


## STEPS TO REGISTER A NEW MODEL

- ❑ The owner of the model creates an account on the WIMEX website <https://wimex-webui.earthconsole.eu/> and then login
- ❑ The owner of the model creates the request for a new model registration on the WIMEX website [https://wimex-webui.earthconsole.eu/request\\_registration/](https://wimex-webui.earthconsole.eu/request_registration/) providing all the necessary information
- ❑ Once the request is accepted by ESA, the WIMEX administrator creates on GitLab (<https://gitlab.earthconsole.eu/>) a new project dedicated to the new model



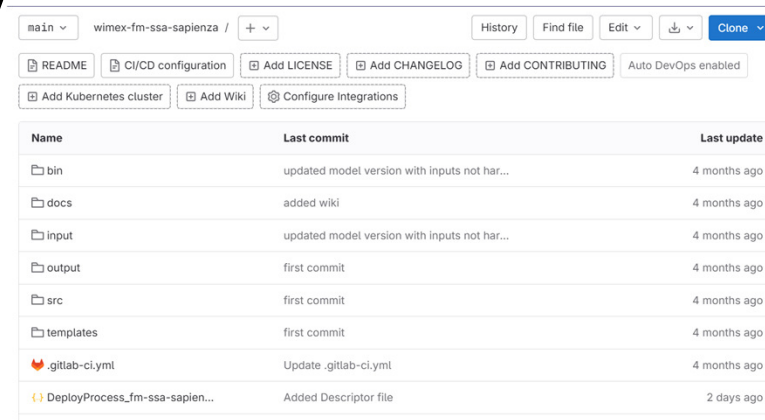
The image shows a registration form for WIMEX. At the top, it says "Register" with a small red asterisk and the text "Required fields". Below this is the WIMEX logo, which consists of a green square with a white waveform and the text "WIMEX" in green, with "eo" in smaller green letters below it. The form contains several input fields: "Email \*" with a red asterisk, "Password \*" with a red asterisk and an eye icon, "Confirm password \*" with a red asterisk and an eye icon, "First name \*" with a red asterisk, "Last name \*" with a red asterisk, and "Affiliation \*" with a red asterisk. At the bottom left, there is a link "Back to Login" with a left arrow. At the bottom right, there is a green button labeled "Register".

## STEPS TO REGISTER A NEW MODEL

- ❑ The owner of the model upload on the model repository the code, the list of requirements, input and output examples, model documents and at least the Dockerfile. He/she can contribute to the creation of the Descriptor file of the model providing information on the input and output parameters of the model.

**NOTE: The uploaded code shall follow some basic guidelines:**

- To be executable in batch mode (not interactive mode such to require the user to enter inputs)
- To have input and output path as input/variable parameters
- To be compiled on a Linux machine, if written in MATLAB

