Ansys Licensing Updates for Academic

2021 R1

Academic Licensing Updates – 2021 R1 Release

- New Academic product definitions – **install 2021 R1 License Manager now**
- Academic migration guide
- Ansys Common Licensing now utilized by all applications
  - Ansys Licensing Interconnect no longer required as of 2021 R1
  - Most licensing preferences have been removed
- ***NEW*** Licensing Client Settings utility

Why is Ansys Changing Licensing for Academic?

As part of our commitment to deliver a simplified, modern license experience, Ansys is rolling out updated license increments to our academic customers beginning **January 2021**.

- Previously deployed to commercial customers in 2020
- Deliver industry-standard FlexNet Publisher (FLEXlm) deployment that is easier for customers to manage
- Eliminate the Ansys License Interconnect
- Provide modular license increments that are easier to understand
- Reduce the need to force customers to upgrade the License Manager

Customer Impact

Install 2021 R1 License Manager now – do not wait for renewal

- Required for CFD and Mechanical products, safe to do for all products
- This will resolve most issues that you may encounter with the new license files
- The 2021 R1 License Manager understands **both new and old license files**

New license file is also required

- All limits in Teaching products are now removed in 2021 R1
- Teaching products now provide standard 4 cores associated with solver licenses
- New license files delivered starting 2021-01-07
- Compatible with previous versions
  - Ansys CFD and Mechanical releases 17.0 and higher
  - Ansys Electromagnetics releases 2020 R1 and higher

Caution: New license files may require some license management changes

- Update customizations/scripts that directly reference increment names (e.g., FLEXlm options files, job scheduler scripts)
- After installing the updated new license file, you may need to reset custom client license preferences for versions 2020 R2 and lower

Affected Products

The following products have new license definitions:

Product	A	B	C	D
ANSYS Academic Associate CFD	A		C	
ANSYS Academic Associate HPC			C	
ANSYS Academic Associate Mechanical and CFD	A		C	
ANSYS Academic Multiphysics Campus Solution	A	B	C	D
ANSYS Academic Preprocessing Tools	A			
ANSYS Academic Research CFD	A		C	
ANSYS Academic Research Electronics Suite		B	C	
ANSYS Academic Research EM		B	C	
ANSYS Academic Research HF		B	C	
ANSYS Academic Research HPC			C	
ANSYS Academic Research LS-DYNA (25 tasks)	A			
ANSYS Academic Research LS-DYNA HPC	A			
ANSYS Academic Research Mechanical	A		C	
ANSYS Academic Research Mechanical and CFD	A		C	
ANSYS Academic Teaching CFD	A			D
ANSYS Academic Teaching Electronics Suite		B		D
ANSYS Academic Teaching EM		B		D
ANSYS Academic Teaching HF		B		D
ANSYS Academic Teaching Mechanical	A			D
ANSYS Academic Teaching Mechanical and CFD	A			D

Key

A = Modular increments

B = Standard Electronics Enterprise increments

C = Standard HPC increments

D = Realignment to standard 4 cores

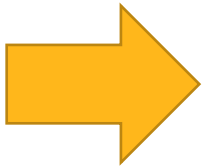
Academic Licensing Increment Changes

Example: ANSYS Academic Research CFD

Many non-modular license increments that have overlapping functionality

Current

aa_mcad
aa_r_cfd
acfd_vki
afsp_gui
afsp_optigrid
afsp_viewmerical
aim_mp1
ensight_enterprise
envision_pro



New

cfd_base
cfd_preppost
cfd_solve_level1
cfd_solve_level2
cfd_solve_level3
...

