

SIUF authoring and submission

This article will walk you through how to author and submit your automated Windows survey, or System-Initiated User Feedback (SIUF).

Access the SIUF Authoring tool

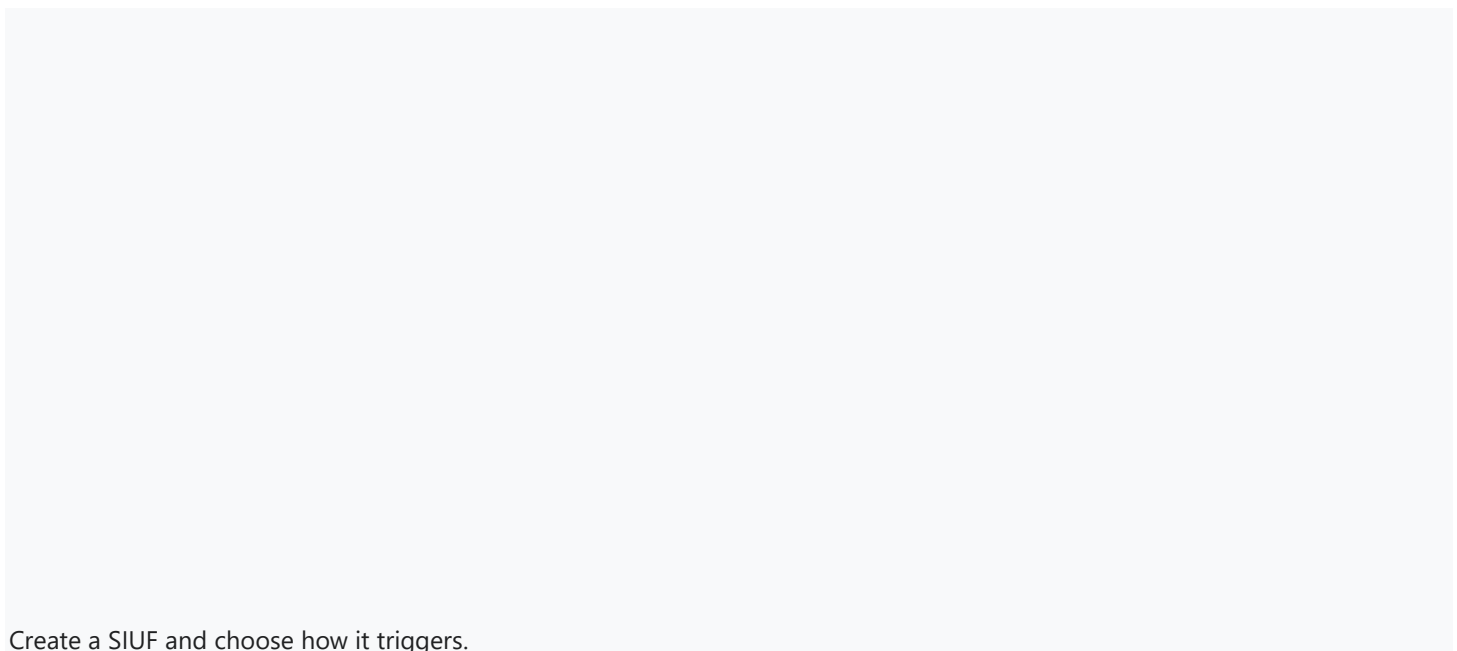
To access the [SIUF Authoring](#) tool, you will need to do the following:

- Join the OSG Data Extended or Windows Tool Access Security Group. Request to join via this [wiki](#).
- Complete below trainings (see [wiki](#) for most current info):
 - [Privacy 101](#)
 - [Privacy 201](#)
 - [Competitive Intelligence](#)
 - [Windows Data Handling](#)

Create a new SIUF

In the [SIUF Authoring](#) tool, select **Create a new SIUF**. You can either create a new SIUF or make a clone of an existing SIUF. Then choose how you would like to trigger the SIUF: either selecting a **URI link**, or completing a **state machine** scenario that prompts a notification. Find more information, go to [Types of SIUF](#).