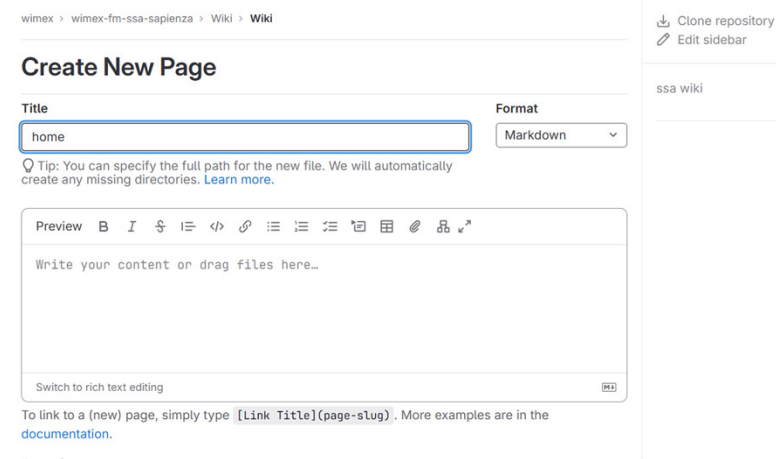


The screenshot shows the GitLab web interface for a repository named 'wimex-fm-ssa-sapienza'. At the top, there are navigation links for 'main', 'wimex-fm-ssa-sapienza /', and a dropdown menu. Below this, there are buttons for 'README', 'CI/CD configuration', 'Add LICENSE', 'Add CHANGELOG', 'Add CONTRIBUTING', and 'Auto DevOps enabled'. There are also buttons for 'Add Kubernetes cluster', 'Add Wiki', and 'Configure Integrations'. The main content area is a table with three columns: 'Name', 'Last commit', and 'Last update'. The table lists several files and folders, including 'bin', 'docs', 'input', 'output', 'src', 'templates', '.gitlab-ci.yml', and 'DeployProcess\_fm-ssa-sapien...'. The 'Last commit' column shows the commit message for each file, and the 'Last update' column shows the time since the last update.

Name	Last commit	Last update
bin	updated model version with inputs not har...	4 months ago
docs	added wiki	4 months ago
input	updated model version with inputs not har...	4 months ago
output	first commit	4 months ago
src	first commit	4 months ago
templates	first commit	4 months ago
.gitlab-ci.yml	Update .gitlab-ci.yml	4 months ago
DeployProcess_fm-ssa-sapien...	Added Descriptor file	2 days ago

## STEPS TO REGISTER A NEW MODEL

- To be organized in folders predefined and common to all the WIMEX models
  - To be uploaded with a Dockerfile
  - To be tested previously locally as docker container
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- ☐ The owner of the model creates one or more WIKI pages with relevant information about the model
  - ☐ The administrator upload on the repository a file with basic instructions that creates automatically a Docker image every time a major release of the model will be uploaded
  - ☐ The administrator creates the Descriptor file of the model




## STEPS TO REGISTER A NEW MODEL

- ❑ The administrator register the model and tests it on the Framework using the inputs and outputs provided by the owner of the model
- ❑ The owner of the model validates the outputs
- ❑ The administrator creates a page on the website dedicated to the model
- ❑ The owner access the page dedicated to the model and execute the model

← MODEL CATALOGUE

### Snow2Phase



The Forward Model for Snow Phase Signature simulates the observed phase change due to snow changes between the InSAR pairs using the model proposed by Guneriusen et al 2001. The model is based on the increase in the optical path and travel time in presence of snow, as snow has a higher permittivity than air. The model requires the following inputs: sensor location, sensor central frequency, DEM and, alternatively, Snow Depth change and Snow Density or Snow Water Equivalent (SWE) change. This module produces a map with the simulated interferometric phase. Furthermore, an analysis of the phase sensitivity is presented.

[Request Access](#)

[Request LUT/Datacubes Access](#)

[How to run the model](#)

**Models' Description** ▾

**Lookup Tables/Datacubes' Description** ▾

**Acronyms** ▾

**References** ▾

**TYPOLOGY**  
Forward Models

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The WIMEX-eo platform is operated by Progressive Systems | Privacy Policy | Terms of Use.

## EXPECTED ACTIONS FROM THE SCIENTIFIC PARTNERS

- ❑ The owner of the model creates an account on the WIMEX website <https://wimex-webui.earthconsole.eu/> clicking on 'Login to My WIMEX-eo and then 'Register'.  
The owner will receive an email to verify his/her email address.  
Clicking on the link inside the email, he/she will be redirected to the WIMEX website.

The screenshot displays the WIMEX website interface. At the top right, a red box labeled '1' highlights the 'Log in to My WIMEX-eo' button. Below this, the 'Sign in to your account' form is shown, featuring fields for 'Email' and 'Password', a 'Remember me' checkbox, a 'Forgot Password?' link, and a green 'Sign in' button. A red box labeled '2' highlights the 'Register' link at the bottom of the sign-in form. To the right, the 'Register' form is visible, with fields for 'Email', 'Password', 'Confirm password', 'First name', 'Last name', and 'Affiliation'. A red box labeled '3' highlights the green 'Register' button at the bottom of the registration form.