+

12 x anshpc

Modular, non-overlapping license increments aligned with commercial

Additional anshpc increments to provide cores beyond standard 4 cores per solver

Latest license definitions available on Ansys Customer Portal

- Academic definitions available starting with 2021-01-07 mapping file

Academic Multiphysics Campus Solution

Academic Multiphysics Campus Solution bundle split for licensing purposes into Research and Teaching

- Purchased product remains the same
- New license definitions analogous to other academic product changes
- Delivered license file provides separate line items for Research and Teaching
  - HPC included with Research license set as that is where it may be used

Example: Academic Multiphysics Campus Solution (10/100) as shown in the Ansys Licensing Portal

Current
All licenses on one server

Entitlement	Count	Start Date	Expiration Date	Remaining Days
ANSYS Academic Multiphysics Campus Solution (10/100)	1	2020-11-30	2021-11-29	365

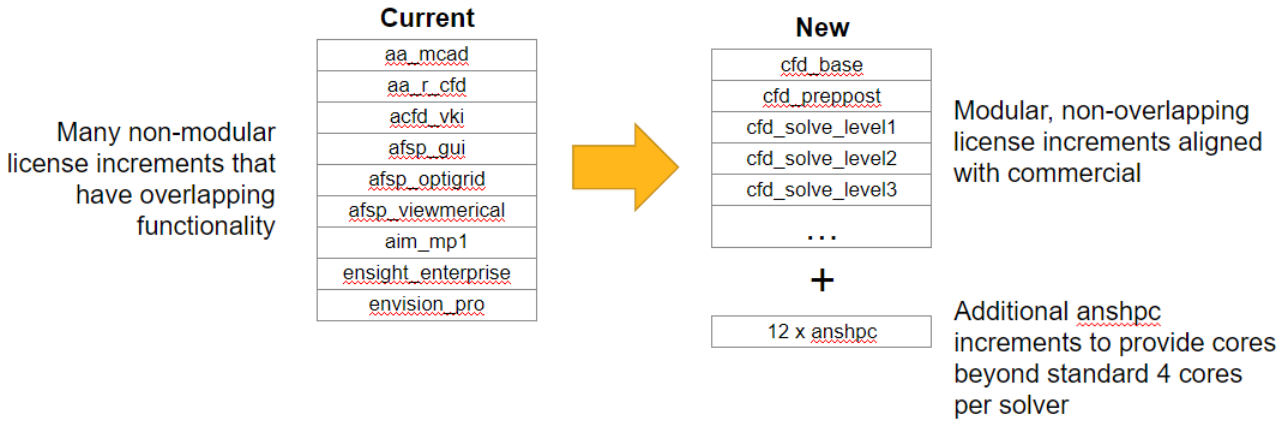
NEW
Research and Teaching licenses can be on separate servers

Entitlement	Count	Start Date	Expiration Date	Remaining Days
ANSYS Academic Multiphysics Campus Solution (10/100) – Research	1	2020-11-30	2021-11-29	365
ANSYS Academic Multiphysics Campus Solution (10/100) – Teaching	1	2020-11-30	2021-11-29	365

Ansys Academic Licensing Migration Guide

2021 R1

Academic Migration Guide



Ansys is using standard FlexNet Publisher (FLEXlm) methodologies as of 2021 R1

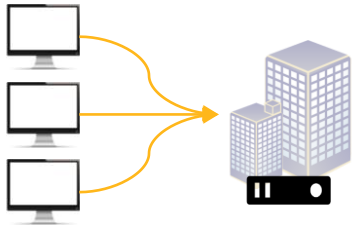
- Ansys server license preferences no longer used
- Ansys is using modular license increments for both academic and commercial

Steps to migrate users to 2021 R1 Ansys License Manager

1. Install 2021 R1 License Manager now, whether or not you have new license file
2. Once you receive a new license file, configure FlexNet Publisher options to segregate license types
   - Reset custom license preferences settings on client machines for versions 2020 R2 and lower
   - Configure standard FlexNet Publisher options to enable/restrict user access to various licenses

Academic Migration Guide

Firewall Changes for 2021 R1



All Ansys applications use a standard FlexNet Publisher configuration starting with 2021 R1

- Port 2325 no longer required for 2021 R1 applications

Ports are configurable in Ansys License Manager (changes require server restart)

1. Ansys License Manager server TCP port
   - Set to 1055 by default

```
SERVER mylicenseserver XXXXXXXXXXX 1055
VENDOR ansyslmd
USE_SERVER
```

