

## **Overview of Career Solutions**

When PC's first were becoming available around 1985, Judy saw how a computer would be a perfect tool to use in her work as a Psychologist. Judy was seeing clients for Career Counselling and was using a variety of paper based tests to measure interests and personality.

The first CareerMate was developed by J Denham and Associates. Career Management Consultants Pty Ltd trading as Career Solutions was formed in 1991 as part of the vision and process of developing a range of career development products. The development program chosen was Clarion for DOS as using this database centred 4GL programming language, we could develop successful products at a price which could be recouped in the target market and hence be a successful business model. A contributing component to the successful business model was a yearly licence and annual update supplied each year.

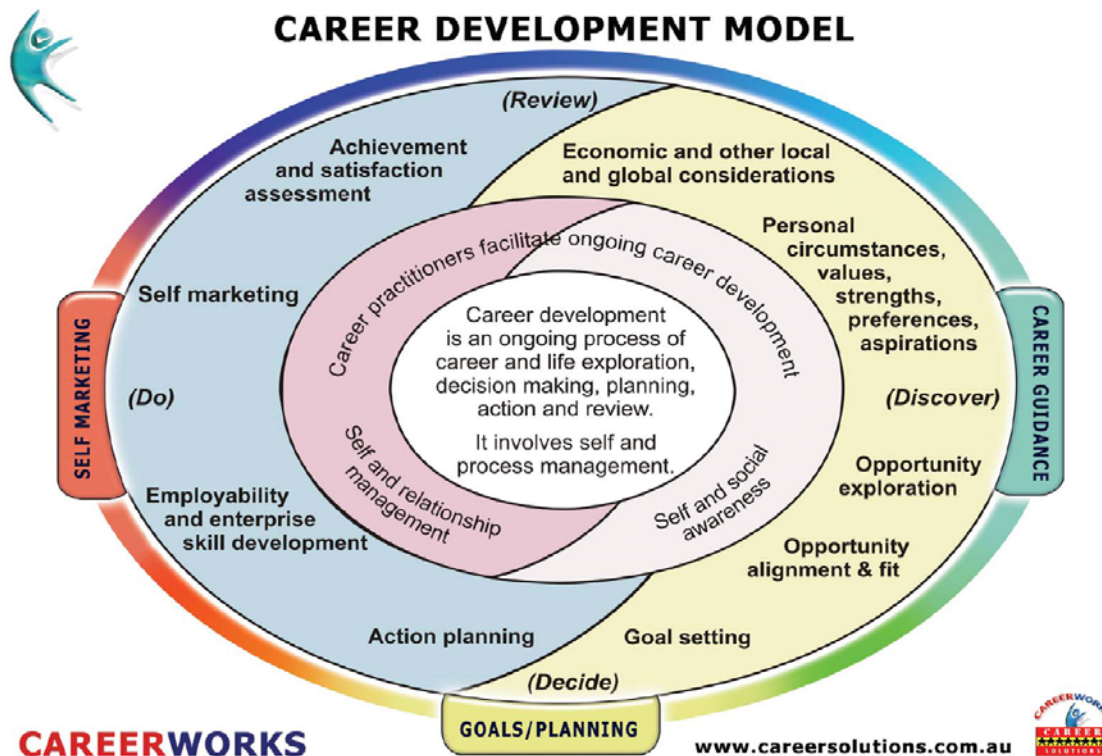
## **Programming History**

The intellectual property on which all our programs use was researched and developed in the period 1985 to 1988. This was first released as a product in 1985. From 1992, and after CMC was formed, Career Solutions has released a new version every year and supplied all enhancements and database updates to its customers as part of their annual update. Significant version milestones and dates are shown below:

