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Validation d'un Système Drone

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A close-up photograph of a person's feet in denim jeans and brown boots walking on a paved road. The person's right foot is stepping on a white plastic bag, which is being crushed under the boot. The background is blurred, showing a road and some greenery. The text is overlaid on the image in a bold, dark green font.

**La mise au point des exigences
nécessite des aller/retour**

A close-up photograph of a person's feet stepping on a crack in a paved road. The person is wearing dark jeans and brown leather boots. The boot on the left is captured mid-step, with the sole tearing through the asphalt crack, revealing a white, fibrous material underneath. The background is a blurred outdoor setting with a road and some greenery.

**Les incohérences entre le
code et les exigences sont
découvertes tard**



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An aerial, grayscale photograph of a snow-covered mountain slope. The terrain is marked with winding tracks and ridges. In the lower right foreground, a snowboarder is captured in motion, kicking up a cloud of snow. The overall scene conveys a sense of vastness and movement in a winter sports environment.

HEXO +

Freedom of Movement

It follows !



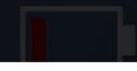
Scénario Batterie Faible



Seuil des 10%



10%



16:54



Low Battery!

There's only 10% battery left.
Where do you want to land?



Land at takeoff
position



Land here



Come above me



Seuil des 5%



Low Battery!

There's no battery left.
HEXO+ will land here in 10 seconds

OK, land here

Exigence Stimulus 1



Requirement 1

From `batteryLevel < 10` , pulse `batteryUnder10Percent`

From `requestReturnToLaunch` , pulse `returnToLaunch`

From `requestComeToMe` , pulse `comeToMe`

From `requestLand` , pulse `land`

Exigence Stimulus 2



Requirement 2

```
From batteryLevel < 5 , pulse batteryUnder5Percent  
pulse land
```

A close-up photograph of a person's feet on a paved surface. The person is wearing dark denim jeans and brown leather cowboy boots. The left boot is lifted, revealing a sharp metal nail protruding from the sole of the shoe. The right boot is planted on the ground. The background is a blurred outdoor setting with a road and some foliage.

Problème ?

Environnement



La batterie diminue



Batterie en Stimulus



Battery Behaviour

$\left(\text{derivative of } \text{batteryLevel} \right)$ is inside range [-0.5 [1 / second] , 0 [1 / second]]

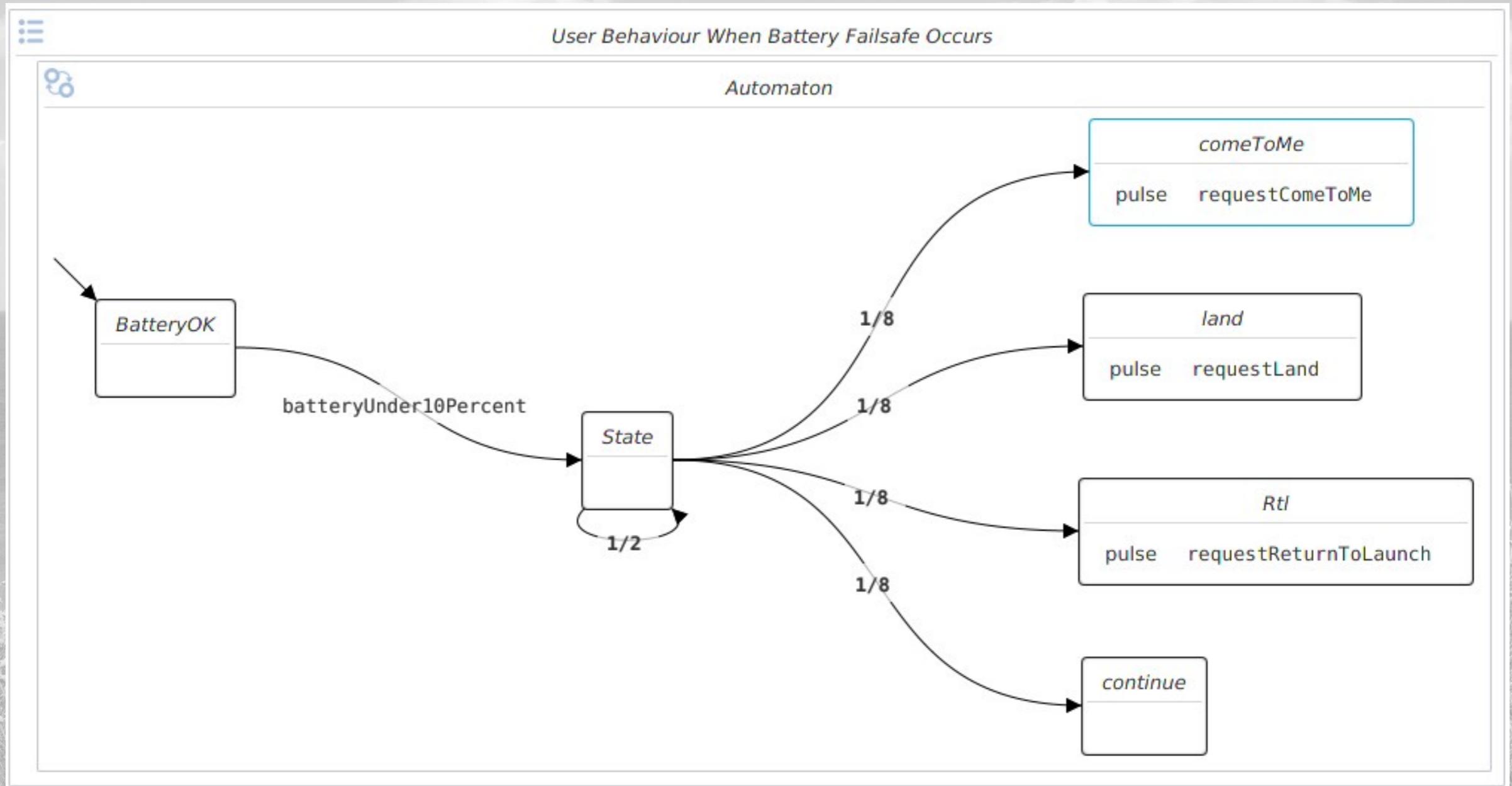
batteryLevel is inside range [0 , 100]