## EXPECTED ACTIONS FROM THE SCIENTIFIC PARTNERS

- ❑ The owner of the model enters in the GitLab Repository

The screenshot displays the WIMEX-eo GitLab Repository interface. On the left is a sidebar with the WIMEX-eo logo and navigation links: 'My WIMEX-eo', 'MODEL WORKSPACE' (containing 'Run Model', 'Access GitLab', 'Register Model', and 'Develop Model'), 'ACCOUNT & SUPPORT' (containing 'Manage Account', 'Take Survey', and 'Help'). The main content area features a dark header with the text 'Hello test test , welcome to WIMEX-eo!'. Below this is a large dark banner with the title 'Gitlab Repository'. Three action buttons are visible: 'Request Gitlab Access', 'Go to Gitlab Repository' (highlighted in green), and 'Download Guidelines'. A text block explains that the GitLab repository serves as the central location for managing and versioning model software and documentation. Below this is a section titled 'KEY FEATURES' with a sub-header 'CREATE AND MANAGE BRANCHES', which describes how new branches can be created via command line or the GitLab web interface.

WIMEX<sub>eo</sub>

My WIMEX-eo

MODEL  
WORKSPACE

- Run Model
- Access GitLab
- Register Model
- Develop Model

ACCOUNT &  
SUPPORT

- Manage Account
- Take Survey
- Help

Hello **test test** , welcome to WIMEX-eo!

### Gitlab Repository

- Request Gitlab Access
- Go to Gitlab Repository
- Download Guidelines

The GitLab repository within the WIMEX-eo framework serves as the central location for managing and versioning model software and associated documentation. It enables efficient handling of model updates, releases and a collaborative environment.

#### KEY FEATURES

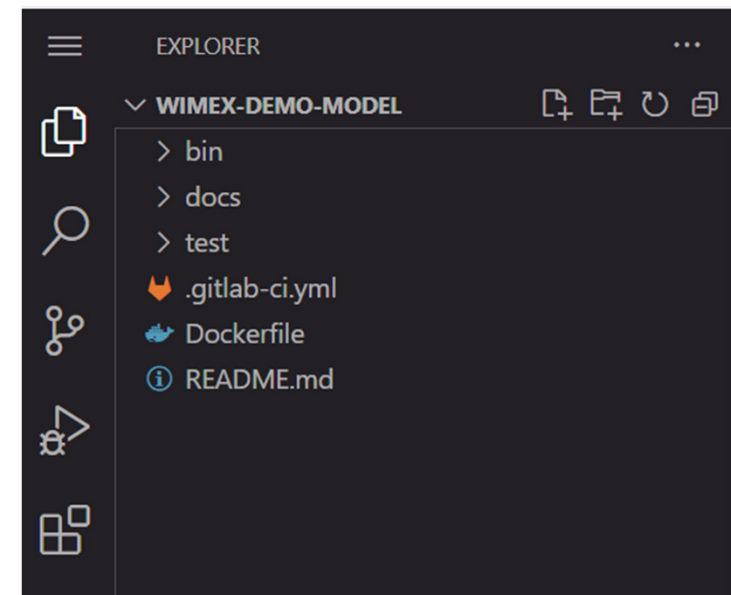
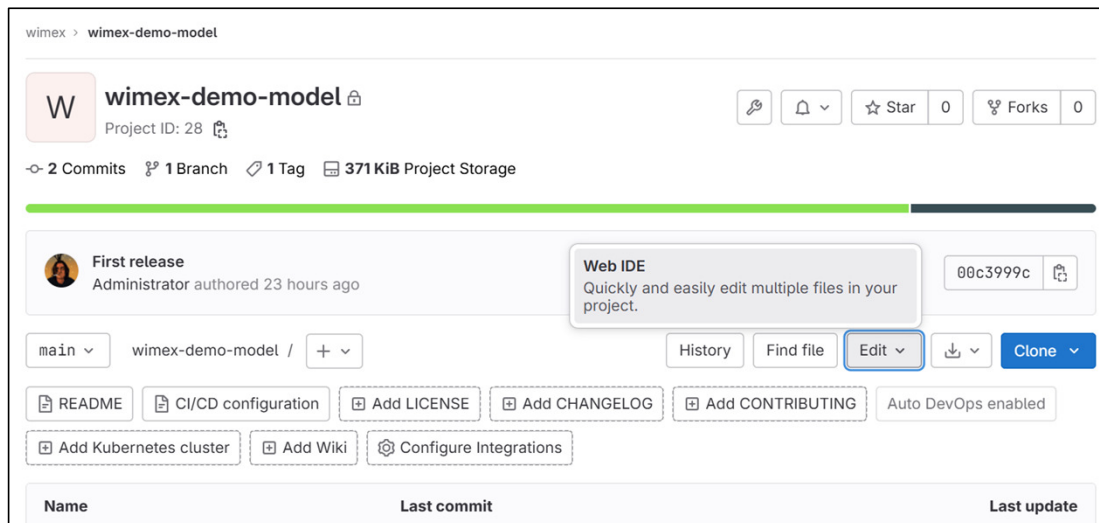
##### CREATE AND MANAGE BRANCHES