If you already have a SIUF ID, you can search for it or go to a URL with this structure: <https://siufauthoring.azurewebsites.net/authoring/siufs/YourSIUFID>



Create a SIUF and choose how it triggers.

Select the type of SIUF

Choose a single-question SIUF or a multi-question SIUF.

Single-question SIUF [\[edit\]](#) | [edit source](#) | [share](#)]

Single question SIUF include the following formats. All multiple-choice options include an automatic followup freeform option.

- 5-point Rating Scale Question (example: NPS)
- 3-Point Rating Scale Question
- Yes or No Question
- Checkbox Question
- Freeform Text Question

Multi-question SIUF

Combine multiple single-question SIUF to create a longform survey in a multi-question SIUF. The first question of a multi-question SIUF is the question that appears in the notification toast. Multi-question SIUF also include a SIUF title.

Explain why you want the SIUF

Because notifications are a key dissatisfaction driver for Windows, we want to risk disrupting as few people as possible while generating adequate feedback for Microsoft teams. Consider this goal as you answer these three use-case questions, and investigate whether you can gather data in less disruptive ways. Your written answers give the SIUF review team and the Greenlight committee context to understand your use case. For more information, see SIUF's [Purpose](#).

If your SIUF targets a retail audience, you must answer these questions and schedule a Greenlight review: [Greenlight SIUF submission guide](#)

Use-case questions

Fill in the question details

Choose between five types of questions:

- 5-point Rating Scale Question (example: NPS)
- 3-Point Rating Scale Question
- Yes or No Question
- Checkbox Question
- Freeform Text Question

Enter your question text, making sure to follow the [SIUF Question Best Practices](#). Then select a question focus, which will populate approved and recommended anchors. The NetPromoter (NPS) question focus will also populate the question text ("How likely are you to recommend [*product name*] to a friend or colleague?") and follow-up questions ("Please explain why you gave this score").

Question Focus populates recommended negative and positive anchors.

As you fill in the question details, you can preview an interactive version of your SIUF.

Test an interactive preview of your SIUF as you fill in the question details.

Set up how the SIUF triggers

SIUF will display, or pop, under the conditions that you set up.

SIUF lifetime

Your SIUF will terminate at the end of its lifetime or after 4,000 responses, whichever comes first. The options for SIUF lifetime are 30, 90, 180, 365, and 730 days. Why are SIUF capped at 4,000 responses? See [Deactivating and marking SIUF scenarios complete](#).

Trigger type

You have two options for trigger type: URI link and state machine.

URI link

SIUF will trigger when a user selects a link. Selecting this option will generate a link. Use this option for [Quests](#).

State machine

Status machine SIUF, or notification SIUF, appear in notifications that are triggered by user or state machine activity. Define the trigger so that the SIUF notification appears while the user is present with the device and doing something that is related to, or in context with, the SIUF question.

State machine workflows provide a modeling style with which you can model your workflow in an event-driven manner. A [StateMachine](#) activity contains the states and transitions that make up the logic of the state machine, and can be used anywhere an activity can be used. The state machine workflow includes states like `_start`, `_complete`, and `_cancel`, as well as transitions between the states. The states and transitions are defined by events.

Example state machine

For example, if you are on the Start Menu team and want the SIUF question to display after user opens Start Menu, goes to "All apps" and then closes Start Menu, then you could instrument and define your states as follows:

