TANGERINE V3 - FREQUENTLY ASKED QUESTIONS

This page contains answers to Frequently Asked Questions regarding the use of Tangerine and the management, use, and procurement of associated mobile devices.

Please browse the FAQ topics below and check out the Tangerine User Community. If you don't find the help you're looking for, feel free to reach out to the Tangerine team and we will be glad to support you.

1. **What is the purpose of Tangerine?**

Tangerine™ is electronic data collection software designed for use on mobile devices, including tablets and smartphones. Its primary use is to enable recording of students' responses in oral early grade reading and mathematics skills assessments, specifically Early Grade Reading Assessments (EGRA) and Early Grade Mathematics Assessments (EGMA), and interview responses from students, teachers, and principals on home and school context information.

The technology-supported approach improves data quality and time and cost efficiency in this type of data collection and analysis, by simplifying the preparation and implementation of field work, reducing student assessment times, reducing measurement and data entry errors, and eliminating manual data entry from paper forms to the database for analysis - thus making results more readily available.

As of June 2019, Tangerine has been deployed in more than 60 different countries and 100 languages by more than 50 organizations. We estimate that together, Tangerine users have collected over 1.75 million observations and assessments to date.

2. **What is the purpose of Tangerine:Teach?**

Tangerine:Teach is intended to assist teachers in systematically collecting, analyzing, and using results from students' continuous assessments to inform their teaching. Teachers are able to track students' performance against curriculum objectives and end-of-year targets. By creating individual profiles for each student in a classroom, teachers are able to monitor progress at regular intervals and determine if students need additional help on a particular topic or if something was understood by the class as a whole.

Tangerine:Teach can integrate cognitive and non-cognitive measures as well as rapid disability screening tools along with academic tests. Moreover, Tangerine:Teach allows program implementors to provide custom feedback to scaffold teachers' instructional decision making based on specific students' results.

3. **What is the purpose of Tangerine:Coach?**

We designed **Tangerine:Coach** as a tool to support teacher coaching and professional development. Tangerine:Coach provides coaches with the ability to manage their school visits, highlighting which have been complete and which of the assigned school remain to be visited in a given month. Similar to Tangerine:Teach, Tangerine:Coach contains pre-formatted student assessments to be completed by coaches. Results from assessments are instantly combined with coaches' classroom observation data for a rich feedback report to facilitate reflections between the coaches and teachers observed.

Tangerine:Coach also facilitates the uploading of this data to a central server, integrating the ability to tag observations with time-and location (using GPS location information collected by the tablet/phone) data to validate coaches' school visit activities. On the server, results can be aggregated by district, region, or subject as required. This allows for ongoing monitoring of student progress and for timely targeted support (e.g., through additional school visits or professional development) to schools, teachers, or coaches as needed - rather than one size fits all. Tangerine:Coach is already successfully deployed in Cambodia, Jordan, Liberia, Uganda, and the West Bank as well as nationwide in Kenya and Sierra Leone.

4. What is Tangerine's hardware and software compatibility?

Tangerine requires the following minimum features for use as a data collection tool:

- Capacitive touch screen
- Android OS [v. 5.2 or higher] for APK installations, other versions may work with a PWA installation.
- HTML 5-capable browser
- Wi-Fi (b/g/n)
- 4GB HDD
- 1GB Memory
- 1GHz dual-core processor
- 7 hours battery life (without Internet turned on)
- Ability to install third-party Android applications

The following is recommended:

- 7-inch screen
- Ideally below 1lb. in weight

5. In what languages are Tangerine available?

There are three aspects to language in Tangerine: the language of the Tangerine editor where you develop and edit your instruments, the language of the application itself (user interface),

and the language of your instrument content (i.e., the assessment items or survey questions and response options).

The Tangerine editor where you render and manage your instruments is in English.

The Tangerine user interface refers to the system buttons that control the application on the tablet, such as "Next", “Back”, “Sync results”, etc. The Tangerine user interface is currently available in Arabic (Jordan), English, French, Khmer, and Russian, but it is simple to translate into other languages. As Tangerine is open source software, you could contribute a translated version of the application's user interface, or you could arrange for this to be done by RTI International. If you would like to use Tangerine in another languages please contact the Tangerine Team at support@tangerinehelp.zendesk.com.