When onGround , $\left(\text{derivative of } \text{batteryLevel} \right) = 0$ [1 / second]

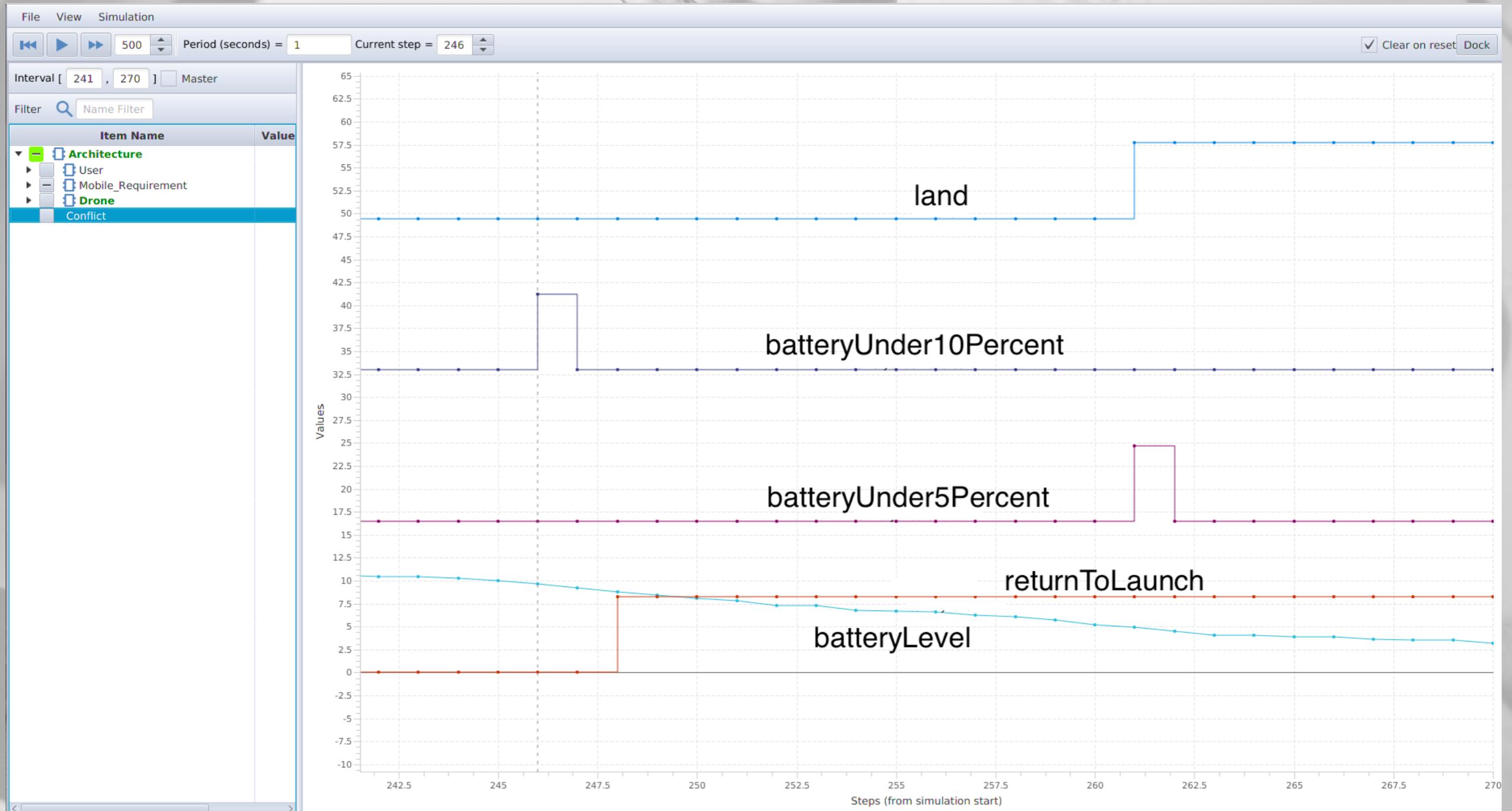


L'utilisateur fait un choix

L'utilisateur en Stimulus



