

AEDT 2a General FAQs

1. What is AEDT?

General information on AEDT and availability can be found at the [AEDT homepage](#).

2. What is the most recent version of AEDT?

The current public release version of AEDT is version 2a Service Pack 1, build 2.0.2.27300, dated June 29, 2012. Version 2b is currently under development with an expected release date in 2014.

3. What are AEDT 2a's system requirements?

Before purchasing AEDT please ensure your computer(s) meets the minimum system requirements. AEDT 2a system requirements and specifications can be found at the [AEDT homepage](#).

4. How much does AEDT 2a cost and where can I purchase it?

The AEDT pricing schedule and purchase information can be found at the [AEDT homepage](#).

5. Why isn't AEDT free? What factors were considered when determining the pricing of AEDT?

Although AEDT is software developed with Government funding, there is a licensing cost for bundling [ESRI](#)'s GIS technology with AEDT. There are also costs of ongoing operations and maintenance of AEDT such as technical support that is provided to licensed AEDT users.

6. Is there a free trial version of AEDT 2a?

No, there are no trial versions of AEDT 2a.

7. Is there a discount price of AEDT 2a for educational or training purposes?

There are no educational or training discounts for AEDT 2a. Discounted pricing is being considered for AEDT 2b.

8. Does the price of AEDT 2a include updates and subsequent releases such as AEDT 2b?

The price of AEDT 2a includes all patches and service packs to be released for AEDT 2a. The FAA is still determining pricing for 2b, with consideration to those who have purchased AEDT 2a.

9. With a site license can I install AEDT on multiple machines in my office?

Please see the footnotes under “AEDT 2a Pricing Schedule” at the [AEDT homepage](#).

10. Is there support for 32-bit and 64-bit versions of AEDT 2a? If so, are there any performance differences between the two?

AEDT 2a is an x86 application (executes on either x86 or x64 platforms) due to [ArcGIS Engine 10](#) constraints. A GUI-less x64 application (RunStudy) for executing studies without graphical support is bundled with the installer. Significant performance improvement is seen in x64.

11. Is it possible to perform AEDT 2a computations across multiple computer nodes?

Through the use of Microsoft [SQL Server](#) connectivity, it is possible to connect multiple computational clients to one central database server. See the AEDT 2a [User Guide](#) for more information on distributed computing.

12. Where can I obtain technical support for AEDT 2a?

AEDT technical support can be obtained by emailing aedt-support@dot.gov. Be sure to include your AEDT Site License number, operating system, and attach the database files for your AEDT run if necessary.

AEDT 2a Technical FAQs

1. What differences are expected between AEDT 2a and 2b?

As of current development of AEDT 2b, the differences between 2a and 2b are summarized in the chart below.

Anticipated Differences between AEDT 2a and 2b

Key Functionality	AEDT 2a	AEDT 2b
Compliance		
Regional environmental modeling (sunset NIRS)	✓	✓
Airport noise and local air quality (sunset INM, EDMS)		✓
Data Input		
Full, partial AEDT Standard Input File (ASIF) import	✓	✓
ASIF splitter utility for large studies	✓	✓
Integration with TARGETS	✓	✓
Integration with PDARS, SWAC, TAAM, SWIM, AIXM		✓
Annual schedule to determine AAD, PMAD		✓
Sources		
Jets, props, helis	✓	✓
User defined aircraft	✓	✓
Non-aircraft emission sources, EPA MOVES		✓
Modeling		
User defined profiles	✓	✓
Change analysis	✓	✓
Impact evaluation	✓	✓
High fidelity weather	✓	✓
Runway to runway operations	✓	✓
Dynamic noise receptor grids		✓
Gate to gate operations		✓
National/global noise exposure		✓
National/global emissions inventory		✓
Processing		
Distributed Processing	✓	✓
Results		

Noise contours	✓	✓
Emissions inventory	✓	✓
Emissions dispersion		✓
<i>AEDT 2a functionality expanded in AEDT 2b:</i>		
ASIF capabilities		
Aircraft fleet database		
User defined noise capabilities		
User defined weather		
Operations definition		
Extended GIS capability		

2. Will air pollutant concentration capabilities be available in AEDT 2a?

Emissions dispersion, of which "Concentration" is a component, will be available in AEDT 2b. That capability is not in 2a.

