



**PERSONNEL SKILLS ROSTER
Application Brochure**

Application Brochure for

Personnel Skills Roster

Created by:

**BDrive, Inc.
4633 Old Ironsides Drive,
Suite 415
Santa Clara, CA 95054**

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1. Introduction

The “**Personnel Skills Roster**” is a web-enabled, database-driven and security-governed application created by BDrive to assess capabilities of enterprises via creation and retrieval of skills matrix input by employee.

BDrive provides innovative solutions in Information Technology, Knowledge Management and optimization of design processes in the Product Development phase using state-of-the-art engineering and information technologies. We have created Knowledge-based Frameworks for the automotive vertical that pull information from upstream sources, manage process flows and push information to the downstream of the product development lifecycle to reduce design time in building vehicles.

2. About the Personnel Skills Roster

The Personnel Skills Roster comprises of the following web components:

- A. **Input** – This enables the creation of companies, skill categories and their corresponding line items and people definitions
- B. **View** – View enables review of personnel skills, inclusion, editing and deletion.
- C. **Retrieval** – Retrieval enables intelligent search and retrieval of items in the skills roster. This module can be customized to assess planning needs, search of companies with certain capabilities and enable partnering companies to collaborate on projects.

Technologies used: Java, XML, RDBMS, HTML, JavaScript and CSS.

Input and View further enable selected items to be exported to an Excel spreadsheet.

3. Designing the Application

BDrive used its Integrated Development Platform, MANTRA to manage the lifecycle of plan, design, build, test and deploy all aspects of the Personnel Skills Matrix application. MANTRA is a web-enabled tool that enables collaboration between team members: developers as well as the customers to verify that the application is being built according to specifications. MANTRA is based on the concept of organic programming: an amalgamation of UML and XP techniques and the reuse of time tested Design Patterns to facilitate the creation of web applications that meet with the customer's expectations, are standards compliant, and are robust, scalable and sustainable.

The illustration below shows the process flow for building the application, where data is aggregated into a multidimensional cube from disparate sources, processed using the Mantra Development Platform and represented as an application.

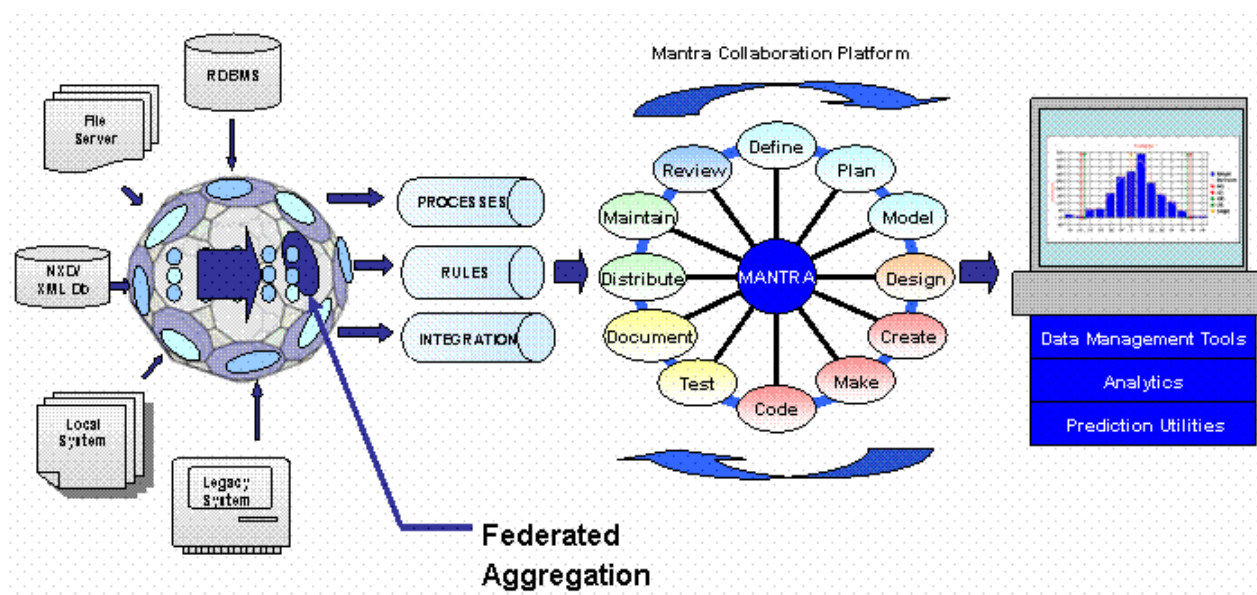


Figure: Process flow for building application using Mantra Development Platform

4. Architecture of the Application

The Personnel Skills Roster comprises of a backend database and a web enabled framework of Java components.

Interaction Diagram: Following diagram is the interaction diagram for the Personnel Skills Roster application. It shows the major components of the application. Each component is briefly explained below.

- **Input Module:** This consists for components (dynamically generated) web pages that the users/administrators will use to input Categories, Items, Personnel information and Skills. These pages will be user friendly and will use textboxes, drop down lists, and radio buttons.
- **Application Process Engine:** This is the heart of the application. It consists of Java Servlets, and Java classes for encapsulating the business logic and enabling database storage and retrieval.
- **Skills Database:** This is the relational database that stores all the data for the application. Personnel Skills Roster Application will use any industry standard Relational Database Management.
- **Retrieve:** This module enables retrieval of personnel, categories and items.
- **Intelligent Skills Search:** Intelligent skills search module enable listing of personnel based on customizable search criteria
- **Skills View:** The skills view module enables listing, searching and filtering of personnel skills.

