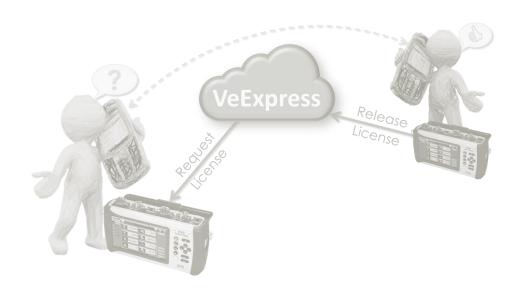


APPLICATION NOTE

Peer-to-Peer License Sharing Using VeExpress[™] How to Transfer Test Features Between Test Sets (with VeEX TX300s, RXT or MTTplus)

May 2019 | Rev. A00



P/N: D08-00-051

Peer-to-Peer License Sharing Using VeExpress™ Cloud Service

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Peer-to-Peer License Sharing Using VeEX's VeExpress Cloud Service

How to Transfer (Share) Test Features Between Test Sets

Asset management systems, such as VeEX's VeExpress (US Patent 9,900,393), offer many advantages to managing fleets of geographically dispersed test equipment and users. But sometimes they become large complex systems, with scenarios and/or hierarchies that add extra burden and steps to what should be a simple task, like sharing (a.k.a. floating) test feature licenses among teammates.

For example, a company may deem 10G Fibre Channel service testing feature to be a rarely used or per-project-basis, so it may not justify buying permanent licenses for every test set in their fleet. In that case, having a few 10G FC licenses in the pool could be considered enough, if they can be shared and assigned to whomever needs them, whenever a need arises. Now, let's say User A has the need to test a 10G Fibre Channel link tomorrow and it turns out that User B has it in her test set, because she was the last one to bring up such a service.

- In the traditional centralized (managed) Asset Management system, User A would have to make a request to the assets administrator, who has to find the test set that currently has the required software option, identify its user (B), get the license released and then approve the original request, so User A can finally get it. A complex process that could take more than a day, since it involves multiple transactions.
- In the peer-to-peer mode, User A just needs to contact User B (if necessary), agree on the transfer and execute it. This can be done in a manner of minutes. This could even be done without the intervention of User B.

Sharing test features among coworkers should neither be a dream nor a nightmare. It should be easy and quick. That is why VeEX offers an option for peer-to-peer license sharing in its cloud-based VeExpress service. It expedites the whole process and VeEX customers benefit from the added flexibility and agility.

To enable peer-to-peer sharing, the asset administrator or supervisor has to trust the end users to manage option sharing among themselves and forego the idea of a centralized approval process for every transaction. For this, the administrator must enable the Automatic Options Assignment Mode in VeExpress.

Note: Licenses enabled via offline activation codes are permanently attached to the designated test set and cannot be shared. Offline licenses are only issued by explicit requests from customers.

About VeExpress

VeExpress cloud service offers asset management features that allow VeEX customers to keep track of all their RXT, TX300s and MTTplus test sets in their fleet,

including:

- Provides access to the latest software versions available.
- Retrieve new test feature licenses purchased, directly into the test set.
- Rent temporary test feature licenses from VeEX.
- Share test feature licenses among team members (managed or peer-to-peer).
- Check test sets' status, versions, and connections to VeExpress.



It consists of three main elements:

- Cloud servers hosted by VeEX.
- Account Administration Website. (Customers' organizations decide whether to have a designated Manager.)
- VeExpress Client built into RXT, TX300s and MTTplus test sets.