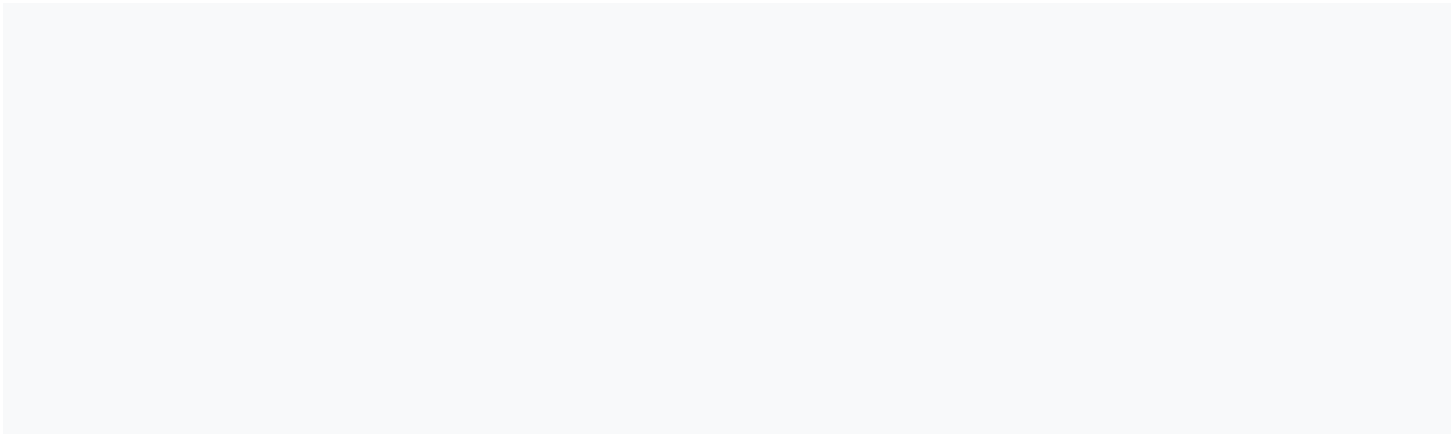
- State 1: Start Menu opened
- State 2: User clicked on "All apps"
- State 3: Start Menu closed

Maximum duration

Maximum duration is the amount of time needed to capture your state machine. The default 30,000 milliseconds is enough for the vast majority of SIUFs.

Events

Add events before adding transitions. For each event, select the trigger type: TraceLogging, manifest Event Tracing for Windows (ETW), or time. TraceLogging is a Windows 10 event tracing framework for user-mode applications and kernel-mode drivers. TraceLogging builds on ETW and provides a simplified way to instrument code.



After selecting the trigger type, fill in the event details using the data from your feature or app. The development team owner for the event will have any additional information.

- Event name is the name of your telemetry event. This is defined by DEFINE_TAGGED_MEASURES_EVENT or something similar.
- Provider GUID is defined by DECLARE_TRACELOGGING_CLASS but in GUID format (xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx).
- Event Keywords is the type of event in hex value:
 - #define MICROSOFT_KEYWORD_CRITICAL_DATA 0x0000800000000000 // Bit 47
 - #define MICROSOFT_KEYWORD_MEASURES 0x0000400000000000 // Bit 46
 - #define MICROSOFT_KEYWORD_TELEMETRY 0x0000200000000000 // Bit 45
- Level is mainly used for classic ETW and can be set to 5 for telemetry events.

Example event with such fields:

In you're unsure about your GUID or keywords, you can look them up at datagrid.microsoft.com.

Transitions

A transition is the change from one state to another. Add transitions after adding events, as transitions are defined by events. Further specify transitions by adding filters.

For questions about what telemetry is supported by UTC (Universal Telemetry Client) and Diagtrack, email the OSGInstrument@microsoft.com discussion alias.

Fix your SIUF using ApplInteractivitySummary (AIS) event as an additional trigger

1. The first trigger event will be your existing event.
2. Add another trigger to the state machine for Win32kTraceLogging.ApplInteractivitySummary event.
 1. Add filter for lets say 2 mins of usage. You can adjust this to smaller or larger periods of usage.
 2. Add filter for matching usage to your target app/process. If you want to just perform a user presence check, then add filter for matching any app usage other than certain apps like lockscreen.
3. Set the state machine use case timeout to appropriate value. This is the max time between the two states.
4. Ensure "Turn OFF Impersonation" box is checked.

For an example look at [Sample measures](#). For more details on AIS event, refer [Tips on Using AIS as trigger](#).

Below measures are only provided as an example. You are welcome to clone from them. However you are still required to complete all the SIUF authoring process guidelines including testing.

