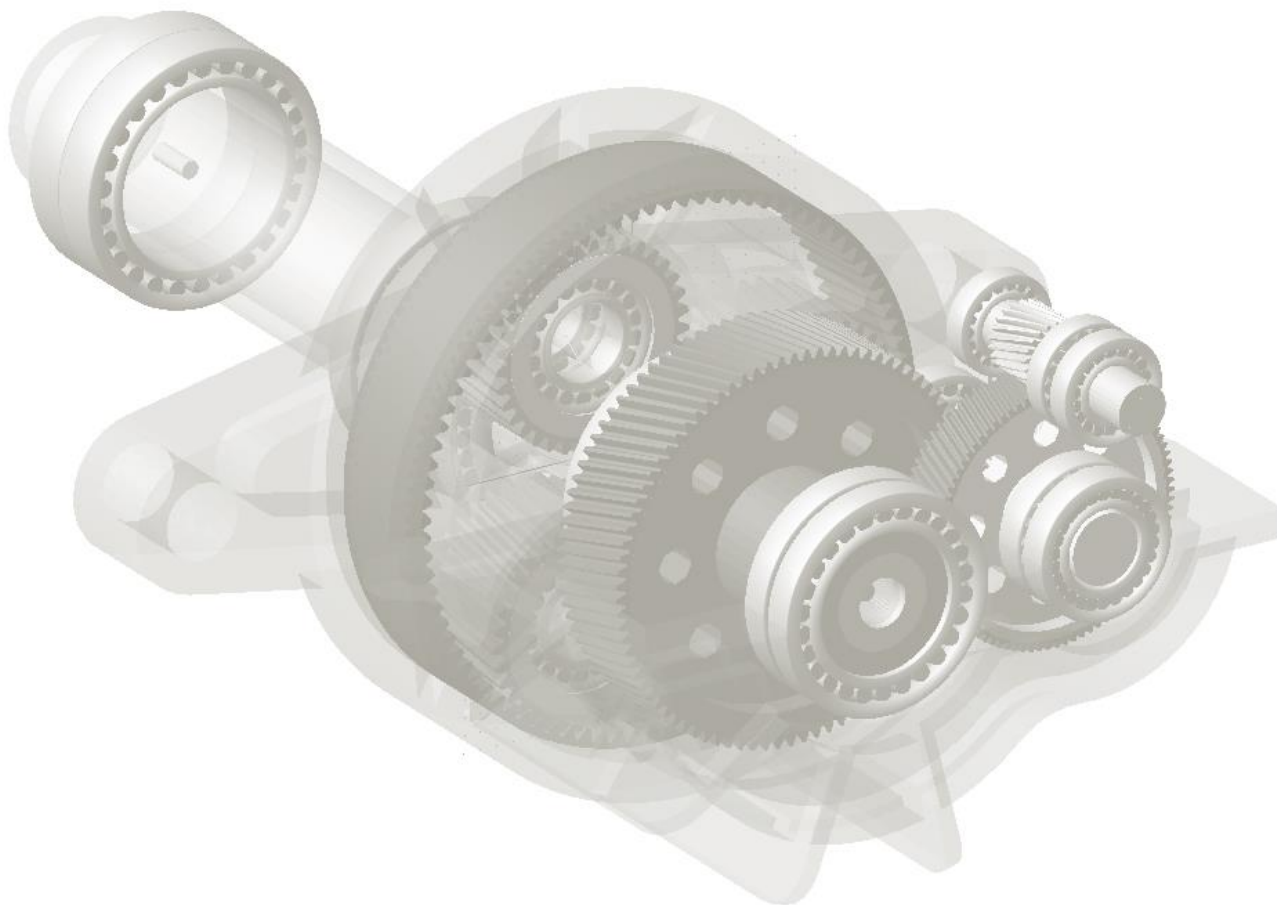


Bearing AT Installation Guide

Revision 2019.0. March, 2019



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Adams Specification

The MSC Bearing AT toolkit is installed as an Adams plugin to Adams/View. This toolkit is designed for Adams 2019.0 down to Adams 2017.0 (x64) releases. It is compatible with Windows 7 64-bit and Windows10 64-bit. Pictures in this guide might not reflect the most current release of the software.

