WeldQ

WeldQ Examiners & Test Centre Manual

Including

Australian Welder Certification Register

Information for Examiners and Test Centres.

Preface

This manual has been prepared to assist Test Centres and examiners and support personnel to access and utilise the Weld Australia's **WeldQ** National Register. The Register caters for:

- People from welders to welding engineers and inspectors wishing to undertake an online exam as part of a training course;
- Personnel applying for and managing their professional welding related qualifications;
- Personnel wishing to maintain an online record of their education, training and employment including education and training gained outside of the **WeldQ** environment;
- Welders wanting to qualify to a welder qualification standard such as ISO 9606-1 and AS/NZS 2980.

Included within **WeldQ** is the ability to apply for Weld Australia examinations and undertake these exams online and via other more traditional methods. **WeldQ** allows the User to pay any fees applicable to the Weld Australia, and where applicable allow for discounts to be applied at the time of payment should these be applicable.

For corporate users, **WeldQ** allows the user to search the register for qualifications applicable to users employed by the company, and manage these qualifications automatically, easing the burden of QA Managers in particular needing to manage a variety of welder qualifications and providing independent verification of qualification suitable for review by auditors and inspectors alike.

This manual is set out in five sections. These being:

a) Section 1 – an introduction and overview of **WeldQ** and its capabilities
b) Section 2 – information on getting started within **WeldQ**
c) Section 3 to 10 – specific guidance on the setup and operation of **WeldQ**
d) Section 11 – guidance on assessing applications and testing.
e) Section 12 – application and guidance on discount codes.

A separate User manual is available to assist both personal users and corporate users access the Weld Australia's **WeldQ** within the AWCR.

Access

Access to **WeldQ** is available to both Weld Australia members and non-members alike with members receiving discounts on fees charged by the Weld Australia for **WeldQ** services.

Fees & Charges

All users should note that separate fees and charges set by examiners, training bodies and test centres may be applicable to courses of study and welder qualification testing. These charges are incurred independently of the Weld Australia, and are not managed through **WeldQ** or by the Weld Australia.

Terms & Conditions

This manual is published by the Welding Technology Institute of Australia to assist users of the **WeldQ** software. The use of **WeldQ** and this manual are subject to the terms and conditions published from time to time on the Weld Australia and/or AWCR websites and/or within **WeldQ**.

Weld Australia National Qualification & Certification Scheme

1.0 General Requirements

The Weld Australia operates qualification schemes suitable for personnel at all levels within the welding industry. Qualifications available include:

- AS 1796 welder certification scheme
- AS1796-10 and AS 2214 welding supervisor qualification scheme
- International Institute of Welding qualifications as
  - International Welding Practitioner (IWP)
  - International Welding Specialist (IWS)
  - International Welding Technologist (IWT)
  - International Welding Engineer (IWE)
- Welding Inspector

It is also introducing a welder qualification scheme compliant with ISO 9606-1 and AS/NZS 2980.

The National Certification Resister is an online computer based system which allows the Weld Australia to manage these and other qualifications and certification systems including the provision of traditional and online examinations including practical and oral examinations. It includes a register of qualified and certified practitioners.

The scheme is open for any individual or organisation to participate including welders, supervisors, engineers, fabricators, project managers and statutory bodies. An access and/or testing fee may be applicable.

1.1 Weld Australia Qualification Scheme

The Weld Australia qualification scheme within **WeldQ** builds on the existing schemes operated by the Weld Australia and has been adapted to provide for suitable workflow requirements associated with the relevant qualification. It also includes allowance for an automated payment system.

In most cases, **WeldQ** requires that applicant has undergone suitable training (theoretical and practical as appropriate) and meets the defined pre-requisites prior to applying online for an assessment. These pre-requisites are consistent with current manual based system requirements but are also set out within **WeldQ** and are visible to the applicant.

The **WeldQ** scheme in general operates as follows:

- User applies for qualification assessment via **WeldQ**. All Weld Australia fees and charges are disclosed on the application pages.
- The Program Manager (or Program Coordinator) then assigns an assessor to review the application.
- The Assessor then selects the applicable examination or assessment modules including confirming exemptions and comments accordingly.
- The Program Manager (or Program Coordinator) notifies applicant of the review and initiates the request for payment of the applicable Weld Australia fee.
- User pays.
- The Program Coordinator sets the exam date and sends it to the exam invigilator. They can also print out exam if required. For online exams only, only a link to the online exam is sent.
- After exam, the Program Coordinator uploads copy of the completed and marked paper, and enters mark.
- Once the applicant is notified, they have the choice to request a review or resit if failed. A payment request will be initiated if a resit fee is applicable (all applicable Weld Australia fees and charges are shown on the online application pages).
- The Program Manager (or Program Coordinator) can assign the resit exam paper, schedule the exam etc.
- Successful outcomes within **WeldQ** generate the associated award or move the applicant to the next module in the assessment process as appropriate.

1.2   Weld Australia Certification Program

WeldQ is setup to manage the Weld Australia personnel certification system for personnel requiring certified credentials including certified welding supervisors, inspectors, welding specialists, welding technologists and welding engineers. In general, process requirements follow the current manual based system which includes:

1. Applicants must have:
    a. Specific qualifications at the welding supervisor or inspector level or higher;
    b. A minimum period of experience in the industry;
    c. Maintained continuing professional development (CPD) within specific areas within 3 of the past 5 years as a minimum (note that CPD requirements do vary from qualification to qualification).
2. The applicant applies for certification via **WeldQ**, uploading the relevant supporting documentation and paying the application fee.
3. The application is reviewed by an assessor and eligibility verified.
4. A certificate is awarded to applicant.
5. Once certified, the applicant is able to maintain a log of their CPD by updating their profile within **WeldQ** (see section 2.2.5). The profile can then be used to validate CPD when renewal is required after the applicable period.

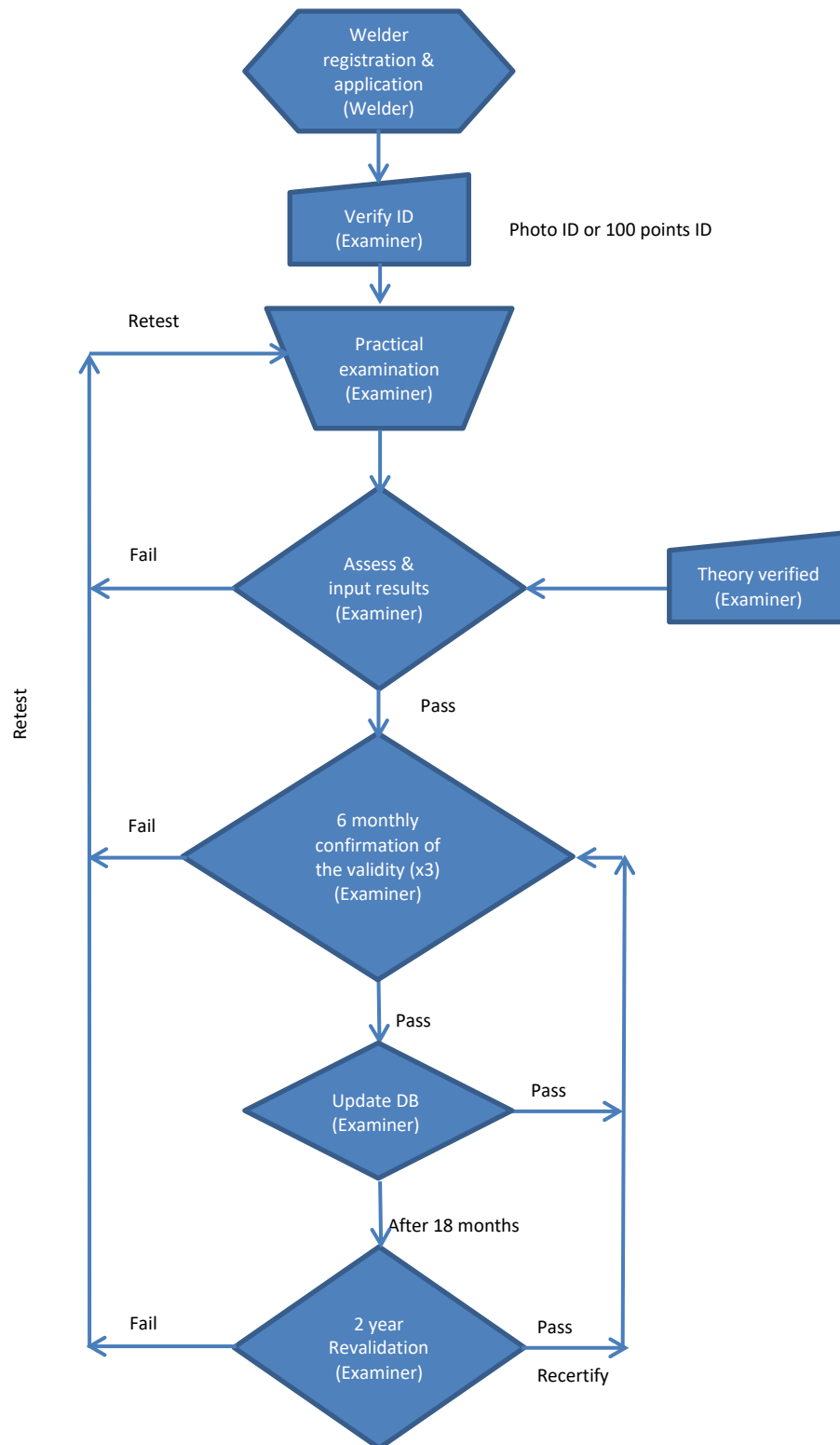## 1.3   The Weld Australia Welder Qualification Scheme

The scheme is set up to operate in a manner consistent with the requirements of ISO 9606-1 however its operation is also applicable to welders operating to a variety of application standards. A high-level overview of the process is shown diagrammatically on the next page. The process involves:

1. The examining body.
2. An appointed examiner.
3. Application of a qualified welding procedure or a draft procedure being qualified by the welder under test.
4. For welders:
    a. A job knowledge option is available.
    b. Prior certification or qualification is not essential.
    c. Welders can be tested in their own workshop or other suitable location by agreement.
5. Test coupons are evaluated by personnel in NATA registered or Weld Australia approved laboratories.
6. A welder's qualification test certificate is made available to the welder on successful completion of the process.
7. The certificate remains valid for up to two years provided that it is confirmed every six months.
8. Revalidation is available after two years.

