Service ID S00307

Location Remote, Spain

Container image generator that facilitates efficient software testing and d

Provider service

GRADIANT

Link to content

https://agrifoodtef.eu/catalogue-of-services/container-image-generator-facilitates-efficient-software-testing-and

Type of Sector

Arable farming, Food processing, Greenhouse, Horticulture, Livestock farming, Tree Crops, Viticulture

Accepted type of products

Software or AI model

Type of service

Test setup

Description

Container images have become the de facto standard for software delivery in a variety of industries, including agrifood. Packaging an application and all its dependencies in a container image ensures consistency across different deployment environments, allowing these applications to be tested more quickly and efficiently. Once the container image is built, it can be run by different container management tools, for example, Docker or Podman.However, creating secure and optimised container images is often complex. This service simplifies the process by automatically generating container images from the application source code. It detects dependencies and environmental requirements, removing the need for the customer to perform and/or to possess technical expertise in container technologies.The process is fully automated: the user provides the source code reference with secure access, and the service handles the rest. This eliminates the need to manage image creation files and reduces potential human error during the image creation phase, allowing developers to focus on innovation and functionality.

How can the service help you

The container image generator service is intended for developers who want to streamline the containerisation process of their applications. Without this service, developers typically need extensive knowledge of container technologies, such as Docker, and must manually configure their containerisation process. Before using this service, customers have their software source code and dependencies, which must be installed and configured in each deployment environment. After using this service, developers have optimised container images ready to be deployed seamlessly in different environments. The service automates the process without the need for a Docker file or knowledge about the ins and outs of container creation. This reduces complexity, saves time, and eliminates configuration errors.

How the service will be delivered

The service offers a low level of customisation to simplify the user experience, allowing developers to focus on their code without worrying about complex configurations. However, for users who require more control, the service allows for selecting certain options such as the target container registry or environment variables management.

Service customisation

The container image generator service is delivered remotely through a REST API. The customer provides the repository URL of their code and an access token (access tokens can be easily generated by the repository provider). Then, the service downloads and analyses the source code, builds an optimised container image, and returns the image URL for download or upload to a container registry.

The execution time depends on the size and complexity of the project but is generally completed within a few minutes. There are no geographical limitations, as the service is cloud-based. The customer will receive an optimised image ready for deployment. No physical interaction is required, and all communication occurs digitally through the API.This service works seamlessly with S00289 (vulnerability scan for agrifood software systems) as part of a pipeline. Starting from source code, customers can generate a container image through this service, which can then be passed to S00289. This combination ensures that applications are not only containerised efficiently but are also checked for vulnerabilities before deployment, providing a complete solution from code to secure container images.