Installing Bearing AT

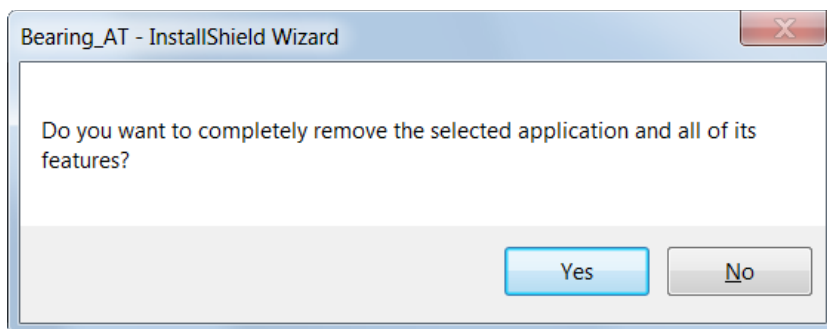
Following section explain how to install Bearing AT:

1 Bearing_AT_2019.0_win64.exe

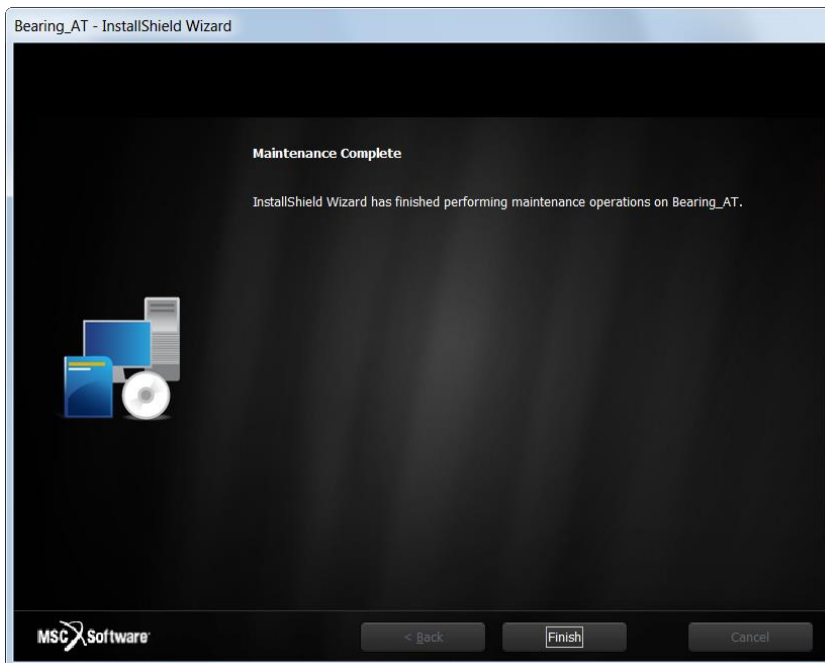
Open Windows Explorer, browse to your Bearing AT file location and run (double click) the executable file **Bearing_AT_2019.0_win64.exe**.

2 Updating

If an instance of current Bearing AT version is already installed, remove the old instance first. This installation does not touch previous versions of Bearing AT.



Select **Finish** to complete the process and run the **Bearing_AT_2019.0_win64.exe** again.

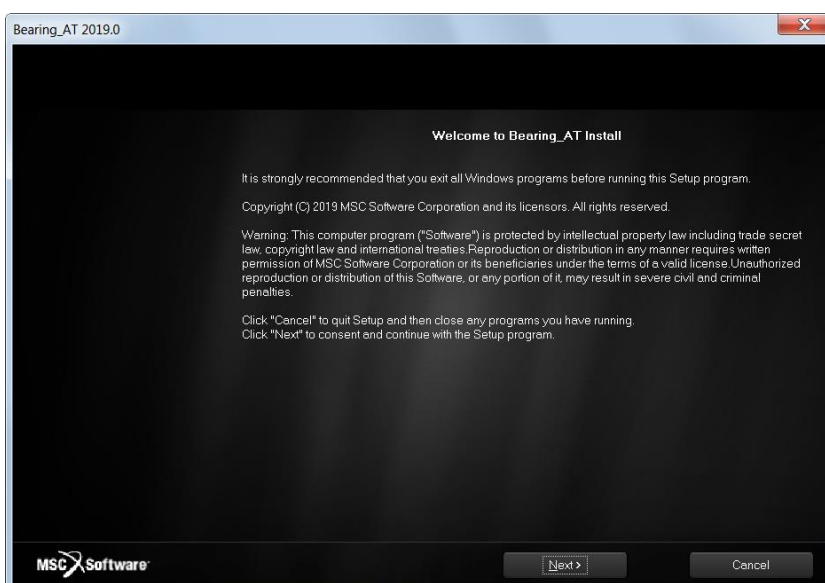


3 Administrator

To install Bearing AT you need to have administrator rights.