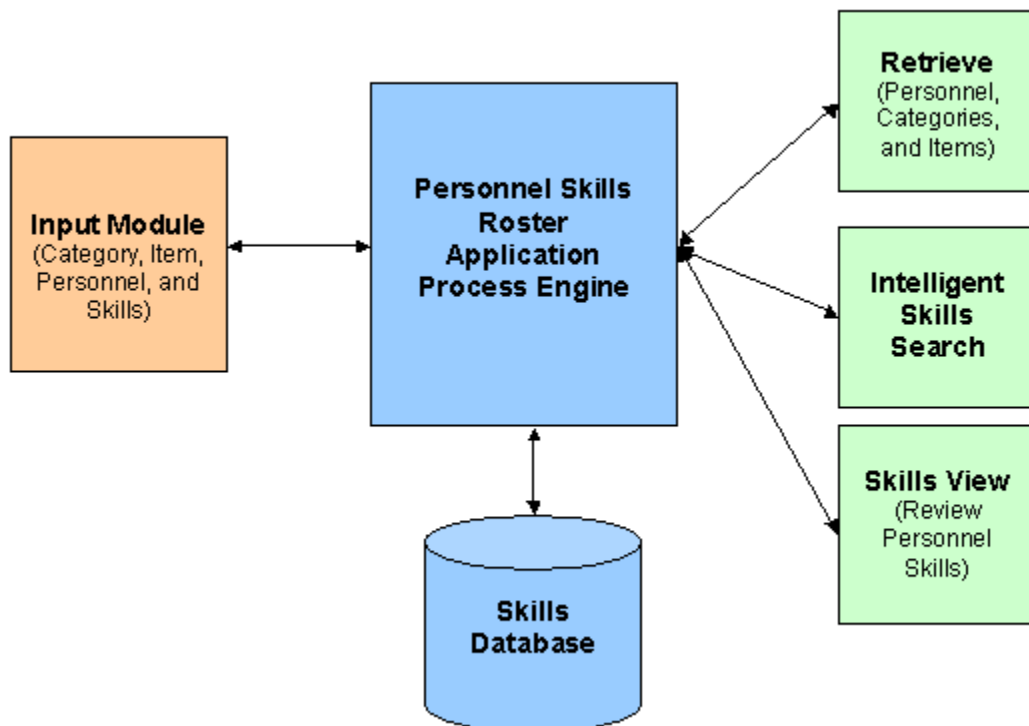


Figure: Interaction Diagram for the Personnel Skills Roster Application

Infrastructure Diagram: Following diagram shows the infrastructure diagram for the application.

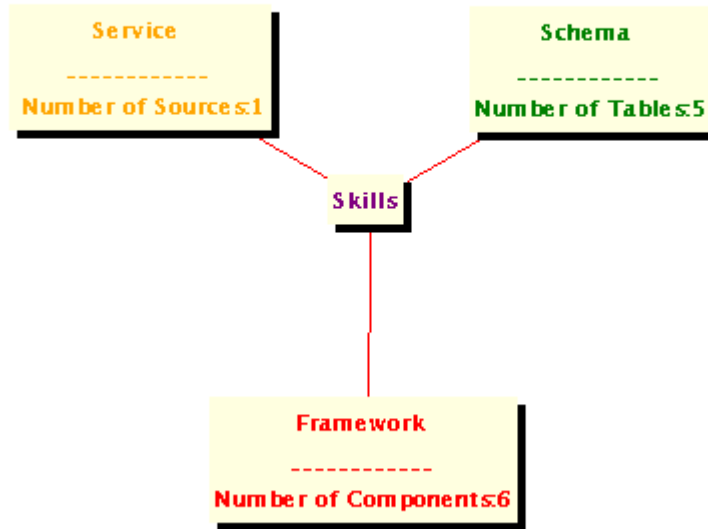


Figure: Infrastructure Diagram for the Personnel Skills Roster Application

Entity-Relationship (ER) Diagram: Following is the entity relationship diagram for the skills roster application. The table definitions are also listed below.

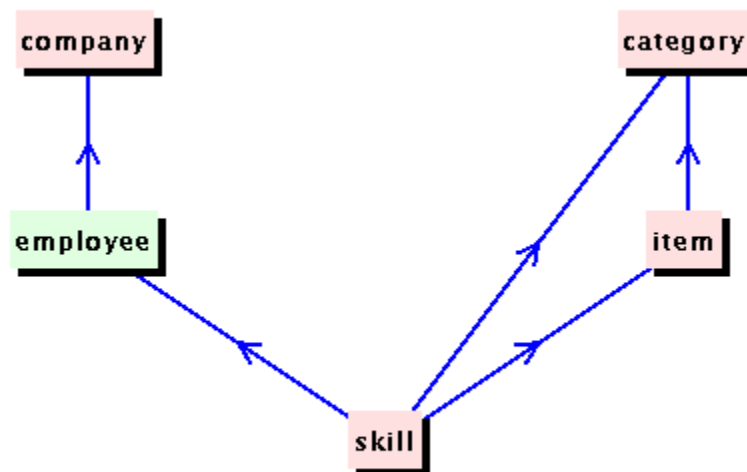


Figure: E-R Diagram for the Personnel Skills Roster Application

Component Framework: Following is the component framework diagram. It shows the various components of the application.

