Contact us at:
support@optimizedthermalsystems.com
866-485-8233

VapCyc®
Frequently Asked Questions (FAQ)

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1. What are the hardware and software requirements for VapCyc?
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- Dual Core Intel/AMD Processor 2.0 GHz, 4 GB RAM, 1 GB Disk space
- Microsoft Windows Operating System. Following versions are supported:
  - Windows 8 32/64 bit
  - Windows 10 32/64 bit
  - Windows 12 32/64 bit
- Microsoft .NET Framework 4.8 with complete Windows Updates (The system will install .NET Framework 4.8 if not available.)
- Minimum monitor resolution of 1440 by 900p

2. The .NET Framework did not install successfully; the installation hit an error. How do I fix it?
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Please make sure you have installed all Windows Updates currently available for your operating system. If you continue to encounter this issue, please contact us at support@optimizedthermalsystems.com.

3. **When opening VapCyc, I receive an error message that VapCyc has expired. What should I do?**
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A new version of VapCyc has been released. Please install the latest version of VapCyc. If you do not have details to download the latest version, please contact us at support@optimizedthermalsystems.com.

4. **When opening a cycle file, I receive an error message that a component cannot be loaded. How can I load my component?**
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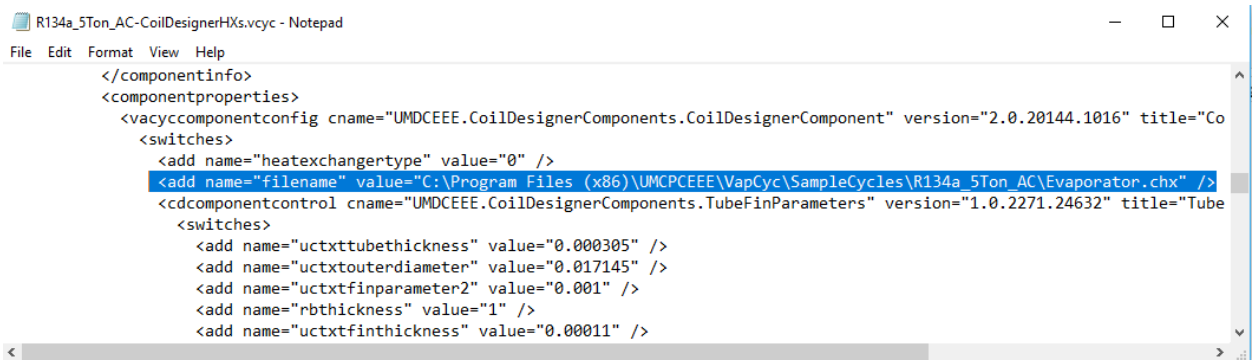
- If this is a custom component, make sure the component is currently installed on your machine and has been updated for the latest version of VapCyc.
- If a CoilDesigner heat exchanger file cannot be found, please make sure this file is placed within the same folder as the cycle file, or that the file is saved in the path stored in the cycle file. This can be checked by opening the cycle file as an XML file in Notepad. If necessary, replace the file path, save the VapCyc file, and reopen it by double-clicking on it. Please contact us at support@optimizedthermalsystems.com for more information.



5. **What cycle convergence criteria should I use?**
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Unless the expansion device model has been dialed in very accurately, subcooling and superheat should be used.

6. **What cycle context should I use?**
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The Context Points are used by the solver to calculate an initial (guess) solution. Use the selection options to choose the convergence criteria based on your application. Set the guess values close to the ultimate condensing and evaporating temperatures.

7. **My cycle model does not converge on a solution. What should I do?**
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- Change the Cycle Context to match your application (Edit System Parameters > Cycle Context).
- Change the Convergence Criteria to match your intended operation. Consider increasing your superheat level to allow the cycle to converge on a solution.

- Review your correlation specifications to make sure your selections are appropriate for your application. Some correlations are more comprehensive while others enable faster simulation and/or better convergence.

8. What third party components can I use in VapCyc?

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The components for braze-plate and tube-in-tube heat exchangers from the manufacturers listed below can be used in VapCyc. Please contact the corresponding person to access the component of interest.