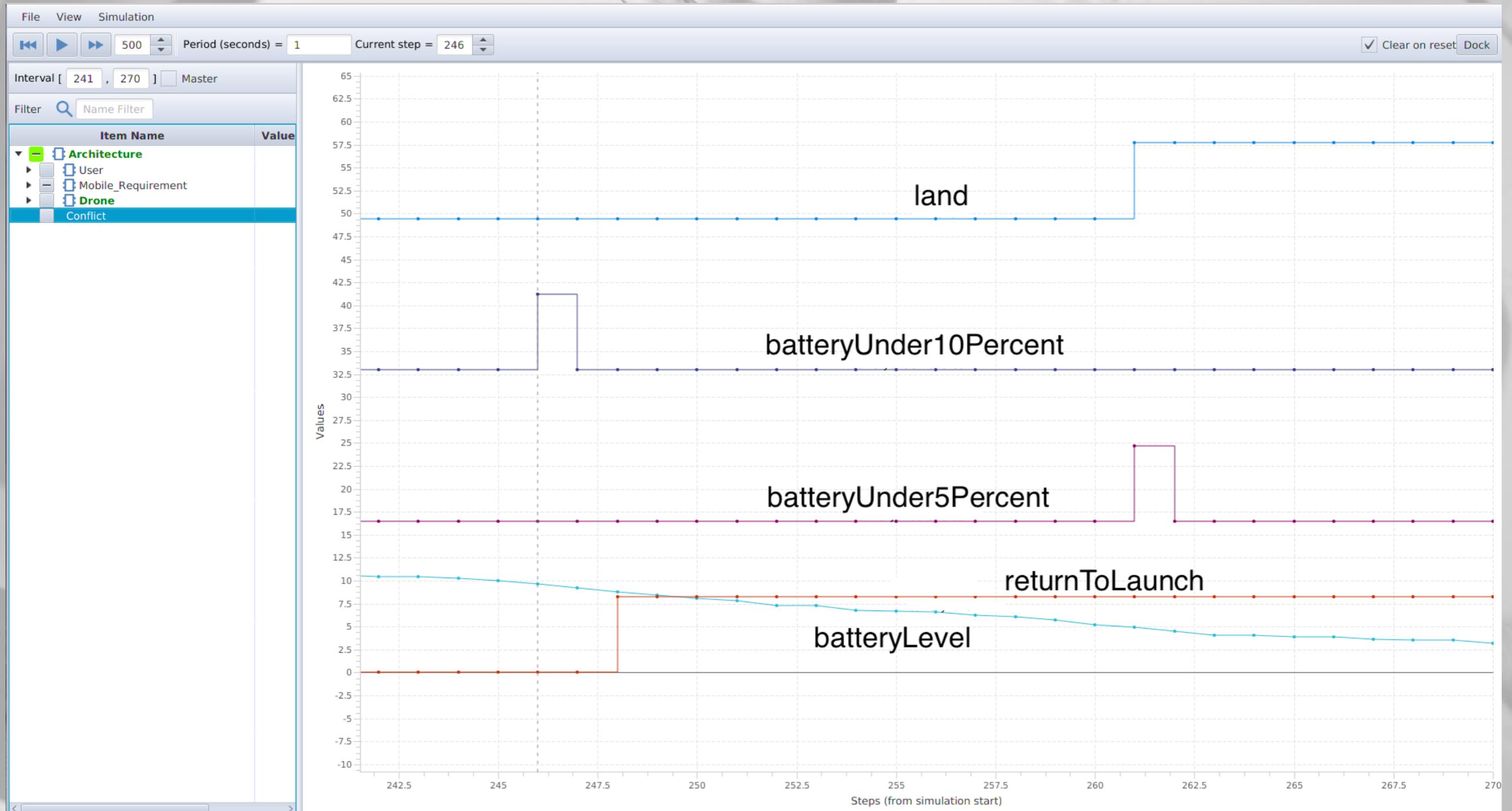
Simulation



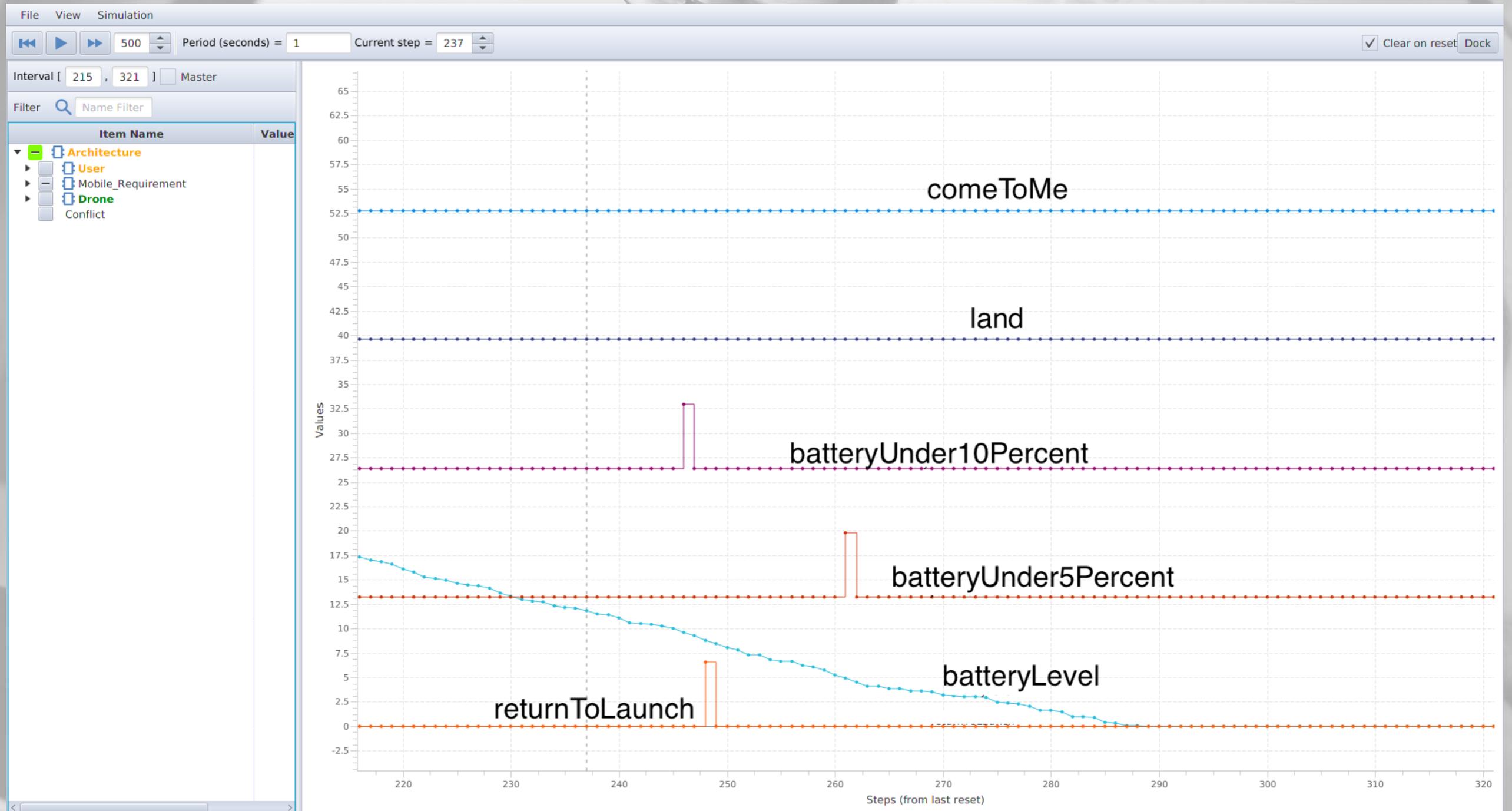
A close-up photograph of a person's feet in jeans and boots stepping on a white, sticky substance on a paved road. The substance is being pulled apart, creating a thick, stringy mass. The text "Il y a deux erreurs" is overlaid in a bold, dark font across the center of the image.