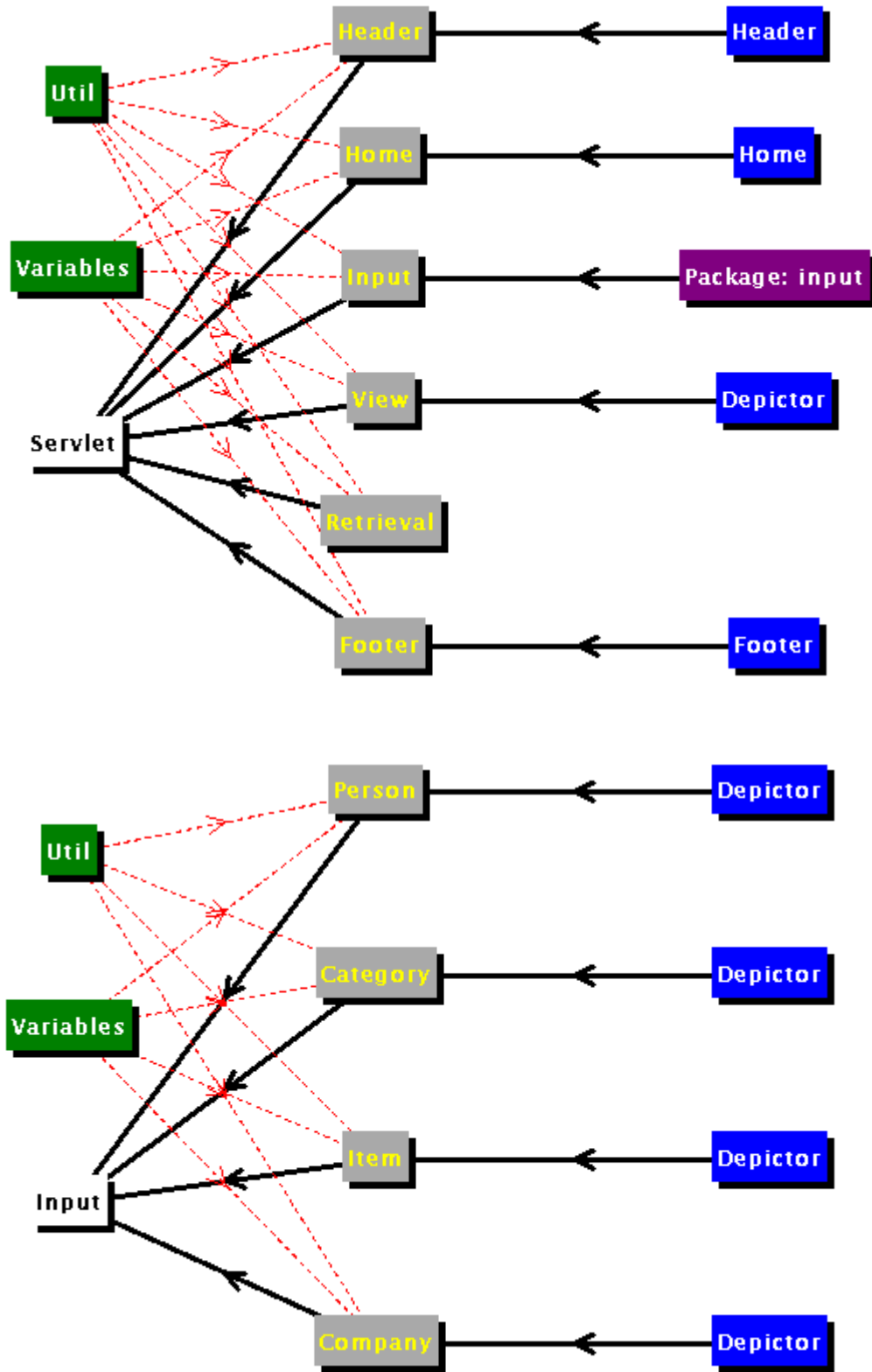


Figure: Component Framework Diagram for Personnel Skills Roster Application

5. Inputting Information

The Personnel Skills Roster Application will enable inputting information into the Skills Roster database using HTML forms. These forms will consist of text boxes, lists and radio buttons. The forms will be easy to use and intuitive.

Skills roster application will enable input of information for:

1. Company
2. Category
3. Item
4. Person
5. Skills

Following section explain the process for inputting the information into the Skills Matrix database.

The screen below shows the home page of the Skills Roster application. This page provides links for going to the Input, View and Retrieval modules. Users can go to these modules by clicking on the respective links.

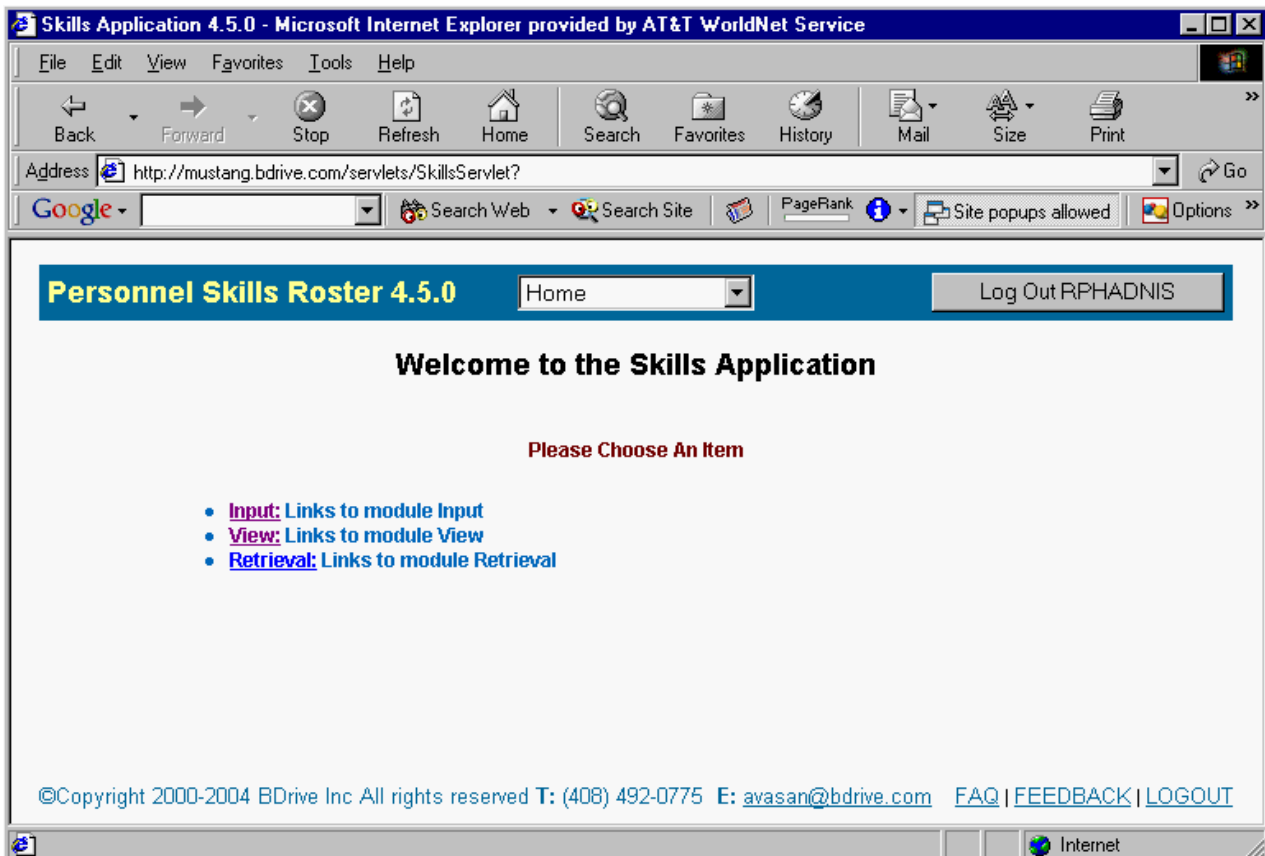


Figure: Home page of the Skills Roster Application

The screen below shows the first screen of the input module. User see this page when they click on the Input link from the home page of the application. Using the links on this page users can navigate to pages that enable listing of Company, Category, Item and Person. This is done using the links on this page.

