

Absorption Simulation (ABSIM) Software Development

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Researchers working on air conditioning systems currently use a software called ABSIM (Absorption Simulation) to evaluate current absorption systems or simulate new system designs. ABSIM was developed at Oak Ridge National Labs in the 1980s and the latest platform it is compatible with is Windows XP. ABSIM is not compatible on newer platforms and is not very user friendly. A lot of the actions involved in using ABSIM aren't very intuitive. The goal is to develop a more user friendly simulation program that is based off of ABSIM and see to it that the program can be deployed across different platforms. Storing and managing the data of the modular system was another issue that needed to be addressed. Putting together a user interface for the new program was achieved by using the application framework 'Qt Creator'. To learn more about 'Qt Creator' and its uses, online research was primarily done on forums popular amongst app developers. A linked list was used to store and manage the data. A simulation program for absorption systems is currently being developed in C++ using 'Qt Creator'. Using a linked list for storing and organizing data turned out to be the simplest and most efficient way to do so. 'Qt Creator' is the right tool used in the development of the simulation program because it allows a program to be deployed on any platform which has the necessary libraries.