Employers, prospective employers and recruitment companies may apply to access the database to confirm the currency of certification; a fee may apply.

Certification of qualification is particularly suited to welders employed by companies providing shut down and maintenance services, servicing government agencies and public infrastructure needs; and delivering services requiring verification of qualification.

ISO 9606-1 Qualification process flow chart (with 2 year revalidation option)

Welder registration & application (Welder)

→

Verify ID (Examiner)   Photo ID or 100 points ID

→

Practical examination (Examiner)   ← Retest

→

Assess & input results (Examiner)   ← **Theory verified (Examiner)**

Fail ← | Pass ↓ | Retest

6 monthly confirmation of the validity (x3) (Examiner)

Fail ← | Pass ↓

Update DB (Examiner)   Pass →

↓ After 18 months

2 year Revalidation (Examiner)   Pass → | Recertify

Fail ←

1.3.1 Examining Body

Examining bodies are organisations that appoint examiners, conduct the examination, and issue certificates. The Weld Australia by operating this scheme, is appointed to verify compliance with ISO 9606-1 and other applicable standards as an independent external examining body as defined in ISO/TR 25901:

> **2.120 Examining body**
>
> Organization appointed to verify compliance with the applicable standard
> **NOTE** *In certain cases, an external independent examining body can be required*

The Weld Australia though its Qualification and Certification Board, appoints examiners, audits test facilities and maintains the online scheme and process.

Consistent with the principles of ISO 9606-1, the Weld Australia as the examining body "... *provides a set of technical rules for a systematic qualification test of the welder, and enables such qualifications to be uniformly accepted independently of the type of product, location and examiner or examining body*".

1.3.2 Examiner

Consistent with ISO/TR 25901, the Weld Australia as the examining body, appoints examiners to conduct the testing process in compliance with ISO 9606-1 and any specified application standard:

> **2.119 Examiner**
>
> Person appointed to verify compliance with the applicable standard.
> **NOTE** *In certain cases, an external independent examiner can be required.*

To ensure the integrity of the process, the Weld Australia requires its examiners to have sufficient skills and experience to reliably carry out the tasks required. Personnel meeting any of the following may apply to the Weld Australia to be appointed as an examiner:

* Certified Weld Australia or IIW Welding Inspector – standard or comprehensive; or,
* Certified IWS; or,
* Certified IWT; or,
* Certified IWE

Examiners are required to have a working knowledge of ISO 9606-1 and any application standard being utilised in the examination process. Appointment of personnel with alternative skills, qualifications and experience as examiners will be considered on a case by case basis. Examiners may be independent contractors or employed directly by a fabricator, manufacturer or testing body.

1.3.3 Testing

Testing may be conducted within a fabricator's workshop or manufacturing facility, in training or testing venues or at other suitable locations by agreement, all under the supervision of an approved examiner.

Test facilities must:

(a) Comply with workplace health and safety requirements
(b) Welding machines must have calibrated meters or facilities for attachment of external calibrated metering suitable for the process. Metering shall be suitable for use with waveform controlled processes where being used to conduct the qualification test.
(c) Be suitable for preparation and welding of test coupons
(d) Have adequate lighting to conduct the visual examination

The test process requires the welder to produce a test weld in plate or pipe or in a pipe branch format depending upon requirements. The welder is required to weld to a previously qualified weld procedure (WPS) supplied by either the Weld Australia or the fabricator/manufacturer. A draft weld procedure may also be used where it is being qualified at the same time as the welder qualification process.

The number of test pieces to be welded or minimum coupon length will depend on the test thickness and OD, and whether additional tests are required e.g. to qualify the procedure. Other considerations include:

- Welding process
- Welding consumables
- Material of test
- Welding position
- Backing material
- Application standard requirements

Test coupons having passed a visual examination by the examiner, shall be prepared and tested by either a laboratory and personnel accredited by NATA to conduct the required tests, or other test facility approved by the Weld Australia. All radiographic and ultrasonic examinations shall be conducted by personnel holding the appropriate qualification at NDT Level 2 or higher, issued in accordance with AS ISO 9712. All test reports shall be NATA endorsed unless otherwise approved.

1.3.3.1 Job Knowledge
A job knowledge assessment is optional and when requested, may be conducted by any of the following methods:

1. Review of prior knowledge through production of evidence of one of the following:
   a. IIW qualification as an International Welding Practitioner
   b. An AS 1796 certificate for the weld process being used in the test
   c. Evidence of passing the theory component of an AS 1796 certificate applicable for the weld process being used in the test.
2. Online computer-based testing.
3. Professional interview by the examiner.

Where a candidate has previously successfully completed the relevant job knowledge requirements, these will carry forward on future qualification tests and do not need to be repeated.

1.3.4   Application
The welder should register online entering the details requested, uploading a passport type photo for identification purposes. Welders with other Weld Australia qualifications may have certain fields prepopulated and these should be checked. Minimum data required to register for the qualification test includes:

- Full name
- Date and place of birth (this must be the same as recorded on the birth certificate)
- Address
- Mobile phone number
- Email address
- Employer name and contact details
- Job knowledge testing requirements (if any)
- Any specific test requirements or needs
- Relevant application standard (if not ISO 9606-1). Options include:
  o AS/NZS 1554.1 SP
  o Stainless steel tube for the NZ welding industry
  o The standard declared on the weld procedure to be used

A Weld Australia appointed examiner or nominee will contact the welder to arrange for the testing at an appropriate time and location, and clarify any specific requirements including application standards not listed. Welders should note that prior to the commencement of the welding test, the examiner is required to verify the welder's identification. Identification may be verified by means of either:

a) Australian State, Territory or Federal Government issued photo ID e.g. Australian passport, drivers licence, proof of age card, firearms licence, national hazardous work licence etc, plus evidence of place and date of birth; or,
b) 100 points ID as required by financial institutions.

Ongoing verification of the welder's identification is not required once established unless the welder uploads a new photograph.

1.3.5 Welder's Qualification Test Certificate

Qualification is confirmed once all test requirements have been completed and the results approved. The test certificate can be accessed for printing by the welder and approved companies.

Once granted, the certificate remains valid for up to two years provided that every six months an examiner is able to confirm that the welder has been welding within the range of qualification. Confirmation may be conducted by an examiner, or in writing to the examiner by the person responsible for the welding work (e.g. welding supervisor, manager etc). Certification automatically lapses where confirmation cannot be established.

After two years, revalidation is required to renew the certificate for a further two year period. Qualification testing is not required for this process however two welds produced by the welder within the previous six months reproducing the original test conditions (other than thickness or pipe outside diameter) must be assessed by an approved Weld Australia examiner.

1.3.6 Withdrawal of Qualification and Retesting

Should a welder fail a test, they may be permitted to redo the test once without additional training.

Where there is a specific reason to question a welder's ability to make welds that meet the product standard quality requirements, the qualifications supporting the welding shall be revoked by the Weld Australia and the certificate withdrawn. Other qualifications not questioned remain valid.

1.4 User Signup

People and companies wishing to sign up to access **WeldQ** do so by firstly creating an account. They are required to enter their name and basic contact details (email and mobile phone number), date of birth and advise of their membership status.

Once the account is created the user then receives an email asking them to confirm their registration and set a password. Once confirmed, the user receives a follow-up email containing their unique user name. Once confirmed, the user is able to log into **WeldQ** using their unique identifier and set up their profile (including uploading a recent heads and shoulder photograph). Membership details will be confirmed by Weld Australia staff after the account is set up.

Registered users will then have access to **WeldQ** to:

1. Maintain an updated profile including keeping a log of any continuing professional development requirements;
2. Apply for assessment to obtain qualifications;
3. Apply to undertake welder qualification assessments; and,
4. Verify awards and qualifications achieved.

Registered corporate users are also able to query the register for the qualifications of welders under their employment or contact.

Specific guidance for Users, including Corporate Users, is available via the **WeldQ** User Manual.

2 WeldQ

2.1 General

WeldQ is the software used to operate and manage the Weld Australia's *Australian Welder Certification Register*. It is built specifically to operate within *Google's* Chrome environment, and now includes support for *Mozilla's* Firefox environment. Whilst other browsers can be utilised, full functionality cannot be guaranteed and errors are likely to be encountered.

WeldQ contains a variety of process options and the manner which **WeldQ** moves from one step to the next. These steps are referred to as *Workflows* within **WeldQ**. The Workflow patterns used within **WeldQ** will vary with the program required by the User.