With respect to instrument items, Tangerine can support and display any Unicode-compliant script. To date it has been used for assessments and surveys in more than 100 languages, covering a wide variety of language families and character sets.

6. **What common early grade reading assessment tasks does Tangerine support?**

Tangerine supports all of the common early grade reading assessment tasks including phoneme segmentation, initial sounds, letter sound knowledge, syllable identification, letter name knowledge, timed (and untimed) reading comprehension, familiar word identification, non-word decoding, oral passage reading, and word problems.

7. **What common early grade mathematics assessment tasks does Tangerine support?**

Tangerine supports most common early grade mathematics assessment tasks including timed (and timed) addition, subtraction, multiplication, division; number identification, rational counting, number discrimination, and missing number problems.

8. **What common survey features does Tangerine support?**

Tangerine supports a number of common survey features, including different question types (open, closed, multiple choice), skip logic, autostop logic, and field validation. Tangerine also has a built in quality assurance measure that automatically determines the feasibility of asking Reading Comprehension questions based on the number of words attempted in the Oral Passage Reading subtests (i.e., the participant is only answering questions related to portions of the test which he/she has attempted).

Tangerine also gives the option to include a consent item which facilitates aborting a survey if an interviewee does not agree to participate, and surveys can also be customized to vary depending on the location of data collection as indicated by the user.

9. **What are other great Tangerine features?**

There is a COPY feature that allows you to quickly insert elements and content from other instruments. There is also a print option, allowing you to open a printable browser window, detailing each item in your instrument. The printable view is a great way to quality assure (QA) the instrument.

10. **How much does it cost to use Tangerine?**

You can start with a free trial and subscription prices range from $3,500 to $6,000 per year. Custom pricing for multi-year subscriptions, Tangerine:Teach, Tangerine:Coach, or technical assistance from RTI is also available.

11. **How do I get started using Tangerine?**

If you want to use Tangerine, just register here to become a member of the Tangerine community and to access the "My Tangerine" area.

12. **Is Tangerine available on Google Play?**

Tangerine is a data collection platform that allows for customization of your specific instruments via a dedicated online editor before installation on tablets. Tangerine is thus not available on Google Play, but via http://www.tangerinecentral.org.

13. **Where do I find user manuals?**

The Tangerine User's Guide can be found under the "Products" section of the Tangerine website here: http://www.tangerinecentral.org/project-1

14. **What does "rendering" mean in Tangerine documentation?**

"Rendering" is the process of creating an assessment in Tangerine by adding forms, sections, and items using the Tangerine editor. Users are able to completely design their own instrument with instrument-specific questions and unique forms, sections, and items, without requiring specific programming skills. Instructions on using the Tangerine editor can be found in the Tangerine User's Guide.

15. **How can I engage others in rendering and managing instruments and data?**

Users are able to create groups on the Tangerine editor and invite others to join (both as Admins and as Members). Only the "Admin" users in a given group have the ability to edit instruments and manage the data, while "Member" users can view instruments and download their data. More detailed information is included in the Tangerine User's Guide.

16. Is there a way to track GPS data to confirm data collection locations?

Yes, under the section editor, you add an item by clicking on INSERT HERE, then select the GPS type element to insert (see also Tangerine User's Guide).

Once inserted, when you run the assessment on a device with GPS enabled, the GPS item will find and store the GPS location. This item type automatically collects GPS coordinates of the tablet. Use the GPS item to record the location (longitude & latitude) of the user while filling in the instrument/form. We suggest always placing a GPS item in its own section.

