

DFengage Release Notes

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Preface

DFengage Release 2.4

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Getting Help

For software support, please contact the **DFdiscover** team:

- via email, help@dfnetresearch.com.
- via our website at dfnetresearch.com.

Introduction

Overview

DFengage is an application that allows research participants to complete electronic patient-reported outcomes (ePRO) and other study activities (such as questionnaires, surveys, and diaries) assigned to them by the research team. DFengage is fully integrated with **DFdiscover**, using the setup definition defined in DFsetup, the role permissions and user accounts defined in DFadmin, and the contact details defined in DFweb. Data completed by participants is available in DFdiscover EDC tools including DFweb, DFcollect, and DFexplore.

DFengage is accessed through a web browser or installed as a mobile app from the Google Play Store (for Android™) or Apple App Store (for iOS® and iPadOS®) on smartphones and tablets. Study participants login to DFengage with their unique user credentials and complete assigned activities based on the study schedule. DFengage users receive reminders when new activities are available or overdue, as push notifications for mobile app users or as emails for web app users.

The updates to **DFengage** in this release include the following:

- **DFengage Web App:** DFengage is now available as a web app as well as a mobile app which is available directly from DFnet or may be self-hosted by licensed organizations. The benefits DFengage web include:
 - No app installation required
 - Access through any device with a modern web browser
 - Same study setup, configuration, and permissions as the mobile app
 - Responsive design adapts to any screen size
 - Use a mix of mobile and web app in any study

- **Login Improvements:** We've simplified the login flow for study participants to help them access DFengage more easily than ever. Using a study-specific or participant-specific link, the login process for both web and mobile keeps manual entry to a minimum and simplifies the onboarding steps.
- **Forgot Password & 2FA:** Both self-service password resets and two-factor authentication are now available in DFengage for users with an email address registered to their account.
- **Pending Activities Reminder:** If any completed activities are not yet received by the DFdiscover server, a red dot appears on the History icon to flag to the participant that their data still needs to be synced, helping prevent accidental data loss.
- **Repeating Activities Options:** DFengage now supports repeating activities, allowing forms to be collected multiple times in one day or within a time period, using a common scheduled date and time.

These changes and more are described in [New Features and Enhancements](#). The complete listing of all changes by type of change, including bug fixes, is available under [All Updates](#). The release notes also provide information about any [Known Issues](#) in the current release as well as any [Advance Notices](#) for planned changes in upcoming releases.

Supported Devices and Browsers

DFengage mobile version 2.4 requires a mobile device (tablet or smartphone) running Android™ 8.0 or newer or iOS®/iPadOS® 14.4 or newer.

DFengage web version 2.4 requires an internet browser with HTML5 capabilities. Check your browser's capabilities at <https://html5test.com>.

Tested browsers include the current versions of Chrome, Firefox, and Edge on Windows 10 and 11, and Chrome, Firefox, and Safari on macOS 10.14 (Mojave) or later. Browser updates are frequently made available by vendors. **DFengage** web is not compatible with any version of Internet Explorer or any browser in Windows XP or Windows 7.

Version Compatibility

DFengage version 2.4 is compatible with **DFdiscover** server and API version 5.4 and later. Some features of **DFengage** are only available with later versions of **DFdiscover**, noted in the release notes and user guides.

Installation

Access Links

DFengage access links are provided to simplify the onboarding process for study participants, whether they are using DFengage web or DFengage mobile. Study participants receive these links in their invitation email, reminder emails, or as a link or QR code provided by site staff via DFweb's **ePRO Management** page. Below are details about accessing DFengage without these user-specific access links. Learn more about [Access Links for DFengage](#).

Mobile Application

The **DFengage** mobile app is available for installation from the [Google Play Store](#) on Android™ devices and from the [Apple App Store](#) on iPadOS® and iOS®.

To assist with opening DFengage in the app store and pre-filling the server and API, customize the following example link to include your own DFdiscover and API: <https://dfengage.dfdiscover.com/open?server=explore.dfdiscover.com&api=dfws.dfdiscover.com>, where the server = explore.dfdiscover.com and API = dfws.dfdiscover.com.

1. Click the link to open DFengage in the app store.
2. Install DFengage on your device from the app store, but don't open the app yet.
3. Click the link again to open DFengage with the server and API pre-filled.
4. Enter your username and password to login.

