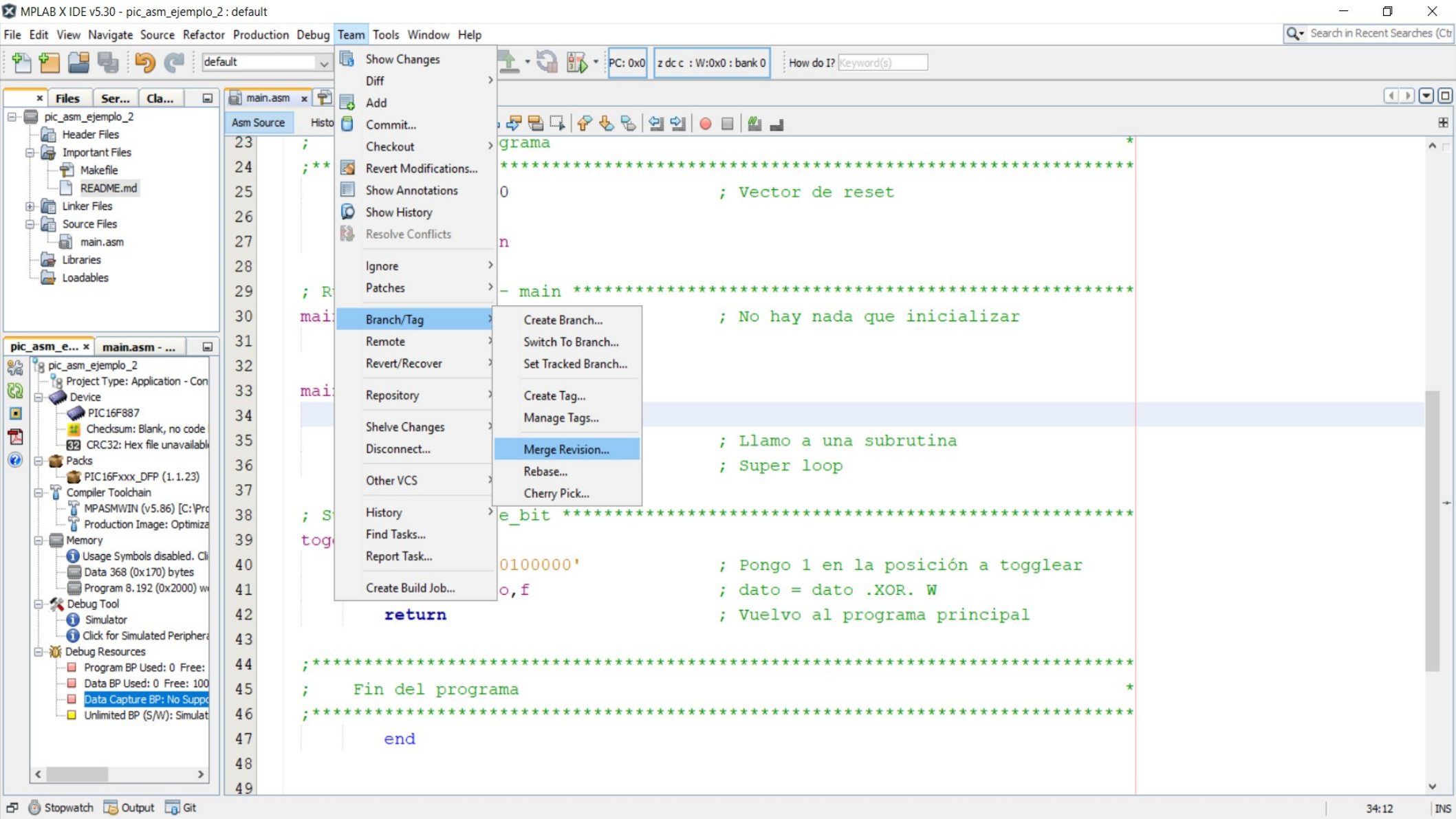
Repositorio