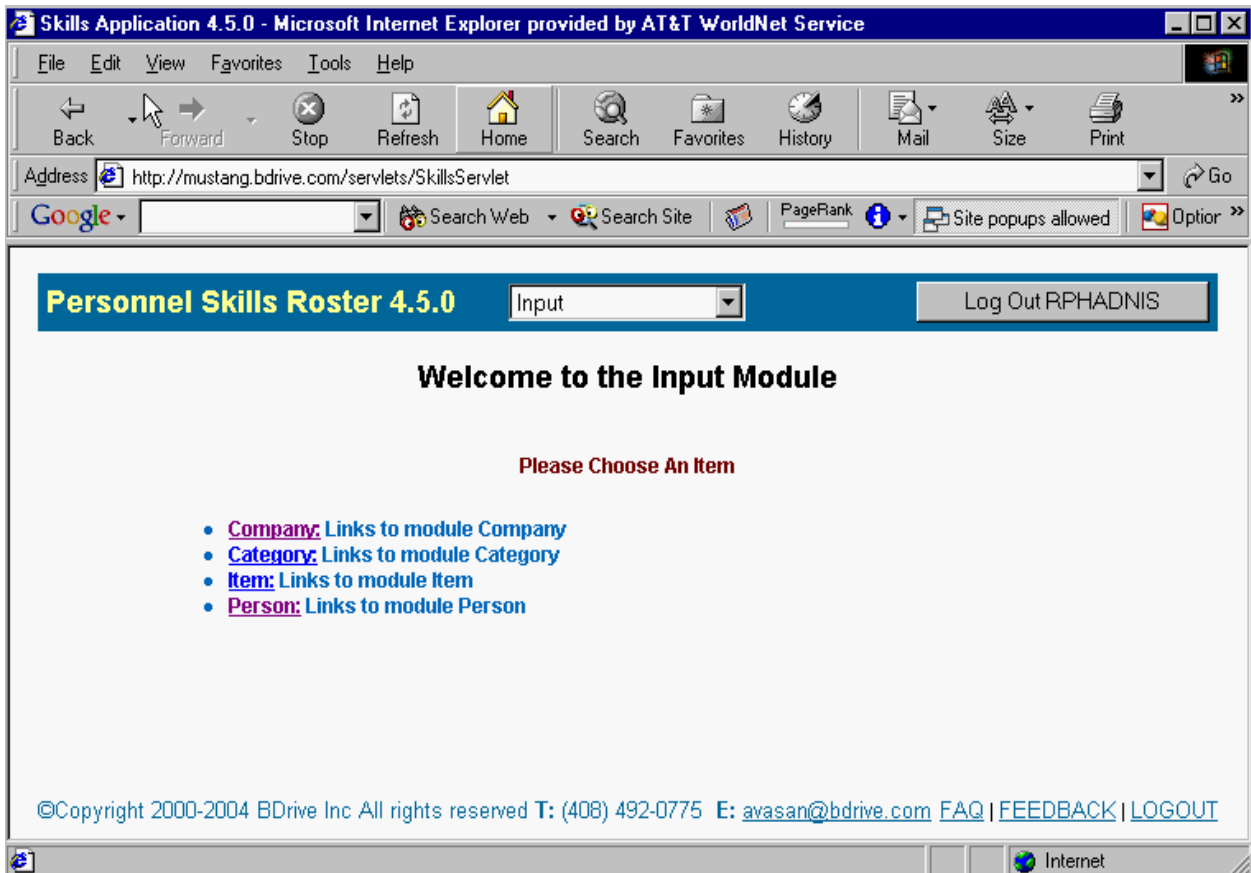


Figure: Home page of the Skills Roster Application

Following screen shows the listing of the Companies currently defined in the Skills Roster application. New compaies can be created using the Create New Button on this screen. The currently defined company information can be exported to Excel using the Export to Excel button.

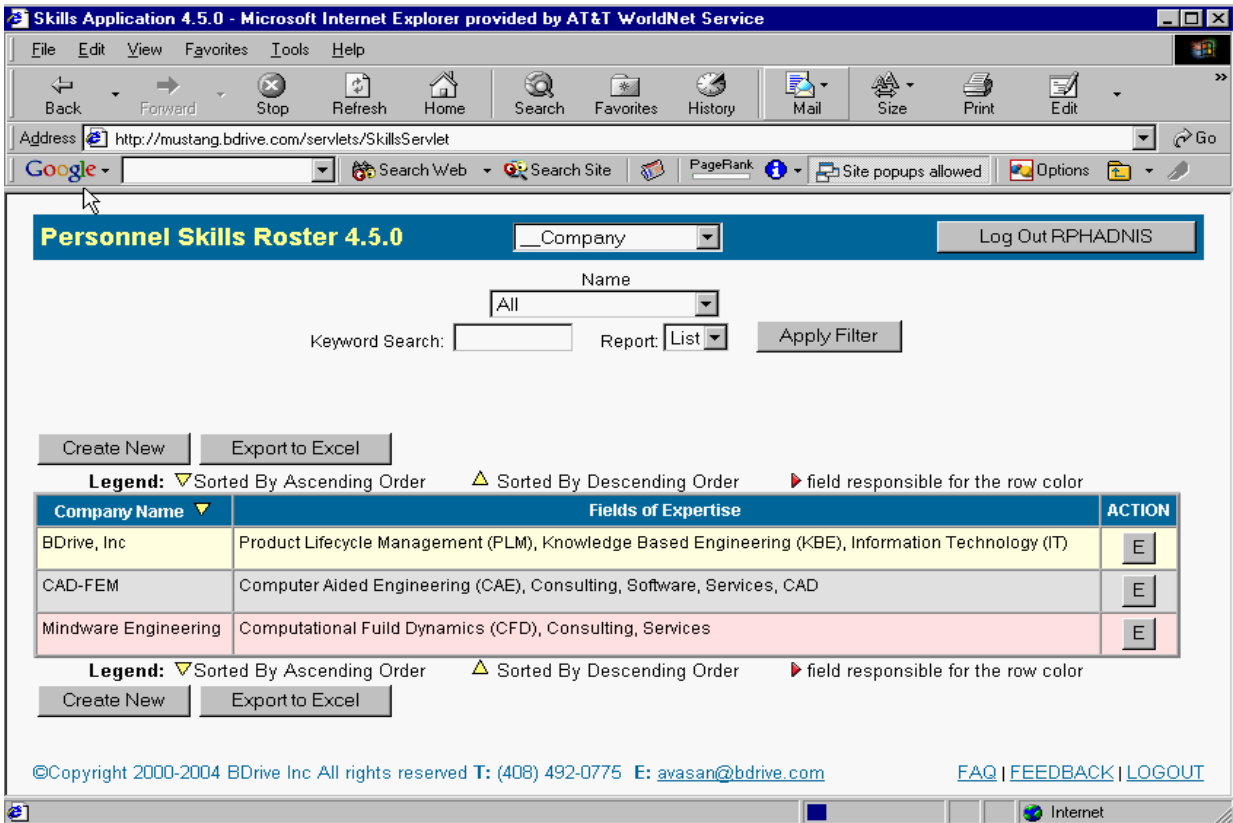


Figure: Page showing the company listing

Following screen shows the create company screen. User can provide the necessary information and click on the Submit button to create new company.