The basic flows are:

1. Qualification
2. Certification, including a renewal process
3. Welder Qualification

These workflows are further complicated by payment options and the need for review by key personnel. The fact that **WeldQ** is *Cloud based* means that a high degree of security and portability must be in-built.

Much of **WeldQ** and its screen displays are common to a number of processes however it is the workflows that vary considerably according to process requirements. Each of these is explained within the relevant sections with key differences and similarities identified as required.

Users of this manual should also understand that **WeldQ** has a hierarchical permissions structure for those requiring access to the configuration and management systems of **WeldQ**.

- Administration of **WeldQ** is generally performed by people with *Account level* access. Examples include the SuperUser, Account Administrator and Account Contributor.
- Operational tasks are generally performed by users with *Program level* access. Examples include Program Managers, Program Coordinators, Program Assessors, Program Examiners and Program Invigilators.

People undertaking administrative or operational roles are referred to as Internal Users within the manual. Depending on the requirements of the program, users can be allocated roles in both areas (i.e. Account Level and Program Level).

The permissions available to specific roles are explained throughout this manual with specific detail given in section 8 of this manual.

Personnel wishing to access **WeldQ** to apply for qualifications or certifications offered through **WeldQ** or manage their current qualifications are referred to as External Users and are required to log in to **WeldQ** as a *User* (i.e. as an *Applicant*). This will also include corporate representatives wishing to search the **WeldQ** archives.

2.2 Getting Started

2.2.1 Create an Account – Test Centre

When first starting **WeldQ**, the representative of the Test Centre will need to complete a registration application and contact the Weld Australia directly to set up and configure the Test Centre as a user of **WeldQ**. The Test Centre registration process must happen before an applicant applies for any test process available through the Test Centre so that applicants can be aware of applicable test centres within their locality.

The information that the Weld Australia will require for **WeldQ** is:

- Test Centre name
- Street Address
- Electronic copy of your logo
- Primary and secondary email address of the test centre

- The name and email address of at least one key user.

The representative will be allocated a role, usually as an *Internal User* depending on the needs of Test Centre. In limited cases, they may be allocated the role of *Account Contributor*, and if required, it should be resolved with Weld Australia staff. The allocated role can be amended by Weld Australia staff should this be necessary at a later date.

Note that an independent examiner may be registered as a Test Centre then linked to that centre as an *Internal User*.

Once the *Internal User* is set up, they will be allocated a generic password which should be changed as soon as possible after the first login (see section 3). Passwords must be at least eight characters long and include one uppercase letter, one lowercase letter and a number.

2.2.1.2 Login
Once the accounts in 2.2.1 are created, access **WeldQ** via the following link. Save this link to your *Bookmarks* menu within the *Google Chrome* or *Firefox* browser as it is <u>not</u> available via the AWCR website.

<u>https://wtia.weldq.com/user/login</u>

2.2.2   Create an Account - User
When the Test Centre account is set up by the Weld Australia staff, if the primary user is allocated the role of *Account Contributor*, they will be able to add other internal users (see section 8) and link them to the Test Centre. Specific roles can allocated later as needed when configuring (or reconfiguring) programs.

In setting up a new *Internal User*, the *Account Contributor* should allocate a generic password which should be changed by the defined user as soon as possible after first login (see section 3). Passwords must be at least eight characters long and include one uppercase letter, one lowercase letter and a number.

Should an *Internal User's* association with the Test Centre cease, the *Account Contributor* can remove their link to the Test Centre. If the Test Centre does not have an *Account Contributor* associated with the Test Centre, Weld Australia staff can assist upon request.

Once the *Internal User's* account is set up, they are able to login as described in 2.2.1.2.

2.2.3   Creating a Program
Test Centres cannot create their own programs, this must be done by Weld Australia staff. Most Test Centre's will not need a unique program for their centre and any needs in this area should be discussed in detail with Weld Australia staff before considering placing a formal request. Should a unique program need to be set up, the following information will be required:

1. Program Code (must be unique within **WeldQ**)

2. Program title
3. Program type – two options are available (*Qualification, Welder Qualification*). Note that these set the program workflows required during configuration and cannot be changed after the program is created. The Weld Australia has a *Certification* program option for the certification of personnel but this is used only by Weld Australia staff.
4. Program manager – can be a person linked to the Test Centre. The person must be set up as an *Internal User* prior to creating the program.

Once a program is created, it must be configured, usually by the allocated Program Manager.

2.2.4 Configuring a Program

Upon the creation of a program, it must be configured and published before it can be accessed by (external) *Users*. Detailed requirements for each program type are provided as follows:

1. *Qualification* – see section 4.1.1.
2. *Welder Qualification* – see section 4.1.3.

Programs should be configured by the Program Manager.

Program Managers should be aware that in the case of configuring a *Qualification* program, (internal) *Users* are allocated roles such as examiner, invigilator, assessor or coordinator. Only personnel listed within **WeldQ** as internal users can be allocated roles. If roles are not allocated when the program is initially developed, they can be added later but the relevant *User* must be added (see section 8) before they can be allocated a role.

2.2.5 Venues, Examinations & Welder Tests

2.2.5.1 Venues

Venues are locations where the formal examination process takes place. A Venue must be defined within **WeldQ** before an exam can be allocated to an applicant (see section 5.4). This is done by Weld Australia staff in conjunction with Test Centres offering *Qualifications*.

2.2.5.2 Examinations

Examinations via **WeldQ** can be conducted in a number of different formats including traditional pen & paper, online, oral and practical. Details for setting up an exam are detailed in section 5. Once an examination is published within **WeldQ**, it is allocated to the applicant via the program coordinator (see section 11.1.

2.2.5.3 Welder Tests

The actual location of the welder's qualification test may vary from the physical location of the test centre such as in the case of welders undertaking the test at a fabricator's workshop.

Users should note that welder qualification tests are conducted by examiners linked to authorised Test Centres. If not already listed within **WeldQ**, new examiners can be added to **WeldQ** (see section 8.1) then linked to the Test Centre.

2.2.6 Awards

Award certificates are generated within **WeldQ** once all conditions for a *Qualification* or *Welder Qualification* have been satisfied.

2.3 Process flow

2.3.1 Qualifications

A summary of the steps required by both the applicant and internal user personnel for the applicant to obtain a qualification is shown below. Specific details can be found in the relevant sections of the manual referenced in column 2.

Step	Reference	Applicant Action	Internal User Action	Comments
1	12.4.1	User reviews available programs in *Program Menu* and clicks on link to the program		
2	12.4.1.1	User submits application for the program.		
3	12.4.1.2 11.1		Program manager or coordinator assesses the application and initiates an invoice sent to the applicant	Program manager receives email notifying of the application.
4	12.4.1.2	User receives and pays the invoice for the application.		Apply the Discount code where applicable.
5	12.4.2.2 11.1		Program manager or coordinator allocates the exam paper, confirms the invigilator and sets the examination date and location.	
6	11.1		Invigilator receives emailed examination paper and details. They then notify the applicant of location (venue), date and time of the examination	
7	12.4.1.3 11.1.1	Examination conducted		
8	11.1.1		Examiner marks the exam, uploads the results.	
9	11.1.1		Results reviewed by program manager or coordinator.	If OK, award initiated. If problematic, applicant notified and review/re-sit process initiated (Step 3)
10	12.4.2.4	Award received		

2.3.2   Welder Qualifications

A summary of the steps required by both the applicant and Internal User personnel for the applicant to obtain a welder qualification is shown below. Specific details can be found in the relevant sections of the manual referenced in column 2.

Step	Reference	Applicant Action	Internal User Action	Comments
1	12.4.2	User reviews available programs in **Program Menu** and clicks on link to the program		
2	12.4.2.1	User submits application for the program.		
3	12.4.2.1	User receives and pays the invoice for the application		Apply the Discount code where applicable.
4	12.4.2.2 11.2.2		Program manager or coordinator assesses the application and allocates a Test Centre	Program manager receive email notifying of the application.
5	11.2.2		Test Centre receives a **WeldQ** generated email, and forwards applicant details to an examiner. Test centre's examiner reviews documentation including WPS if submitted.	
6	12.4.2.3 11.2.3	Test conducted	Examiner enters test results and submits for review.	ID required by applicant
7	11.2.3		Program Manager reviews results	
8	12.4.2.4	Award received		
9	12.4.2.5 11.2.4	Confirmation cycle	Examiner may authorise if required	Applicant emailed one month before due
10	12.4.2.6 11.2.5	Revalidation cycle	Examiner reviews supplied documentation after fee payment.	Applicant emailed one month before due. Applicant applies for revalidation. If OK revalidation awarded and confirmation cycle resumes