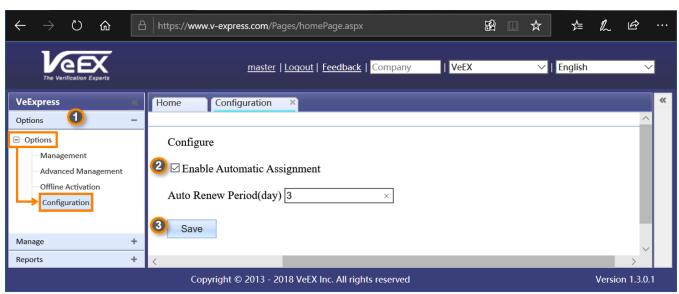
Basic VeExpress services are offered free of charge to RXT, TX300s and MTTplus customers. It is up to the customer's organization to decide whether to use the service or not. It is not required for the test set to operate.

Enabling the Automatic License Assignment Mode

The asset management administrator or manager must log on to the company or group's VeExpress account, by pointing any standard web browser to www.v-express.com.

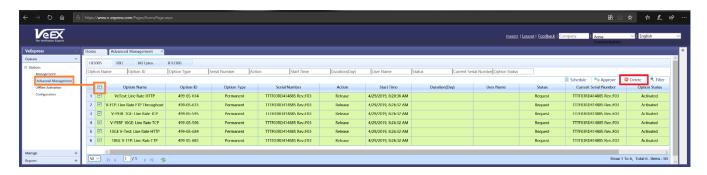


- 1. Go to Options > Configuration.
- 2. Check the Enable Automatic Assignment box.
- 3. Click on the Save button.



Now, end users can Release and Request licenses directly from their test set's VeExpress client.

In the same section, go to the Options > Advanced Management page and clear any pending Requests or Releases that are still in the queue pending the administrator's manual approval. If there are any pending requests listed, use the master check box to select all and then click on Delete. The account is now ready to handle option transfers (sharing) automatically.



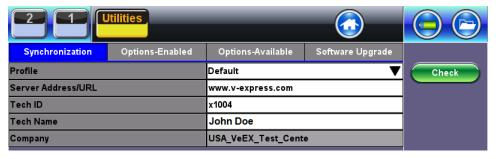
Should you need any help in identifying your company's account credentials, contact VeEX Customer Care team.

Peer-to-Peer License Sharing

Now that the VeExpress administrator has enabled automatic license assignments, users can coordinate among themselves any test features they would need to share, without supervisor approval for each individual transaction.

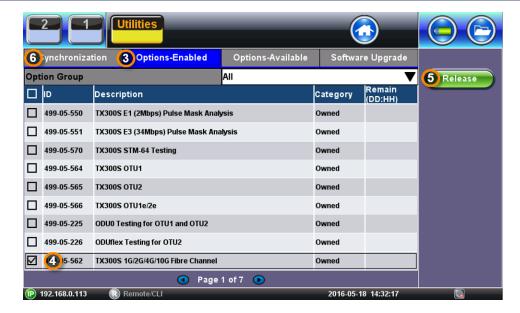
If User B just finished a job that required the use of the 10G Fibre Channel testing feature, the following procedure would release the shared license back to the common pool:

- 1. Connect the test set to the network (Internet), using the LAN (management) port or WiFi.
- 2. Go to Utilities > VeExpress > Synchronization and press Check.



- 3. Go to the Options-Enabled tab.
- 4. Find and mark the Fibre Channel test feature box.
- 5. Tap on the Release button, then tap on the Yes button to confirm the action of releasing the selected license(s) back to the common company pool.
- 6. Go back to the Synchronization tab and tap on the Check button again to refresh the software options.

Peer-to-Peer License Sharing Using VeExpress™ Cloud Service



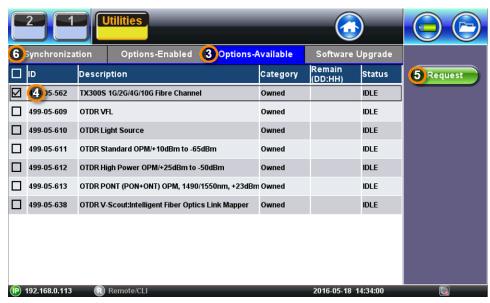
The test feature (license) is now available to other users within the company.