Il y a deux erreurs

Simulation



Simulation Correcte





Diminution des aller/retour

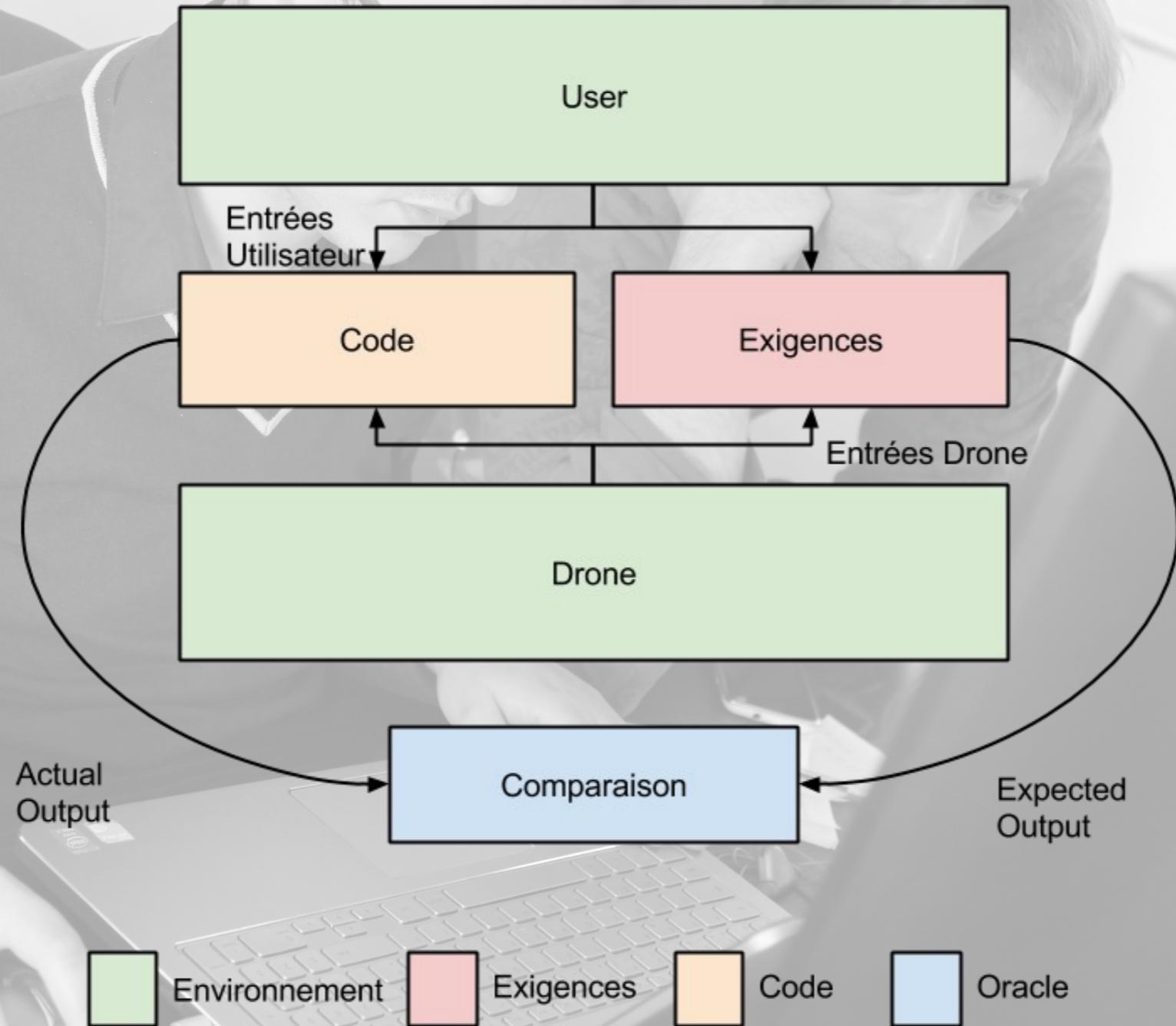
A grayscale photograph of two men in an office environment. The man on the left is seated at a desk, wearing glasses and a dark polo shirt, focused on a laptop. The man on the right is leaning over his shoulder, resting his chin on his hand, looking at the laptop screen. In the background, a whiteboard with some faint markings and a pen is visible. The overall scene conveys a sense of collaborative work and development.