1. [15729648 Background event paired with an AIS usage event matching any app usage. NOTE: The filter used here for PostUpdateUseInfo is for RS3+.](#)

Courtesy Engine (CRE)

The Courtesy Engine (CRE) is a component of SIUF that controls whether a user is shown the SIUF notification. When a scenario has been met as defined by the state machine (for example, the user has opened the weather app 10 times), the SIUF only gets shown to the user if it passes through the CRE. This helps to ensure that we are not bothering users too often by asking for feedback.

If a scenario is triggered but the Courtesy Engine blocks the SIUF, then it will not be queued or retried automatically in the future. For this reason, you should define the scenario for your question to be such that it does not happen only once but something that is triggered often or periodically. This will give your question the maximum opportunity to be shown to the user.

Courtesy Engine rules

The Courtesy Engine is built on a set of rules. SIUF scenarios need to pass these three rules before being shown to the user:

- History rule: The same SIUF cannot have been asked to the user already.
- Post-logon quiet period: No SIUF can be asked in the first 15 minutes that the user is logged in.
- Frequency rule: Any SIUF cannot have already been asked within the default period, as shown in the table below:

Ring / Channel	SIUF frequency
OSG-Fast / Dev internal	Once an hour
OSG-Slow / Beta internal	Once a day
MSIT	Once a day
WIP-Fast / Dev external	Once a day
WIP-Slow / Beta external	Once a day
Retail	Once a week

In rare cases, the SIUF review team can grant exceptions to these rules. For non-retail builds, it is also possible for the SIUF to be re-asked when a change in the Windows build has been detected.

Set up how the SIUF targets devices

SIUF will display on devices in the audience that your set up.

Device type and build

Select the device type in the SIUF audience: Desktop, Xbox, Core, Team OS (Surface Hub), Mobile, or Holographic; and select the minimum and maximum build.

Targeting type

Select from the following targeting types. Note: *NOT_SET* is the value for devices whose ring is not being recorded by telemetry for whatever reason.

- **Rings** Starting June 25, 2020 please do not use this option. Rings are being deprecated. Please use the Rings and Channels option instead.
 - Default: Internal Microsoft and Insider rings (Canary, Selfhost, Microsoft, Insider fast, Insider slow, Release preview, NOT_SET)
 - Internal Microsoft rings only (Canary, Selfhost)
 - Insider rings only (Microsoft Insider Fast, Insider slow, NOT_SET)
 - Retail (No sampling) - All 500 million retail devices
 - Custom selection. Choose from Canary, OSG, MSIT, WIF (Insider fast), WIS (Insider slow), RP (Release preview), NOT_SET, Retail,)
- **Rings and Channels** As of June 25, 2020 please select this option instead of Rings option. This option is configured for the new Insider Channels.
- **Audience** For targeting a specific group of device with certain attributes. See [Targeting SIUF using Audiences](#)
- **Custom groups**
- **Device ID URI** In general the SIUF team does not prefer this option because it leaves us without visibility or control, and the URI takes longer than other options to ingest and return data. However if needed, this option allows you to write your own script to target specific devices. If you do, please limit the maximum device count to 1 million or fewer. If you want to change the device list, we recommend changing it every two or three days. See [Targeting SIUF With Custom Groups Using Device Id Targeting](#)
- **Retail (Recommended Sampling)** This audience is a sample of 2 million retail devices. According to Data Science and User Research, this is a sufficient sample size and diversity for a survey that will allow you to gradually get responses representative of the population.
- **All Rings and Channels**

Choose to manage device filters and whether to target test systems. Test devices have a particular registry key set; in general these are not good targets for SIUF.

Configure additional settings

SIUF by default is calibrated to deliver you adequate feedback while disrupting as few users as possible. Courtesy Engine rules lower the risk of bothering users. You may request exceptions to these rules if you have special circumstances. You may also request other non-standard features. Selecting these settings will not guarantee they are approved, will prompt review teams to look at your SIUF with more scrutiny, and will likely result in a longer review time. Please only select a setting if you have prepared a justification for it.