3.0   Dashboard

The WeldQ entry point for Internal Users (see Roles section) is the Dashboard, shown below.
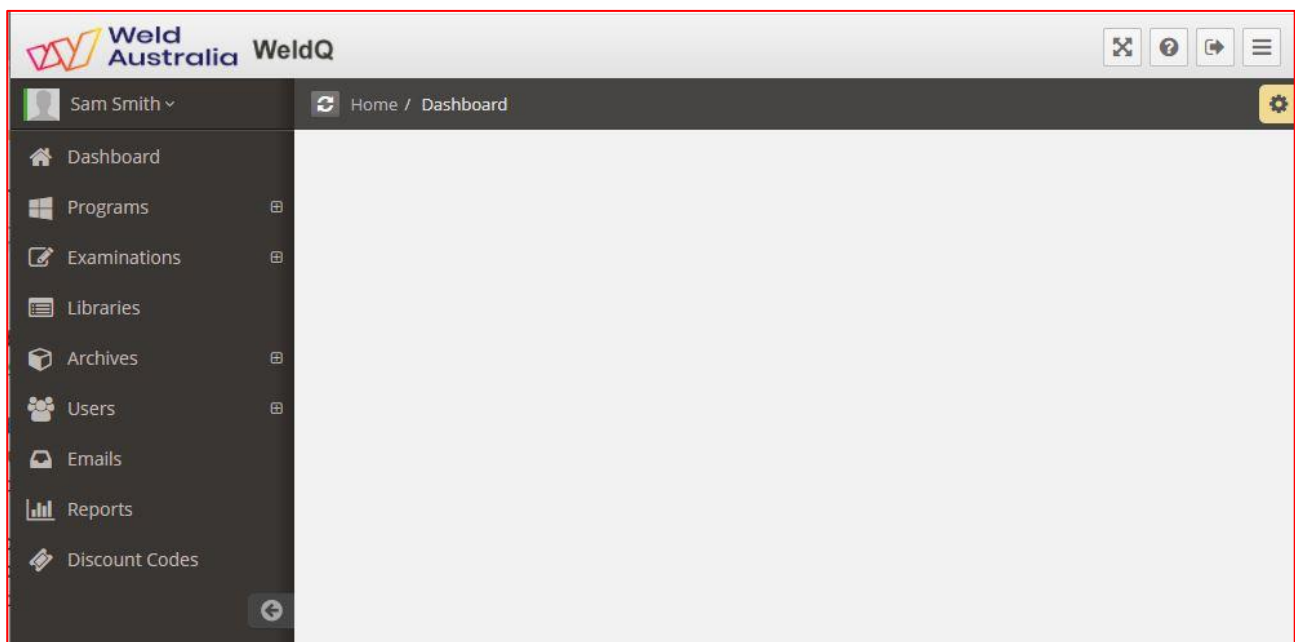
The Dashboard is an area that is set aside for future development including announcements, general reports and other information of general interest.

On the left of the Dashboard page, a menu of 9 items can be seen in the common area. These items are:

- Dashboard
- Programs
- Examinations
- Libraries
- Archives
- Users
- Emails
- Reports
- Discount codes
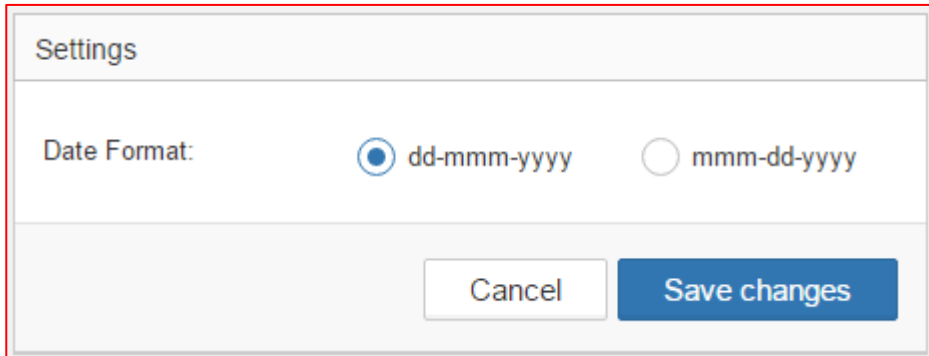
The function of each of these sections is explained in the following sections. Items with a "+" symbol at the end of the line have further sub-menus which will show when expanded.

Also on the Dashboard, there are a number of controls across the top of the page. Details on the function of each control is explained below.
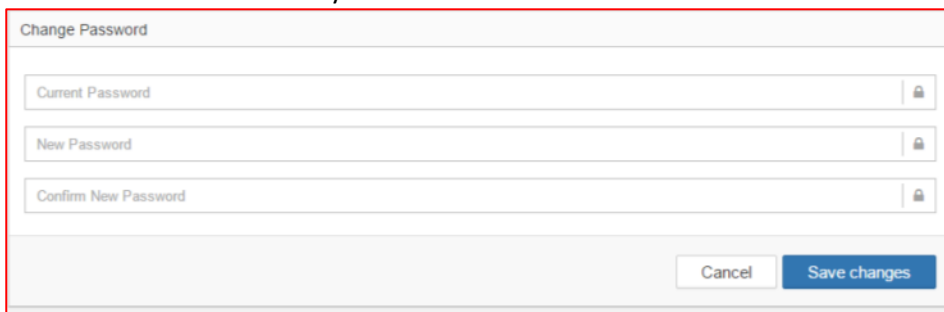
Click on your name or the ᵛ symbol on RHS of your name to reveal a menu:
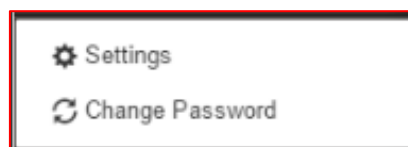
1. Settings: There are two options on radio buttons which affect date format only – the Australian dd-mmm-yyyy format or USA mmm-dd-yyyy format:

2. Change password: Enter the existing password then enter the new password and confirm the new password. Note that passwords must be at least eight characters long and include one uppercase letter, one lowercase letter and a number. When finished, either click on *Save changes* to save and exit or *Cancel* to exit directly.

Other buttons available on the screen include a

- Full screen expand/collapse button,
- Help button,
- Screen Logout button,
- Skin colour menu (7 options),
- Button which collapses and expands the main menu items to the left of screen
  When the menu is set to collapse, hovering the mouse pointer over the menu area on the left of screen will auto-expand the menu. Moving the mouse to another part of the screen will then auto-collapse the menu.

4.0 Programs

For an *External User* or *applicant* to apply for a qualification or award of any type, it must first be created. WeldQ uses the term *Program* to describe the process. The steps required will vary depending on whether the *Program* is to be configured as a Qualification (does not expire), Certification (may require assessment and recertification – not available to Test Centres) or Welder Qualification (has limited validity which may expire or require periodic confirmation and revalidation). An overview of requirements for each is detailed below, but in all cases it starts with the creation of the program. There are no limits to the number of Programs that can be created within **WeldQ**. Programs no longer required may be archived by Weld Australia staff, and if required in the future, subsequently restored.

4.1 Create a Program

Prior to the Test Centre requesting that Weld Australia staff create a program specifically for the centre, they should first verify that the desired program manager is listed as an Internal User within **WeldQ** (see Roles section of this manual). If the program manager is not listed, their user details should be created, or an alternative program manager will need to be appointed in the interim during creation of the program, and later edited.

The option to create a program is only available to Weld Australia staff. They will require the following information:

- Program Code: A unique code consisting of any combination of uppercase letters, numbers, space, or hyphen (-). The program code must be unique to **WeldQ** and up to a maximum of 18 characters.
- Program Title: The title can be any text including any special characters and can be up to 72 characters long. The title should be meaningful but not verbose.
- Program Type: Two options are available to Test Centres with each program type has its own work flow requirements as indicated.
  - Qualification – exams (theory and/or practical) may be required, does not expire e.g. AS 1796 welder certification, IWS, etc.
  - Welder Qualification – confirmation, interval of confirmation (in months), revalidation with a repeat option.
- Program Manager.

Program Manager once set cannot be changed. This feature may change in future developments of **WeldQ**.

Once it is created, the program configuration will have to be completed when setting up a program and before any data is able to be entered in any part of the program. Only Weld Australia staff or the nominated Program Manager can complete the program configuration.

4.1.1 Configure the Program – Qualification

Configuration of the *Qualification* mode of program is primarily the province of the Program Manager.

After clicking on the course name, the screen below is shown. The *Archive* button shown is only available to Weld Australia staff and is not shown on the configuration screen available to the Program Manager.

To configure the course, click on the *Configure* button and the following screen will be shown. Click on each required item as shown and add the detail requested. Save when completed or otherwise *Cancel* to exit the configuration item.

Program Managers may find it beneficial to have a set of standard program templates set up in a *MS Word* document. Text can then be transferred to the relevant sections of the **WeldQ** template by copying and pasting directly. To paste text use the keyboard shortcut Ctrl+Shift+V when pasting text inside these cells or right mouse click and paste as unformatted text.

Main configuration screen:

Modules and Users component:

1. *Add Instructions* for the Applicant – must contain at least one instruction. Additional instructions (6 maximum, up to 1000 characters per instruction) may be added after each is saved.

2. *Any Requirements* (or prerequisites) – must contain at least one requirement. The requirement code must be unique to the module. Up to 12 requirements can be added.

3. Add a module – there may be up to six modules in a course.

Add the details requested above including fees. Depending on the *Examination type* selected and *Re-sit Allowed*, additional tabs may be offered for configuration:

4. *Add (Internal) User* details with role descriptors Multiple roles can be applied.

Descriptions of each of the roles can be found in section 8.1.2 of this Manual.

5. Add the *Declaration* message to be shown to the User applying for the course.

If configuration is incomplete at any stage, the program can be saved when required without loss of the input data, prior to it being published.

When configuration is complete, click on the *Publish* button to publish or *Cancel* button to exit.

An example of a configured course for International Welding Engineer (IWE) with multiple modules is shown below.

A R*emarks* text box is also now available for the *Applicant* to input any data requested in the instructions.