You can create new branches either through the command line or the GitLab web interface. This allows you to work on new features or changes without affecting the main (master) version of the model.

## EXPECTED ACTIONS FROM THE SCIENTIFIC PARTNERS

- ❑ The owner of the model enters in the WEB IDE and uploads on the model repository the code, the list of requirements, input and output examples, model documents and at least the Dockerfile.

He/she can contribute to the creation of the Descriptor file of the model providing information on the input and output parameters of the model.



## EXPECTED ACTIONS FROM THE SCIENTIFIC PARTNERS

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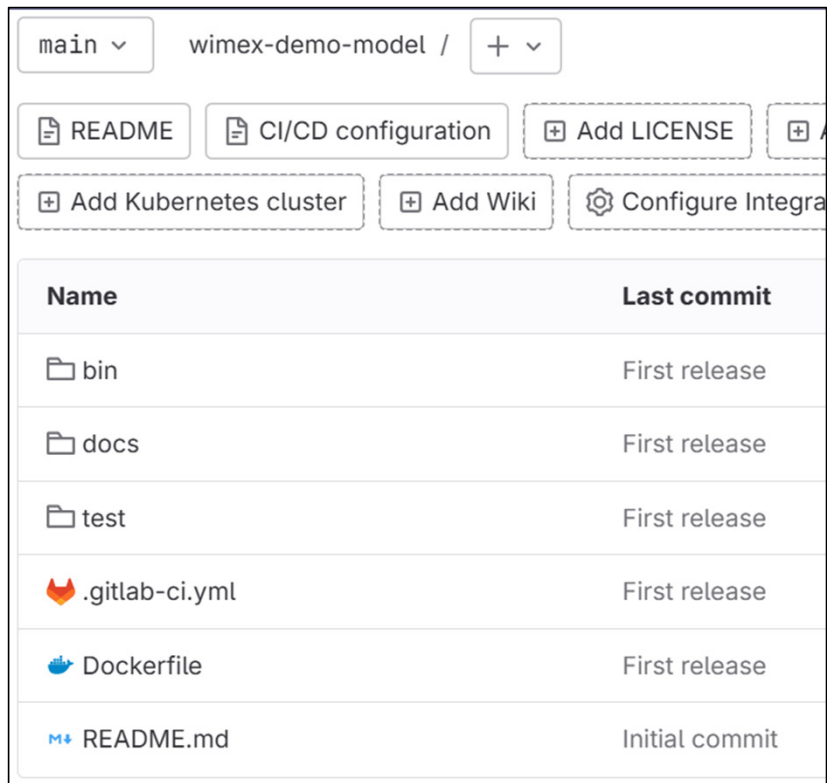
❑ **NOTE: The uploaded code shall follow some basic guidelines:**

