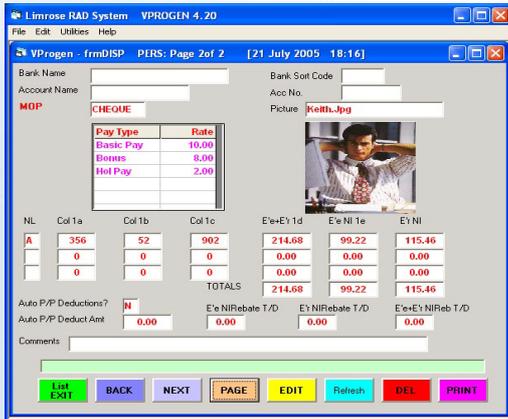# Progen Agile Software System
- *combine it with 4GL for Rapid Application Development*

Executive Summary - by R.S.Raizada PhD, FBCS

What is an Agile System? - A software system that can be implemented quickly and adapt rapidly to meet changing requirements is said to be an "agile" system.

Agile systems must, however, be capable not of only rapid implementation, they must also be **consistent, robust, repeatable and easy to use.** It is usually not necessary for full and detailed specifications or design to be developed first (essential when using the conventional approach) and systems **"evolve"** whilst being used. Changes are achieved with active user participation as working **prototype systems can often be developed within days at low cost.**

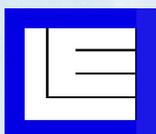A typical Progen4GL Screen (UK Payroll - page 2)

The Limrose Group (UK) has developed an agile system that combines the robustness of 4GL with the "agile" approach that has already been implemented in several projects. The comprehensive 4GL "engine" is used on all sites (irrespective of the application) and only the "front-end" interfaces are different. However, the front-end interfaces are also **developed using "agile" principles** and are **capable of being modified rapidly at a modest cost.** It uses consistent, repeatable structures to address such technical issues as indexing and data retrieval, GUI interface and generating reports. The combined system is almost **self-documenting** and all necessary information for subsequent modifications is inherent within the system.

Changes can be achieved rapidly without recourse to tomes of (often incomprehensible) notes written by programmers who have moved to greener pastures elsewhere. **Systems remain robust and usable while they evolve and have few "bugs".**

Software developed using the above **4GL/Agile** approach include **Library Management, Multi-site Stock Control, Production Control and Manufacturing, Invoicing and Stock Control, Mailing List/Contact Management, UK Payroll, Sales and Purchase Ledgers, and Care Home Management.**

Although the technology is under continuous development, several applications have now been running for many years. The current technology, available for the **MS Windows** platform, can cut the cost of software development by as much as 60% or more. For example, a comprehensive **Library Management System for Primary Schools** has recently been developed in association with the North East Wales Schools Library Service at an unbelievably low cost and is already in use at many schools. A **Production Management System** for a US company was developed last year at less than a third of the cost using conventional technology.

The combined **Progen4GL/Agile system** is available for **licensing to third parties** for in-house use, **development of customised software and production of inexpensive "packages" for wider distribution or bundling with hardware.**