4.1.1.1 Qualification – Example program configuration for IWE

Program Configuration

Program Code	Program Title	Program Type	Program Manager
IWE	International Welding Engineer	Qualification	Annette Dickerson

Instruction for the applicant
Before submitting the completed application form, please make sure that your profile is complete with the contact details, qualifications and experience and that a passport size photograph is uploaded
Copies of qualifications NOT issued by Weld Australia or IIW must be certified
Photocopies of documents can be certified by a Justice of the Peace, police officer, post office manager, doctor or similar professional person. They must print their name, contact number, occupation and date and write "This appears to be a true copy of the original document sighted by me", affix an organisational stamp and/or sign each copy

Requirement Code	Requirement Description
General	1. Approved first Degree in Engineering 2. Eligibility to register as a CPEng with EA Please upload scanned certified copies of documents as one PDF file and post the certified copies to Weld Australia National Office
Inter IWE	Completed or exempt from the 60-hour IWE fundamental practical skills in welding
EA1	Attended module EA1 with a minimum of 90% attendance. Please upload the attendance certificate
EA2	Attended module EA2 with a minimum of 90% attendance. Please upload the attendance certificate
EA3	Attended module EA3 with a minimum of 90% attendance. Please upload the attendance certificate
EA4	Attended module EA4 with a minimum of 90% attendance. Please upload the attendance certificate

Module Code	Module Title	Module Description	Assessment requirements	Examination Type	Invigilated
Inter IWE	Intermediate IWE	Must have completed or be exempt from the 60-hour IWE fundamental practical skills education and training in welding	Can be exempted, if the applicant holds IWS qualification or a degree in metallurgy	Online	No

Member Fee:	$330.00	Re-sit Allowed:	**No**	Re-Sit Member Fee:	-
Non-Member Fee:	$370.00	Review Allowed:	-	Re-Sit Non Member Fee	-
Pass Percentage:	**65**				

Module Code	Module Title	Module Description	Assessment requirements	Examination Type	Invigilated
EA1	Module 1: Welding Process	General introduction to welding technology Oxy-gas welding and related processes Electrotechnics - a review The arc Power sources for arc welding Introduction to gas shielded arc welding GTAW welding GMAW & FCAW arc welding MMA welding Submerged-arc welding Resistance welding Other welding processes (laser, electron beam, plasma) Cutting and other edge preparation processes Joining processes for plastics Joining processes for ceramics and composited Consumables	Can be exempted, if the applicant holds a degree in metallurgy	Online	Yes

Member Fee:	$530.00	Re-sit Allowed:	**Yes**	Re-Sit Member Fee:	$530.00
Non-Member Fee:	$580.00	Review Allowed:	**Yes**	Re-Sit Non Member Fee	$580.00
Pass Percentage:	**65**				

Module Code	Module Title	Module Description	Assessment requirements	Examination Type	Invigilated
EA2	Module 2: Materials and their behaviour during welding	Manufacture and designation of steels Testing materials Structure and properties of pure metals Alloys and phase diagrams Heat treatment Structure of the welded joint Steels: plain carbon, carbon-manganese steels, fine grained, low alloy, high alloy etc. Cracking phenomena in welded joints Introduction to corrosion High alloy creep resistant and heat resistant steels	Can be exempted, if the applicant holds a degree in metallurgy	Online	-

		Cast irons and steels Non ferrous metals and alloys			
Member Fee: $530.00 Non-Member Fee: $580.00 Pass Percentage: **65**		Re-sit Allowed: Review Allowed:	**Yes** -	Re-Sit Member Fee: Re-Sit Non Member Fee	$530.00 $580.00
EA3	Module 3:	Basic theory of structural systems Fundamentals of the strength of materials Welded joint design Basics of weld design Behaviour of welded structured under different types of loading Design of welded structures with predominantly static loading Behaviour of welded structures under dynamic loading Design of dynamically loaded welded structures Design of welded pressure equipment Design of aluminium alloys structures Reinforcing-steel welded joints	Can be exempted, if the applicant holds a masters degree or greater in structural engineering	Online	Yes
Member Fee: $530.00 Non-Member Fee: $580.00 Pass Percentage: **65**		Re-sit Allowed: Review Allowed:	**Yes** -	Re-Sit Member Fee: Re-Sit Non Member Fee	$530.00 $580.00
EA4	Module 4:	Introduction to quality assurance in welded fabrication Quality control during manufacture Residual stresses and distortion Plant facilities, welding jigs and fixtures Heath and safety Measurement, control and recording in welding Non destructive testing Economics Repair welding Fitness-for-purpose Case studies Welding qualifications and procedures	No exemptions permitted	Online	-
Member Fee: $530.00 Non-Member Fee: $580.00 Pass Percentage: **65**		Re-sit Allowed: Review Allowed:	**Yes** -	Re-Sit Member Fee: Re-Sit Non Member Fee	$530.00 $580.00
Oral	Final Oral examination	Covers all modules	No exemptions permitted	Oral	-
Member Fee: $850.00 Non-Member Fee: $1050.00 Pass Percentage: **65**		Re-sit Allowed: Review Allowed:	**Yes** -	Re-Sit Member Fee: Re-Sit Non Member Fee	$850.00 $1050.00

User	Role			
Program examiner	☐	Program Coordinator	☐	Program Assessor
	☑	Program Examiner	☐	Program Invigilator
Test Invigilator	☐	Program Coordinator	☐	Program Assessor
	☐	Program Examiner	☑	Program Invigilator
Test Assessor	☐	Program Coordinator	☑	Program Assessor
	☐	Program Examiner	☐	Program Invigilator
Anabel Cantero	☑	Program Coordinator	☐	Program Assessor
	☐	Program Examiner	☐	Program Invigilator

Declaration
I confirm that I have read and understood the Rules and guidelines noted in this application. I also confirm the information that I have given is true and correct. I permit the Weld Australia ANB to disclose my exam pass/fail results to the relevant IIW Authorised Training Body.

4.1.2   Configure the Program – Certification

This option is not available to Test Centres.

4.1.3 Configure the Program – Welder Qualification

Depending on the standard the welder is required to work to, Welder Qualification may require both a theoretical component and practical tests (examination). An overview of the workflow is shown below but does not include reference to any theoretical component.

The theoretical component is usually a *Qualification* by definition which does not expire, and should be managed via the *Qualification* route above prior to undertaking the practical tests associated with the *Welder Qualification* process. Welders who have a theoretical qualification prior to undertaking the practical tests may be recorded in the test as having *Acceptable* job knowledge in lieu of the default *Not tested*. Further details can be found in the *Examination* section.

Configuration of the *Welder Qualification* course is primarily the province of the Program Manager. To configure the course, the following items are entered:

1. Instructions for the Applicant – must contain at least one instruction
2. Any Requirements (or prerequisites) – must contain at least one requirement with a maximum of 12.
3. *Internal User* details with role descriptors (Program Coordinator and/or Program Assessor)
4. Test standard
5. Number of confirmations permitted (prior to validation)
6. Confirmation interval (in months)
7. Validation required?
8. Allow the process cycle to repeat
9. Fees applicable for both the member and non-member
10. The Confirmation message (to be sent to the person nominated by the User to confirm the welders qualification)
11. The Validation message (to be sent to the person conducting the Validation process)
12. The Declaration message to be agreed by the User applying for the course.

Further details on specific requirements are shown in the Table below. Once the program has been set and published, test standard, confirmation and validation requirements cannot be changed.

Program Managers may find it beneficial to have a set of standard program templates set up in a *MS Word* document. Text can then be transferred to the relevant sections of the **WeldQ** template by copying and pasting directly. To paste text use the keyboard shortcut Ctrl+Shift+V when pasting text inside these cells or right mouse click and paste as unformatted text. Any formatting required can be done via **WeldQ**'s editor.

Once the course is configured, click on Create and the course will be Published ready for *applicants* (*External Users*) to apply. Should it be necessary to edit the course, this can be done by clicking on the course code and then clicking on the 🖉 symbol to edit or the 🗑 symbol to delete the item. When finished, save the item then click on Publish to Publish or Cancel to cancel and return to the original course configuration. It is important to note that any changes to a program will only apply to new applicants and will not be reflected within programs in progress.

An example of a configured *Welder Qualification* course is shown below. A pro-forma page is included in this manual to assist with the course configuration.

ISO 9606-1 provides for a three year test program and this is able to be set up and made available to welders. In this situation, the welder is required to confirm the ongoing validity of their qualification for a period of three years in lieu of the standard two years. At the completion of the period, the welder is required to requalify if ongoing qualification is required. Revalidation is not permitted within this program.

Program View

Program Code	Program Title	Program Type	Program Manager
9606-T	Welder Qualification ISO 9606	Welder Qualification	Bruce Cannon

⊕ ADD INSTRUCTION

Instruction for the applicant*	Action
This welder qualification remains in effect for two years, unless the welder does not engage in welding for at least 6 months, or a specific reason exists	✎ 🗑
Before submitting the completed application form, please make sure that your application is complete in all respects. Applications not accompanied by	✎ 🗑

⊕ ADD REQUIREMENTS

Requirement Code*	Requirement Description*	Action
1	Must have received training and/or has industrial practice within the range of qualification.	✎

⊕ ADD USER

User*	Role*	Action
Anabel Cantero ⇕	☑ Program Coordinator ☑ Program Assessor	✎ 🗑

Select Standard* ISO 9606-1:2012 ⇕

No of Confirmations* 3

Interval (months)* 6

Re-validation / Prolongation Required ? ☑

Repeat ? ☑

Member Fee* $ 200

Non-Member Fee* $ 300

Message for confirmation*

B	I	U	✐	**A** ▾	≣	≣	≣▾	TI▾

Do you confirm that this person has performed welding within the range of qualification to the qualified procedure/process at least once in the past six months?

A positive confirmation will extend the validity of the qualification for a further six month period.