2. Ansys License Manager vendor TCP port
   - Dynamic by default
   - You may configure a static port as shown at right

```
SERVER mylicenseserver XXXXXXXXXXX 1055
VENDOR ansyslmd PORT=1056
USE_SERVER
```

Academic Migration Guide

Special keywords for certain products

Academic Associate and Academic Research products

```
INCREMENT ansys ansyslmd 2021.1231 31-dec-2021 500 6D133224352D \
     VENDOR_STRING="customer:00000054 tp:a" \
     SUPERSEDE ISSUED=27-aug-2020 START=27-aug-2020 SIGN2="00BF F28C "
```

Academic Teaching products

```
INCREMENT ansys ansyslmd 2021.1231 31-dec-2021 500 6D133224352D \
     VENDOR_STRING="customer:00000054 tp:at" \
     SUPERSEDE ISSUED=27-aug-2020 START=27-aug-2020 SIGN2="00BF F28C "
```

Commercial products

```
INCREMENT ansys ansyslmd 2021.1231 31-dec-2021 500 6D133224352D \
     VENDOR_STRING="customer:00000054" \
     SUPERSEDE ISSUED=27-aug-2020 START=27-aug-2020 SIGN2="00BF F28C "
```

Academic Migration Guide

Managing access using options file

Increment access can be managed using VENDOR_STRING in options file

Use full vendor string content in INCLUDE rule

```
GROUP researchers clarap mattm simonc
INCLUDE ansys:VENDOR_STRING="customer:00000054 tp:a" GROUP researchers

GROUP professors mikec ravip oscarr
INCLUDE ansys:VENDOR_STRING="customer:00000054 tp:at" GROUP professors
```

Alternately, one can insert a lowercase field inside each increment and reference that instead

1. *Add new field to appropriate INCREMENT line in license*

```
INCREMENT ansys ansyslmd 9999.9999 31-dec-2021 500 6D133224352D \
     VENDOR_STRING="customer:00000054 tp:a" user_info=researchers \
     SUPERSEDE ISSUER=SIEBEL ISSUED=27-aug-2020 START=27-aug-2020 \
INCREMENT ansys ansyslmd 9999.9999 31-dec-2021 500 6D133224352D \
     VENDOR_STRING="customer:00000054 tp:at" user_info=professors \
     SUPERSEDE ISSUER=SIEBEL ISSUED=27-aug-2020 START=27-aug-2020 \
```

2. *Reference additional field in INCLUDE rules*

```
GROUP researchers clarap mattm simonc
INCLUDE ansys:user_info=researchers GROUP researchers

GROUP professors mikec oscarr ravip
INCLUDE ansys:user_info=professors GROUP professors
```

Ansys Academic Lumerical Products

New for 2021 R1

Lumerical Academic Products

	Product	Contains Ansys Lumerical Licenses
Research[1]	ANSYS Academic Lumerical FDTD Research	Ansys Lumerical FDTD (1 GUI + 4 solver licenses[2])
	ANSYS Academic Lumerical Accelerator Research	Ansys Lumerical FDTD solver license
	ANSYS Academic Lumerical Research (1 task)	Ansys Lumerical FDTD (1 GUI + 4 solver licenses[2]) Ansys Lumerical MODE (1 GUI + 4 solver licenses[2]) Ansys Lumerical Multiphysics (1 GUI + 4 solver licenses[2]) Ansys Lumerical INTERCONNECT (1 GUI + 4 solver licenses[2]) Ansys Lumerical CML Compiler (1 GUI + 4 solver licenses[2])
	ANSYS Academic Lumerical Research (5 tasks)	5X ANSYS Academic Lumerical Research (1 task)
	ANSYS Academic Lumerical Research (25 tasks)	25X ANSYS Academic Lumerical Research (1 task)
Teaching[3]	ANSYS Academic Lumerical Teaching (5 tasks)	Ansys Lumerical FDTD (5 GUI + 5 solver licenses[4]) Ansys Lumerical MODE (5 GUI + 5 solver licenses[4]) Ansys Lumerical Multiphysics (5 GUI + 5 solver licenses[4]) Ansys Lumerical INTERCONNECT (5 GUI + 5 solver licenses[4]) Ansys Lumerical CML Compiler (5 GUI + 5 solver licenses[4])
	ANSYS Academic Lumerical Teaching (25 tasks)	5X ANSYS Academic Lumerical Teaching (5 tasks)
	ANSYS Academic Lumerical Teaching (50 tasks)	10X ANSYS Academic Lumerical Teaching (5 tasks)