- 1985 First DOS Version of CareerMate followed by New Directions
- 1989 First DOS Version of Jobapp
- 1992 First DOS Version of Career Builder and programmed in Clarion for DOS
- 1993 First DOS versions of CareerMate, New Directions and Career Builder Plus programmed in Clarion for Dos
- 1997 First Window Versions of CareerMate, Career Builder, New Directions and Career Builder Plus – programmed in Clarion for Windows
- 2000 First Windows Version of WinWork – programmed in Clarion for Windows
- 2007 First Windows Version of CareerWorks and CareerWorks Pro – programmed in Clarion for Windows
- 2015 First Internet Version of the career guidance programs suitable to be used on PCs, Macs and tablets
- 2015 ??? Dependent on the success of the internet version, development of the self marketing and action planning modules as internet versions.
- ??? Phone apps/apps in future unknown technology

### Career development Model

Career Development Theory, research and experience has led Judy to invent the Career Development Model and this forms the basis for all products produced by Career Solutions.



**Fig 1 Career development model**

### Current Career Solutions Products and Licences

Career Solutions currently markets and sells 4 products (see flowcharts for details of components):

- CareerWorks with Career Builder (Schools)
- CareerWorks Pro with CareerMate (Schools)
- CareerWorks with Career Builder Plus (customers with adults and kids )
- CareerWorks Pro with New Directions (customers with adults and kids )

These products are sold on a 12 month annual update licence which can either be single, 2-5 User or Site/Network licence where a site is defined as a physical site location. These licences allow an unlimited number of users in the licence period.

We also have the provision to supply a home licence which would be limited to one computer and a specified number of users (approx 6). This licence has not been marketed or sold.

The program PC menus which are created to reflect the components shown in the flowcharts are produced from the Menu Database. This enables us to easily add to or subtract components from our products. We could easily market and sell individual components (eg Work Interests or Personality).