Message for prolongation / revalidation*

B	I	U	✐	**A** ▾	≣	≣	≣▾	TI▾

Do you confirm that
1. this person has performed welding within the range of qualification to the qualified procedure/process in the past six months?
2. and that two welds made during the last six months by this person were tested by radiographic or ultrasonic testing or destructive testing and recorded?

Set Declaration text*

B	I	U	✐	**A** ▾	≣	≣	≣▾	TI▾

I confirm that I have read and understood the Rules and guidelines noted in this application. I also confirm the information that I have given is true and correct. I permit the WTIA ANB to disclose my exam pass/fail results to the relevant IIW Authorised Training Body.

Cancel   **Publish**

← Back To Program View

Dashboard
Programs
Examinations
Libraries
Archives
Users
Emails
Reports

4.1.3.1 Pro forma – Welder Qualification Program Configuration Requirements

Instructions for the Applicant*

Requirement Code	Requirement description

User	Role
	□ Program Coordinator □ Program Assessor

Select Standard

No of Confirmations	Revalidation / Prolongation Required? □
Interval (months)	Repeat? □

Member Fee $	Non-Member Fee $ ....

Message for Confirmation	Message for Validation

Set Declaration text

Note: Up to 6 instructions may be added.

4.2   Editing a Program

Existing programs may be edited. Click on the blue program code hyperlink from the main screen, then click on the green *Edit* button at the top of the screen. When editing is finished, at the bottom of the form, click on *Publish* to save or *Cancel* to exit.

4.3   Archive a Program

Programs created for Test Centres that are no longer required may be archived by Weld Australia staff. The program can be later retrieved by Weld Australia staff should this become necessary.

4.4   Program Applicant Summary

From the summary screen shown above, Account Contributors and Program Managers clicking on the blue number in the *Applicants* column for each program will show who has applied for a particular *Program* and the status of their application (see below). Test Centres should note that all Programs will be visible to the centre and any linked *Internal Users*, however, all the numbers shown in columns 3 to 7 will be zero (0) other than where an *Applicant* has been allocated to the Test Centre.

Clicking on any of the numbers in the other columns brings up similar reports with the exception of the "Failed" column (see below) where options associated with the resitting of modules are available.
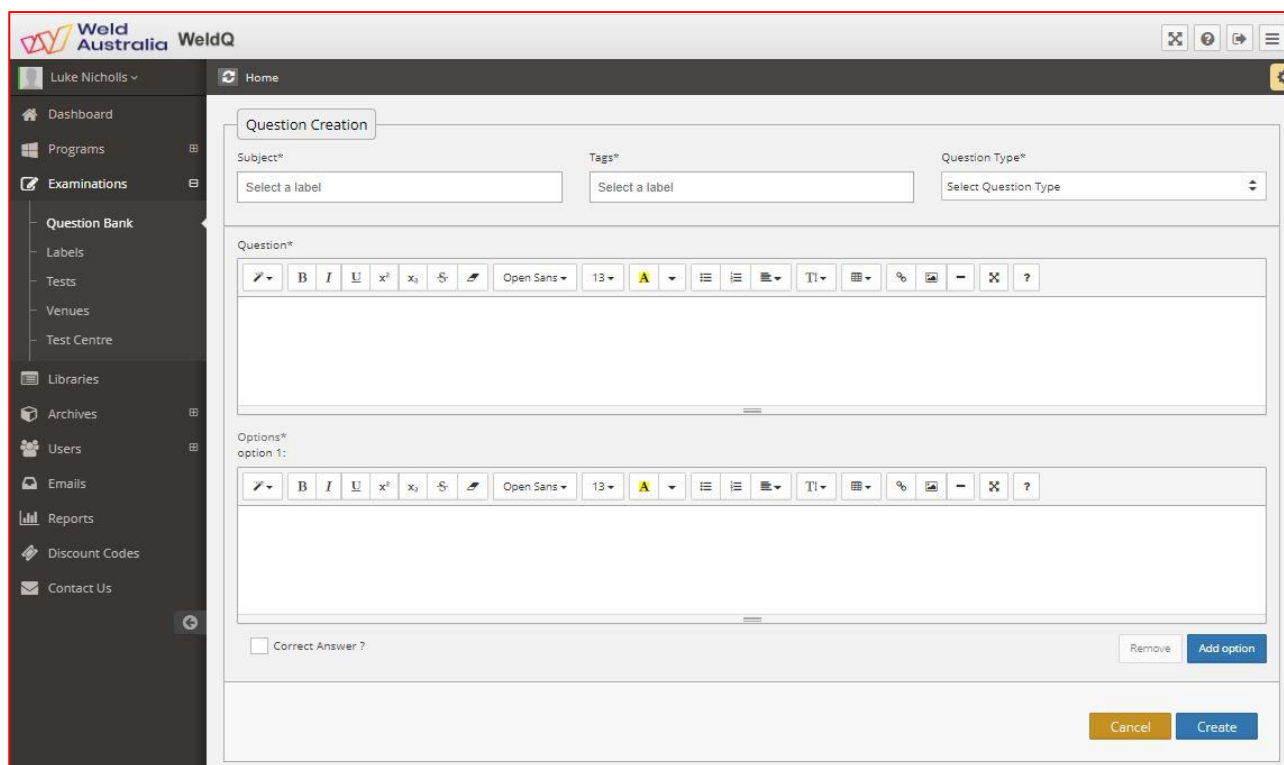
5.0 Examinations

The Examinations (and submenus) section of **WeldQ** can only be accessed by the Account Contributor where allocated (see Section 8.1.1). Prior to creating any question for addition to the question bank, the Labels section should be reviewed to verify available subjects and tags for searching. New labels can be created if required prior to drafting new questions.

5.1 Question Bank

The Question Bank is a databank of questions for theory examinations. Questions may be in the form of multiple choice with either a single answer or multiple answers, fill-in-the-blank type questions or general descriptive. All questions currently listed in the databank are visible and may be viewed or edited by the Account Contributor.

To create a question, the Account Contributor clicks on [+ Create New Question].

The screen below is then populated.

1. *Subject* and *Tags* fields (see Section 5.2) must be populated and *Question Type* selected before any attempt is made to *Create* the question. Each question must have at least one Subject and one Tag associated. Multiple Subjects and Tags are permitted.
   To search for a subject or tag to enter, enter the first letter and a list will be shown. Select the required item. Once entered, repeat the procedure for multiple items. To remove a subject or tag from a question, click on the "x" in the corner of the tag. If the required subject or tag is not listed, cancel the creation of the question then go to the *Labels* menu item and either check for a suitable item or create a new item as required.
2. Select the *Question type* from the four options available.
   a. General single answer
   b. General multiple answer
   c. General descriptive
   d. Fill in the blank
3. Depending on the selection the *Options* item and *Add Option* button may change or be greyed out.
   a. For single or multiple answer questions used in multiple choice questions, enter the first answer option, then click on *Add Option* button add a second option, repeating as required. Click on the *Correct Answer* box or boxes as appropriate set the correct answer.

b. For general descriptive and fill-in-the-blank type questions, "Suggested Answer" will be shown in lieu of "option 1" and the *Add Option* button will be greyed out.

c. Note that multiple choice questions are marked via **WeldQ** and other questions must be checked and marked by an examiner.

4. Account Contributors may find it beneficial to have a set of questions set up in a *MS Word* document. Text can then be transferred to the relevant sections of the **WeldQ** template by copying and pasting directly. To paste text use the keyboard shortcut Ctrl+Shift+v when pasting text inside these cells or right mouse click and paste as unformatted text.

5. Once completed, click on the blue *Create* button.

Prior to including any new question in a test, it is recommended that the questions be reviewed to ensure that the nominated response is correct, and that the language used is clear at all levels of understanding.

5.2 Labels

Labels must be created for questions prior to creating the question for an examination. The labels created are used to search for questions once created when assembling exams. Questions may have multiple labels as they may be utilised in different subject areas or modules of papers being created.

- *Subject*: The label associated with the subject matter of an exam question. Examples could include: Safety, Metallurgy, Welding process, Welding Consumables, Weld Procedures, imperfections, Fracture, Fatigue, Design, etc. Multiple items may be allocated to a question.
- *Tags*: In addition to the three primary default tags available (*Qualification, Certification, Welder Qualification*), other tags could include the level of question difficulty, or tags relevant the personnel the question is targeted towards such as Supervisor, Inspector, IWS, IWT, IWE, Welder for example.

5.3 Tests

The *Tests* menu item will contain a list of Tests (exams) which have been either created and await further editing or published and are available for use. Published exams cannot be edited but may be archived (if no longer required) by Weld Australia staff.

Tests shown as *created* are incomplete and may be edited as required up until such time as they are *published*.

5.3.1 Create New Test

To create a new test, click on [+ Create New Test]. Populate the forms as follows:

a. Enter title (must be unique)
b. Select the *Test Type* from the five options (online, practical, oral, pen & paper, practical & oral)

c. Select the *Program Type* (Qualification, Certification, Welder Qualification)
d. Enter exam time (length in minutes)
e. Min Time – this option is relevant to Online exams only and the applicant cannot close the exam within this time. The minimum value (default) is 0 minutes.
f. Enter *Total Marks* for the test
g. Enter description (what applicant sees)
h. Enter exam instructions. Pictures can be added.
i. Section split - Yes/No. If yes can add additional sections as needed. Sections may be split to cover separate subject areas as part of the exam.
j. Add questions.
   i. Search on subjects (from question bank) and/or tags
   ii. Search brings up all questions available
   iii. From this the search in the question list, can search key words.
   iv. Set marks and difficulty, then "Add"
   v. The questions added are not shown in the general question list.
k. When finished, either save the test for future additions and alterations or publish. If *Publish* is selected **WeldQ** will do a check to ensure marks add up to desired total prior to publication. If the marks do not add up an error message will generated and the opportunity will be given to correct the error and *Publish* or save the work completed.
l. After publication, the test cannot be edited. It can only be archived and the test redrafted.

