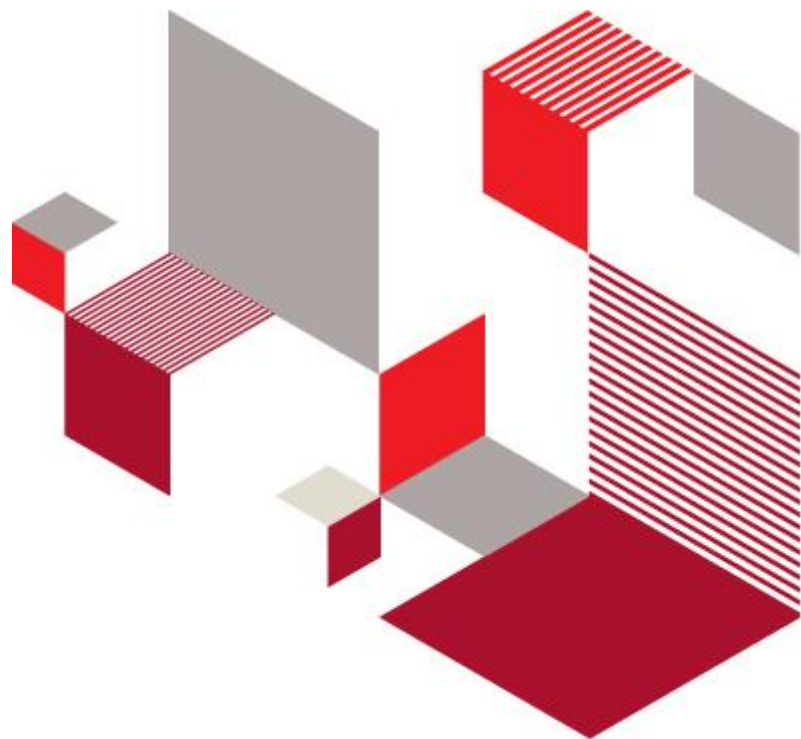




BearingPoint Limits Monitor for Salesforce

Version 1.4



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2 Introduction

The BearingPoint Limits Monitor for Salesforce allows Salesforce users to have a centralized view on various kinds of Salesforce limits by collecting them in a single object. This object is regularly updated via a scheduled Apex class. It is e.g. possible to report on the contents of this object or to trigger actions via workflow rules. For a quick overview the Limits Monitor also provides a Lightning Component that can be dropped on any Lightning page.

By default, the LM collects limits provided by the Limits API (including their current usage) as well as static limits like transaction-based Apex limits for reference purposes only (i.e. without current usage). It is also possible to create manual limits, which can be maintained manually and will not be touched by the automatic processes.

3 Installation

Please use the option “Install for Admin users only” when installing this from AppExchange.

After you have installed the Limits Monitor into your org, there are a few manual steps to be performed.

It is highly recommended to use the included permission set “Limits Monitor” to give admin users access to the functionality of this app and not to assign single permissions e.g. to profiles.

3.1 Post installation tasks

Please execute the following immediately after the installation of the app.

1. Assign the permission set “Limits Monitor” to all users who should have access to the tool.
Setup → Users → Permission Sets → “Limits Monitor” → Manage Assignments
Alternatively, assign the permission set to a permission set group and assign this group to users.
2. Open the “Limits Monitor” app and under “Administration” (utility bar) click on “Update limits now” and then on “Schedule automatic limits update”. See chapter 5 for more information on how limits are collected from the Limits API. Please note that you will need to have the “API Enabled” and “View Setup and Configuration” permissions for this.
3. Remove the app “Limits Monitor” from the profile "System Administrator" or any other profiles. Assign the permission set “Limits Monitor” instead.
4. Optional: place the Lightning Component “Limits Monitor Component” onto a Lightning page of your choice. Chapter 6 describes how to configure the component.
PLEASE NOTE THAT users who need to work with this component alone also need to have the Permission Set assigned (see 1.). Otherwise, the component will show nothing.

It is not encouraged to change the page layouts or to alter any of the included components of the Limits Monitor objects as they are specifically tailored to the needs of the application.

3.2 Post App Update tasks

Please execute the following immediately after the update to the new version of the app.