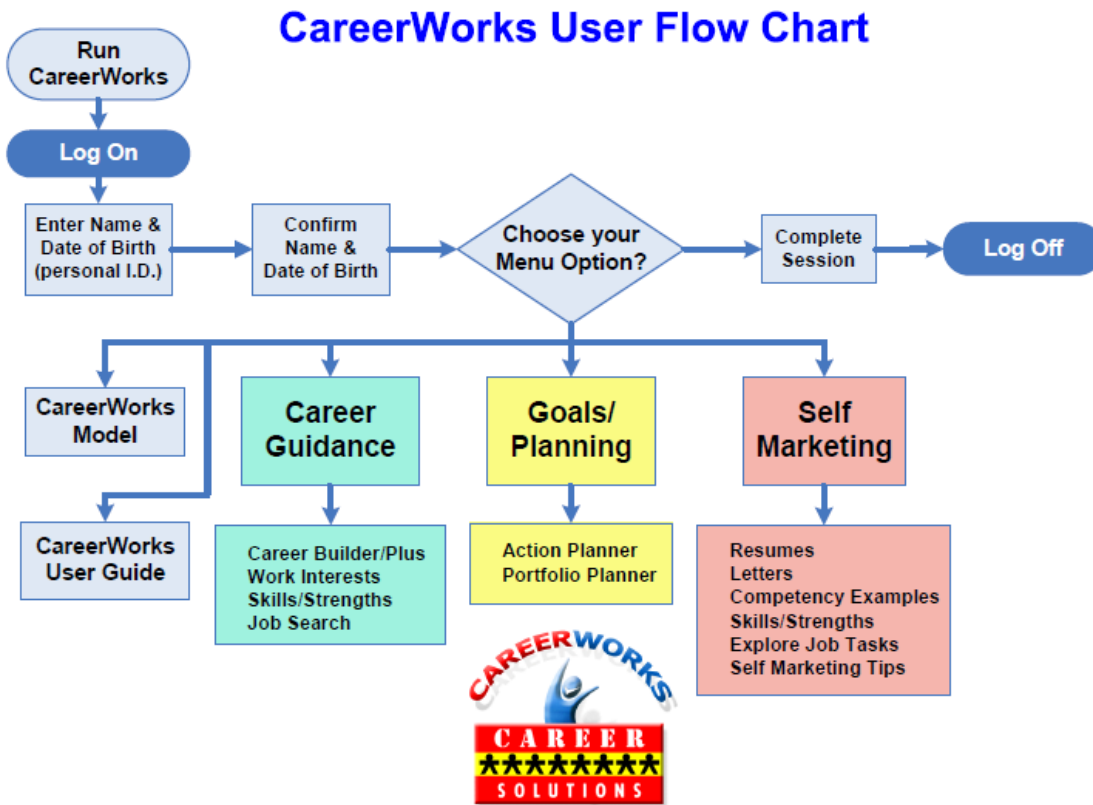


Figure 2 CareerWorks User Flow Chart

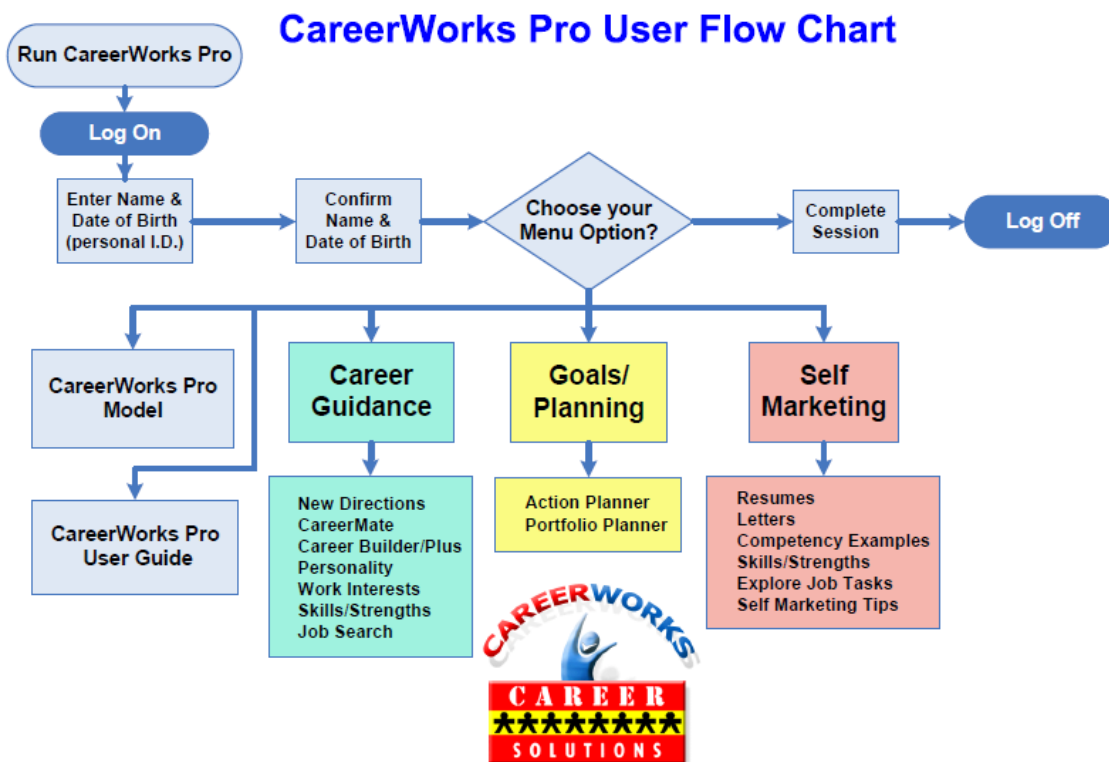


Figure 3 CareerWorks Pro Flow Chart

## **Synopsis of 2015 Annual Update**

### **Vision for 2015/6 Annual update**

? In progress ?

### **Outcome – WHAT**

To give our existing and new customers the choice of having their client's/students do our programs on either a Windows based PC or on any computer/tablet connected to the internet.