5.4   Venues

The *Venues* item contains lists of locations where theory exams are conducted. A Test Centre may also be a *Venue*. The ***Create Venue*** button opens up a simple text dialogue box for the venue details to be added. Once added and saved, they can be later edited or deleted if required.

5.5   Test Centre

The *Test* Centre item contains lists of approved workshops where welder qualification tests are able to be conducted. Approved centres will typically include welding schools, TAFE, fabricators workshop etc.

Examiners may be included in* WeldQ *as an approved Test Centre where the examiner is required to conduct welder qualification tests in a fabricators workshop or across a range of workshops.

Test Centre details can be edited by the appointed Account Contributor. The following screen will display:

Other than the Reference Number, all other fields are editable. This allows a Test Centre's details to be modified as required without breaking the links to existing allocated applications or tests.

A *Users* panel will also be shown which contains a list of *Internal Users* within **WeldQ**. Examiners and administration personnel (where required) associated with the Test Centre must be linked to the Test Centre so that they will be able to view and assess applications linked to the Test Centre when allocated, in addition to the Program Manager. Once the test date is set and candidate informed, the Examiner is then able to conduct the welder qualification tests and upload the results (see section 11.3).

5.5.1 Test centre duties

Testing may be conducted within a fabricator's workshop or manufacturing facility, in training or testing venues or at other suitable locations by agreement, all under the supervision of an approved examiner.

Facilities are required to:

1. Comply with workplace health and safety requirements.
2. Welding machines must have calibrated meters or facilities for attachment of external calibrated metering suitable for the process. Metering shall be suitable for use with waveform controlled processes where being used to conduct the qualification test.
3. Be suitable for preparation and welding of test coupons.
4. Be aware of the types of tests required to be conducted and procedural requirements.
5. Have adequate lighting to conduct the visual examination.

The test process requires the welder to produce a test weld in plate or pipe or in a pipe branch format depending upon requirements. The welder is required to weld to a previously qualified weld procedure (WPS) supplied by either the Weld Australia or the fabricator/manufacturer. A draft weld procedure may also be used where it is being qualified at the same time as the welder qualification process.

The number of test pieces to be welded or minimum coupon length will depend on the test thickness and pipe outside diameter (OD) where relevant, and whether additional tests are required e.g. to qualify the procedure. Other considerations include:

- Welding process
- Welding consumables
- Material of test
- Welding position
- Backing material
- Application standard requirements

5.5.1.1 Testing

After welding, test coupons must be examined visually by the examiner in a suitable location with good lighting. Once the coupons have passed their visual tests, further mechanical and/or non-destructive examinations (NDE) are required.

All tests shall be prepared and tested by either a laboratory and personnel accredited by NATA to conduct the required tests, or other test facility approved by the Weld Australia.

Test centres with presses and bend test facilities may be able to conduct fracture tests and bend tests with Weld Australia approval. These should be conducted by, examined and reported on by the Examiner. Macro testing, if required, may also be conducted in-house by suitably qualified and experienced *Examiners* where the Test Centre has suitable facilities for the preparation and examination of macro tests in compliance with AS 2205.5.1 or ISO 17639 and approved by the Weld Australia.
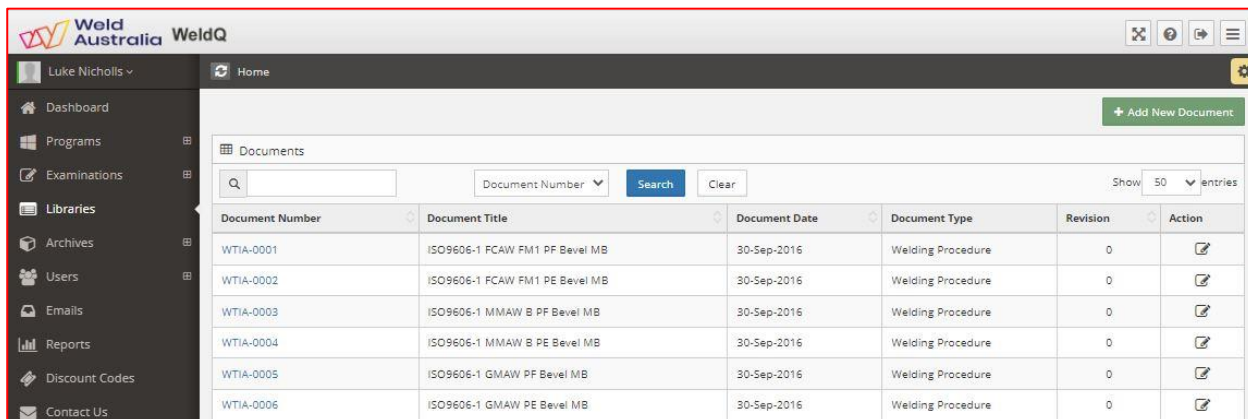
NDE testing such as radiographic and ultrasonic examinations must be conducted by personnel holding the appropriate qualification at NDT Level 2 or higher, issued in accordance with AS ISO 9712.

All test reports on Macro tests and NDE tests shall be NATA endorsed unless otherwise approved.

6.0   Libraries
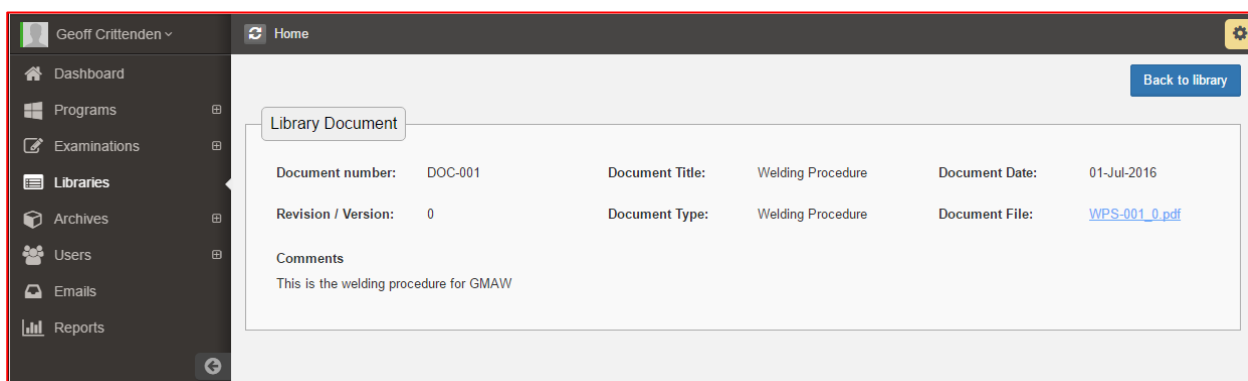
Libraries contain a list of documents saved within **WeldQ**. Visibility of the documents varies with access permissions as noted below. Note that for external users, the Libraries menu is titled *Resources*.

Clicking on the document number (a hyperlink) opens up the following summary form showing the document properties. Clicking on the document file name (a hyperlink) then opens the stored document.
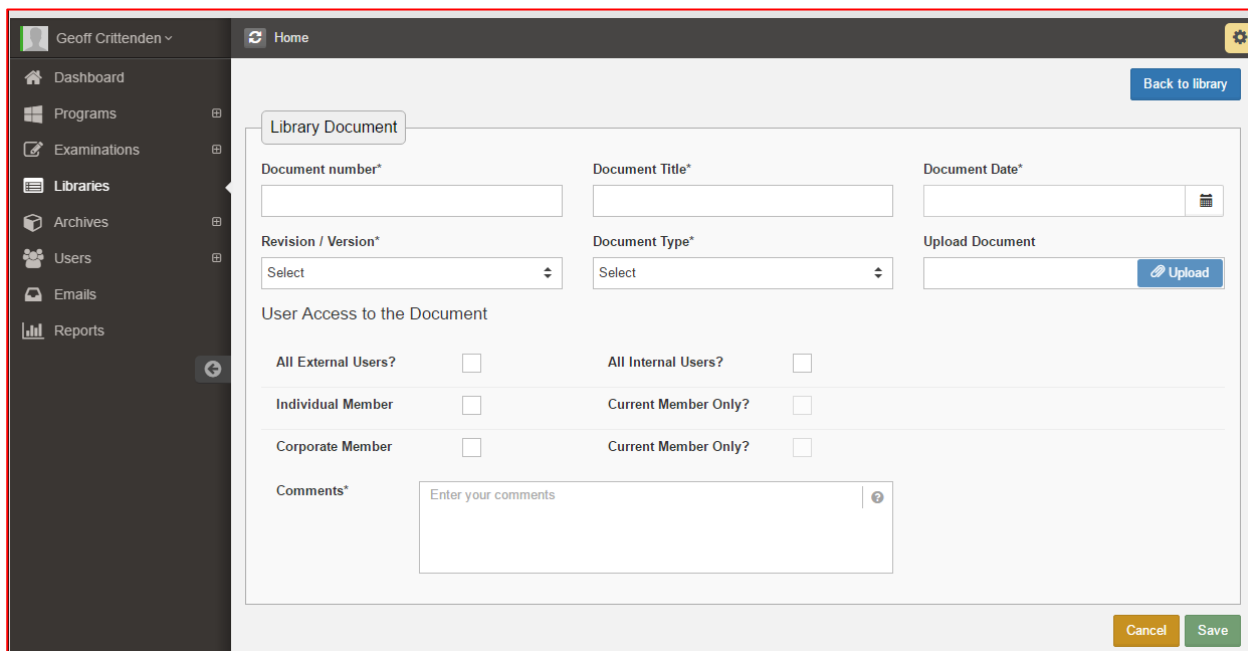
To open a new document, click on **+ Add New Document**. The form below is presented.