Remoto

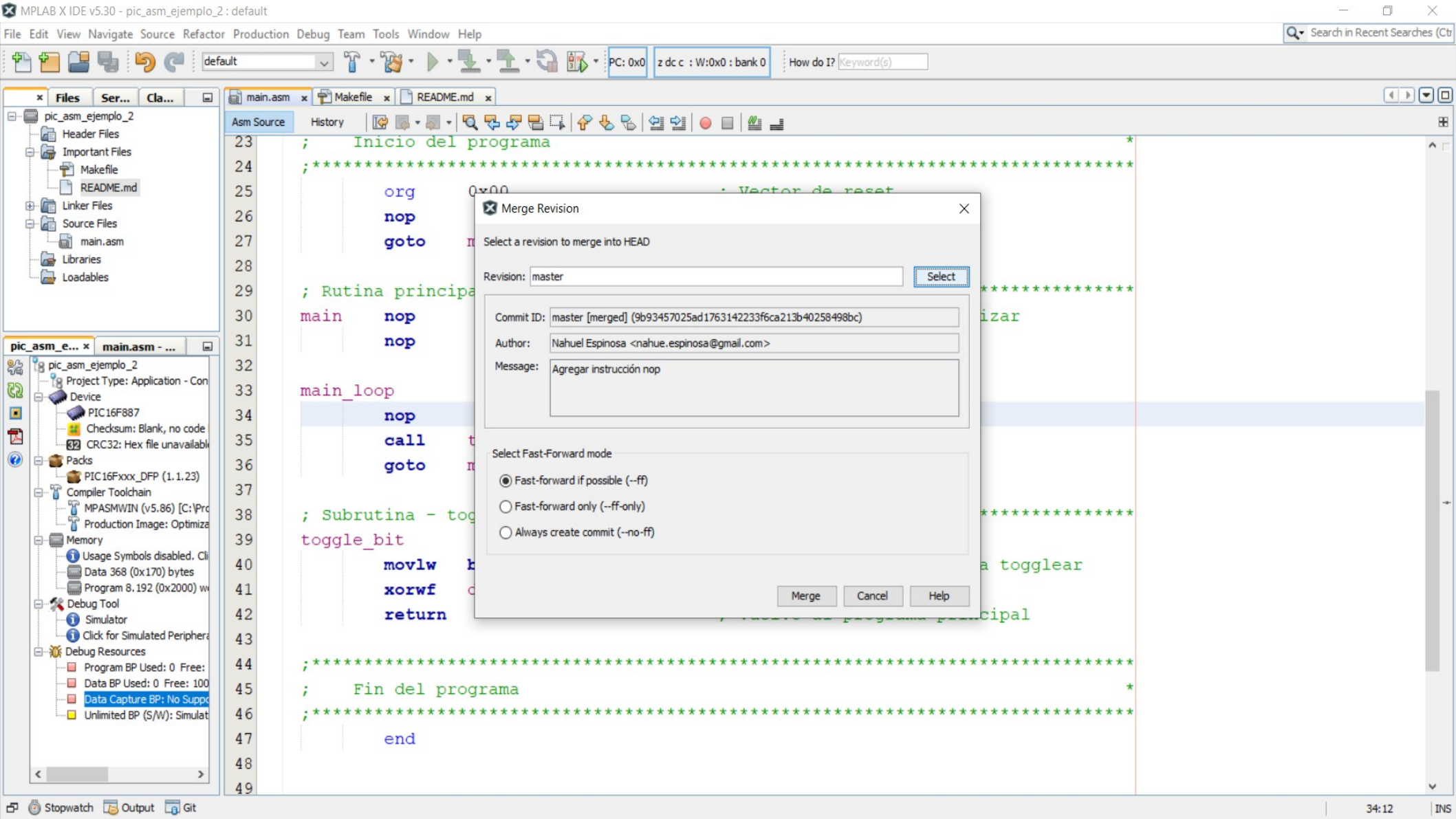