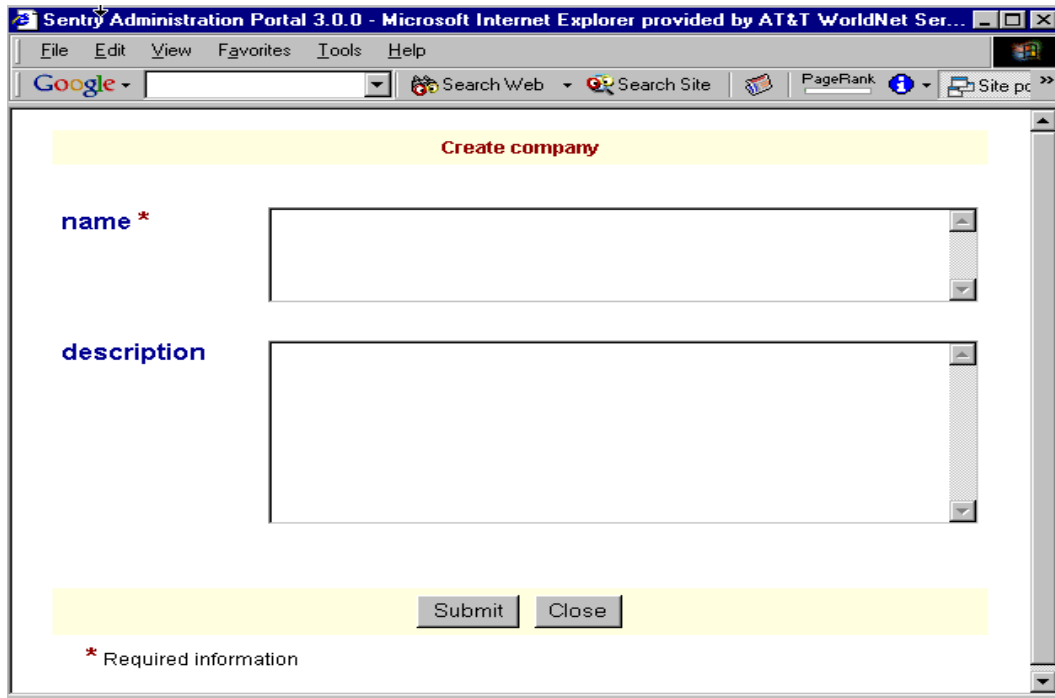


Figure: Page showing the company creation screen

Following screen shows the listing on the currently defined categories. Categories are currently of two types- **SELECT** and **PROFICIENCY**. Select categories are of type where the value for that category is a predefined list. For example Category Role in Company where the choices are items such as CEO, CTO, IT Administrator, BH Bilanzbuchhaltung, EB Exportbeauftragter and more. Proficiency type categories are of type where the user can have varying degree of skills in a number of items. An example of Proficiency type category is Languages. Here an employee can know Languages such as English, French, German etc to different levels of expertise.

Category is also subdivided into groups such as Personal, Professional and Miscellaneous. User can navigate to this screen using the Category link from the Input page.

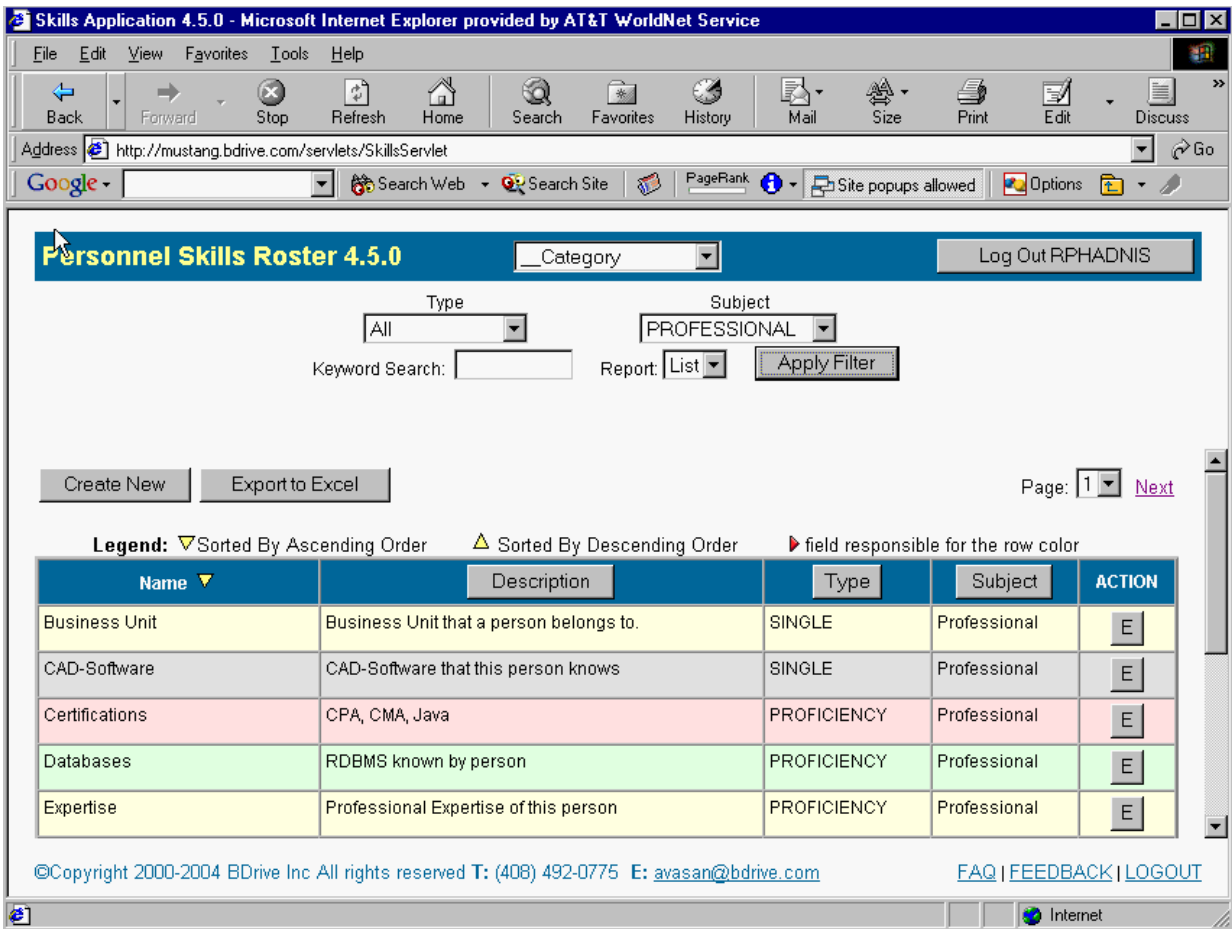


Figure: Page showing the category listing

Following screen shows the create category screen. User can provide the necessary information and click on the Submit button to create a new category.