4 Welcome page

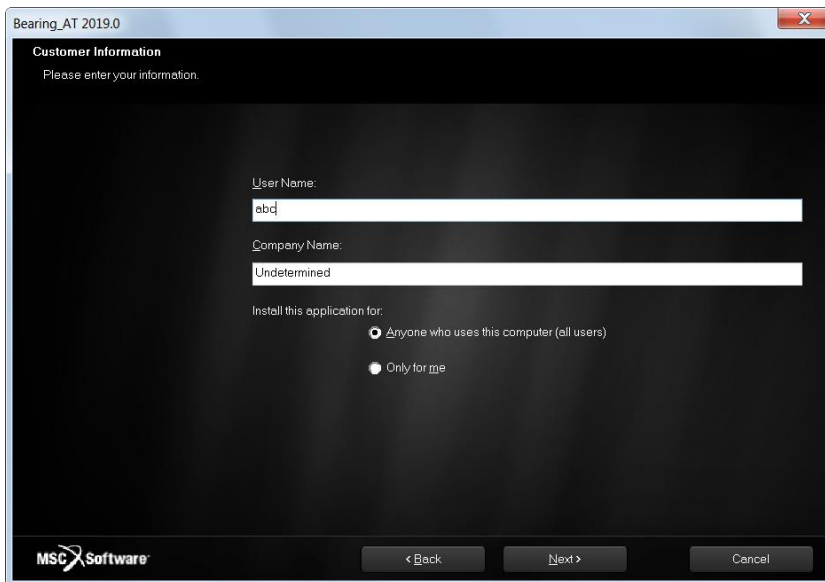
Next screen shows the Welcome page. Select **I Accept >** button to continue, or **Cancel** button to exit without installing.



5 Customer info

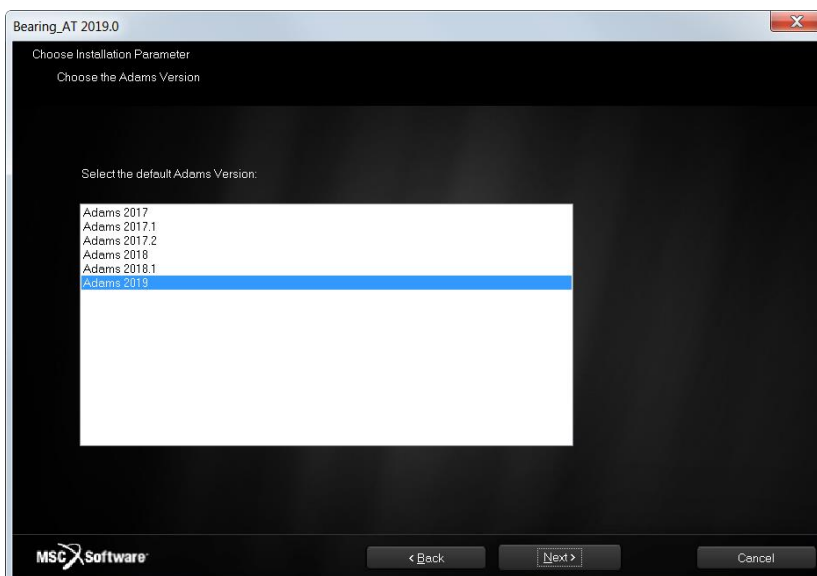
In the Customer Information window, enter your user and company name, and then select one of the following:

- **Anyone who uses this computer (all users)** - Anyone logged on to this machine can run Bearing AT
- **Only for me** - A user must be logged on using the user name and password that was used at the time of installation.



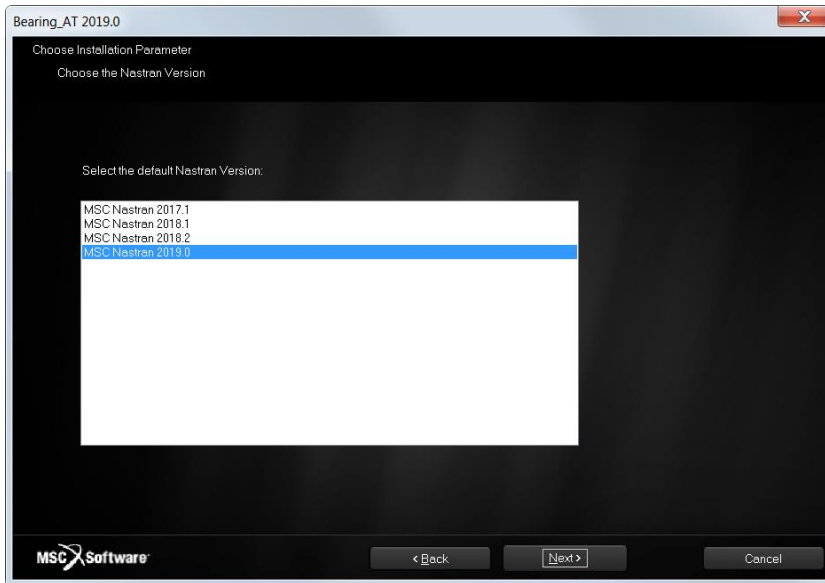
6 Adams Version

In this step you choose one of the valid Adams versions, the list is based by the installed ones. If the list is empty, please cancel the installation of Bearing AT and install the most recent Adams version first. Make sure you select the same Adams version during Gear AT installation in case you plan to use both toolkits. The list of currently supported Adams versions is shown on the figure below.