Then User A, who needs the 10G Fibre Channel functionality in his test set for today's job, must:

- 1. Connect the test set to the network (Internet).
- 2. Go to Utilities > VeExpress > Synchronization and press Check.
- 3. Go to the Options-Available tab.
- 4. Find and mark the Fibre Channel test feature checkbox.

Note that some features and functions may have dependencies and require other licenses before they can be loaded into a test set. For example, the SyncE ESMC/SSM function requires the basic SyncE Testing license.

- 5. Tap on the Request button, to get the license assigned to this test set.
- 6. Go back to the Synchronization tab and tap on the Check button again to retrieve the new software option(s).



The 10G Fibre Channel test feature (license) is now available in the test set. User A should release the license once his job is done.

If the required test feature (license) is not available in the company or group's common license pool (Options Available tab), User A can contact User B directly and ask for it to be released.

Of course, this requires the common courtesy of releasing the licenses once a user is done with the feature, or for the company to have policy to enforce it, to make sure shared licenses are always available to those who need them.

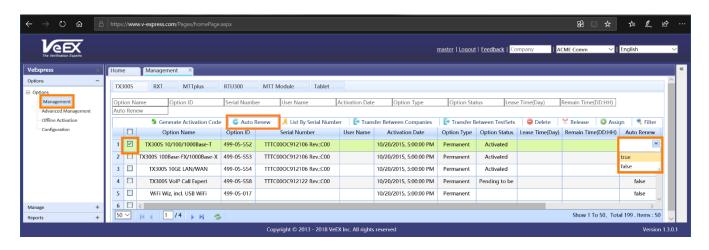
Adding a Time Limit

We often hear objections like "my users don't always have access to the internet" or "what if it is a weekend and User B forgot to release the license?" or "someone may try to ignore the rules, to keep some licenses for themselves!". VeExpress addresses these issues, by expiring the options after a certain allowed time, so it doesn't require a send connection to release the license and make it available to others.

VeExpress administrators should log on to the <u>VeExpress</u> website and go to <u>Options</u> > <u>Configuration</u> to set their own rental policy. For example, you can set the <u>Auto Renew Period</u> field to 3 or 7 days and then click on <u>Save</u>. This will be the maximum amount of time users are allowed to borrow certain licenses, even if their test sets stay off-line or go on vacation. Performing a VeExpress Check from the test set before the shared options expire autorenews the "rental" period, to make sure users actively using the test feature don't get their jobs disrupted.

When new licenses are purchased with the intention of being shared, VeExpress managers can:

- 1. Log on to the <u>VeExpress</u> website and go to Options > Management.
- 2. Find the desired licenses using the Option Name or Option ID filters and mark their check boxes.
- 3. Set the Auto Renew fields to "true" and then click on the Auto Renew button on the top bar. Those licenses now have a default expiration date.



If User B doesn't follow the rules or forgets to release borrowed licenses, the shared features in the test set would automatically expire and become available to others, even if User B keeps the test set off-line. If User B happens to be on a long vacation, teammates would not be affected. All the borrowed options will automatically go back to the shared company pool.

VeEX includes basic VeExpress accounts with TX300s, RXT-1200 and MTTplus test platforms.

| Notes | | | | | |
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About VeEX Inc.

Founded in 2006 by test and measurement industry veterans and strategically headquartered in the heart of Silicon Valley, VeEX Inc. provides innovative Test and Measurement solutions for next generation networks, services and communication equipment.

With a blend of advanced technologies and vast technical expertise, VeEX has developed products that diligently address all stages of network deployment, maintenance, and field service turn-up and integrate service verification features across DSL, fiber optics, CATV/DOCSIS, mobile backhaul and fronthaul (CPRI/OBSAI), next-generation transport network, fiber channel, carrier and metro Ethernet technologies, WLAN, and synchronization.

The VeEX team brings simplicity to verifying tomorrow's networks.

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