Note:

- The device must have a GPS chip (common on most any Android device).
- The device's "Location" services must be turned on (activated) and they must permit Tangerine to access them. In your device's settings, you should be able to find a setting for "Location" or "Location Services" where you can verify whether the GPS service is turned on or not and whether Tangerine is accessing it.
- You do not need to have the tablet connected to WiFi nor a mobile network in order to capture GPS data. However, as GPS data relies on satellite networks to provide you the coordinates of your physical location, the tablet user should be standing outside and with no cover overhead (such as a shade roof, tree canopy or thick clouds) to get an accurate GPS reading.

17. How do I backup and/or sync data from the data collection device to the server?

There are several ways to back up your data during fieldwork, but the easiest way is to use an existing Internet connection that will send the data to the secure Tangerine server where all of the data is stored.

If you only want to sync the data from one assessment, follow these instructions in the Tangerine User's Guide:

Whenever possible during data collection, recommend that users / assessors sync their data to the tablet by navigating to the profile menu, and select "Sync".

The Sync screen provides an overview of the data upload/sync status to date, including the number of responses not yet uploaded. Once the sync is complete, Tangerine will show "100%" for the field "Percentage uploaded".

Any data synced from the tablet devices even in a "Test Release" deployment goes into the main database (thus mark your tests clearly as "TESTS" to facilitate data cleaning.

18. Is the data encrypted for sending or storing?

The Tangerine server is encrypted. The data syncing from the tablet to the server is sent over a secured connection. We also recommend using a password for each tablet device to avoid unauthorized access. Furthermore, we recommend that unless dictated by your specific data collection to replace any person's identifying information (e.g., name, birthdate, etc.), with ID numbers to enhance data privacy and confidentiality.

19. How can I monitor my data collection and the data coming in from the field?

Data can be accessed on the Tangerine editor by clicking the download icon next to each instrument  . On the next screen, you can select to download all results selected so far, or results for a specific month or year of data collection. The required data is then exported as a CSV file for analysis.

When instruments have been finalized in Tangerine, we recommend preparing data cleaning and progress monitoring code in advance of the data collection. This will allow your team to quickly clean the data, run your progress monitoring code, and thus monitor data quality and sample adherence, etc.

20. Where is the data stored?

If you are using Tangerine as provided by RTI International, your data is being stored on a server managed by RTI's Tangerine team. RTI uses secure Amazon Web Services to host Tangerine data.

21. Who has access to my data? How can I keep my data entirely private?

The only people that have access to the data are members of your group on the Tangerine editor and the RTI server administrators.

If you are using Tangerine as provided by another provider, please check with your provider about storage and access.

If you want to have sole control over your Tangerine data, we recommend setting up a separate instance of Tangerine on a server you manage. RTI can assist you with this process or you can access the Tangerine source code on Github, and install it on your own server. Please contact the Tangerine Team at support@tangerinehelp.zendesk.com if you have questions.

Concerning the European Union General Data Protection Regulation (GDPR), please be aware that RTI does not collect nor store any information pertaining to the devices or users that use

Tangerine. Tangerine requires only access to the device's GPS as to obtain GPS coordinates that are stored on your instruments.

22. Is the data I collect with Tangerine secure? Is it encrypted?

The data you store on Tangerine's server is encrypted and backed up daily. Beyond this, your data's level of security in part depends on to whom you have provided access to your Tangerine server's account and groups.

The security of your data prior to it being stored on Tangerine's server is a separate issue and will vary by user. As Tangerine can be used to collect data while a device is offline, in some cases you may have considerable quantities of data stored on your tablets before it is transmitted to the Tangerine server. In such cases, the data stored on tablets is only encrypted if you have activated encryption on your tablet (this is not a Tangerine setting, but a configuration often found in the tablet's operating system settings). Even for data stored on unencrypted tablets, it would be extremely difficult for someone to extract your tablet's data and make a meaningful interpretation from it.

Nevertheless, we do not recommend storing personally identifiable information (such as study participants' names, addresses, personal background data) on Tangerine, unless necessary. Please refer to Tangerine's Terms of Use for any further questions about data security.

23. How does my data look like when uploaded to the server and then exported?

The data is exported as a CSV file, which is widely compatible with statistical analysis software packages, including Excel, STATA, and SPSS.