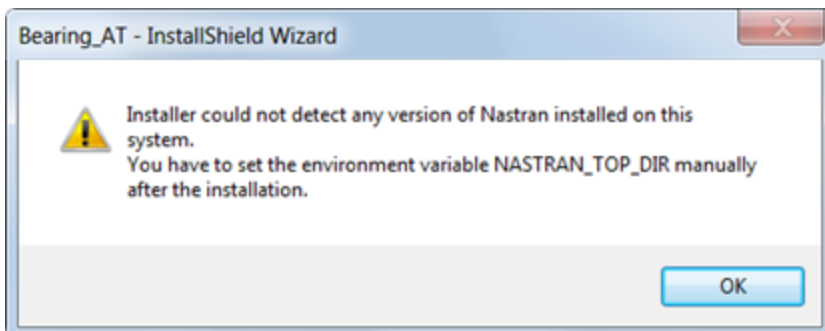


7 Nastran version

Next step is to agree to the selected Nastran version if it is installed. Nastran is used in the preprocessing. You need Nastran or Adams ViewFlex to create the punch files for contact processing. In case you do not have Nastran installation, make sure you have valid Adams ViewFlex license available. Please note that currently there are supported i8 versions of Nastran only, limited to the list shown on the figure below.



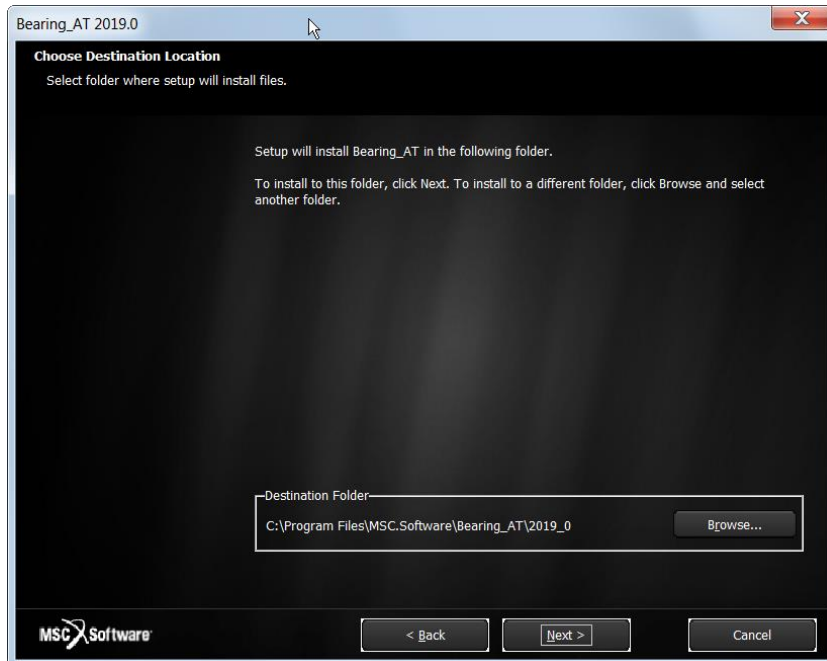
You can proceed with the installation of Bearing AT without Nastran and install it later on but you have to set up NASTRAN_TOP_DIR environment variable manually. This variable should point to the Nastran installation directory, e. g. `c:\MSC.Software\MSC_Nastran\20181\`.



Bearing AT cannot run Nastran on remote machine but can export all Nastran input files along with batch file so you can submit Nastran job on a different machine. You need Nastran punch files (*.pch) to be placed back in the working directory to submit Bearing AT contact analysis.