For existing users, upgrading to **DFengage** 2.4 depends on the auto-update setting on their device. If auto-update is enabled, **DFengage** will update automatically as new versions are released. If auto-update is disabled, users will need to manually update **DFengage** to use newer versions.

Web Application

The **DFengage** web application is accessible via web browser and does not require any download or installation by end users.

The DFnet instance of DFengage web is available at <https://dfengage.dfdiscover.com>, but your system administrator will provide a custom link including your DFengage web URL, DFdiscover server, and API, for example: <https://dfengage.dfdiscover.com/?server=explore.dfdiscover.com&api=dfws.dfdiscover.com>, where the server = explore.dfdiscover.com and API = dfws.dfdiscover.com.

New Features and Enhancements

This chapter describes the features and enhancements added to **DFengage** since the release of Version 2.3.0. See the next chapter, [All Updates](#) for a table listing all changes, including bug fixes.

DFengage Web App

In addition to the mobile app version of DFengage, we now offer a browser-based web version of DFengage for studies or participants who do not wish to install or use an app on their device. The DFnet instance of DFengage web is available at <https://dfengage.dfdiscover.com>, but organizations may also host their own instance.

Key functionality is the same between web and mobile, with a few differences:

- The web version is only available online, while mobile supports offline use. An internet connection is required for DFengage web.
- The web version does not send notifications for new and overdue activities on the participant's device, as the mobile app does. Instead, participants are notified of new and overdue activities via email from the DFdiscover server, to the email address registered to them in the DFweb ePRO Management tool. Available with DFdiscover 5.10 and later.
- All activity data must be submitted to the DFdiscover server before the participant logs out of DFengage web. Unlike the mobile app, no study data is stored locally between login sessions in DFengage web.
- The History page in the web version displays all data submitted under the current user account. In the mobile app, the History page displays only those activities completed since the user last logged in with their username and password.
- The web version requires login with username and password each time a participant accesses the application, since no PIN can be set as in the mobile version. Invitation and login links may be generated that pre-fill all login details so the participant only has to provide their password when logging in.

Further details are provided in the [DFengage User Guide](#).

Login Improvements with Invite & Login Links for DFengage

The DFengage login experience has been enhanced to make it easier for participants to access their ePRO accounts and begin entering data. These updates simplify how study participants connect to their DFdiscover server and authenticate, whether they are new users accepting an invitation or returning users logging in.

When participants open DFengage (web or mobile) using an appropriate access link, the DFdiscover server and API information are pre-filled automatically in the background. Only the DFdiscover server name is displayed on the login page, keeping the interface cleaner and less confusing for participants. Users can still change the server and API if needed, such as for testing, by clicking the server name.

DFengage also supports invite and login links that can be shared with participants directly by site staff through the DFweb ePRO Management page, making it easier for participants to access their ePRO accounts and begin reporting data. [Learn more](#) about DFengage access links.

- The **invite link** prompts the user to confirm the email address for the specified username. The confirmation triggers a password reset email so the user can set their password and login to DFengage. The DFdiscover server, API, and username are all pre-defined in the link.
- The **login link** prompts the user to enter their password for the specified username. The DFdiscover server, API, and username are all pre-defined in the link.

Study participants receive these links in their invitation email, reminder emails, or via a link or QR code provided to them by site staff via DFweb's ePRO Management page.

The existing server-specific quick installation link may still be used to take the user to the DFengage page in the appropriate app store and prompt the user to complete both their username and password in the mobile app, with the DFdiscover server and API fields pre-filled (e.g., <https://dfengage.dfdiscover.com/open?server=explore.dfdiscover.com&api=dfws.dfdiscover.com>). If a user opens DFengage without an access link, they are prompted to enter the server and API manually.

Forgot Password Support

DFengage users on both web and mobile may now request a password reset from the login page if they need to set a new password. This provides a self-service option for study participants having difficulties logging in or forgetting their password.

Study participants must have been registered with their email address via the DFweb **ePRO Management** page in order to request a new password. They must provide both their username and email address in order to request a password reset.

Once requested, they'll receive an email with a link that will take them to the reset password page, where they can enter their new password and confirm it. They will then be logged in to DFengage. They'll also receive an email confirming that their password was changed.