- To be executable in batch mode (not interactive mode such to require the user to enter inputs)
- To have input and output path as input/variable parameters
- To be compiled on a Linux machine, if written in MATLAB
- To be organized in folders predefined and common to all the WIMEX models
- To be uploaded with a Dockerfile
- To be tested previously locally as docker container



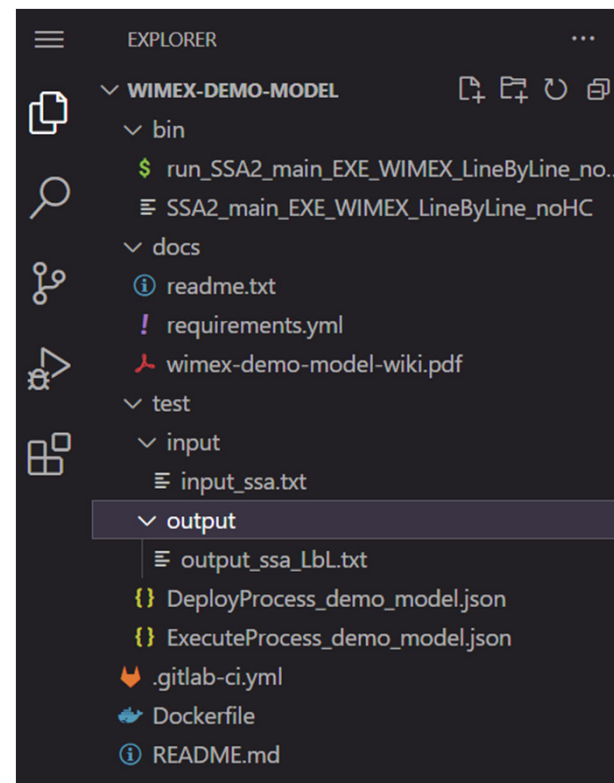
## EXPECTED ACTIONS FROM THE SCIENTIFIC PARTNERS

### ❑ Example of folders structure



The screenshot shows the GitLab interface for the 'wimex-demo-model' repository. At the top, there are buttons for 'README', 'CI/CD configuration', 'Add LICENSE', 'Add Kubernetes cluster', 'Add Wiki', and 'Configure Integrations'. Below these is a table listing the repository's structure and commit history.



Name	Last commit
bin	First release
docs	First release
test	First release
.gitlab-ci.yml	First release
Dockerfile	First release
README.md	Initial commit






❑ NOTE: normally it is expected to have also the 'src' folder with the source code not compiled