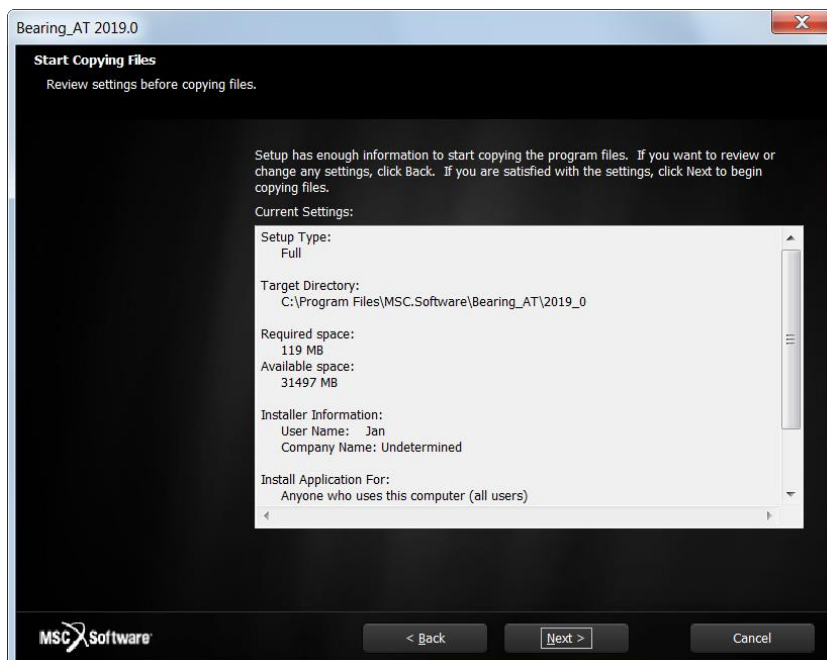
8 Installation Folder

In the install location window select the destination folder. This folder is referred to as *Bearing_AT_Install_Dir* throughout this manual.



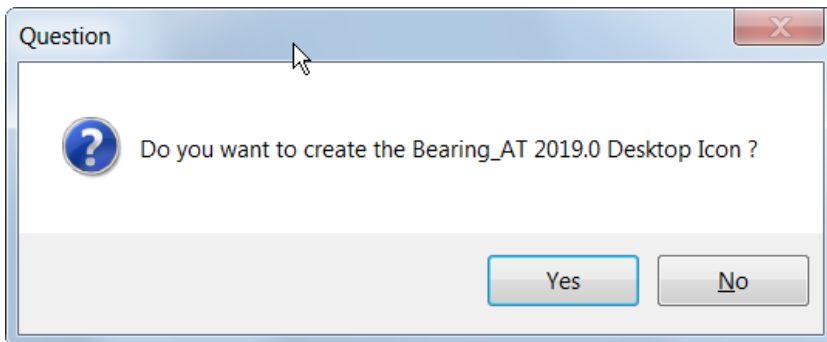
9 Review Settings

Confirm the installation settings and then select Next to begin the installation.

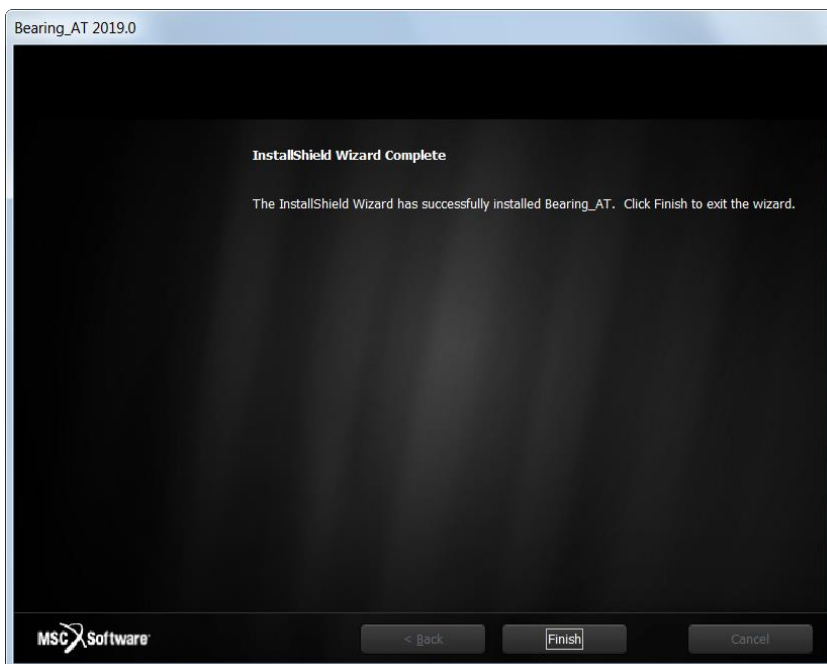


10 Completion

Before the Setup is complete you are prompted to create a desktop icon.



Setup completion window appears as shown below. Click **Finish**.



11 Licensing

Please copy the license features of Bearing AT in your overall MSC license file.