Place au développement

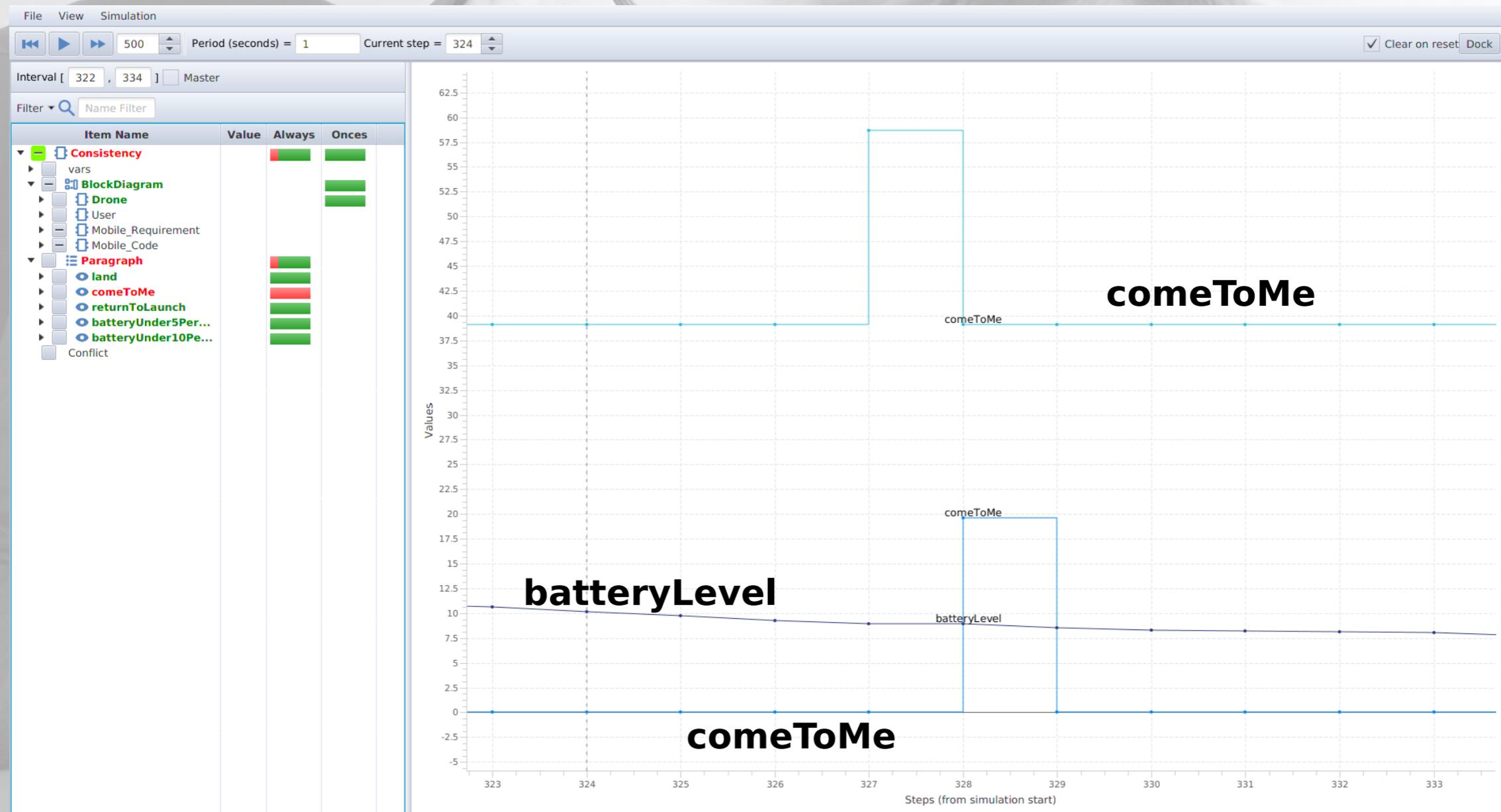
A close-up photograph of a person's feet in jeans and boots walking on a paved road. The person's right foot is stepping on a clear plastic bag, which is being crushed under the boot. The background is blurred, showing a road and some foliage. The text "Cohérence entre les exigences et le code" is overlaid in a bold, olive-green font across the center of the image.