24. How do I apply changes made to instruments on the web to the application on the tablet?

After you have made changes to instruments in the Tangerine editor, you need to "Release" your instruments so that an update for the tablets becomes available. Tangerine offers two deployment types, test release and live release. The former is useful to thoroughly test any changes before pushing them to all tablets that are linked to your group. Refer to the Tangerine User's Guide for more details and step-by-step instructions with screenshots.

Once you have released your updated instruments in the Tangerine editor, make sure your tablet has an active Internet connection. Log into Tangerine and hit the profile button in the top right corner. Select "Check for Update" from the menu. The application will then communicate with the server and apply any updates you previously released.

25. Does Tangerine facilitate printing paper backup instruments?

Tangerine's old version, V2, offers the option to print a paper backup of your instrument. Tangerine's new version, V3 offers a print functionality that includes all of your item's details to facilitate instrument QA instead. A printable backup option is under development.

26. What are tips to quality assure that instruments were rendered correctly?

It is helpful to regularly check what individual forms and sections look like for your data collectors. In the Tangerine editor, click on the eye icon  next to the title of the instrument to preview your instrument in data collection mode. This feature allows you to see what the instrument and its items will look like for the data collectors.

27. Can I render or edit instruments offline with Tangerine?

Offline rendering or editing is not possible in Tangerine V3.

28. Can I run Tangerine on iPad?

Tangerine is currently not compatible with iOS (iPad/iPhone). If you are interested in collaborating on an iOS version, please don't hesitate to contact us at support@tangerinehelp.zendesk.com.

29. Can I run Tangerine on a cellphone?

Yes, as long as the cellphone meets the hardware and software requirements listed above. For instruments that include items arranged as a large grid, for example, for early reading assessments with timed 100-letter or 50-word reading tests, a larger screen might make administration more user friendly for assessors.

30. Can I run Tangerine on a laptop?

For offline data collection, Tangerine is not compatible with laptop devices, as the platform is optimized for Android mobile devices. However, it is possible to collect data online via the Tangerine browser environment with some limitations. Refer to the Tangerine User's Guide for more detail.

31. Is Tangerine compatible with right to left scripts?

Yes, Tangerine's instrument-authoring environment (the 'editor') includes a configuration setting for right-to-left scripts. Tangerine has been used in Arabic and Urdu in the field.

32. Is Tangerine compatible with non-Latin languages?

Yes, Tangerine is compatible with non-Latin languages. Tangerine can be used for assessments and surveys in hundreds of languages and writing scripts.

33. Do I need a strong bandwidth to use Tangerine?

The rendering process is the only stage where you need a strong bandwidth to use Tangerine. Generally, you will not require a strong connection (conducting assessments does not even require a connection).

34. Do I need internet access to conduct an assessment or survey?

No, you do not need internet access to conduct an assessment. Once Tangerine is installed on the tablet, you can collect all your data offline. However, you will need connectivity to sync the data from the tablet to the central server.

35. Can I download an instrument without internet access?

No, you cannot directly download an instrument without internet access. A potential alternative is to download an instrument to a computer and then transfer it to a mobile device using a USB drive (the transfer does not require internet access).

36. What happens if the device battery dies in the middle of data collection?

Should the device stop functioning because of low battery, you will not lose the assessments that have already been saved on your device (even if you have not yet 'saved to cloud'). If this happens while you are with a student, you may lose the assessment you are currently conducting.

37. What happens to the data if the device is lost or stolen?

If the device is lost or stolen all of the data that was not uploaded to the Cloud will be lost. This is why it is important to consistently back up data.

38. How can I best prepare data collectors for using Tangerine?

Training on the use of Tangerine for data collection should be integrated into your regular assessment/survey training programs. Based on our experience, you might want to plan for an hour of additional training to give your data collectors the opportunity to become familiar with the hardware and software, how to care for the devices, update the application (should it be necessary), and sync the data.

The remaining training should include sufficient time for administration practice and role playing that allows data collectors to practice administrating your specific instruments and assessment with Tangerine. Careful training, monitoring, and supervision can help calibrate sessions and practice accordingly.

