Usage Reporting Overview

The MSC Licensing installer includes a Usage Reporting Tool.

Where applicable, the Usage Reporting Tool logs information about each check-in in a Daily Detailed Usage (DDU) log file on the license server. Each day after midnight (local time), the DDU log file is converted to a Daily Summary Usage (DSU) file. If the automatic reporting option is enabled, the DSU file is automatically transmitted via the internet to an MSC-designated data repository. If the customer chooses the manual reporting option, the customer should follow the instructions in this guide to manually upload the DSU files to the MSC-designated data repository.

The DDU and DSU files are ASCII text files which can be viewed by the customer. The format of the files and descriptions of the contents are described in more detail below.

For customers using the Burst token pools for on-demand capacity, additional data will be included in the usage reporting to record the number of burst tokens used for the reporting period. See the BURST POOL Reporting section for more details.

Usage Reporting Details

Daily Detailed Usage (DDU) Log File

During the course of the day, all license feature check-ins are recorded in sequence in the Daily Detailed Usage (DDU) log file. This file is located in the "`MSC Licensing/Helium/LOG`" directory. The standard file name of the Daily Detailed Usage log file is:

"`mscusage_YYYY-MM-DD.ddu`"

Below is a sample of the format for the DDU file.

```
D,171129,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,H
H,YYMMDD,HHMMSS,DURATION,MSCID,CID,SEQ,USERH,FEAT,NLIC,LICINUSE,BASEMAX,LICM
AX,CHWM,HWM,BCHWM,BHWM,CK1,CK2,VERS
T,171129,112022,I
Q,171129,112404,,0026b98999609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,0,3520808a,MSC
ONE:FFT_Actran_Acoustics,28,78,1,80,8,78,1,28,df997ff8d4f7b30ca3af939c07ac49
9a,,H
Q,171129,112404,,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,1,3520808a,MSCONE
:FFT_Actran_Acoustics,28,78,1,80,8,78,1,28,df997ff8d4f7b30ca3af939c07ac499a,
,H
U,171129,112507,64,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,8,3520808a,FFT_
Actran_Python,1,1,0,30,1,1,0,0,410df0bc,d6d98ef6,H
U,171129,112507,65,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,9,3520808a,MSCO
NE:FFT_Actran_VA,14,78,1,80:30,8,78,4,56,9f3e10fc,b7e9266,H
U,171129,112515,64,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,10,3520808a,FFT
_Actran_Sequential,1,1,0,30,1,1,0,0,efff4751,68a6621a,H
U,171129,112515,68,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,11,3520808a,FFT
_Actran_PreProcess,1,1,0,30,1,1,0,0,e6a8bcc5,2c848e69,H
U,171129,112515,72,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,12,3520808a,MSC
ONE:FFT_Actran_VI,7,64,1,80:30,8,78,1,7,12f9f954,27fd5772,H
```

```
U,171129,112515,73,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,13,3520808a,MSC
ONE:FFT_Actran_VA,14,57,1,80:30,8,78,4,56,c8bcf0ee,85e84001,H
P,171129,112637,,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,2,3520808a,MSCONE
:FFT_Actran_Acoustics,28,43,1,80,8,78,1,28,df997ff8d4f7b30ca3af939c07ac499a,
,H
U,171129,112637,155,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,14,3520808a,MS
CONE:FFT_Actran_VA,14,43,1,80:30,8,78,4,56,997d7014,a7ab7335,H
P,171129,112807,,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,3,3520808a,MSCONE
:FFT_Actran_Acoustics,28,29,1,80,8,78,1,28,df997ff8d4f7b30ca3af939c07ac499a,
,H
U,171129,112807,245,0026b98609df,2CCOD_1UI95_24ENF8WV_1I6ARTD,15,3520808a,MS
CONE:FFT_Actran_VA,14,29,1,80:30,8,78,4,56,bfebe11b,920eb039,H
```

The format of the DDU file, excluding the header, is described in the following table:

Table 2-1 Daily Detailed Usage (DDU) File Format

Daily Detailed Usage (DDU) File Format							
	First Field = Entry Tag						
Field Number	**D = Date Stamp**	**T = Time Stamp**	**G = Group Record**	**R = Reread Record**	**U = Usage Record**	**Q = Queue Record**	**P = Processed Queue Record**
2	Date	Date	Group Feature	Date	Date	Date	Date
3	Host ID	Time	Max Token	Time	Time	Time	Time
4	OS ID	Type	Base Token		Checkout Duration	Checkout Duration*	Checkout Duration*
5	Data Version ID		Data Version ID		Host ID	Host ID	Host ID
6					OS ID	OS ID	OS ID
7					Sequence Number	Sequence Number*	Sequence Number*
8					User Hash	User Hash	User Hash
9					Group:Feature	Group:Feature	Group:Feature
10					Feature Token Draw	Feature Token Draw	Feature Token Draw
11					Tokens in Use	Tokens in Use	Tokens in Use
12					Token Tag	Token Tag	Token Tag
13					Token Pool Size [:Base Pool Size]	Token Pool Size	Token Pool Size
14					Token Pool CHWM	Token Pool CHWM	Token Pool CHWM
15					Token Pool HWM	Token Pool HWM	Token Pool HWM
16					Feature CHWM	Feature CHWM	Feature CHWM
17					Feature HWM	Feature HWM	Feature HWM
18					Check Sum 1	Check Sum 1*	Check Sum 1*
19					Check Sum 2	Check Sum 2*	Check Sum 2*
20					Data Version ID	Data Version ID	Data Version ID

The first field of each line will commonly be either H (Header Entry), D (Date Stamp), T (Time Stamp), U (Usage Record), Q (Queue Record), P (Processed Queue Record), G (GROUP features) and R (REREAD event).

The fields for the Date Stamp entry are:

Date	= Date using the YYMMDD format.
Host ID	= Host ID of the license server.
OS ID	= Internal MSC ID to assign usage to specific agreement.
Data Version ID	= Version of Usage Reporting Tool.

The fields for the Time Stamp entry are:

Date	= Date using the YYMMDD format.
Time	= Time using the HHMMSS format. The hours use 24-Hr format.
Type	= Initial Time Stamp (I=Initial) or Periodic Time Stamp (P=Periodic).

The field entries for the Usage Record, Queue Record, and Processed Queue Record are:

Date	= Date using the YYMMDD format.
Time	= Time using the HHMMSS format. The hours use 24-Hr format.
Checkout Duration	= Duration of the feature checkout in seconds.
Host ID	= Host ID of the license server.
OS ID	= Internal MSC ID to assign usage to specific agreement.
Sequence Number	= Sequence number to the usage record in the daily Log.
User Hash	= One-way hash of the user name. No personally identifiable information is stored.
Group:Feature	= The name of the token pool (MSCONE) and feature that is checked in.
Feature Token Draw	= The token draw of the feature.
Tokens in Use	= The number of tokens checked out before the feature was checked in.
Token Tag	= Tag to signify whether a feature draws tokens (1) or is a standalone seat (0).
Token Pool Size [:Base Pool Size]	= Number of total MSC One tokens on the license server [: The Base Pool Size]
Token Pool CHWM	= Maximum number of all features checked out of the token pool.
Token Pool HWM	= Maximum number of tokens checked out of the token pool.
Feature CHWM	= Maximum number of the specific feature checked out of the token pool.
Feature HWM	= Maximum number of tokens checked out of the token pool for the feature.

Check Sum 1	= Check Sum # 1 to test for file tampering.
Check Sum 2	= Check Sum # 2 to test for file tampering.
Data Version ID	= Version of Usage Reporting Tool.

Note that for P and Q records that the duration field is empty, the sequence number is incremented differently than Q records, check field sum 1 field uses longer format, and check field sum 2 field is empty.

When the DDU file is processed by the summarizer routine, the filename extension will be changed to "DDP". The "P" stands for processed.

The fields for the G line entry are:

```
G,gfeature,max_users,base,dataver
```

where

Fields	Description
gfeature	= Group feature [MSC One / CAMPUS }
max_users	= Total token pool size
base	= Base token size
dataver	= Version of Usage Reporting Tool

Note:

1. Burst and/or growth token values are not included on `G` lines;
2. If a license file contains more than one GROUP target feature, such as both MSCONE and CAMPUS, then one G line is written for each GROUP target. (This can occur if an end-user manually combines an MSC One license file with a MasterKey+ license file; this combination is not officially supported by MSC Software, but there's no technical way to prevent it from occurring.)
3. GROUP targets that are referenced less than two times do not result in G lines. Seat-based licenses that include Nastran and/or Adams features contain MD-based features that use a GROUP entry targeting the non-MD feature; this is done so that use of either the MD or non-MD feature pulls from the same seat pool. (For example, the `NASTRAN` feature has a companion 1-seat `MD_NASTRAN` feature definition that uses a `GROUP:NASTRAN,1` entry; when `MD_NASTRAN` is checked out, it pulls from the NASTRAN feature's license pool.
4. The summarizer uses G lines only for `NODATA` situations. `G` lines in the DDU are used to construct the `U NODATA` lines for each GROUP when a `NODATA` reporting period is processed.
5. `G` lines are written only for GROUPs that are referenced by two or more FEATUREs which include IDENT lines.