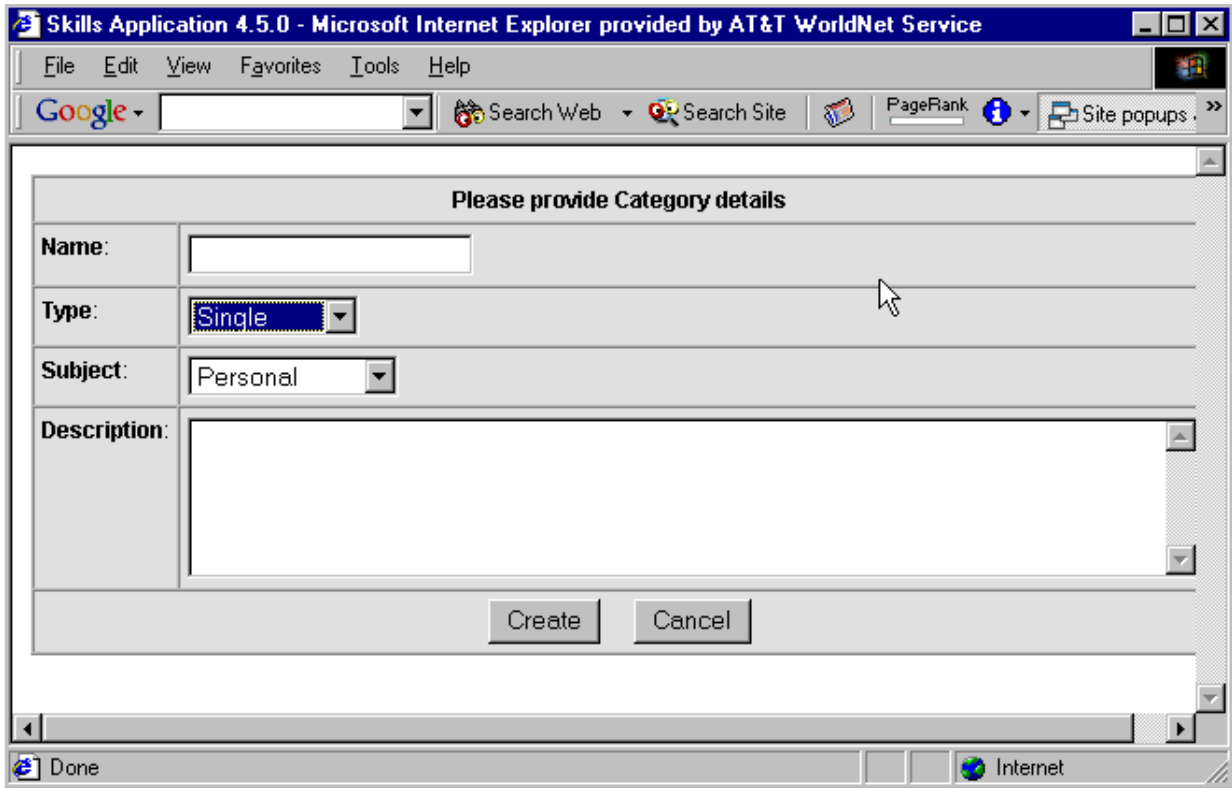


Figure: Page showing the category creation screen

Following screen shows the Item listing page. This screen shows the items currently defined for Category called Role in company.

The screenshot shows a web browser window titled "Skills Application 4.5.0 - Microsoft Internet Explorer provided by AT&T WorldNet Service". The address bar shows "http://mustang.bdrive.com/servlets/SkillsServlet". The main content area is titled "Personnel Skills Roster 4.5.0" and includes a search bar with a dropdown menu set to "Role in company". There are buttons for "Log Out RPHADNIS", "Create New", and "Export to Excel". A legend indicates sorting options and field responsibility. The main table lists various roles with their names and an "ACTION" column containing an "E" button.

Category	Item Name	ACTION
Role in company	BH Bilanzbuchhaltung	E
Role in company	BL Bereichsleiter	E
Role in company	CEO	E
Role in company	CTO	E
Role in company	EB Exportbeauftragter	E
Role in company	GF Geschäftsführer	E
Role in company	GL Geschäftsstellenleiter	E

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Figure: Page showing the item listing screen

Use can create a new item by clicking on the create new button. The user can select the category that the item relates to and provide its name.

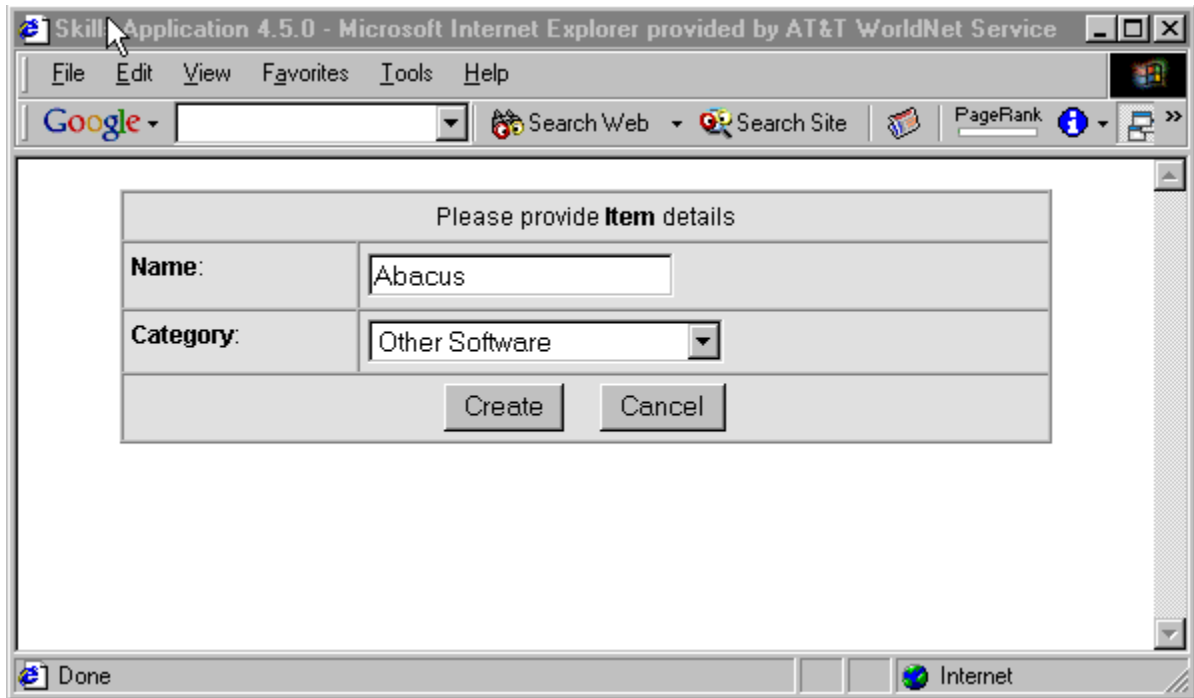


Figure: Page showing the item creation screen

Editing of all information added to the skills roster application will also be enabled.