3. Will AEDT model military aircraft?

Yes, any military aircraft for which we have data (INM has historically included NOISEMAP aircraft) can be modeled.

4. Are South African airports loaded, and if so which? And are SIDs and STARs already loaded too?

Currently the airports database covers 190 airports in South Africa. Coverage is best at airports with commercial operations. If you are interested in viewing the airports with SQL Management Studio, below is a query of the AIRPORT database you can use as a start:

```
SELECT [APT_CODE], [APT_NAME]
FROM [AIRPORT].[dbo].[APT_CODE] c
JOIN [AIRPORT].[dbo].[APT_MAIN] m on m.[APT_ID] = c.[APT_ID]
WHERE [APT_CODE] like 'FA%'
and [CODE_TYPE] = 'ICAO'
```

SIDs and STARs are not loaded into the AEDT database.

5. Will I be able to update the Airport database with the 56 day [FADDS](#) data?

Each release of AEDT 2a reflects the latest FADDS data as of the AEDT 2a release date; the Airport database is not updated and released separately from AEDT 2a.

6. Does AEDT do any internal smoothing of radar track inputs to eliminate altitude aberrations?

Yes, AEDT does smooth and filter altitude and speed values given in input trajectory data for SensorPath operations. Geographic location information from the input trajectory data is not changed. The smoothing and filtering process is as follows:

- 1) Discard points that exceed the BADA global longitudinal acceleration limit
- 2) Discard points that exceed the BADA global normal acceleration limit
- 3) Perform exponential smoothing of the remaining altitude and speed values in the forward and reverse directions
- 4) Points are reduced to locations where acceleration or climb angle is equal to 130% or 70% of the average

7. Do GIS layers need to be defined in decimal degrees or UTM before importing into AEDT or does AEDT project an imported layer in other coordinates?

Either projection (UTM or lat/lon) can be used, but NAD83 or WGS84 datum is required.

8. What is the best way to import flight tracks if I do not have experience with NIRS or custom tools written for producing ASIF files?
[TARGETS](#) to AEDT is the recommended method of creating the data needed for the ASIF import.

9. AEDT 2a is typically utilized for actions above 3,000 feet AGL. Can emissions be reported below 3,000 feet AGL by AEDT 2a?

Yes, below 3,000 feet is one of AEDT's standard reporting regimes. AEDT supports flight performance modeling and analysis for runway-to-runway flight tracks and operations.

10. Is AEDT 2a capable of calculating aircraft emissions above 3000 feet AGL? When evaluating an airspace procedure at 4,000 AGL and mixing height at 5,000 AGL can I calculate emissions with AEDT 2a or do I need to wait until AEDT 2b?

Yes, fuel burn and emissions are computed for all phases of flight which are modeled in AEDT 2a.

11. Will AEDT 2a support dispersion of vector-based tracks?

Dispersed vector tracks won't be available until 2b.

12. Will it be possible to disperse vector tracks like point tracks in AEDT 2a? INM only allowed point track dispersion but this was timelier to set up than vector tracks.

Dispersed vector tracks won't be available until 2b.

13. Will AEDT 2a have flight profiles already pre-loaded?

Standard 1845 flight profiles are already pre-loaded.

14. Am I compelled to use FPPM to generate profiles, or can standard profiles still be used?

Standard profiles can still be utilized.

15. Can I import 2010 census shapefiles into AEDT?

There is a Population Import Tool (PIT) that facilitates the import of 2000 and 2010 census data. For more information regarding the PIT please see Appendix F of the AEDT 2a [User Guide](#).

16. Are changes made in the GUI, such as creating a new receptor set, also saved in the study database?

The AEDT 2a GUI does not support editing most input data in the GUI. You can make minor changes to things like receptor sets via the GUI and they will be saved in the database. However, most changes need to be established via editing the ASIF file and re-importing it into AEDT 2a.

17. Are there any capabilities to import from or export to CAD files?

No. However external converters may be available to do the conversions as needed. Note that currently, ESRI does have an "ArcGIS for AutoCAD" product that may do what you need. Other third party conversion tools may also be available as well.

18. Can I run a noise study without running emissions, or vice versa?

Yes noise and emissions outputs can be run together in one job or run independently from each other in separate jobs.

19. For new OAPM studies, is AEDT 2a required for non-NEPA analysis such as operator fuel burn benefits modeling?

Yes, any compliance work previously done with NIRS must now be done with AEDT. However any work studies started with NIRS prior to March 21, 2012 may continue to use NIRS. The Federal Register notice can be found [here](#).