Verify the global Picklist with Name: **LimitCategory** should have following values. If a value is missing, please add it to the picklist:

1. Storage
2. API (General)
3. Apex
4. Email
5. Reports and Dashboards
6. Streaming API
7. Workflow
8. Configuration
9. License
10. Custom

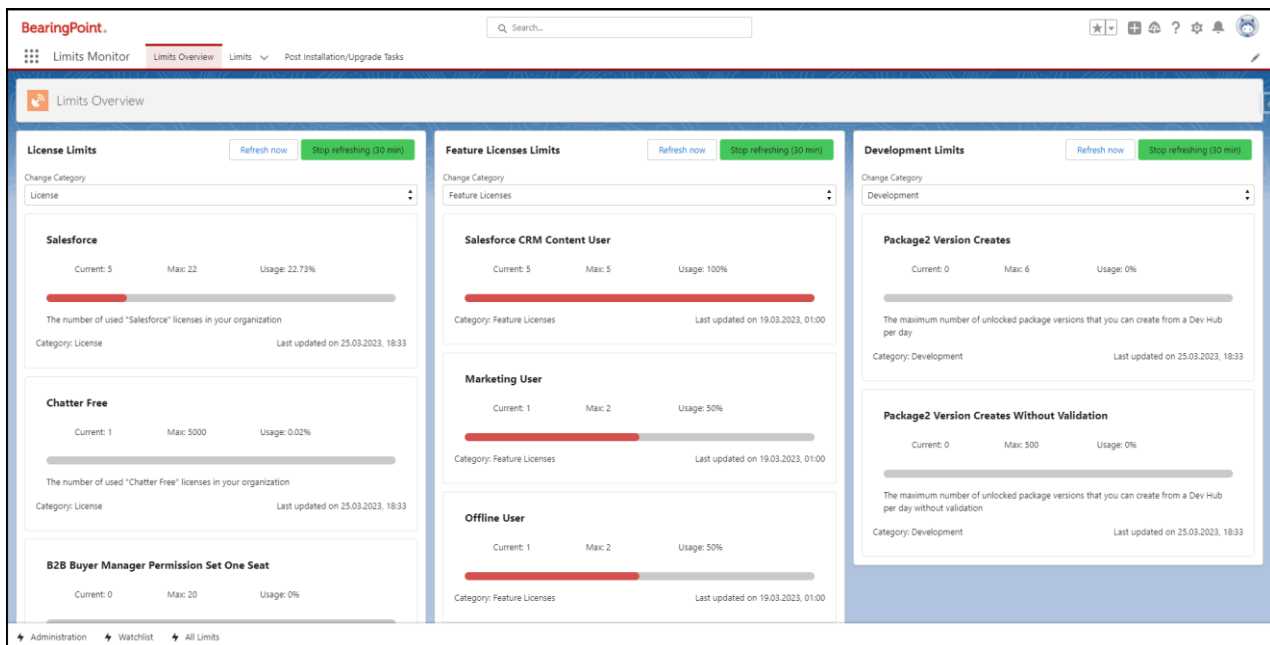
- 11. Development
- 12. Analytics
- 13. Einstein
- 14. Platform Events
- 15. Usage-Based Entitlements
- 16. Feature Licenses

It is not encouraged to change the page layouts or to alter any of the included components of the Limits Monitor objects as they are specifically tailored to the needs of the application.

4 Using the Limits Monitor app

4.1 General

Bundled with this package is the app “Limits Monitor” which provides a simple page with three limit components and a Utility bar.



The component on the left corresponds to the first, the middle one to the second and the right one to the third category preference of the current user. If the user changes the category in the page in one or more of the components, the selection will be saved to the User object and the page will be opened with the latest selections.

You can always refresh each single component manually by clicking on “Refresh now” to show the current limit status. By default, the components are refreshed automatically every 30 minutes. By clicking on “Stop refreshing” you can prevent this. The button will then turn into a “Start refreshing” button.

The utility bar on the bottom of the page provides access to the Administration, where you can set the global threshold for the watchlist, as well as easy access to the Watchlist and all limits.

Please note that to execute administrative tasks the user must have the following permissions assigned:

- “View Setup and Configuration”
- “API Enabled”

There is also a tab for the Limit records which will show you the details of all the limits collected from your organization and allows you to create your own limits or modify the limits behaviour (e.g. watchlist – see below).

The screenshot shows the BearingPoint Limits Monitor interface. At the top, there's a navigation bar with 'Limits Monitor', 'Limits Overview', 'Limits', and 'Post Installation/Upgrade Tasks'. Below this is a search bar and a 'Limits' dropdown menu. The main area displays a table of limits with columns: Limit Short Name, Limit Display Name, Category, Limit, Current Value, Usage, and Custom. The table lists 22 items, including Analytics External Data Size, Apex Mobile User, API Request Limit, B2B Buyer Manager Permission, B2B Buyer Permission, B2B Commerce Orders, B2B Commerce Total Active Storefronts, B2B Commerce Total Products, B2C Commerce GMV, Chat User, Chatter Answers User, Chatter External, Chatter Free, Cloud Integration User, Commerce Admin Permission, Commerce Merchandiser User, Commerce User, Concurrent Asynchronous Get Report Instances, Concurrent Einstein Data Insights Story Creation, Concurrent Einstein Discovery Story Creation, Concurrent Synchronous Report Runs, and CPU Time per Transaction. The bottom of the interface shows a navigation bar with 'Administration', 'Watchlist', and 'All Limits'.