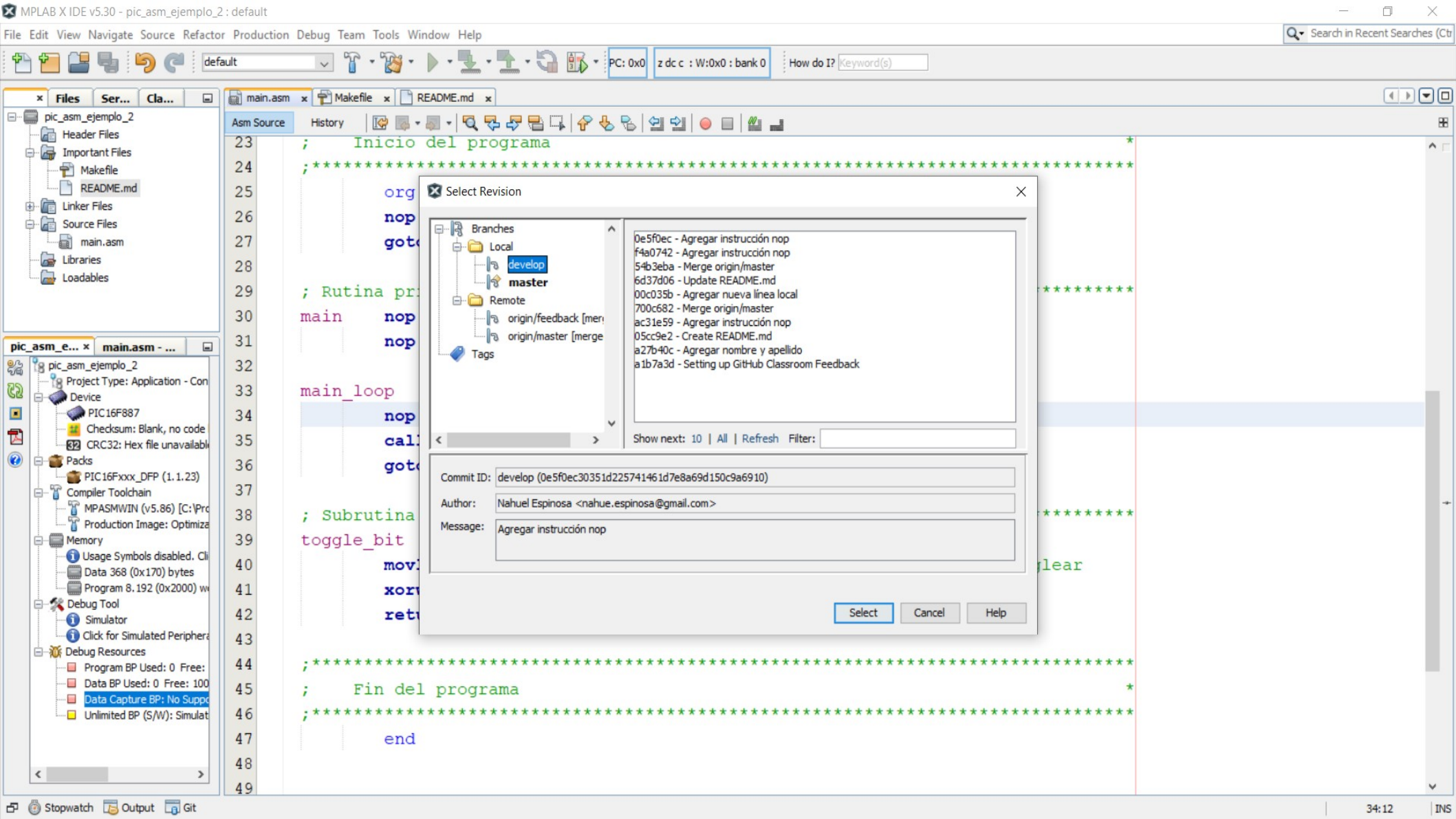
.....