20. INM does not require administrative rights in order to be installed. Will this be the same?

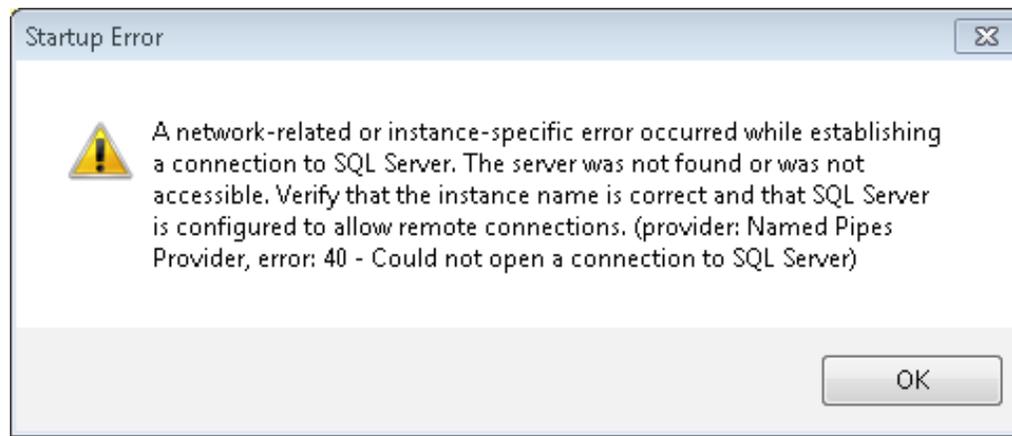
AEDT 2a requires administrative rights in order to be installed.

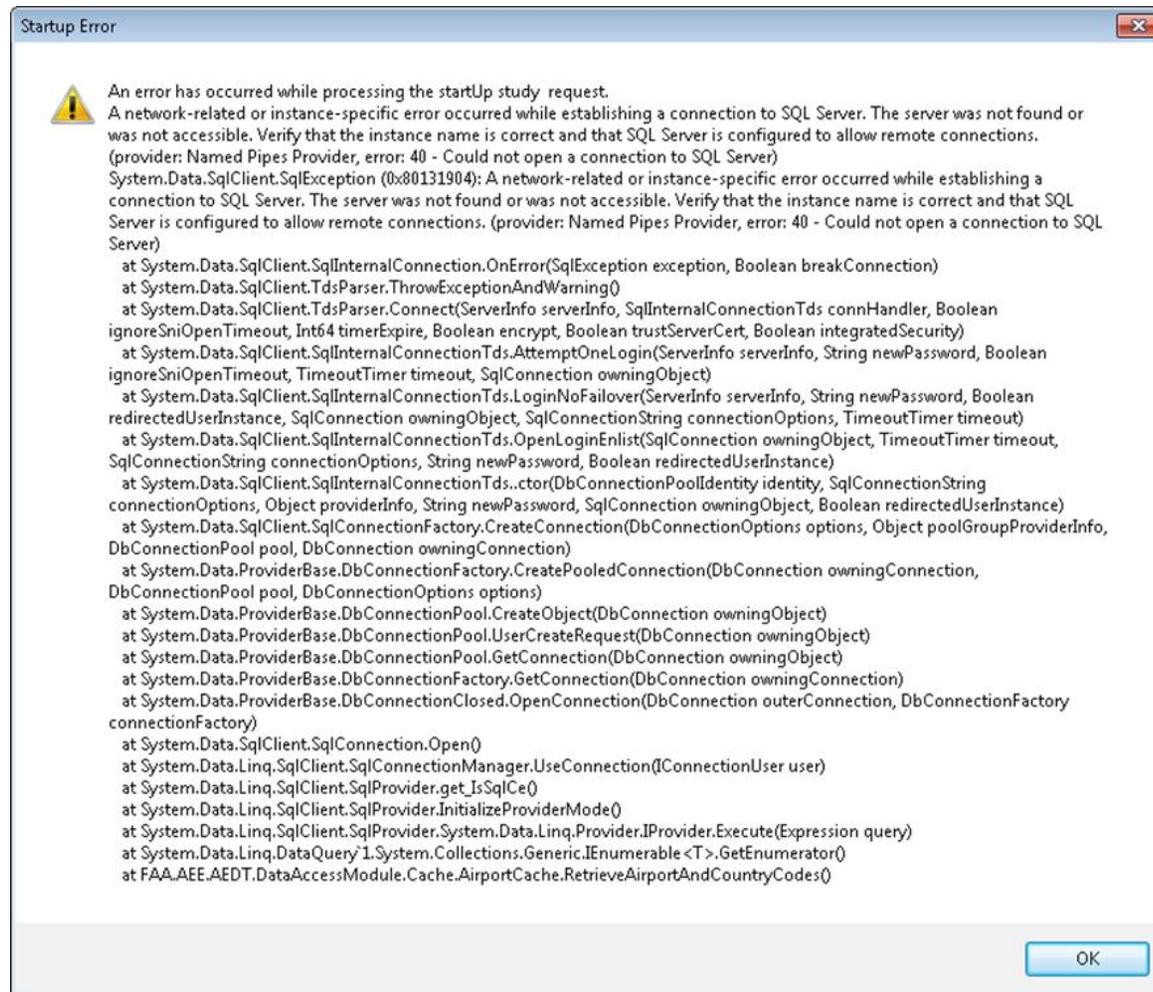
21. Why are receptor elevations the same as the airport elevation? An example is Reno airport which is in a mountainous terrain environment. Would it be correct to put in the actual receptor elevation?