Two-Factor Authentication Support

Two-factor authentication is supported in DFengage when enabled for a user by a study administrator. When enabled, users are prompted to provide a verification code sent via email each time they log in. This allows the system to provide a second level of authentication beyond the username and password required to login to DFengage.

Study participants must have been registered with their email address via the DFweb **ePRO Management** page in order to use this feature.

Two-factor authentication is enabled per user by a study administrator in DFadmin. Two-factor authentication is only available in DFengage when connecting to DFdiscover server and API version 5.10 or later.

Pending Activities Reminder

In case of any pending activities in DFengage that have not yet been received by the DFdiscover server, a red dot is shown on the History icon as a reminder to the participant. In DFengage web, a notification message is also displayed on Today page, and the Logout button is replaced with a Sync button. The participant is prompted not to log out until their pending activities have been successfully sent to ensure data is not lost.

Repeating Activity Option

DFengage now supports repeating activities, allowing forms to be collected multiple times in one day or within a time period, using a common schedule date and time. These are defined in the visit map with a visit number range with the S (Scheduled) visit type, so that the repeating form can be assigned a schedule date. Each time an activity is completed for a visit number within a range defined using “-”, the next activity will become available, until the highest visit number in the range is completed. Activities for a visit number within a range using “~” will only appear when a plate within that visit is manually created in **DFexplore** or **DFweb**.

If collecting a repeating form an indefinite number of times on a specific day (for example, to collect multiple dosage administrations or feedings on each day), consider including a question that verifies whether an additional entry will be completed that day. Use the conditional visit map to exclude any visits in the range that will not be used, so they do not appear as overdue.

If collecting a repeating form to be completed at any time (for example, to capture ad hoc events that could occur within a specific time period), schedule the visit to occur on the earliest possible date the form will be available in DFengage, and specify an overdue value that exceeds the number of days the repeating form will remain available. A new repeat of the activity will appear under “Due Now” each time one is completed until the highest visit number in the range has been completed.

DFengage Web Server Instance

DFengage web is available directly from DFnet at dfengage.dfdiscover.com, however the DFengage web application may also be self-hosted by customers with their own DFdiscover server. Details for system administrators on the installation and maintenance of the DFengage web server is provided in the [Software Installation Guide](#).

All Updates

| Order | ID | App | Type | Description |
|-------|------|-----|------|--|
| 1 | 9915 | Web | New | DFengage is now available as a browser-based web application as well as a mobile application. Essential functionality is the same between the two apps, with some differences. See details . |

| Order | ID | App | Type | Description |
|-------|-------|--------------|--------|--|
| 2 | 12035 | Web & mobile | New | DFengage's login page has been updated to improve the participant experience and support invite and login links shared with study participants via email using DFweb's ePRO Management page. See details. |
| 3 | 9969 | Web & mobile | New | DFengage now supports password reset functionality via the Forgot Password option on the login screen. Users must have an email address registered to their account to use this feature. See details. |
| 4 | 12034 | Web & mobile | Change | DFengage now supports two-factor authentication (2FA). Users must have 2FA enabled for their account and a registered email address to use this feature. See details. |
| 5 | 10700 | Web & mobile | New | DFengage now displays a red dot next to the History icon when there are any pending activities that have not been received by the server. See details. |
| 6 | 11872 | Web & mobile | New | DFengage now supports repeating activities, allowing a form to be collected multiple times in one day or within a time period. These are defined in the visit map with a visit number range with the S (Scheduled) visit type. See details. |
| 7 | 12038 | Web | New | The DFengage web application may be self-hosted by customers with their own DFdiscover server. See details. |
| 8 | 11435 | Web & mobile | Change | The Set New Password page has been improved for usability. Previously, error messages could be missed on small screens when the keyboard was active. The page has been reorganized to show all information on the screen without scrolling even when the keyboard is open. We've also simplified the language for the password complexity rules to make them easier to understand. |