Limit Short Name	Limit Display Name	Category	Limit	Current Value	Usage	Custom
1 ☐ Analytics External Data Size [MB]	Analytics External Data Size [MB]	Analytics	40,960	0	0.00%	☐
2 ☐ Apex Mobile User	Apex Mobile User	Feature Licenses	3	0	0.00%	☐
3 ☐ API Request Limit per Month	API Request Limit per Month	Usage-Based Entitlements	450,000	0	0.00%	☐
4 ☐ B2B Buyer Manager Permission Set One Seat	B2B Buyer Manager Permission Set One Seat	License	20	0	0.00%	☐
5 ☐ B2B Buyer Permission Set One Seat	B2B Buyer Permission Set One Seat	License	20	0	0.00%	☐
6 ☐ B2B Commerce Orders Placed	B2B Commerce Orders Placed	Usage-Based Entitlements	1	0	0.00%	☐
7 ☐ B2B Commerce Total Active Storefronts	B2B Commerce Total Active Storefronts	Usage-Based Entitlements	1	0	0.00%	☐
8 ☐ B2B Commerce Total Products	B2B Commerce Total Products	Usage-Based Entitlements	7,500	0	0.00%	☐
9 ☐ B2C Commerce GMV	B2C Commerce GMV	Usage-Based Entitlements	1,000	0	0.00%	☐
10 ☐ Chat User	Chat User	Feature Licenses	2	0	0.00%	☐
11 ☐ Chatter Answers User	Chatter Answers User	Feature Licenses	30	0	0.00%	☐
12 ☐ Chatter External	Chatter External	License	500	0	0.00%	☐
13 ☐ Chatter Free	Chatter Free	License	5,000	1	0.02%	☐
14 ☐ Cloud Integration User	Cloud Integration User	License	1	0	0.00%	☐
15 ☐ Commerce Admin Permission Set License Seat	Commerce Admin Permission Set License Seat	License	20	0	0.00%	☐
16 ☐ Commerce Merchandiser User Permission Set License Seat	Commerce Merchandiser User Permission Set License Seat	License	20	0	0.00%	☐
17 ☐ Commerce User	Commerce User	License	20	0	0.00%	☐
18 ☐ Concurrent Asynchronous Get Report Instances	Concurrent Asynchronous Get Report Instances	Reports and Dashboards	200	0	0.00%	☐
19 ☐ Concurrent Einstein Data Insights Story Creation	Concurrent Einstein Data Insights Story Creation	Einstein	5	0	0.00%	☐
20 ☐ Concurrent Einstein Discovery Story Creation	Concurrent Einstein Discovery Story Creation	Einstein	2	0	0.00%	☐
21 ☐ Concurrent Synchronous Report Runs	Concurrent Synchronous Report Runs	Reports and Dashboards	20	0	0.00%	☐
22 ☐ CPU Time per Transaction (asynchronous) [ms]	CPU Time per Transaction (asynchronous) [ms]	Apex	60,000			☐

4.2 Watchlist

Limits will automatically move to the watchlist once their usage surpasses the watchlist threshold. This threshold is a global value and can be set on the Limits Overview page in the “Administration” component in the Utility Bar at the bottom of the page. The new threshold will immediately be saved after entering the new value. It is possible to explicitly include a certain limit even if the usage is not above the threshold by checking “Include in Watchlist” on the limit record. It is also possible to explicitly exclude limits from the watchlist even if its usage is above the threshold by checking “Exclude from Watchlist”. “Include” will always override “Exclude”.

The Watchlist is not user-specific and shows the same limits to all users.

4.3 Monitor the Limits object

You can create workflow rules or processes on the object `bptlm__Limit__c` to automate certain alerts. You could e.g. send out emails once a specific limit, a limit within a specific category or any limit reaches e.g. 80%. There are no pre-defined workflow rules.