### **Purpose – WHY**

- Provide a wider range of computers from which our programs can be accessed, including Windows, Mac, Tablets etc.
- Overcome local technical problems particularly where there is minimal IT support
- Ensure that the internet version can be assessed without technical problems/firewall/intranet issues, by schools/TAFE colleges, universities and corporate/community organisations in all states of Australia and New Zealand
- Allow Students/Clients to complete the program at home and have it accessed and assessed by teachers/career counsellors from their office.
- Opportunity to market and sell home or individual versions
- Opportunity to on-sell to career practitioners working to use with their clients
- Opportunity to sell the whole internet package to be installed and personally branded on this customers WWW server.

### **Action - How**

Summarise the design of our existing programs and turn it into a design for an internet version.

Discuss the feasibility and cost of producing a fully working, tested and bug free internet version with an internet programming team.

Do due diligence on the pros and cons of producing a fully working technically sound internet version taking into consideration the pay back time.

### **Market**

What gap in the market will an Internet Version of Career Solutions Career Guidance programs fill?

How will this be better and unique compared to all other internet career guidance programs?

### **Success Criteria for Career Solutions**

Have a deliverable product that satisfies all requirements of the design criteria.

To enjoy the process and still be friends.

## **Success Criteria for ??**

### **Possible Team**

#### **Paul Cox –**

Technical Director and project manager

#### **Judy Denham**

Psychologist and

#### **Dave Griffiths**

Technical Adviser/Senior Programmer – Database etc

#### **Programmers**

Mark Addinall

#### **Tina Wilson**

Artist, graphic designer, worked for 10 plus years for Town Planning Co doing artwork in Photoshop and documents in Indesign. Founded and runs the Black Swan Portraiture Prize.

Tina could assist/advise Judy in producing screen and document layouts.

#### **Ben Dawson**

## **Design Criteria**

Career Solutions will into the foreseeable future continue to supply the PC version to all customers that require it. This means that the same program data will be used in both the PC Windows Version and Internet Version of our programs.

A complete solution:

- to enable Career Solutions to market, sell and deliver to it's customers, internet versions of it's existing programs, allowing for ongoing database development and options, and easy updating by Career Solutions of data, wording/information, colours, fonts and graphics on the website of the program screens
- for the customers of Career Solutions to be able to administer and customise their purchased program and also to be able to track their clients usage of the purchased program, and provide feedback to clients/students e.g to the action plan at the end of the career guidance programs (e.g. as a Word/html/rtf or similarly editable document)
- for the clients/students who access the program to have an experience that exceeds their expectations and has a lasting positive influence on their future life/career decisions – and can be accessed/mailed to teachers/career practitioners/potential employers.

The client interface and reporting modules are required to:

- Handle multiple concurrent users who could all be accessing the same section or viewing reports (possibly hundreds at a time). These concurrent users could be in multiple classrooms at the same site and also at multiple sites.
- Run on all current browsers used on Windows, Mac and tablets (and make it easy to transfer to other mobile devices e.g. smart phones)
- Ability to transfer client's data/documents between individuals and organisations
- Very User Friendly, modern upbeat/cool look and fun elements, customisable for school, university, community, corporate settings
- Be not affected by customers firewalls, intranets and other security systems

## **Scope of Project**

Figures 4.1 and 4.2 illustrate the proposed scope of this project.

Figure 4.1 shows how this project is broken up into 3 sub projects:

### **1. Admin**

Admin here is defined as the parent owner of the program. At this stage it is Career Solutions. This category would also cover sub parent owners if Career Solutions chose to sell master licences to organisations or individual career practitioners who would then be licensed to host the program on their server as an added value feature to their WWW site and/or market and sell to their customers.

Included in this category is:

#### **1.1 Admin Registration Validation (ARV).**

The ARV module is the top level security and ensures that only authorized personal have access to modify registration details. Included in this category is the ability for there to be sub admin levels to allow for the sale of master licences and for the master licensee to control the registrations of their customers.

#### **1.2 Admin Customer Registration Control (ACR).**

The ACR module provides the ability of the owner to manage all aspects of the customers registration including new orders, payments, annual updates and linking to the Admin database (which for Career Solutions is in MS Access).