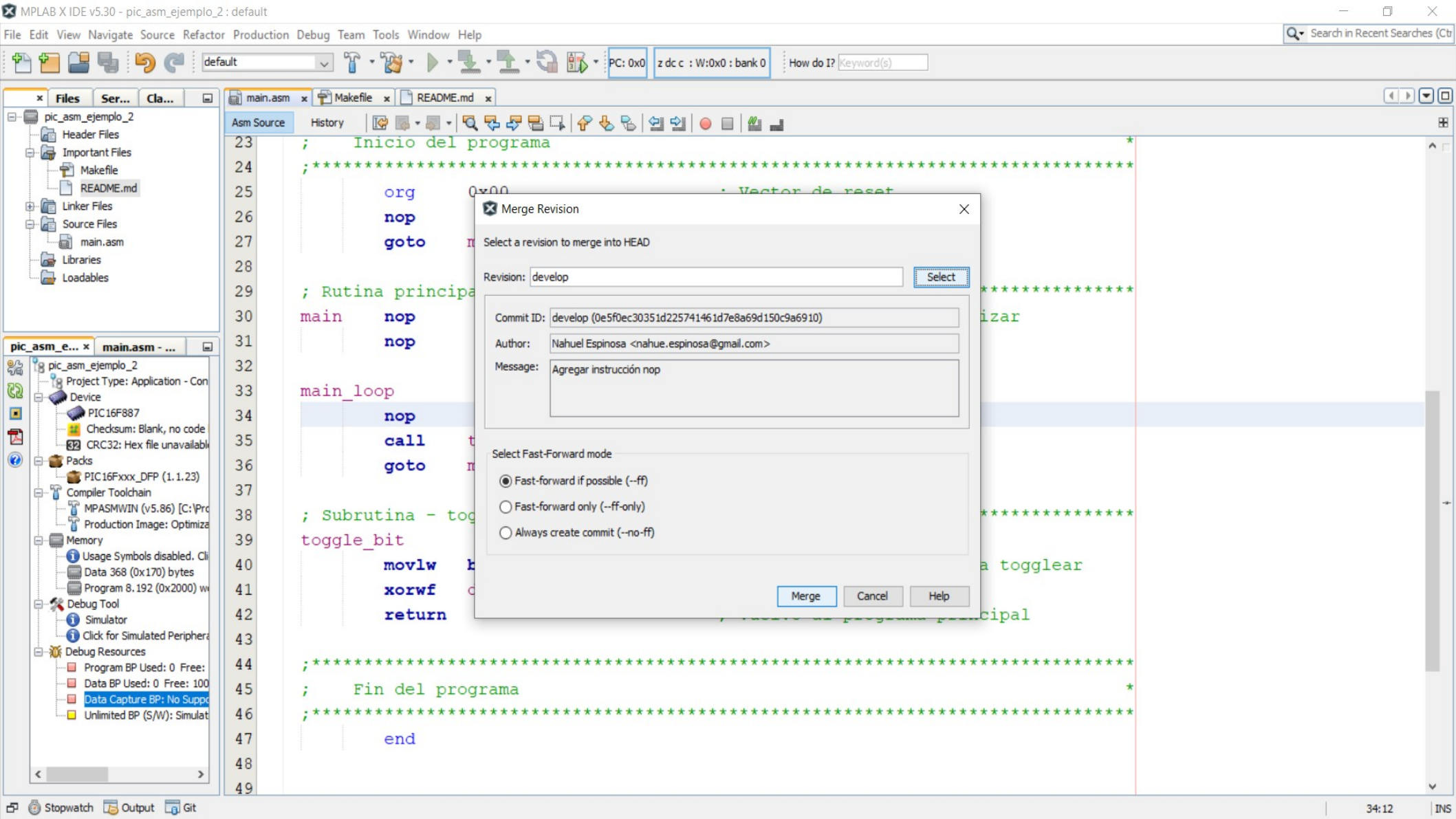


Repositorio Local









Recomendaciones

- Trabajar en archivos distintos.
- Actualizar frecuentemente el repositorio local (pull).
- Trabajar en una rama local (develop).
- Siempre verificar en qué rama se está trabajando.