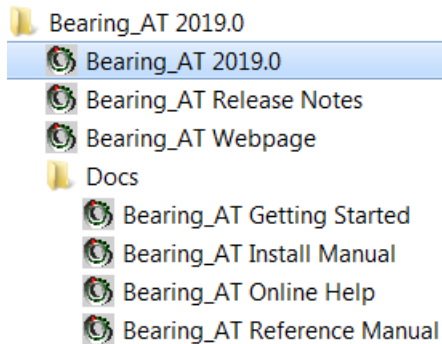
```
FEATURE PA_CATDirect_V5 MSC 2016.0115 15-jan-2016 3 48D6A00EB4EC \
ISSUED=19-dec-2013 ck=151 SN=1288214-7c91d2ae0686dfbdc66d-4d3e
FEATURE PA_Materials_Enterprise MSC 2016.0115 15-jan-2016 3 \
A7D5CD0C5F2F ISSUED=19-dec-2013 ck=222 \
SN=1174246-ccac818ab9689382023f-43f9
FEATURE PA_RandomAnalysis_Tool MSC 2016.0115 15-jan-2016 3 \
59009B5C656D ISSUED=19-dec-2013 ck=81 \
SN=1125067-8d822f1808ef461fbb1f-c91f
#
# MSC Toolkits
#
FEATURE TK_AdWiMo_BASE MSC 2016.0115 15-jan-2016 3 972C551C5C8E \
ISSUED=27-jan-2015 ck=98 SN=1187362-cf8d73fdb76564f60947-5812
FEATURE TK_AdWiMo_BASE_PRE MSC 2016.0115 15-jan-2016 3 A0D4B3350987 \
ISSUED=27-jan-2015 ck=130 SN=1293921-b74e92ecf3b4cc6660bc-743f
FEATURE TK_AdWiMo_BASE_SOLVER MSC 2016.0115 15-jan-2016 3 \
1B95AB62AAC6 ISSUED=27-jan-2015 ck=115 \
SN=1227345-b67a50db521132937f4c-465a
FEATURE TK_BearingAT_BASE MSC 2016.0115 15-jan-2016 3 27E818C22649 \
ISSUED=27-jan-2015 ck=153 SN=1356269-57bf094d6ac6c4aa66de-543e
FEATURE TK_BearingAT_BASE_PRE MSC 2016.0115 15-jan-2016 3 \
F730E0C5E6C8 ISSUED=27-jan-2015 ck=104 \
SN=1146504-a173703ccd528dd1ff65-e4c0
FEATURE TK_BearingAT_BASE_SOLVER MSC 2016.0115 15-jan-2016 3 \
0F2258ED9BF6 ISSUED=27-jan-2015 ck=129 \
SN=1017687-bfe6768fe1c0a0fe78a3-85a1
FEATURE TK_GearAT_BASE MSC 2016.0115 15-jan-2016 3 9F567BDB7E46 \
ISSUED=27-jan-2015 ck=127 SN=988907-f675b4697108836e703b-5734
FEATURE TK_GearAT_BASE_PRE MSC 2016.0115 15-jan-2016 3 BADBF4255F5E \
ISSUED=27-jan-2015 ck=144 SN=1428005-4b9d8360414dea8b559f-fa55
FEATURE TK_GearAT_BASE_SOLVER MSC 2016.0115 15-jan-2016 3 \
FE59E5107D2E ISSUED=27-jan-2015 ck=99 \
SN=1223862-df7f55300ec7b7a1fb9e-880b
FEATURE TK_GearAT_Adanced MSC 2016.0115 15-jan-2016 3 ABC481F9266C \
ISSUED=27-jan-2015 ck=145 SN=1235180-1e2908a948719b627c84-1e87
FEATURE TK_GearAT_Adanced_PRE MSC 2016.0115 15-jan-2016 3 \
6A9825214AD8 ISSUED=27-jan-2015 ck=109 \
```

Loading MSC Bearing AT

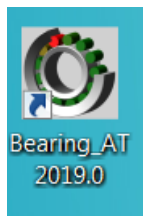
Following section explains how to load the **Bearing AT plugin** with example start menu:

1 Launch A/View

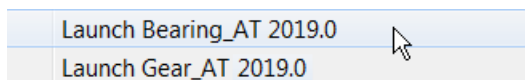
Go to the Windows **Start** menu and Select **All Programs**. Go to **Bearing AT 2019.0** folder and select **Bearing AT icon**; this will launch Adam/View.



You can use the desktop icon

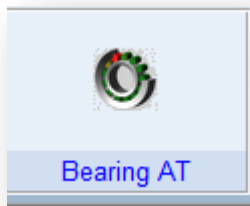


Or you can launch Bearing AT via the context menu of the explorer in the working directory