**Cohérence entre les
exigences et le code**

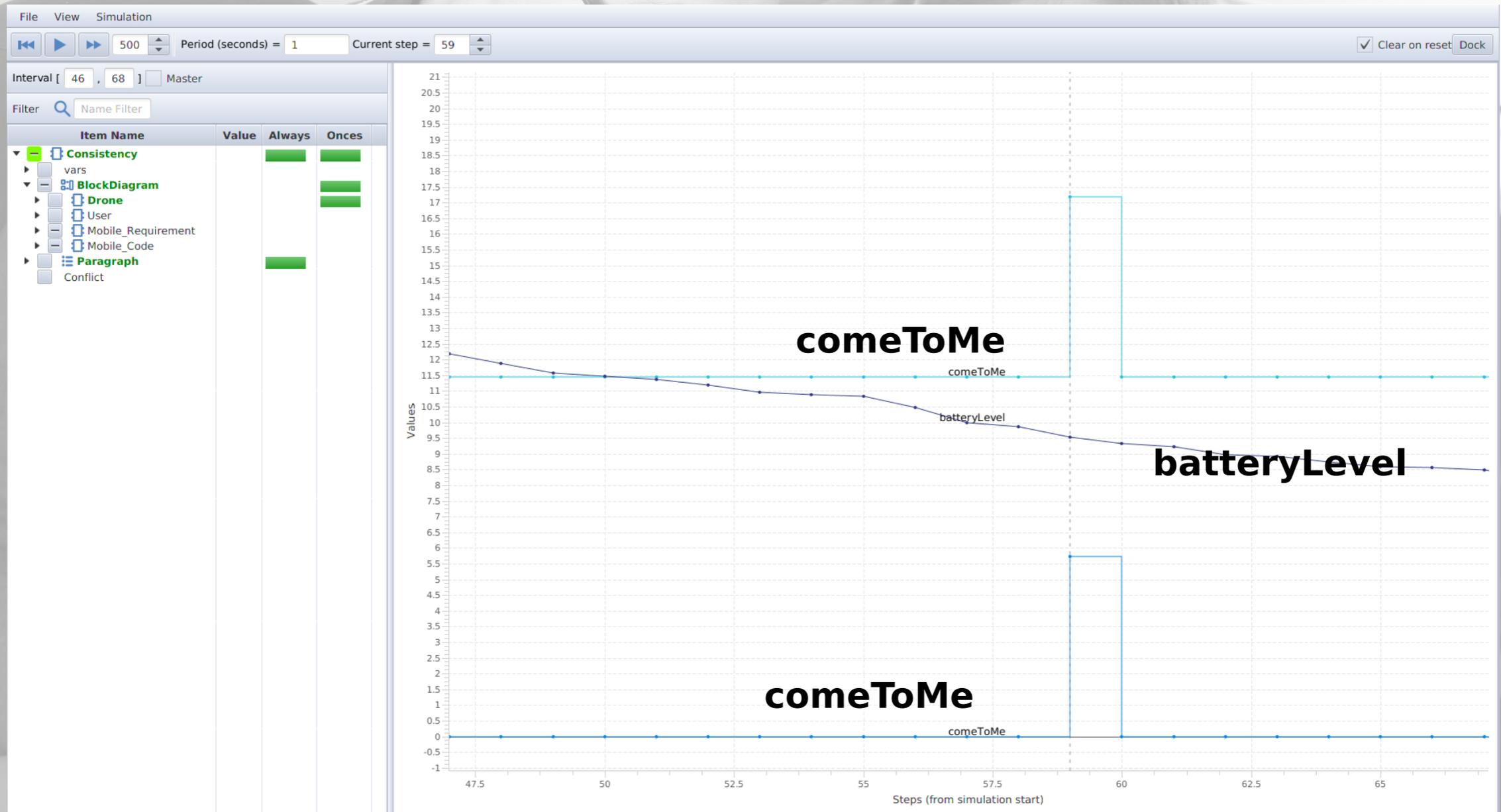
Cohérence Code / Exigences



Simulation Incorrecte



Simulation Correcte



A low-angle, close-up photograph of a person's feet stepping on a road. The person is wearing dark denim jeans and brown leather boots. The left boot is in the process of stepping on a white, fibrous, and somewhat sticky substance that is being pulled apart, creating a long, thin strand. The right boot is planted firmly on the asphalt. The background is a blurred road with white lane markings. The text "Cohérence globale ?" is overlaid in a bold, dark green font across the center of the image.

Cohérence globale ?

