

College of Information Science and Technology



Drexel E-Repository and Archive (iDEA)

<http://idea.library.drexel.edu/>

Drexel University Libraries

www.library.drexel.edu

The following item is made available as a courtesy to scholars by the author(s) and Drexel University Library and may contain materials and content, including computer code and tags, artwork, text, graphics, images, and illustrations (Material) which may be protected by copyright law. Unless otherwise noted, the Material is made available for non profit and educational purposes, such as research, teaching and private study. For these limited purposes, you may reproduce (print, download or make copies) the Material without prior permission. All copies must include any copyright notice originally included with the Material. **You must seek permission from the authors or copyright owners for all uses that are not allowed by fair use and other provisions of the U.S. Copyright Law.** The responsibility for making an independent legal assessment and securing any necessary permission rests with persons desiring to reproduce or use the Material.

Please direct questions to archives@drexel.edu

Introduction

Archiving digital data, especially Computer Aided Design (CAD) data is becoming an increasingly important task for design engineers because engineering projects need to be retrieved and maintained long-term. One specific example is Boeing Corporation's B-52 strategic bomber, which was designed in 1945 and will be used until 2040, according to U.S. defense plans. Since there are few applications that adequately allow users to archive files with minimal effort, many engineers do not take the time to fully document and preserve the design processes of a project because it does not fit into their workflow when using these applications. Such archiving tools are sometimes too time-consuming or difficult to use. The Digital Archiving and Retrieval Tool (DART) addresses these issues by striving to make the process of archiving as simple and minimally obtrusive as possible for engineers and others who wish to use it.

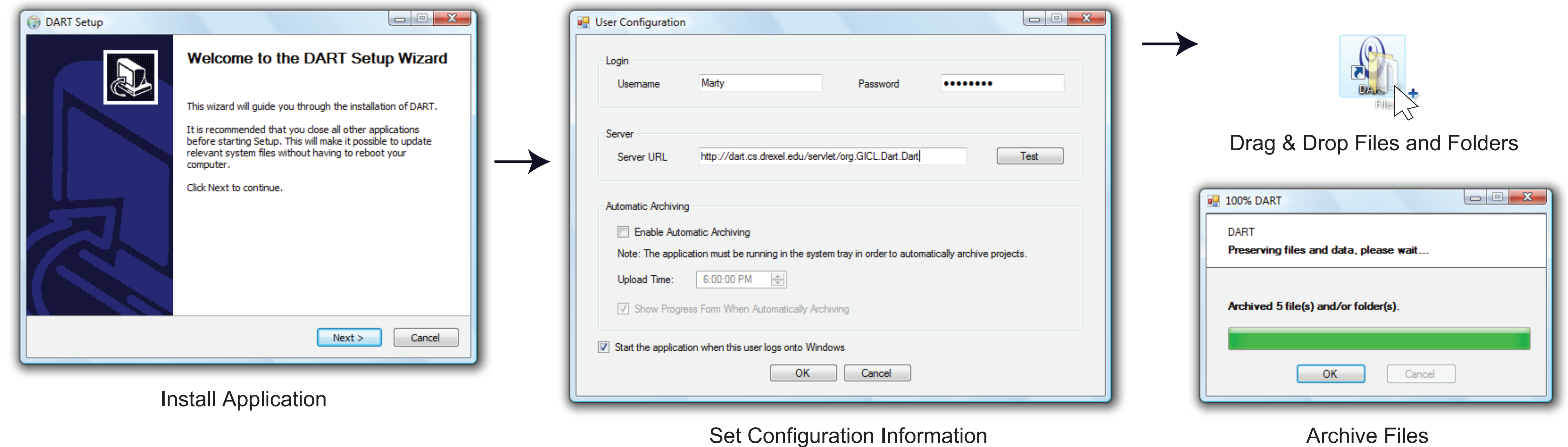
Problem Domain

- Engineers do not always archive and fully document their projects
- Some data is not archived and if it is it may only be stored on one machine
- Relevant metadata such as particular installed programs and running processes need to be captured
- The system needs to be easy to maintain and update when necessary
- The server should be accessible by many different clients and use a protocol that is easy to understand
- Engineers may not be willing to use an additional application if it interrupts their workflow

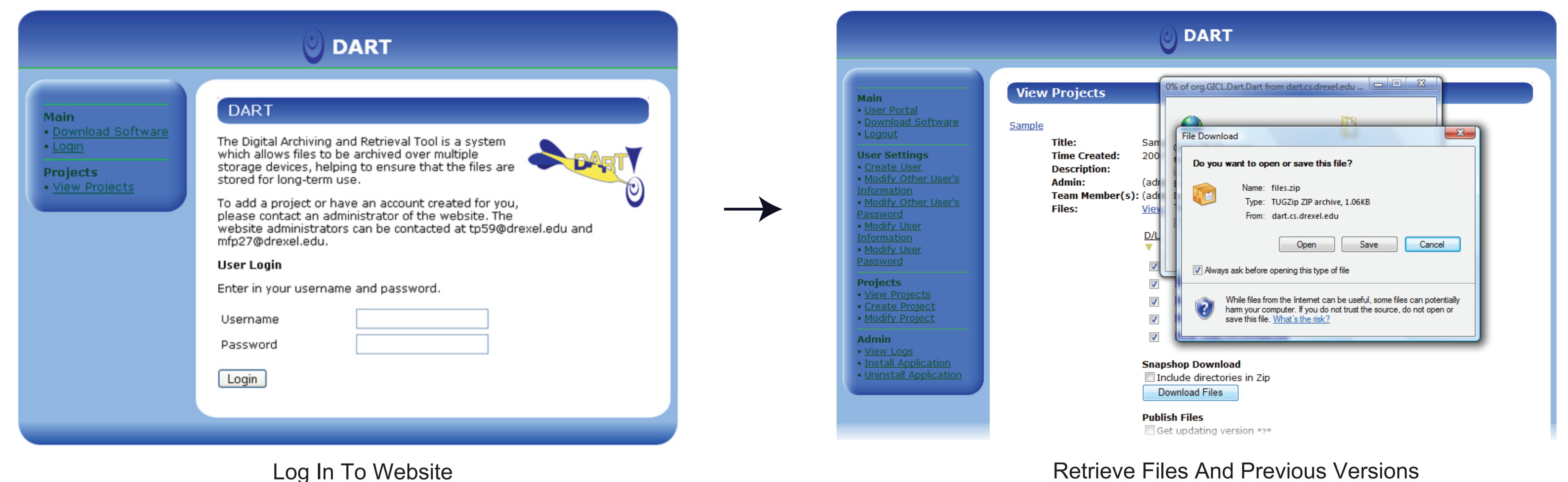
Project Objectives

- Design an application system which makes archiving and documenting all stages of the design process as easy as possible
- Backup data in as many storage resources and computers as possible to ensure data redundancy
- Capture relevant metadata such as the installed programs and running processes
- Use a modular approach for the client and server applications which may make them easier to maintain and expand
- Use the XML SOAP protocol, a textual, human-readable protocol that is also a W3C Recommendation, for communication between the client and server
- Aim for a simple user interface to make the system easy to learn

Archiving



Retrieval



Contact

Project Wiki:

- <http://dart.cs.drexel.edu/wiki>

Email:

- Martin F. Piecyk - mfp27@drexel.edu
- Thomas M. Pack - mike.pack@drexel.edu
- David J. Wilkie - djw28@drexel.edu
- Joseph B. Kopena - tjkopena@cs.drexel.edu
- William C. Regli - regli@drexel.edu
- Mike J. Grauer - michael.grauer@gmail.com