#### **1.3 Admin Bridging Interface program (ABI).**

The ABI program provides the link between the master data (which is in access MDB) and the internet program trial/beta database. Up to now, the program data has been updated once per year as part of the release of each year's annual update. For the internet version, this data may be updated more frequently.

### **2. Customer**

Customer is defined as the organisation that has purchased a licence to enable their clients/students to use the program. If an individual licence is purchased, then the customer will also be the user (but with less features than the normal organisation customer).

Included in this category is:

#### **2.1 Customer Registration Validation (CRV)**

(self explanatory) Includes: expiry date, program type, licence type (number. of concurrent users and total no of users in licence period).

#### **2.2 Customer Initialisation Data (CID)**

The CID copies the customisable master data to the Customer Customisable Tables to enable the customer to customise it specific for their school/organisation, state and country.

### **2.3 Customer Program Customisation (CPC)**

The CPC module provides the customer the ability to customise many aspects of the Users experience of the program including: customising the Year 11/12 subjects, addition of customer logo to screens and reports, turning screens and program features on or off etc

This module will have multiple levels of authority from the Admin, Sub Admin's, Customer and sub Customer'. Sub Admin's are defined as Master Licence holders (eg India) and sub customer's are defined as other staff in the organisation who the customer has given authority to customize some program components.

### **2.4 Customer User Login Control (CUL)**

This module provides the means for the customer (and authorized sub customers) to set up New User accounts for their users. The means of doing this may include: manual, automatic or importing of student data. The number of Users allowed will be dependent on the type of licence the customer holds (unlimited users or limited to \*\* within an expiry date time or not)

### **2.5 Customer User Tracking (CUT)**

The User Tracking Module has the ability to have multiple user accounts which the customer has set up for their staff. Levels of privileges can be set such that the staff member has the ability to view specified users and their documents. This module will allow staff to view user's documents, to add comments, to provide feedback to users, to produce reports and do customised searches on the user's data.

## **3. User**

User is defined as all Students/Clients that use the programs. If the program has been purchased as an individual licence, then the user would also be the customer (however with less features than the normal organisation customer).

Included in this category is:

### **3.1 User Login Validation (ULV)**

(self explanatory) (CRV = Valid) AND (User = Valid {if current} OR NewUser = Valid (if new)

### **3M.0 User Control Menus (UCM)**

The UCM will be dynamic with the programs offered dependent on the program type registered to the customer and customisations done by the customer.

### **3P.0 User Career Programs (UCP)**

The career programs all build onto each other. The program type table defines what career item is included and the order presented to the User. Stage 1 of this project includes the modules 3P.1 to 3P.11.



### **3R.0 User Career Reports (UCR)**

The reporting module builds the reports based on data available and hence also build on each program type.

#### **4. Documentation**

Adequate documentation of project to enable someone else to read, understanding/use

#### **5. Plan for Project**

The following plan for the project has been designed to progressively build an internet version giving the opportunity for testing, proof of concept and getting feedback from select customers along the way. It is assumed that the internet programmer will access the Clarion source code when necessary and ensure that the algorithms developed in the internet version produce the identical result as the windows version.

### **DATABASE**

0-1 DB - Database and Program Design

0-1 Uploading - Uploading of data in Database from Access DB

#### **2. Customer (This is done extensively once program has been proven to run)**

2.1 CRV - Customer (Basic Version to create and manage one or more customer - US and a few trial customers)

2.2 CID - Customer Initialisation Data

2.4 CUL - Customer User (BASIC Version to add Testers)

2.5 CUT - Customer User Tracking (BASIC to see who has done what)

#### **3. User**

3.1 ULV - User Log in (BASIC Version just to get started)

3P.2 – IP1-Process Interest Profile – One Form, 28 questions

3R.2 – IP1-Report Interest Profile

3P.3 – IP2 Process - Interest Profile with Career Exploration – Add to IP1 the link to Industries > Career Clusters > Occupations

3R.3 – IP2 Report - Interest Profile with Career Exploration – Add to IP1 Report the selected Industries, Career Clusters and Occupations

3P.6 – P1 Process – Personality Profile – One Form – 72 Questions

3R.6 – P1 Report – Personality Profile

3P.8 – P3 Process – Personality Profile – Add to IP1 the link to Industries  
> Career Clusters > Occupations

3R.8 – P3 Report – Personality Profile - Add to P1 Report the selected  
Industries, Career Clusters and Occupations

3P.1 – Info Process - Career Information Search

3R.1 – Info Report – Career Information Search

3P.7 – P2 Process – Personality Profile – Add to P3 screens for Values,  
Drive, Health, Stress, Self Esteem and Personal Circumstances.