[1] Research products provide up to 128 cores per task
[2] Four solve licenses per simulation engine provide 128 cores total for each simulator (some products contain multiple simulators)
[3] Teaching products provide up to 32 cores per task
[4] One solve license per simulation engine provides 32 cores total

Lumerical Academic Products

Additional Details

- These products are stand-alone products and not part of our Multiphysics Campus Solution Products.
- These products need the 2021 R1 License Manager so please download the Ansys License Manager from the Ansys Customer Portal and install it.
- Some previously offered license options (node locked, trusted storage) are no longer available. Users will have to switch to floating licenses with MAC or USB based IDs.

Ansys Common Licensing

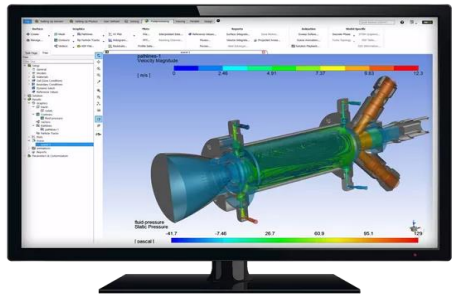
2021 R1

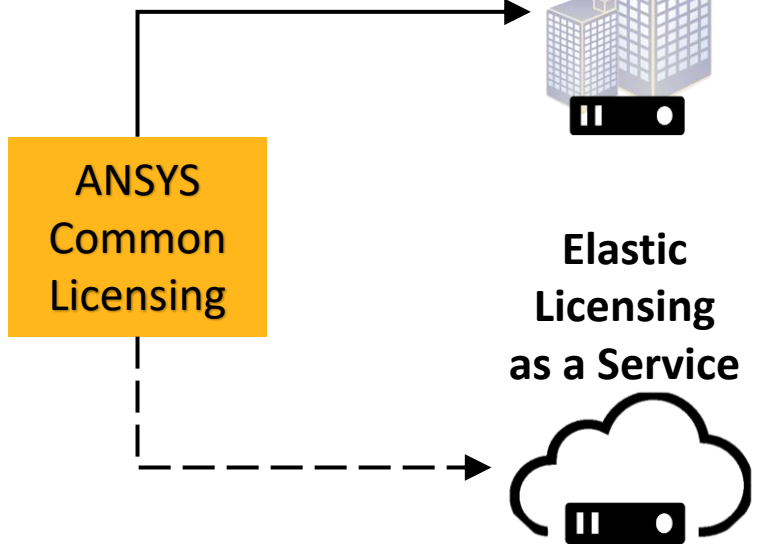
Ansys Common Licensing

Overview

Ansys Common Licensing (ACL)

- Industry-standard FlexNet Publisher (FNP) implementation
- ACL (ansyscl.exe) starts at the first licensing activity of each application
- Elastic Licensing supported as failover
- Used by all Ansys 2021 R1 applications