- **Show this SIUF even if another SIUF has recently been asked to the user (Frequency rule)** Overrides a CRE rule that prevents any SIUF from displaying on a device if another SIUF has displayed on the device within a certain amount of time. The amount of time depends on the ring: weekly for retail; daily for Insiders, MSIT, and OSG-Slow; hourly for OSG-Fast.
- **Show this SIUF to the user even if has already been asked (History rule)** Overrides a CRE rule that prevents a SIUF from displaying on a device more than once. Most of the time, you can use the below exception instead of this.

- **Re-ask this SIUF again after a build revision (including minor build number changes)** Overrides a CRE rule that prevents a SIUF from displaying on a device more than once, but only after a build update.
- **Show this SIUF even during the first 15 minutes of logon (Ignore Post Logon Quiet Period)** Overrides CRE rule for post logon quiet period.
- **Do not show this SIUF to users who have already seen toast from a previous version of this SIUF** Useful for when you make a similar SIUF with a different measure ID to prevent the same user from seeing the same question twice.
- **Do not deactivate this scenario even after receiving 4000 responses.** SIUFs by default terminate after 4,000 responses. Data Science and User Research determined that 2,000 responses was enough to measure perception, and subsequent responses didn't add anything useful in most cases. In fact most teams had a hard time parsing verbatims after 1,000. The limit is set to 4,000 to be safe. See [Deactivating and marking SIUF scenarios complete](#).
- **Show UI to collect email address from Retail customers** Compatible only with retail SIUF on builds 14334 or later. Email address collected are kept in a separate PII Cosmos streams with limited access. See [Process overview for contacting retail customers](#)

UI for collecting email addresses from Retail customers

- **Use machine learning model** This is a model developed by NPS teams that targets devices based on specific updates and feature usage.
- **Use Feedback Hub to toast (for interactive SIUFs)** With this option the user can answer the SIUF directly in the toast instead of opening Feedback Hub.

Configure additional settings

Validate the SIUF

Before submitting your SIUF, validate that your scenario works as intended.

Syntax validation

Select **Validate and check for errors** and correct any errors found.

Test your SIUF

Run a test case of your SIUF either by sideloading the SIUF locally or downloading the SIUF XML. See full instructions at [Test and troubleshoot your SIUF](#).

Sideload the SIUF locally

1. Select **Sideload this SIUF locally** to download a .cmd file.
2. Save the .cmd file on a device or virtual machine that fits the type and build of your SIUFs target audience.
3. Right click on the file and run it as Administrator. The script will take you through a step-by-step process. Contact SIFCrew@microsoft.com with issues.
4. Make sure you see your SIUF display as you expect when your trigger is met.

Note: The script disables the Courtesy Engine on your device for testing and then enables the Courtesy Engine again after testing. If the script fails, try disabling CRE.

Disabling the Courtesy Engine for testing purposes

For testing your scenario, you may need to turn off Courtesy Engine. In order to do that, you need to run the following scripts:

Desktop

- Disable CRE by running this in elevated
prompt: `\\redmond\osg\Release\Feedback\siuf\tools\disablecre.cmd`
- Enable CRE back by running this in elevated
prompt: `\\redmond\osg\Release\Feedback\siuf\tools\enablecre.cmd`

Mobile

- To disable CRE, from TShell run: `\\redmond\osg\Release\Feedback\siuf\tools\disablecre-device.ps1`
- To enable CRE, from TShell run: `\\redmond\osg\Release\Feedback\siuf\tools\enablecre-device.ps1`

Download SIUF XML for mobile testing

For Windows Core, download the SIUF XML and then test and validate following these steps: [How to sideload and test SIUF on Mobile](#)

For issues, see [Troubleshooting SIUF](#).

Submission and publishing

After you validate and test the SIUF, you can save it and submit it for review. See [Review process for new SIUF submissions](#).

Localization

All SIUFs are automatically localized for supported locales. No action from you is needed. Learn more about the [SIUF localization process](#).