3R.7 – P2 Report – Personality Profile - Add to P3 Report the answers to  
Values, Drive, General Health, Stress, Self Esteem and Personal  
Circumstances

3P.4 – CB Process – Career Builder– Add to IP2 and extra screens in P2  
the extra question screens for Career Builder

3R.4 – CB Report – Career Builder – Add to IP2 Report the extra answers  
for CB

3P.5 – CB+ Process - Career Builder Plus – Add to CB the additional  
adult specific questions

3R.5 – CB+ Report – Career Builder Plus – Add to CB Report the  
additional adult answers

3P.9 – CM Process – CareerMate add the personality of P1 to CB and  
ensure that the link to Industries is determined by both IP1 and P1

3R.9 – CM Report – CareerMate - add to the CB report personality and  
career planning elements

3P.10 – ND Process – New Directions - add to CM process the additional  
adult questions of CB+ (done in data)

3R.10 – ND Report – New Directions - add to the CM report the  
additional adult questions of CB+

3.1 ULV - User Log in Validation

2.1 CRV Customer Registration Validation

3M.0 UCM User Control Menus – (determined by program type)

3M.1 – My Home Page

3M.2 – Program Selection

3M.2 - Documents

## **2. Customer**

2.1 CRV - Customer Registration Validation

2.3 CPC - Customer Program Customisation

2.4 CUL - Customer User Login Control

2.5 CUT - Customer User Tracking

### **1 Admin (Career Solutions**

1.1 ARV - Admin Registration Validation

1.2 ACR – Admin Customer Registration Control

1.3 ABI – Admin Bridging Interface Programs

1.3.1 ABIC - Customer Databases and orders etc

1.3.2 ABIP Program Databases

3P.11 AP Action Planner Program

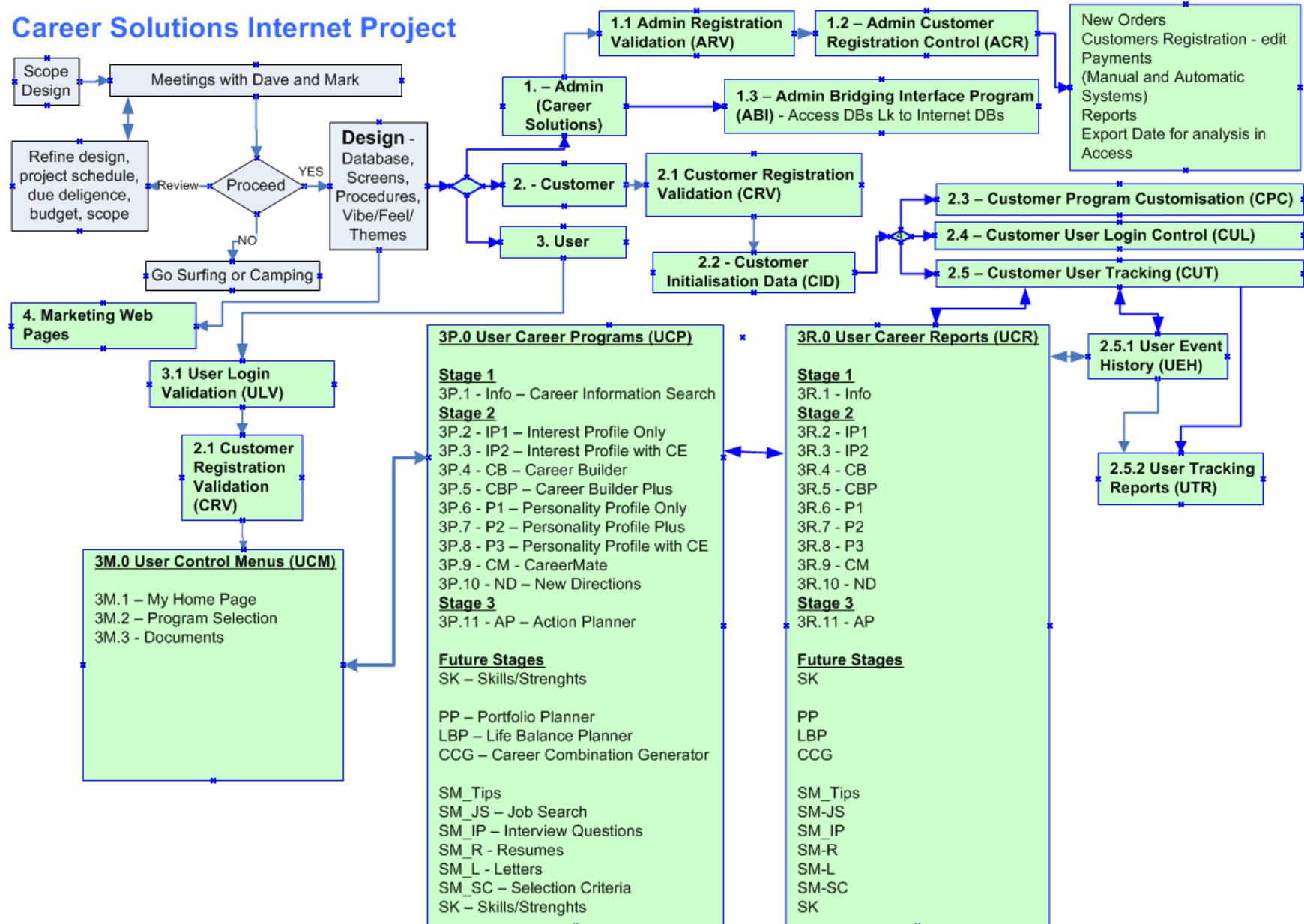