| Order | ID | App | Type | Description |
|-------|-------|--------------|--------|---|
| 9 | 12033 | Web & mobile | Change | DFengage's interface has been updated to accommodate larger screens for both the mobile app and the web app. |
| 10 | 11914 | Web & mobile | New | DFengage now reloads the subject visit scheduling from the DFdiscover server each time an activity is completed. Any visit schedule updates, such as new activities that become expected or excluded based on answers provided in the completed activity, are immediately available on the Today page. Reloading is only performed when the user is online. |
| 11 | 9148 | Web & mobile | New | DFengage now supports the auto-completion of fields with Use designated as Language in DFsetup. The user's selected language is automatically entered in this special read-only field when the activity is completed and submitted to the DFdiscover server. |
| 12 | 9151 | Web & mobile | New | DFengage now supports the auto-completion of fields with Use designated as Local Creation Timestamp and Local Modification Timestamp in DFsetup. The appropriate timestamp with UTC offset in the user's local time zone is automatically entered in these special read-only fields when the activity is completed and submitted to the DFdiscover server. |
| 13 | 12037 | Web | New | In DFengage web, the History page displays all activities completed by the current user. This is different from DFengage mobile, where only activities completed on that device by the current user are displayed since the user logged into DFengage with their username and password. |

| Order | ID | App | Type | Description |
|-------|-------|---------------|--------|--|
| 14 | 12039 | Web | Change | The in-app training module in DFengage web excludes mobile-specific functionality, specifically offline usage and push notifications. In addition, the introduction screen shown before login in the mobile app is not displayed in the web app. |
| 15 | 11772 | Documentation | Change | Various fixes and improvements have been applied to the DFengage documentation. |
| 16 | 11267 | Web & mobile | Fix | A bug related to blank choice fields was fixed, where DFengage saved these fields with an empty value when an activity was completed offline. Blank choice fields are now saved with the no-choice code as the data value both online and offline. |
| 17 | 11337 | Web & mobile | Fix | A bug has been fixed that allowed a user to proceed to the next question when invalid data values were entered in a field, for example characters other than a number, plus or minus sign, or period in a numeric field, which resulted in the server rejecting the data value and leaving the field blank. This update prevents the user from continuing to the next question if invalid data has been entered, ensuring the data will not be cleared when saved to the server. |
| 18 | 10692 | Web & mobile | Fix | Previously, a "Taking longer than usual" message sometimes appeared too quickly while an activity was being saved and sent to the server. This message now only appears after 10 seconds of waiting. |
| 19 | 12719 | Web & mobile | Fix | An issue has been fixed in DFengage where translations were not correctly applied when the translation was defined in DFsetup as specific to one or more plates. |

Known Issues

This section provides information about low-severity, low-priority issues that exist in the current release, with details about available workarounds. Where possible, known issues are planned to be addressed in a future release.

| ID | App | Description |
|-------|--------------|--|
| 9731 | Web & mobile | If a user starts but does not finish an activity in DFengage, when they continue the activity it retains the role permissions and setup definition loaded when the activity was started. This means that any changes to the role permission or setup definition made after the user started the activity in DFengage will not be applied to the activity. |
| 10307 | Web & mobile | Some error messages in DFengage are always shown in English even if the rest of the app is shown in a different language. These messages are responses from the DFdiscover server and are not translated into other languages at this time. |
| 10271 | Mobile | DFengage notifications may not appear in the expected language if the user does not open DFengage. If the user changes their device language, notifications appear in the previous language until they open DFengage again. If the user receives more than 32 notifications without opening DFengage, the notifications will appear in English. As a workaround, remind participants to open DFengage to get updated notifications. |
| 12693 | Web | In DFengage web on phone-sized screens, the Logout button at the top right is replaced by a sync button (cloud icon). To logout of DFengage web in this scenario, go to the Settings page and click Logout near the bottom of the screen, or simply close the browser tab. Users are automatically logged out of DFengage web after 20 minutes of inactivity. |
| 12737 | Mobile | On iOS/iPadOS devices, if a user fully dismisses the app (i.e., opens the app switcher and swipes up to close the app) during an invite or password reset flow, the app may fail to resume the process correctly after the user opens the Set New Password page on the app via the password reset link received by email. To continue using the app in this scenario, restart the invite or password reset process from the beginning. To avoid this issue, do not close the app during the invite or password reset flow. |

Advance Notices

This section provides information about changes planned in a future release that may impact ongoing projects, in particular any features that will be deprecated. These notices are intended to support planning for future upgrades.

No advance notices for DFengage in this release.

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DCMTK software package

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Jansson

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Mimencode

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RSA Data Security, Inc., MD5 message-digest algorithm

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mpack/munpack

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PostgreSQL

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gawk

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d3.js

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jwt-cpp

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QXlsx

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