Reporting

Data will start coming in for most SIUF after 24 hours. To learn how to start collecting and interpreting the data, see [SIUF Reports](#).

FAQ

Will the SIUF toast show up as soon the state machine for my scenario is triggered?

Yes, there is no lag or delay. As soon as the scenario corresponding to this SIUF is hit and the Courtesy Engine does not reject the scenario, the toast will show right away.

I just received the email that my SIUF was approved but I don't see any scenario completions, dispatches, or submissions?

Scenarios are pushed to the front-end server around 11:30 a.m. Redmond time. After that, the UTC service on each device has to download the scenario. UTC pings the server usually around every two hours provided that there's an unmetered connection.

My scenario was terminated but why do I still see responses coming in?

There are a couple of factors. First, the front-end server is updated around 11:30AM Redmond time so terminated scenarios won't be removed until the 11:30AM. UTC on every device will have to ping the front-end server and download a new manifest without the scenario. This usually happens every 2 hours but it depends on server load as well as the availability of an unmetered connection. Additional info

at <https://stackoverflow.microsoft.com/questions/13334/i-terminated-my-diagtrack-scenario-but-im-still-seeing-some-new-cabs-collected>.

What's the data flow pipeline for SIUF responses like?

1. Submissions are sent back as Telemetry events. Please see DataDictionary for [schema](#).
2. The event is ingested and cooked into Cosmos/Asimov.
3. The event is then queried and stored into [FeedbackSubmitted](#) streams by DII.
4. The data is then joined with Census and QuestionInfo to form the [SubmittedEvent](#) stream by DII.
5. The data is then aggregated to the [QuestionSummary](#) stream by DII.
6. QuestionSummary is SQLized by the SIUF for Insights report.

How do I enable test mode in TRTT if my scenario has the IsTest filter?

Just uncheck the "Scenario filters" checkbox under the "Test" menu in TRTT (see screen shot).

How long will it take for my SIUF to show up on client machines after it has been approved?

It could take up to 24 hours for your scenario to become published in our OneSettings server after it has been approved. Once in published state, the SIUF is available to be downloaded for client machines.

Client machines ping the OneSettings server every two hours, assuming AC power and non-metered connection, for any new published scenarios. Once the scenario is downloaded on the device, it will be subject to when your scenario is hit and if it is passing [Courtesy Engine \(CRE\)](#) rules before getting shown to the user.

Can I create a state machine with three states or more?

Yes, add states under Transitions in the Authoring tool.

How can I edit a SIUF measure that already exists?

If you already have a SIUF ID, you can search for it or go to a URL with this structure: <https://siufauthoring.azurewebsites.net/authoring/siufs/YourSIUFID>

Why can't I find events with dashes separating the event in the Event Finder?

By convention, events should use dots to separate words and not dashes. When the events are ingested into the Event Registry (which the Event Finder gets data from), the dashes are replaced by dots. In the manifest, it is necessary to replace the dots with dashes or the events won't match up on the device and the scenario will not complete.

In other words, the events still have dashes on the device so you have to replace the dots in the manifest or UTC will be looking for events with dots instead of dashes.

This happens with a few shell event providers.

After adding filters, my SIUF won't work anymore.

Filters can certainly be tricky. One of the more common errors is adding quotes to a constant string when using it in a trigger comparison. Your event likely is reporting back that the event string is contained within quotes, but that's just an artifact of how it's reported. If your filter is looking for a specific string in the event, try using the plain string. For example, `pageld == MyPage` instead of `pageld == "MyPage"`.

I would like to change the text for my published SIUF. What's the best way to do that?

Once a SIUF has been published, it cannot be changed. Please terminate the current SIUF, edit, and publish.

Need help?

Please attend SIUF Office Hours (Thursdays 2-2:45 pm): [Join Microsoft Teams Meeting](#)

For any help with the authoring tool itself (issues with the tool, how to set triggers, running validation tool, etc), reach out to [SIFcrew](#)

For any other SIUF questions (e.g. questions around SIUF best practices, CRE, UX, reporting or SIUF policies) please reach out to [SIUFreview](#)