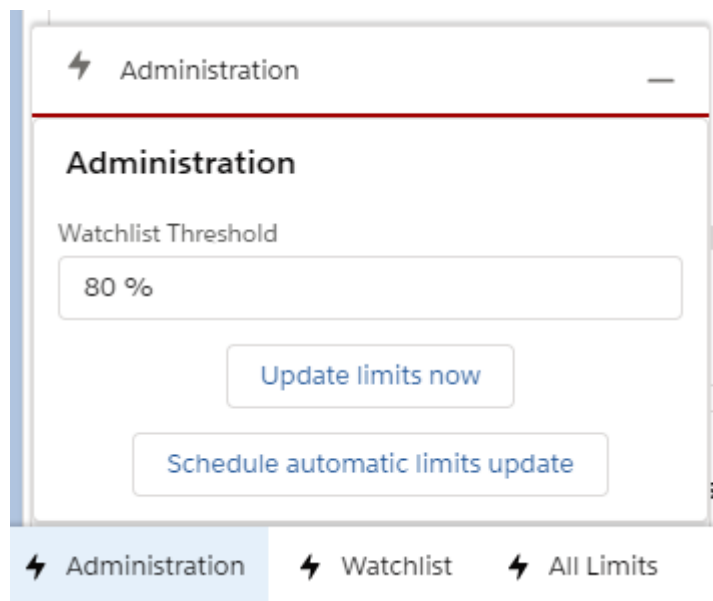
4.4 Create custom limits

You can always create custom records in the Limit object manually. Make sure, you keep the flag “Custom” checked when doing so. New records in the Limit object have this set by default. Such limits will not be touched by the functionality which updates the Limit object and you must maintain the contents manually as well. You could of course build functionality that automatically creates and updates such records e.g. via the Salesforce APIs or via Apex code. Manual limits will by default only appear within the categories “Custom” and potentially in “Watchlist”.

Please be aware that only the 2000 limit records with the highest value in “Usage” will be collected to be shown in the app or the components. Therefore, it is not recommended to have more than 2000 limits in this object.

5 Watchlist and updating the limits

The standard limits can be updated in the two ways described below. All options can be found in the Limits Monitor app under the utility bar item “Administration”. When the limits are updated, the app calls the Limits API of Salesforce, collects the current status and updates the “Limit” object with the new values. Please note that only users with the permissions “View Setup and Configuration” and “API Enabled” will be able to change the settings here. If you see an “ACCESS DENIED” message, please contact your administrator.



5.1 Watchlist threshold

The watchlist threshold defines which limits automatically move to the watchlist and which progress bars appear in red instead of green. Please note that if a limit has “Exclude from watchlist” selected, it will not appear on the watchlist even if the usage exceeds the threshold.

5.2 Manual update

To manually update the limits immediately, click the button “Update limits now”. This will collect the current limits using the Limits API in the background. You will either have to click “Refresh now” to see the current limits in your components immediately or you can wait until the refresh period is over (30 minutes).

5.3 Scheduled update

You can schedule the update job by clicking “Schedule automatic limits update” and unschedule it by clicking “Unschedule automatic limits update”. If the job is currently scheduled, you will only see the “Schedule automatic limits update” button and if not only the “Unschedule automatic limits update” button. When you schedule the job, it will update the limits every hour.

6 Configuration of the component “Limits Monitor Component”

The use of this component is entirely optional.

You may drop the Lightning Component onto any Lightning Page and thus expose all limits to users who do not have access to the setup pages. These users will have to have the Permission Set “Limits Monitor” assigned, though. If this is not the case, the component will show nothing. You have a few possibilities to configure the component.

Option	Possible values	Description
Category	(empty), All, Watchlist, Custom, Reports and Dashboards, API (General), Apex, Streaming API, Workflow, Storage, Email, Configuration, License, Development, Analytics, Einstein, Platform Events	The category to show in this component. It will not be possible for the user to manually select a category in the application if this is set (i.e. not empty). Therefore, “Category Preference” will have no effect in case this is set.
Show Description	true, false	If checked, the description will be shown underneath each limit.
Show Current and Max	true, false	If checked, the current and maximal value of each of the limits will be shown in the component.
Category Preference	None, First, Second, Third	The category to pre-select. This is taken from the User fields 'Limits Monitor First/Second/Third Category' of the currently logged-in user. If the category is changed by the user on a component with a value other than 'None' the user record will be updated with the new category.
Refresh Interval	Empty or Integer	If this is set, the component will be refreshed every X minutes. If this is set to a value lower than 5, the component will be refreshed every 5 minutes. If this is not set, the automatic refresh functionality is switched off for this component and the user will not be able to switch it on.

6.1 Recipe: present only the limits of a specific category to users

If you e.g. want users to only see the limits within the category “Storage” in an instance of the component, drop the component “Limits Monitor Component” onto a Lightning Page and configure it like this:

- Category: “Storage”
- Show Description: “true” or “false”
- Show Current and Max: “true” or “false”
- Category Preference: “None”
- Refresh Interval: empty

This way, the user will not be able to change the category and the component will not be refreshed automatically. For more information on how to configure this component see chapter 6.