Third Party Component Manufacturer	Heat Exchanger Type	Contact to Access VapCyc Component Files	Tutorial Video
Alfa Laval	Braze Plate	Diego Orsucci Diego.orsucci@alfalaval.com	https://youtu.be/-RxIuKv3BcQ
SWEP		support@optimizedthermalsystems.com	https://youtu.be/TbAeQrfooLQ
Packless	Tube-in-Tube	David A. Cawley dcawley@packless.com	N/A
Turbotec		Ben Bosco bbosco@turbotecproducts.com	https://youtu.be/lOxmdW01sYE

9. I am running a parametric analysis by varying one the air parameters. But the simulation results are the same. What shall I do?

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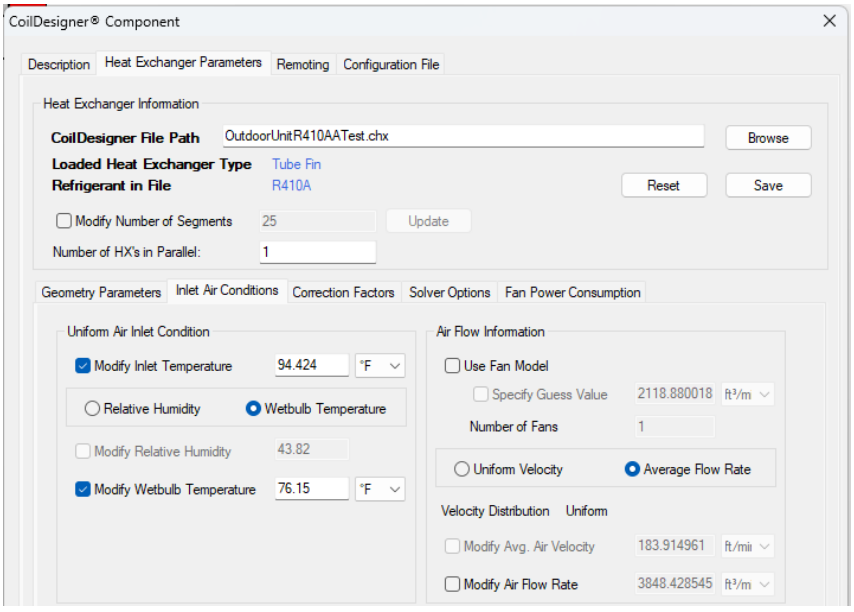
Air inlet parameters need to be fully defined. You need to run simulation varying both inlet parameter even if one them is remains the same. For example, you need to specify the relative humidity along with air temperature. In addition, please make sure that both parameters checked on the 'CoilDesigner Component' tab.



10. I cannot export simulation results from VapCyc.

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Please make sure and .NET and C++ components are up to date on your computer. You can find them in the VapCyc download folder.

11. I receive an error message about inconsistent refrigerant.

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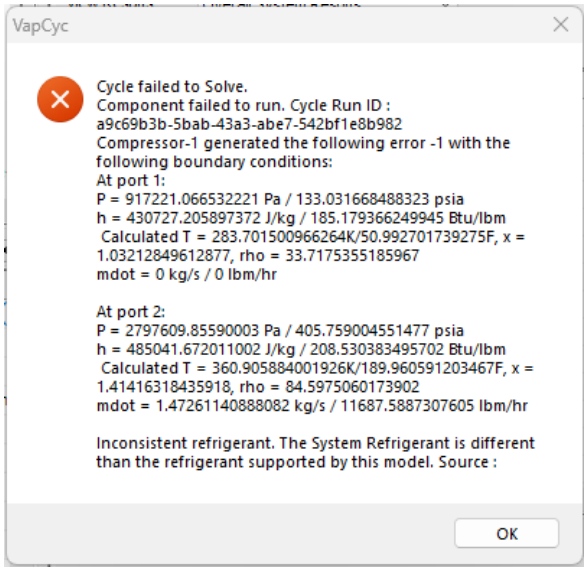
Please make sure that the name of the refrigerant in the compressor data base is the same as the selected refrigerant on the 'System Refrigerant' tab the VapCyc file.



12. How can I model variable speed compressors in VapCyc?

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You can use either a 20-coefficient model in a compressor database, or 10-coefficient models at four different speeds. The 'SpeedType' needs to be defined as variable for each line of the four 10-coefficient models in the compressor database Excel file.

E	F	G	H
ApplicationType	**SpeedType**	**VCApplType**	**Units**
AE	Variable	AC	[m, degC, W, A, kg_s, W]
AE	Variable	AC	[m, degC, W, A, kg_s, W]
AE	Variable	AC	[m, degC, W, A, kg_s, W]
AE	Variable	AC	[m, degC, W, A, kg_s, W]
			[m, degC, W, A,