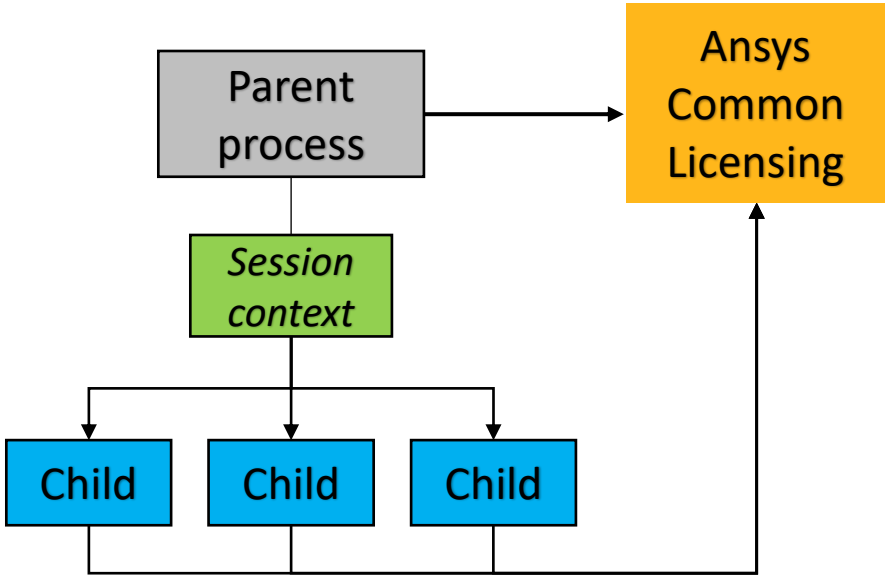


Ansys 2021 R1 applications no longer utilize the Licensing Interconnect

- Reduce need to require upgrade of the Ansys License Manager
- Announced as part of licensing simplification from January 2020
- Versions prior to 2021 R1 continue to use Licensing Interconnect

Ansys Common Licensing

Architecture



Overview

- One ansyscl.exe per process tree
- ACL starts with first licensing activity of each application
- All applications connect to ACL through its listening port
- Sharing across machines supported for HPC Parametric

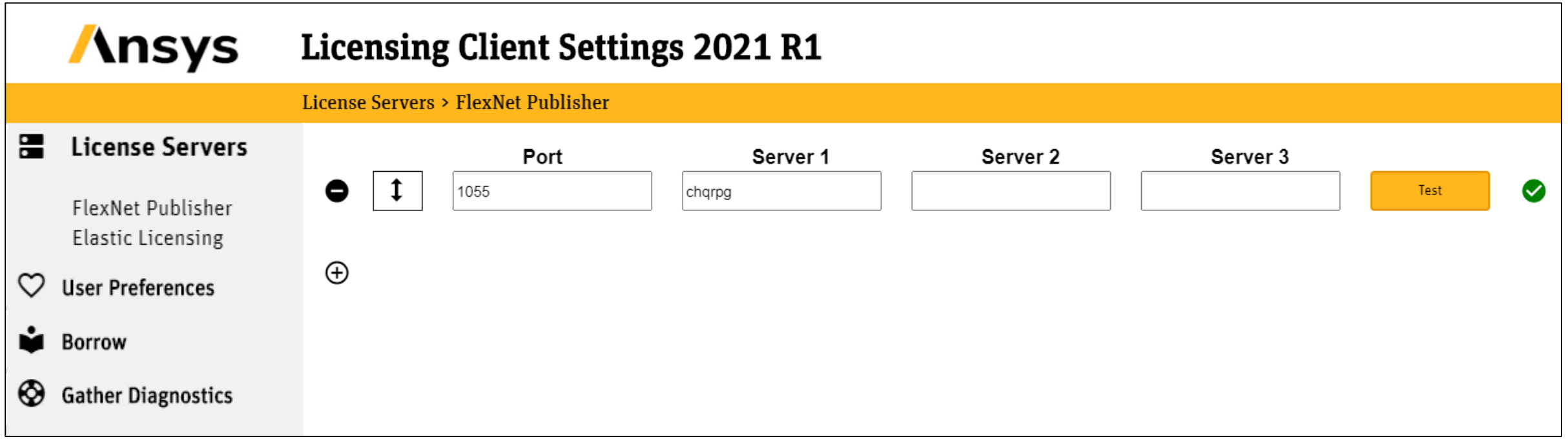
Minimal license preferences

- HPC Licensing preference configured in the new Licensing Client Settings utility
- Mechanical preferences are within the application itself

Version-specific files, in LicensingClient directory

- ansyslmd.ini remains in Shared Files for easy updates

NEW Ansys Licensing Client Settings tool



Modern, easy-to-use utility to configure Ansys licensing settings

- Version-specific utility replaces Client ANSLIC_ADMIN
- Same look and feel as Ansys Licensing Portal
- HPC Licensing preferences
- For convenience, license server settings remain version independent, in Shared Files


Ansys