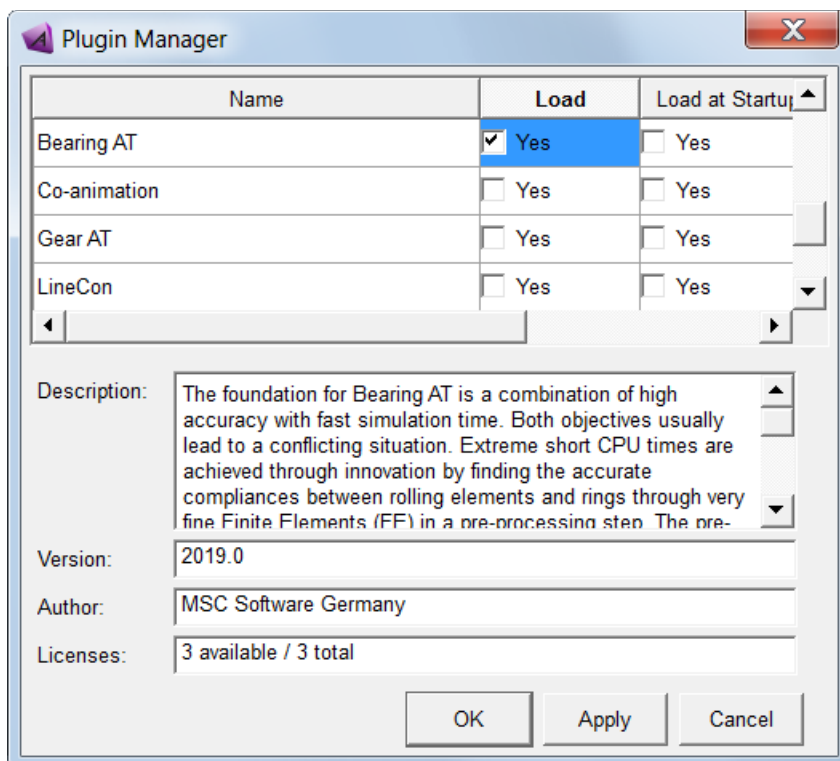


2 Plugin

After Start Up from Adams/View open the plugin ribbon or go to **Tools -> Plugin Manager**. In the ribbon click on the Bearing AT Button in the Bearing AT tab.

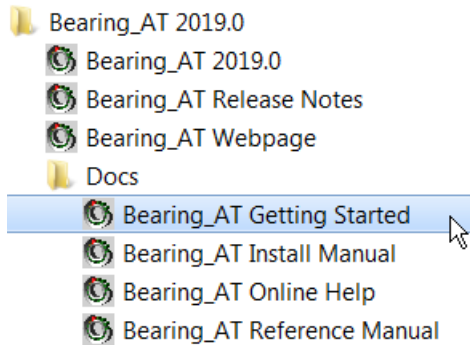


This opens the Plugin Manager if the plugin is not loaded so far. Check the plugin checkbox **Bearing AT**. Specify if you want it to start every time you start ADAMS/View or just for a single session by clicking on **Load at Startup**. The **Bearing AT** menu will be available in the Adams toolbar and in the ribbon plugin tab.

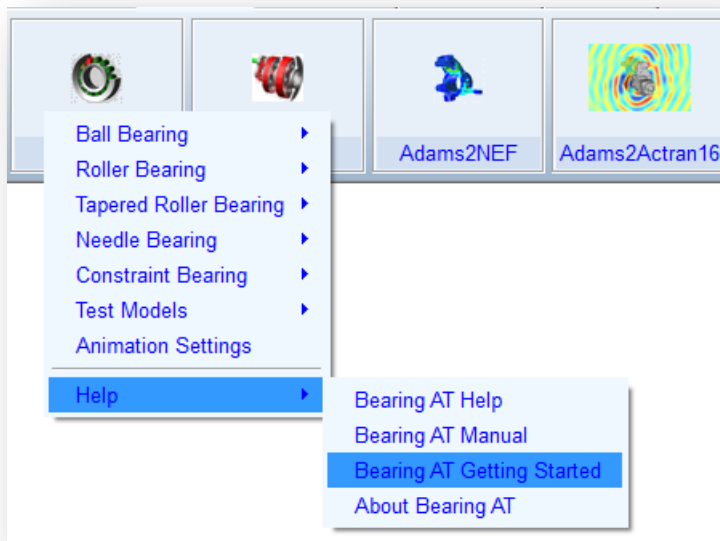


3 Getting Started with Bearing AT

To help you get familiar with Bearing AT plugin we provide the Getting Started document along with example model and files in the installation folder. You can access Getting started document either from windows Start menu



or from Bearing AT menu in Adams.



4 Bearing AT initialization

If you load the plugin the *Bearing_AT_ini.cmd* file is automatically imported from the *Bearing_AT_Install_Dir/bearing_at_plg* directory. You can use this file to set your personal preferences like background color, solver settings, relative paths for property files or any other of your choice.

```
simulation set solver_preference= external
simulation set show_all_messages=yes
color modify color=.colors.background red_component=0.72 green_component=0.72 blue_component=0.72
!
variable set variable=.bearing_at.variables.relative_path integer=1 &
comment="0-> do not use relative paths",&
        "1-> use relative paths"
!
```

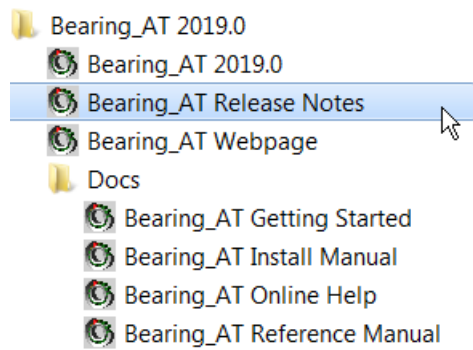
The file could be located in the :

- Plugin installation directory - *Bearing_AT_Install_Dir/bearing_at_plg*,
- Home directory,
- Working directory,

and is read in following that order.