## EXPECTED ACTIONS FROM THE SCIENTIFIC PARTNERS

### ❑ Example of Dockefile for a model written in MATLAB

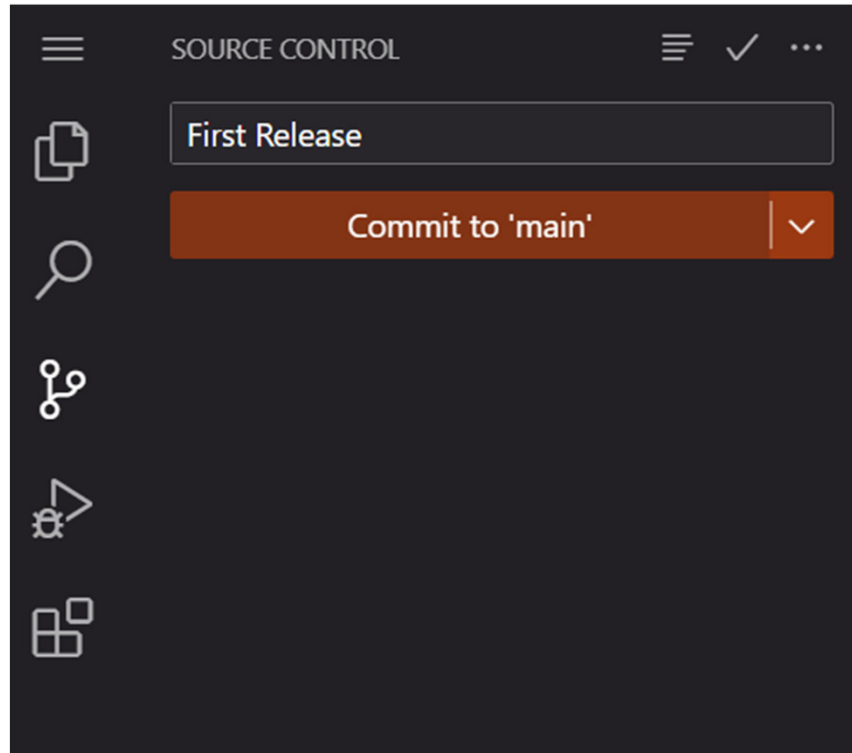
 **Dockerfile**  231 B

Edit ▾ Replace Delete   

```
1 FROM containers.mathworks.com/matlab-runtime:r2023b
2 # RUN mkdir -p /app
3 WORKDIR /app
4 COPY . /app
5
6 ENV AGREE_TO_MATLAB_RUNTIME_LICENSE=yes
7
8 ENTRYPOINT ["/app/run_SSA2_main_EXE_WIMEX_LineByLine_noHC.sh", "/opt/matlabruntime/R2023b"]
9
```

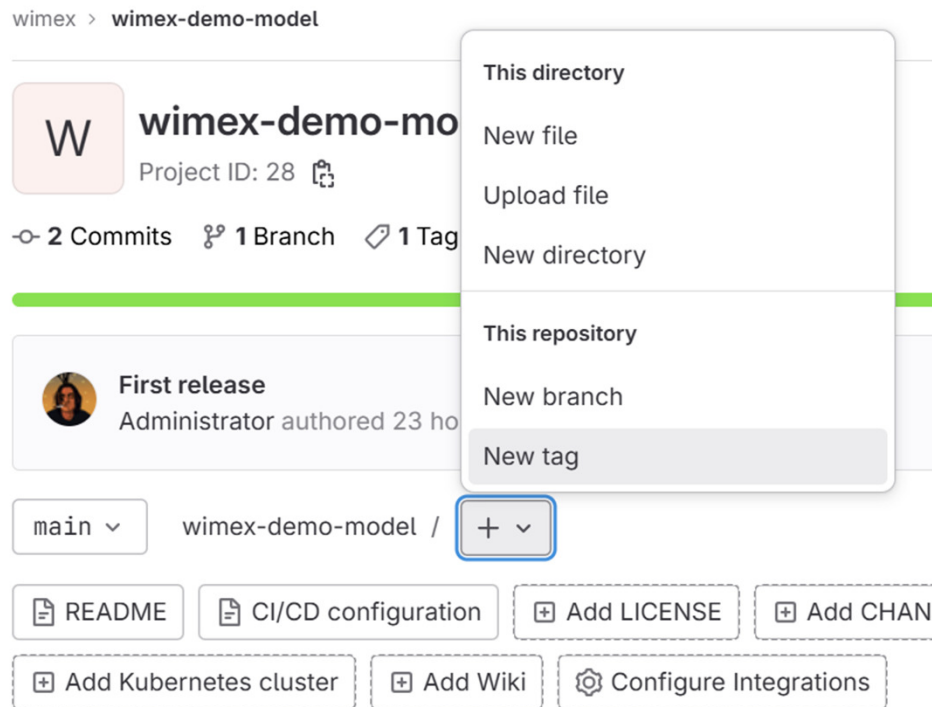
## EXPECTED ACTIONS FROM THE SCIENTIFIC PARTNERS

- ❑ The owner commits the changes in the repository inserting a message like 'First release'.



## EXPECTED ACTIONS FROM THE SCIENTIFIC PARTNERS

- ❑ The owner creates a tag for the commit. For example '1.0.0'



- ❑ This will trigger the automatic creation of the Docker image into the Container Registry

## EXPECTED ACTIONS FROM THE SCIENTIFIC PARTNERS

- ❑ The owner of the model creates one or more WIKI pages with relevant information about the model