Studies for geographies with significant topography should use terrain data. The receptor elevation is then set to the terrain elevation at the receptor's lat/lon (or x/y). In regions where topography is relatively flat, use of terrain data is not required for analysis of air traffic airspace and procedure actions. If there is uncertainty in the use of terrain and its potential influence on noise exposure in a specific study, for example, where there is substantial variation (hundreds of feet) in natural terrain in the study area, the analyst should coordinate with the appropriate FAA regional or service center office. For more information please refer to the section on “Use of terrain for analyses” in the [Guidance on Using AEDT 2a to Conduct Environmental Modeling for FAA Air Traffic Airspace and Procedure Actions](#) document.

22. How do I fix the SQL Server “Startup Error” message?

Some AEDT 2a users have received the following SQL Server Startup Error messages:





This is usually caused by using the incorrect server instance name in the AEDT.config file. To verify, open SQL Server Management Studio. The name that appears in the “Server name” drop-down should match what is in the configuration file. In the example below, the Server name is COATESLA53861.



Open the AEDT configuration file which is normally at the default location of: C:\AEDT and has the name “FAA.AEE.AEDT.AEDTApp.exe.config.” You may have to turn off “Hide extensions for known file types” in the “View” tab of the “Folder Options” Windows control panel in order to see this file. Make sure that the values for the all the “Data Source=” strings found in the “connectionStrings” section match the Server name, with no other characters such as slashes and or backslashes. The example config file below correctly shows, “COATESLA53861” as the Data Source value, which matches the Server name.

```
<connectionStrings>
  <add name="FLEETConnectionString" connectionString="Data Source=COATESLA53861;Initial Catalog=FLEET;Integrated Security=True" providerName=
  <add name="AIRPORTDestinationConnectionString" connectionString="Data Source=COATESLA53861;Initial Catalog=airport;Integrated Security=Tru
  <add name="AIRPORTConnectionString" connectionString="Data Source=COATESLA53861;Initial Catalog=AIRPORT;Integrated Security=True" provider
  <add name="FAA.AEE.AEDT.DataAccessModule.Properties.Settings.STUDYConnectionString" connectionString="Data Source=COATESLA53861;Initial Ca
  <add name="FAA.AEE.AEDT.DataAccessModule.Properties.Settings.AEDT_STUDY_ROOTConnectionString" connectionString="Data Source=COATESLA53861;
  <add name="STUDY" connectionString="Data Source=COATESLA53861;Initial Catalog=STUDY_ASIF_UNIT_TEST;Integrated Security=True" providerName=

  <!-- NOTE: This unit test project requires a copy of the STUDY database called STUDY_ASIF_UNIT_TEST to exist. -->
  <!--      Each unit test will clear the contents of this database.  The results generated by the unit test will remain on -->
  <!--      completion of the test. -->
  <add name="ASIFConnectionString" connectionString="Data Source=COATESLA53861;Initial Catalog=STUDY_ASIF_UNIT_TEST;Integrated Security=True
```