Couverture d'exigence



Checks

`checkOnceLand` : Check Once `landOnce`

`checkOnceReturnToLaunch` : Check Once `returnToLaunchOnce`

`checkOnceContinue` : Check Once `continueOnce`

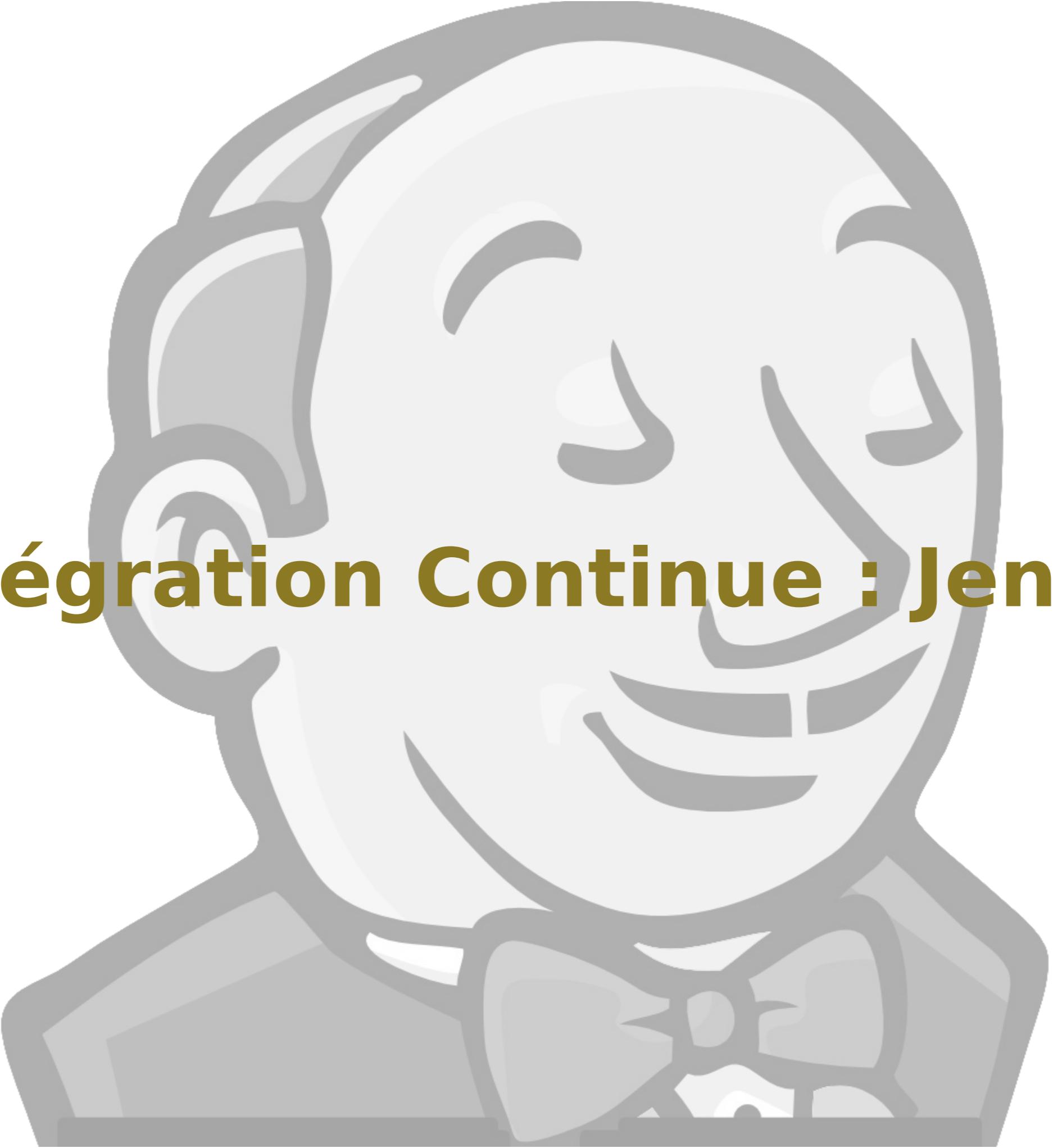
`checkOnceComeToMe` : Check Once `comeToMeOnce`



Cohérence Code/Exigences

A close-up photograph of a person's foot stepping on a white, fibrous substance on a road. The person is wearing a dark boot and jeans. The background is blurred, showing a road and some foliage. The text "Cohérence dans le temps ?" is overlaid in a bold, dark font across the center of the image.

Cohérence dans le temps ?



L'intégration Continue : Jenkins

L'intégration Continue : Jenkins



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Cohérence au cours du temps



**Stimulus participe à l'efficience
dans le
développement logiciel**