



QU.4RTET



FAQ

September 2021



What is QU4RTET?

QU4RTET is an open-source level-4 system designed to support both domestic and international serialization requirements.

Who owns QU4RTET?

- The QU4RTET software license is owned by a company called SerialLab.
- QU4RTET is an open-source product. No one owns open-source software.
- The open-source code is perpetually open-source once released and, thus, public domain.

Who created QU4RTET?

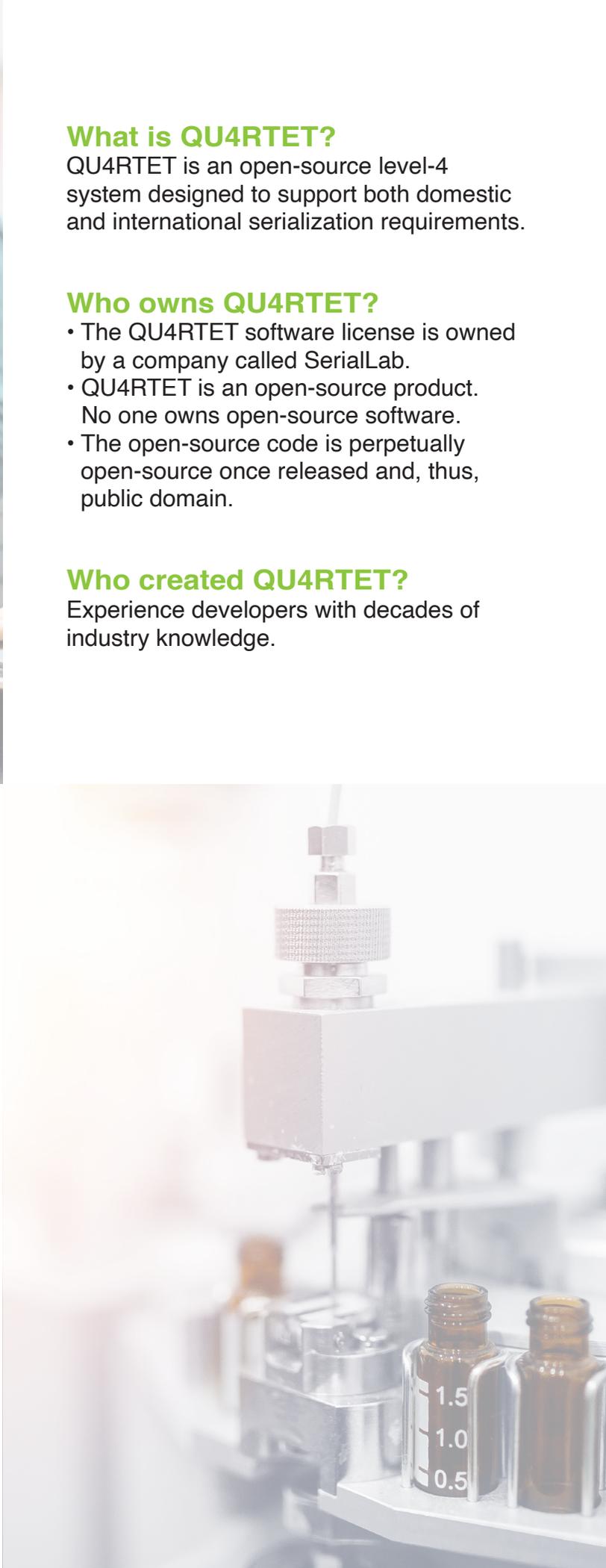
Experienced developers with decades of industry knowledge.

What is QU4RTET's economic model?

QU4RTET relies on the community to expand and extend the solution. The rules are that if you use QU4RTET and make any updates, these must be returned to the community. Likewise, all users enjoy the benefits of everyone's improvements. Importantly – each USER decides which updates to install.

Is QU4RTET looking for investors?

All open-source projects encourage investment in both developer time and resources as well as capital.





How can QU4RTET benefit me?

- You can install QU4RTET in modules. For example, you could install the QU4RTET randomization module.
- Your instance and code is yours – as long as it works for you, there is no need to upgrade. This reduces the need for forced validations.
- Because there are no license or transaction fees, you can install as many instances in any configuration you need. You have complete flexibility on how and where you deploy it and can extend it to suit your business needs.
- Due to the modular approach and technology used, the solution is extremely flexible and can be tested and deployed in creative configurations (e.g. – one at every site with a back end in the cloud).

Does it cost me, the customer, to engage with QU4RTET?

No.

Can the owner of the copyright take my rights to the code away?

No. The only thing a copyright holder retains the right to do is potentially release a copy of the same code under a different open-source or commercial license at some point. The code that is public domain remains that way forever.