Following screen shows the Person or Employee listing page. User can navigate to this page by Clicking on the Person link in the main input page.

The screenshot shows a web browser window titled "Skills Application 4.5.0 - Microsoft Internet Explorer provided by AT&T WorldNet Service". The address bar shows "http://ustang.bdrive.com/servlets/SkillsServlet". The page content includes a header "Personnel Skills Roster 4.5.0" with a dropdown menu set to "_Person" and a "Log Out RPHADNIS" button. Below this are filters for "Company" (set to "All") and "Report" (set to "List"), with an "Apply Filter" button. There are also "Create New" and "Export to Excel" buttons. A legend indicates sorting options: "Sorted By Ascending Order" (selected), "Sorted By Descending Order", and "field responsible for the row color". The main data table has the following content:

Company	Name	Email	Telephone	Year Born	Employed From	ACTION
BDrive, Inc	Test Tester	test@bdrive.com	408 492 0776	1978	03/04/2003	E
BDrive, Inc	Survi Gopal	sgopal@bdrive.com	408 492 0774	1976	06/15/2001	E
BDrive, Inc	Rahul Phadnis	rphadnis@bdrive.com	408-492-0776	1972	11/01/2002	E
BDrive, Inc	Priya Krishnamoorthy	pkrishna@bdrive.com	248 772 1062 Ext 202	1973	01/01/2001	E
BDrive, Inc	Nitin Uchil	nuchil@bdrive.com	248-772-1062 EXT 201	1961	06/29/2000	E
BDrive, Inc	Mike Salari	msalari@bdrive.com	248 772 1060 EXT 101	1960	03/10/2003	E
BDrive, Inc	Aparna Srinivasan	avasan@bdrive.com	408-492-0775	1968	04/16/2001	E

At the bottom of the page, there is a copyright notice: "©Copyright 2000-2004 BDrive Inc All rights reserved T: (408) 492-0775 E: avasan@bdrive.com" and links for "FAQ | FEEDBACK | LOGOUT".

Figure: Page showing the person listing page

To create a new person, the user should click on the Create New button. The application allows the user to define a person and also add his/her skills in the same sequence. Following snap shots show the process of creating a person and adding his skills.

The screenshot shows a web browser window titled "Skills Application 4.5.0 - Microsoft Internet Explorer provided by AT&T WorldNet Service". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The main content area displays a form titled "Please provide Person details". The form fields are as follows:

First Name:	<input type="text"/>
Last Name:	<input type="text"/>
Middle Initial:	<input type="text"/>
Email:	<input type="text"/>
Telephone Number:	<input type="text"/>
Year of Birth(YYYY):	<input type="text"/> 1934 <input type="button" value="v"/>
Company:	BDrive, Inc <input type="button" value="v"/>
Company Start Date (MM/DD/YYYY):	<input type="text"/> <input type="button" value="calendar"/>
Navigation Option:	<input checked="" type="radio"/> Create Person and Define Skills <input type="radio"/> Create Person Only

At the bottom of the form are two buttons: "Create" and "Cancel". The browser's status bar at the bottom shows "Done" on the left and "Internet" on the right.

Figure: Input of basic Person/Employee information

Skills Application 4.5.0 - Microsoft Internet Explorer provided by AT&T WorldNet Service

File Edit View Favorites Tools Help

Skills Definition for QA Test Test QA

Office Site: Novi, MI

Academic degree: Bachelors

Study: Automotive Engineering

Option	Skill Level			
English	<input type="radio"/> Basic	<input checked="" type="radio"/> Good	<input type="radio"/> Outstanding	<input type="radio"/> None
French	<input type="radio"/> Basic	<input type="radio"/> Good	<input checked="" type="radio"/> Outstanding	<input type="radio"/> None
Spanish	<input type="radio"/> Basic	<input type="radio"/> Good	<input type="radio"/> Outstanding	<input type="radio"/> None
Italian	<input type="radio"/> Basic	<input type="radio"/> Good	<input type="radio"/> Outstanding	<input type="radio"/> None
Russian	<input type="radio"/> Basic	<input type="radio"/> Good	<input type="radio"/> Outstanding	<input type="radio"/> None

Store Cancel

Done Internet

Figure: Input of Personal type skills

Following screen shows the input of the Professional Type of skills. Please note that the category Business Unit is a SELECT type of category and Software In-house is a Proficiency type of category.

The screenshot shows a web browser window titled "Skills Application 4.5.0 - Microsoft Internet Explorer provided by AT&T WorldNet Service". The main content area is titled "Skills Definition for QA Test Test QA". It contains three main sections:

- Business Unit:** A dropdown menu with "Technology" selected.
- Role in company:** A dropdown menu with "IT Administrator" selected.
- Software In-house:** A table with columns "Option" and "Skill Level". The "Skill Level" column contains four radio buttons: "Basic", "Good", "Outstanding", and "None".

Option	Basic	Good	Outstanding	None
ANSYS Multi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ANSYS Mech.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CFD (Flotran CFX)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ANSYS Emag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DesignSpace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ANSYS WBE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LS-DYNA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eta/dynaform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eta/VPG	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LS-OPT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T-SIM B-SIM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autopipe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure: Input of Professional type skills

The screenshot shows the same web browser window, but the "Other Interests" section is active. It features a dropdown menu with "Music" selected and two buttons: "Store" and "Cancel".

Figure: Input of Miscellaneous type skills

6. Reviewing Skills

The Personnel Skills Roster Application will enable reviewing of skills information. It will enable listing, filtering and exporting to excel.

The following figure shows the Skills View screen. The user can select the company that he wants to review the skills for. After this selection he can select the employee and hit the Get Skills button. Currently only personal details are listed. Work on listing of the employee skills is in progress.