39. How technical do I have to be to use Tangerine?

Technical knowledge is NOT necessary to use Tangerine. The Tangerine User's Guide provides simple instructions using lay terms and easy-to-follow visuals.

40. My Tangerine data has "timestamp" variables in it. What are these?

In some flavors of Tangerine, the "timestamp" values are automatically generated or calculated? whenever the user transitions from one subtest (one screen) to the next. In your data file you will find a "timestamp" for each transition between subtests screens.

The values of each timestamp are provided in Epoch time, in milliseconds. These are the number of milliseconds that passed between January 1, 1970 and the time when the tablet user pressed the "Next" button to pass from one subtest to the next. On the tablet, the time is derived from whichever time was set on the device (in the tablet's own 'Settings').

The Epoch timestamps in your Tangerine data are calculated under the assumption that your user is on standard GMT (GMT + 0). As such, when converting your timestamps to human readable time, you must take into account the offset for the timezone in which the data was collected. Visit http://www.epochconverter.com/ to convert timestamps to human readable data.

41. Why are these timestamps useful?

These timestamps can provide you granular details into the duration of individual subtests screens (in aggregate or by individual users, to see if your users may be struggling with something), which can be helpful in finding ways to make your data collections more efficient.

If you are using the "Date / Time" item type in Tangerine, the Epoc timestamps can also offer you a layer of verification. This is because the "Date/Time" item type information on the tablet can be manipulated by changing the tablet's date and time in the Android settings, while the Epoc timestamps are not visible/manipulatable to the data collector. This can be helpful in investigating cases where you suspect a data collector may have attempted to fabricate data or otherwise falsify the date/time when the data was collected.

42. What is the minimum processor strength to use Tangerine?

1GB. More detail is included above under hardware and software requirements.

43. Is Tangerine open source or proprietary software?

Tangerine is open source software, licensed under GNU General Public License 3. Its source code and server installation instructions are available on Github.

44. **Tangerine is described as open source software, yet also as a registered trademark. If the trademark is protected, doesn't that mean Tangerine is not open source?**

Software can be both open source and protected by trademark. While we are proud to share the source code of Tangerine under the GNU (General Public License), we care about the use of the Tangerine name and the attribution of the brand. Having the Tangerine logo protected by a registered trademark gives us the ability to ensure that any assessment and survey software bearing that name and using that logo meets a standard of quality that will uphold the integrity of the product.

For a more detailed explanation on the intersection between open source software and trademark protections, please see https://communityovercode.com/2011/01/trademarks-in-open-source/

45. **Where can I find the Tangerine source code?**

Tangerine is open source software. Its source code and server installation instructions are available on Github.

46. **I think I found a bug. How can I report this?**

Please contact support@tangerinehelp.zendesk.com.

If you can, please include as much detail about the issue as possible, including:

- Android version in use
- Device make and model
- Tangerine group name
- Tangerine instrument download key
- Description of what the user does to cause the issue and how often it occurs.

47. **How can I be sure that our organization can use Tangerine for several years?**

Contact the Tangerine team at support@tangerinehelp.zendesk.com to create a separate instance of Tangerine or an agreement to guarantee usage for several years.

48. **Can we have a separate instance of Tangerine managed by ourselves?**

Yes, please contact the Tangerine team at support@tangerinehelp.zendesk.com regarding details.

49. **Whom should I contact to ask general questions about the use of Tangerine?**

Please contact support@tangerinehelp.zendesk.com.

50. Whom should I contact to ask about customization or localization of Tangerine?

Please contact support@tangerinehelp.zendesk.com.

51. What kind of support is available/not available for individuals outside of RTI projects?

Please contact the Tangerine team at support@tangerinehelp.zendesk.com with any inquiries or specific concerns. For comprehensive support you have to be a part of an RTI project.

52. Are there opportunities for live, hands-on training?

Yes, the Tangerine team is happy to help out with live training to ensure proper understanding of the software. We also organize free webinars. Contact Tangerine at support@tangerinehelp.zendesk.com.