# SAS® Life Science Analytics Framework SAS Macro API 2.5.1
## Release Notes
## November 2021

The SAS® Life Science Analytics Framework Macro API 2.5.1 is available for use with SAS® Life Science Analytics Framework Java API 2.5.1.

The tables below summarize the enhancements for this release.

| Change Type | Description | Count |
|---|---|---|
| Added | New macro added in this release. | 3 |
| Updated | Macro name, input parameters, and/or returned results changed. | 2 |
| Deprecated | Replaced by new functionality. Marked for removal in future release. | 2 |
| Removed | Macro no longer available in this release. | 0 |

| Functional Area | Description |
|---|---|
| General | Error messages have been updated. |
| System | Added:<br>• lsaf_getsystemconstants. This macro supports the SAS Macro API documentation. |
| Type | Added:<br>• lsaf_gettypeallowablechildren<br>• lsaf_gettypesbycapability<br>Deprecated:<br>• lsaf_getcontextallowablechildren<br>• lsaf_getcontexttypesbycapability<br>Updated:<br>• lsaf_getcontexttypes -Value of listType variable changed from "Context" to "Contexts". |
| User | Updated:<br>• lsaf_getallusers – Added created by, created date, last modified by, and last modified date as additional variables in the data set.<br>• lsaf_getuserproperties - Added created by, created date, last modified by, and last modified date properties as rows in the data set. |