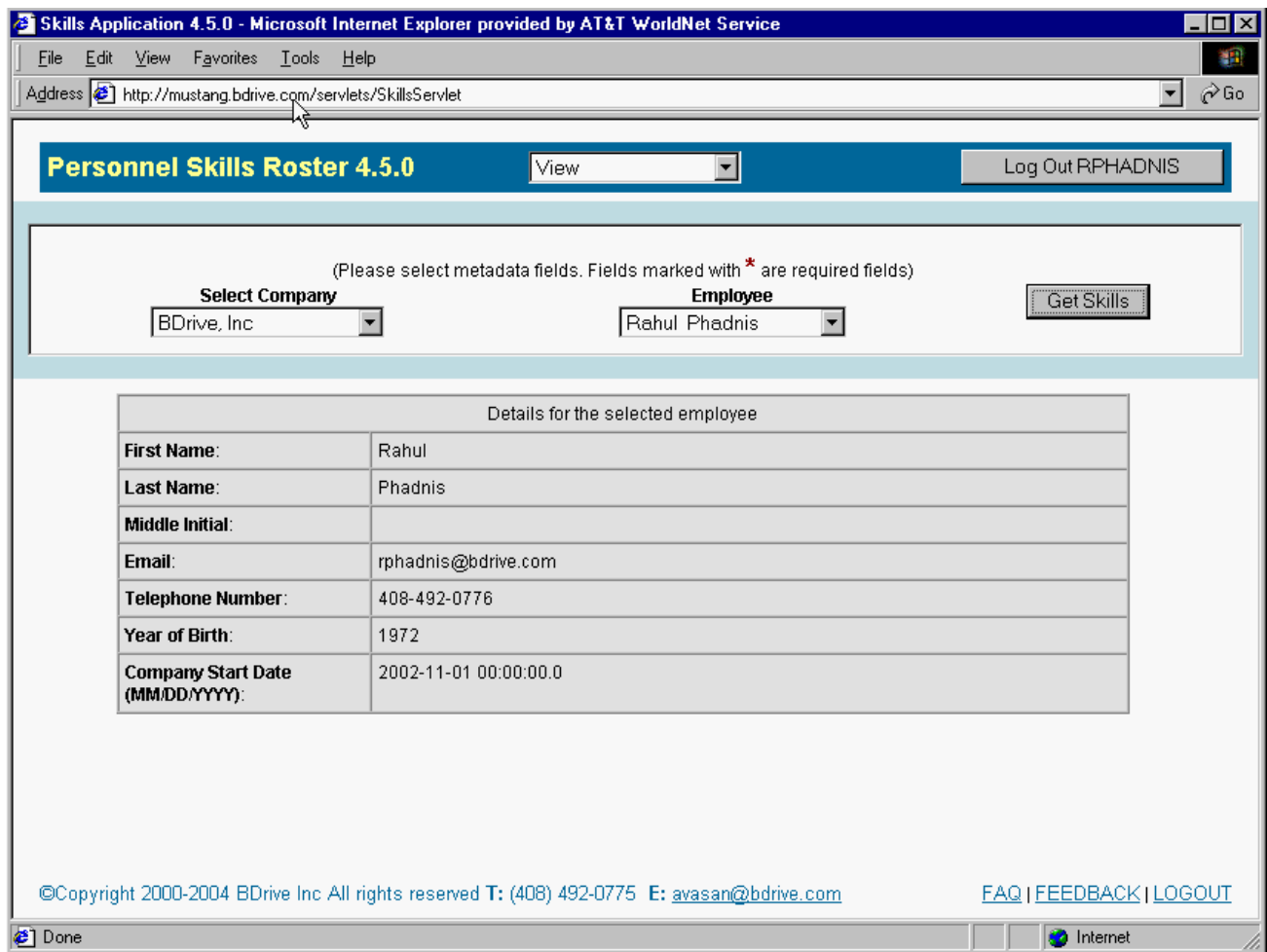


Figure: Screen showing view of skills for a selected employee

7. Intelligent Search & Retrieval

This is a customizable module of the skills roster application. It will enable intelligent search and retrieval of skills using customer defined criteria.

8. Contact Info

For technical details and application related issues, please contact:

Nitin Uchil at nuchil@bdrive.com

Our mailing address is:

BDrive, Inc.
4633 Old Ironsides Drive
Suite 415
Santa Clara,
CA 95054
USA

Appendix A: Company Information

Company Background

BDrive is the leading provider of Innovative Collaborative Solutions that reduce inefficiencies in product development, shorten product development life cycle by optimizing complex processes using Intelligent Knowledge Management and Seamless Integration Technologies. BDrive provides Knowledge Management Frameworks that harmonize Product Lifecycle Management (PLM) activities by deriving information from upstream processes, creating robust ways of drilling and mining data and pushing information downstream to optimize Product Development Cycles.

We optimize Product Design and Development by providing

- **Collaborative Development Environment** that builds quick applications which are standards compatible, robust and scalable
- **Secure, Real-time View** of product data across the extended design community
- **Portal Interface** providing a structured role-based view of the information
- **Business Intelligence and Analytics** to enable engineers to make informed decisions

Companies using our software are able to use IT to effect rapid change within their product development environment and achieve breakthrough levels of efficiency and responsiveness. Our products simplify the flow of information, and make the Product Development Process agile, productive and connected.

The vision of BDrive is to create Knowledge Management Frameworks to easily, effectively and efficiently manage information. It is dedicated to providing state-of-the-art enterprise solutions in database management and engineering using client-server technologies, intelligent mining schemes and the object-oriented methodology. Our theme is to create knowledge based repositories, mine engineering data and depict them in a browser environment with dynamic and interactive content.

Our motto is: *"Data is Information is Knowledge is Intelligence is Wisdom - We make IT happen"*.

History

BDrive has evolved out of nearly two decades of developing applications for the automotive and aerospace industries.

BDrive was founded in 1997 as a consulting organization that was primarily focused on building such knowledge based infrastructures for the automotive industry. After about 3 years of consulting, we realized the need for an infrastructure that would provide not only for collaboration throughout the development process, but would also intelligently mine information so that lessons learned in each product development endeavor could be intelligently captured and reused in future efforts. This would eliminate a lot of redundancy and duplication that was inherently present in current development processes.

It was with this vision that we added a development office in the Bay Area in 2000, with the mission of creating innovative collaborative infrastructures that would optimize the product development process by pulling and pushing information throughout the process and simultaneously intelligently mining knowledge out of the process.

BDrive has captured the lessons learned from consulting endeavors and incorporating the latest technologies (RDBMS, J2EE, XML, STRUTS and Web Services) to enable seamless collaboration of information between people and processes and intelligent data mining.

Using MANTRA, our Integrated Development Platform, we have identified common themes and processes and integrated them in an environment that helps teamwork, collaboration and re-use of frameworks and code. This has helped us engineer robust and scalable solutions in Process Optimization, Knowledge Management and Applications Integration using industry standard protocols.

Areas of Business:

BDrive's focus is on providing Innovative Collaborative Applications for Product Design and Development .Our products will shorten the Product Development Cycle by decreasing inefficiencies in complex processes via intelligent knowledge management and seamless integration technologies.

We have been creating general-purpose Utilities and Applications catering to specific business needs in the Automotive Industry to optimize New Product Development.