QU4RTET PRODUCT FUNCTIONALITY

Can my present systems interface with QU4RTET, and is there a cost in doing so?

QU4RTET should integrate with most systems out of the box at no cost. If you require a custom solution, there may be a cost associated if you can not extend the system yourself.

Will QU4RTET always be free?

Yes.

Who is responsible if there is a flaw in QU4RTET?

Any bugs can be submitted by the community. Responsibility in addressing bugs in installed versions would lie with whomever installed and maintains those instances of their software.

How can end-user interact with QU4RTET software?

Via QU4RTET Desktop Application for Windows or Mac OS system. It can be downloaded from gitlab.com/serial-lab/qu4rtet-ui/.

Where can I find QU4RTET online?

QU4RTET is a product available on Gitlab. For links to documentation and to view the source code, visit serial-lab.com.

Is the QU4RTET product complete?

Yes, version 3.2+ is available for implementation..

What do I need from a resource perspective to implement QU4RTET?

It depends on your organization. If you have the staff, it is relatively simple to install and well documented.

How does QU4RTET meet my strict quality guidelines for drug manufacturers?

It is GAMP category-4 compliant software.





What are the security concerns with implementing an open-source code into my organization?

Most organizations run open-source code somewhere in their IT landscape. It is present on every cell phone and in almost every data center. For example, Android Cell Phones, MySQL Database, Apache Web Server, Java, Linux, Unix, etc.

What can QU4RTET do? Can it fully replace my existing L4 solution?

Yes. QU4RTET is a fully DSCSA- and EU FMD-compliant platform that allows you to reach compliance. It contains number generation (including randomizing), issuing and receipt of numbers as well as storage and reporting. QU4RTET 3.0 is first Level 4 Serialization Solution to Earn Drummond Certification per GS1 EPCIS 1.2 Conformance Program.

Will there be customer support of this code?

Yes.

What is the total cost of ownership?

Much lower than the alternatives – there are no license and transaction fees. Costs for an initial implementation are also lower than alternatives – but you would still need to host, install and validate the solution.

Does the solution support current GS1 communication standards? EPCIS 1.1 or 1.2?

Yes. QU4RTET supports both EPCIS 1.1 and 1.2.

Does the system support the exchange of transaction history information that is also being passed along with my serialization data?

Yes.



QU4RTET



How does this solution compare to other commercial solutions on the market?

- In terms of compliance based feature-function, it has the same functionality. In terms of flexibility and extensibility, it is unique – the ability to install in any configuration on any platform in a modular topology is unavailable with other solutions.

- The well-documented rule engine, along with the flexible plugin architecture, makes it easy to integrate with even homegrown business systems – something that these other solutions may be challenged to offer.

Does this solution support aggregation?

Yes.

How does this solution handle serialized and non-serialized shipments?

Via the EPCIS engine which supports both types of transaction events either discretely defined or combined into one.

Can the solution keep up with existing vendor line speeds?

Yes. Level-4 systems do not normally interact with line systems during production runs and receive end-of-lot data when the batch is closed.

Is the solution capable of delivering the results with multiple systems connections such as repository, ERP system, quality system, etc.?

Yes.

Does the solution include the ability to manage manual aggregation during rework scenarios?

Yes.

Does the solution support all the current international requirements for serialization?

Yes.

I already have a Level-4 solution. Implementing the solution was challenging and time consuming. What is the value of implementing a solution like QU4RTET into my organization? Why should I even consider implementing QU4RTET?

If you're happy with your solution and find the costs of maintaining it over the long-haul acceptable, there is no need to change. If you find the cost of maintaining a commercial compliance platform onerous, then the lower cost of ownership for QU4RTET may be something you should consider. Unlike other commercially available solution, Q4 does not force upgrade and thus save a lot in ongoing validation cost.



Do I need to host this myself?

Only if you want to. QU4RTET can be hosted on any cloud platform (Google, Amazon, MS Azure, IBM cloud, etc.) or it can run in local datacenters, plants and corporate clouds.

How many instances can I run?

You can run an instance on every laptop, datacenter, plant and hosting provider if you want. In reality, the number of instances are purely a function of your business needs. Running many for scalability reasons, or having a group dedicated to testing are common scenarios people may consider. Either way, the choice is up to you.

Who is going to stay on top of changes in compliance laws for QU4RTET?

Currently the original developers are dedicated to keeping the code base up to date with compliance laws. Going forward, we expect that other organizations will help as well.

I'm a repackager - does this support taking data in and tracking the changes necessary for my compliance?

QU4RTET supports transformation event processing where inbound product is assigned new serial numbers. All of the relationships from the original serial numbers are maintained in the system.