Figure 4.1 Career Solutions - Project Design Process and Summary



## ?? Programming Development

Angular  
HTML5  
CSS3  
PHP  
mySQL  
MS SQL

GitHub

AZURE - <http://azure.microsoft.com/en-us/>

The cloud for modern business

Amazon Web Services

<http://aws.amazon.com/>

Microsoft Visual Studio

[http://www.microsoftstore.com/store/msaus/en\\_AU/list/Visual-Studio/categoryID.65081900](http://www.microsoftstore.com/store/msaus/en_AU/list/Visual-Studio/categoryID.65081900)

4GL Web Tools

SheerPower 4GL

<http://www.sp4gl.com/>

### Overview of SheerPower 4GL

**SheerPower 4GL** is the fastest compiling programming language -- with compile/link speeds of over a 1/2 million lines of code per second. Yes, per second!!

SheerPower 4GL's runtime performance is equally impressive -- executing 10x faster than scripting languages such as RUBY, PERL, or PHP.

SheerPower 4GL is easy to learn. Most programmers are writing SheerPower 4GL applications within a few hours. Novices, hobbyists and professionals [all benefit](#) from using SheerPower 4GL!

SheerPower is a full development language, and shares many advantages with scripting languages -- such as ultra-fast development speeds and ease of learning the language. SheerPower can be used to write programs of any size, from simple-input programs to vast database applications. SheerPower may look somewhat similar to that of a structured BASIC language, but SheerPower is most definitely **beyond BASIC**.

Impress yourself. Impress your friends. [Download SheerPower 4GL](#) today. It's **FREE!**

\*SheerPower 4GL works on Windows XP, Windows Server 2000/2003/2008/2012/2014, Windows Vista, 7, 8, and 8.1