5 Release Notes

Before you start using Bearing AT 2019.0 release, please take your time to get familiar with the latest changes, fixes and new features included to make sure your models built with previous Bearing AT releases will be not affected. You can access Release notes document from windows Start menu.

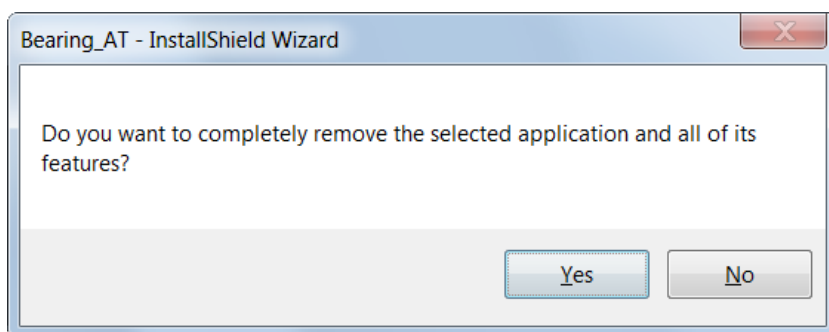


Uninstalling the toolkit:

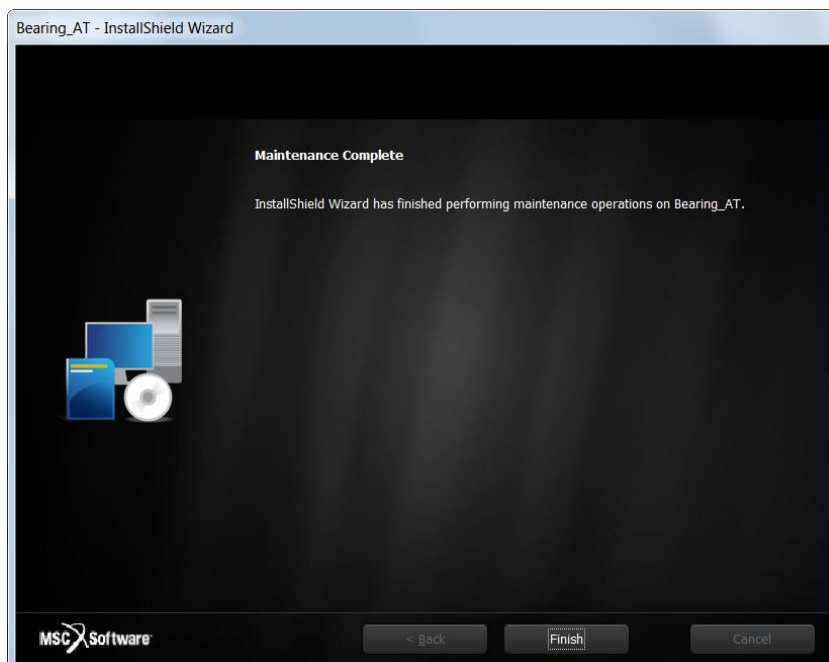
To uninstall the toolkit, go to **Start > Control Panel > Programs and Features** select **Bearing_AT 2019** and **Uninstall**.

Organize ▾	
Name	Publisher
 Bearing_AT 2019.0	MSC.Software Corporation

Confirm the removal operation to finish the process.



Select **Finish** to complete installation.



Please note you have to remove NASTRAN_TOP_DIR environment variable manually after uninstalling Bearing AT. Be aware that this variable is shared with the Gear AT installation.

After uninstall the installation folder is cleaned up but left for previously installed versions of Bearing AT. For instance, if the *Bearing_AT_Install_Dir* was *c:\MSC.Software\BEARING_AT\2019_0* there will remain following empty folder *c:\MSC.Software\BEARING_AT* after uninstallation.

Special hints:

1 Previous installed versions of Bearing AT

It is recommend to uninstall previous versions of Bearing AT but not mandatory. You can handle multiple versions of Bearing AT with the environment variable *MSC_USER_PLUGIN_DIR*

Just set the path to the Bearing AT installation of your choice. Be aware that you can set this environment as *USER* or as *SYSTEM* variable. Make sure that a path to a Bearing AT Plugin is only set once.