

# **“GALAVAN” Demand-Responsive Software Project**

**Software Created by:  
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**With input by:  
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**And  
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During the initial phases of the GALAVAN five-year service improvement plan (a UTC funded project), it was apparent that the software GALAVAN was utilizing for scheduling and dispatching its service was inadequate. The DOS based software required excessive typing and did not efficiently manage of data. In order to produce reports for various state agencies, the staff had to manually count the number of rides provided to various categories of clients. The limited capabilities of the software forced staff to spend valuable time managing data rather than providing service to clients.

The staff at WTI reviewed current off-the-shelf software programs, typically costing nearly \$10,000 to purchase, and decided that most existing packages were for larger demand-responsive systems. While one software program that was designed for smaller transportation providers was located, it was agreed that a “custom” software system, designed by WTI, would be beneficial to GALAVAN.

Josh Kay, a Research Associate with WTI, designed a demand-responsive software system that would not only improve the data management efficiency of GALAVAN, but may be applicable to other organizations. After initial testing and “debugging” of the software, GALAVAN is ready to begin utilizing this new software tool.

This software was created specifically for GALAVAN in Bozeman, Montana. GALAVAN is a specialized transportation service (FTA Section 5310) that provides rides to seniors, individuals with disabilities, and those with limited incomes. Last year, GALAVAN provided over 24,000 rides in the greater Bozeman area.



The screenshot shows a window titled "Update an existing Client" with a "Client Information" section. The form contains the following fields and values:

Field	Value
ID	431
First Name	David
Last Name	Kack
Address	2417 Par Court
Pickup	2417 Par Court
City	BOZ
Phone	5227579
Emerg. Phone	
Birth Date	5/14/1965
Condition	
Doctor	
Elderly	<input type="checkbox"/>
Wheelchair	<input type="checkbox"/>
Disabled	<input type="checkbox"/>
Other	<input checked="" type="checkbox"/>

At the bottom of the window are "Update" and "Reset" buttons.

When creating the software, the goal was to produce a “user friendly” software system for demand-responsive transportation providers. GALAVAN software has many advantages over older, DOS based systems, including:

- A user-friendly interface
- Databases to manage client and destination information
- The ability to track client types and trip purposes
- The capability to instantly print MAST reports and other utilization reports

Based on input from GALAVAN, client information, such as in Figure 1, can be quickly entered into the computer, or accessed for any changes to client information.

**Figure 1:** Client Information Screen

The software employs user-friendly interfaces (Figure 2) to make the job of scheduling rides easier for the organization's staff.

The screenshot shows a window titled "Ride Data Entry" with a grey background and a blue title bar. The window is divided into several sections:

- Client Information:** Includes text boxes for Client ID (431), First Name (David), and Last Name (Kack). Below these are icons for a home page, a magnifying glass, and a "NEW" button. To the right are two columns of checkboxes: "Client Type" (Elderly, Wheelchair, Disabled, Other) and "Client Purpose" (Medaid, Employment, Nutrition, Other). The "Other" checkbox in the Client Type column is checked.
- Origin Information:** Includes text boxes for Pickup Name (2417 Par Court), Pickup Address (2417 Par Court), and Pickup City (BOZ). Below these are icons for a home page, a magnifying glass, and a "NEW" button.
- Destination Information:** Includes text boxes for Destination Name (Wal-mart), Destination Address (1500 N 7th Avenue), and Destination City (Boz). Below these are icons for a home page, a magnifying glass, and a "NEW" button.
- Ride Information:** Includes text boxes for Ride ID (3), Date (4/15/2003), Vehicle (a dropdown menu), Time (0830), Code (empty), and Guests (0). Below these are "Submit" and "Reset" buttons.
- Special Notes:** A text area containing the text "A Very Nice Man!".

**Figure 2:** Ride entry screen.

The software is a Java based application that makes use of text files to store the data. In addition to the reports generated directly by the software, data could be transferred to Microsoft® Excel for further analysis.

The Western Transportation Institute has acquired additional UTC funds to have two to three other demand-responsive transportation providers within Montana to test the software. This test will likely prove the usefulness of the software, and with additional support funding, the software could be distributed to all demand-responsive transportation agencies within Montana.