The requested details should be completed, the document uploaded and desired access permissions set. The document can then be saved. Once saved, the document properties cannot be edited.

To archive an old document, please contact Weld Australia staff.

7.0 Archives

Archives contains two sub-menus, *Archived Programs* and *Archived Libraries*. Archives are visible to the Account Contributor.

7.1 Archived Programs

As implied from the title, Programs no longer required can be archived by Weld Australia staff. Programs archived remain within WeldQ and can be seen by approved Account Contributors within the *Archived Programs* section. Archived programs can be reinstated but only by Weld Australia staff.

7.2 Archived Libraries

Archive Libraries contains documents, weld procedures and other items that have been archived. Archived documentation can be reinstated by Weld Australia staff.

8.0 Users (Roles)

There are three levels of *Users* within **WeldQ**:

- **Internal Users** – May hold account level or program level roles as defined below and allocated within **WeldQ**. They are the users responsible for the setup and operation of **WeldQ**. Internal users will generally be employees of the Weld Australia, test centre personnel and/or examiners. In specific instances they may be contractors or employed by other organisations undertaking specific roles as approved by the Weld Australia.
- **External Users** – End users of **WeldQ** such as those who will be undertaking exams, qualification tests or require certification.
- **Companies** – End Users of **WeldQ** such as those who are corporate members of the Weld Australia who are authorised to conduct searches and interrogate the **WeldQ** database to verify the qualifications and certifications of welders and other personnel in their employ.

A summary table of roles and their access privileges is shown in the table at the end of this section.

Internal and external users cannot be removed once created but can be made *Inactive*.
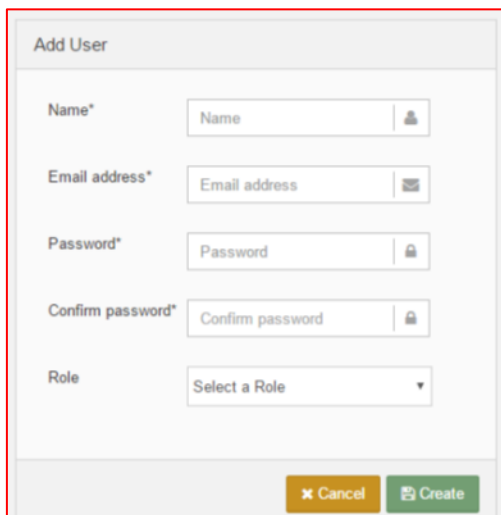
8.1 Internal Users

Two types of roles can be undertaken by internal users, these being account level roles and program level roles. As noted below, Internal Users are created by Weld Australia staff. To create an internal user, the Account Contributor clicks on the *User* menu item on the main menu.
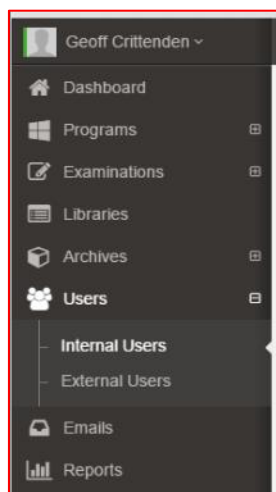
then clicks on the ⊕ Create User button on the right of screen.

The menu below will appear, enter the details requested. The initial password entered should be generic, and then updated by the user once access is granted and they login for the first time.

In selecting a role, only one option will be offered from the drop down box, that of User. The User is referred to within this manual as an *Internal User* and is typically allocated program level roles.

Once completed, click on *Create* to save and exit or *Cancel* to exit without saving.

8.1.1 Account Level Roles

There are two levels of account roles available to Test Centres. In order of access privileges, the roles are:

1. Account Contributor (AC)
    a. Add or edit items in the assigned areas (e.g. examinations, libraries);
    b. May have access to other assigned areas (archives, users, exams, discount codes, emails, reports).
2. Internal User (IU) – unlimited number
    a. Read only access to the assigned areas (examinations, libraries, archives, users, emails, reports);
    b. Usually allocated Program Level roles.

8.1.2 Program Level Roles

The program level roles are allocated by the Account Contributor or Weld Australia staff as described above. There are five roles within this group and an individual may be allocated more than one role within that program. The roles are:

a. Program Manager (PM) – one person appointed per program.
    a. Initially appointed by the Super User, but may be reallocated by Account Administrator in a future development of WeldQ.
    b. Can configure and administer a program;
    c. Can edit a program;
b. Program Coordinator (PC): more than one can be appointed, an administrative role where the appointee administers a program but cannot edit it;
c. Program Assessor (PA): more than one can be appointed, a technical role where the appointee assesses applications, and the results of a test or examination;
d. Program Examiner (PE): more than one can be appointed, can administer an examination (practical, oral) to an applicant; can mark an examination; can review the results marked by another examiner;
e. Program Invigilator (PI): more than one can be appointed, can invigilate an examination to an applicant.

Program level roles are typically allocated to the *Internal User* although roles may occasionally be allocated to *Account Contributors*.

8.1.2.1 Examiners

Examiners may be personnel who are employed by or contracted to *Test Centres*, or may be independent and also operate as a *Test Centre*, particularly where they may be required to conduct welder qualification tests on-site or in fabricators workshops.

8.1.2.1.1 Qualifications & experience

To work effectively as an examiner, the following certified qualifications are required:

- International Institute of Welding certified IWS, IWT or IWE;
- Weld Australia certified structural steel (AS 2214) or pressure equipment (AS 1796 10) welding supervisors;
- Weld Australia certified inspectors at the standard or comprehensive level.

Personnel with alternative qualifications will be considered by application on a case by case basis.

Examiners shall have a working knowledge of both AS/NZS 2980 and ISO 9606-1 sufficient to undertake their required duties. They should also have at least 3 years experience in at least one of the roles of welding supervisor, welding inspector, welding technologist or welding engineer.

8.1.2.1.1 Tasks and responsibilities

Examiners shall —

a. Confirm the identification of the welder.
   Confirmation of ID requires approved government issued photo ID and evidence of location and date of birth. The 100 points method used by financial institutions is preferred (note that this is a requirement of both ISO 9606-1 and AS/NZS 2980 due to the portability of the qualification).
b. Enter all required information into the register.
c. Arrange and conduct the practical test at a mutually agreed time at an approved location.
d. Witness and monitor the welding process including verification of welding parameters utilised.
e. Verification of compliance with the WPS and testing standards.
f. Conduct visual examinations of test pieces to AS 3788 prior to NDE or destructive testing.
g. Forward test pieces to approved laboratories for NDE or destructive testing.
   Note: Approved examiners with suitable experience may be able to conduct limited destructive tests.
h. Receive, record and report results.
i. Confirm and revalidate qualifications as required.

Examiners shall have access to:

i. Calibrated external metering suitable to confirm welding conditions specified on the WPS including preheat and interpass temperatures;
ii. Copies of the standards to which they working.

Prior to conducting weld tests in facilities other than accredited training schools such as TAFEs, it is recommended that the examiner conducts a job safety analysis (JSEA or JSA) and satisfies themselves that the workshop to be used is safe and suitable for use as a testing facility. A copy of the JSEA can be scanned, and uploaded for attachment to the welder's test results within WeldQ where required.

8.2   External Users

Anyone may signup to be an External User (EU) of WeldQ. The users are created automatically by WeldQ after email verification through an interactive process. Users can:

- maintain their own profile,
- apply for a program,
- access documents shared in the library,
- seek prolongation of qualifications,
- renew certifications,
- view awards.

WeldQ assigns a unique user name once registration has been confirmed.

Information stored by user can be viewed by Account level users. Typical forms are as shown below. Membership details fields are populated by Weld Australia staff once details have been confirmed. This allows WeldQ to allocate the relevant member pricing.

Internal Users are also able to register as External users however, separate email addresses are required for each account.

As shown across the top menu, additional items as shown are available for review. With the exception of *File Notes* all other items are generated within **WeldQ**.

A *USER* manual is available for external users to download from the AWCR website.

8.3   Companies

Companies wanting to search **WeldQ** archives or who wish to use **WeldQ** to maintain a ledger of their welder's qualifications, may appoint up to two people to act as Administrators. These people apply to become Users of **WeldQ** establishing a personal account. They should then apply to the Weld Australia for corporate access advising Weld Australia staff of details such as their address, phone numbers (mobile and fixed), and email addresses. Weld Australia staff will then set up the company details within **WeldQ** allocating up to two *Users* Administrators as nominated by the company. The Administrators are then able to edit the company details should this be required in the future, and link other Users of **WeldQ** to the company enabling the linked Users to take advantage of any discounts applicable to their corporate membership. In addition, the administrators are able to search **WeldQ** as noted above.

Note that Users may only be linked to one company within **WeldQ**. If they need to be linked to other companies they must have unique email addresses for each company.

8.2.1 Role summary Table
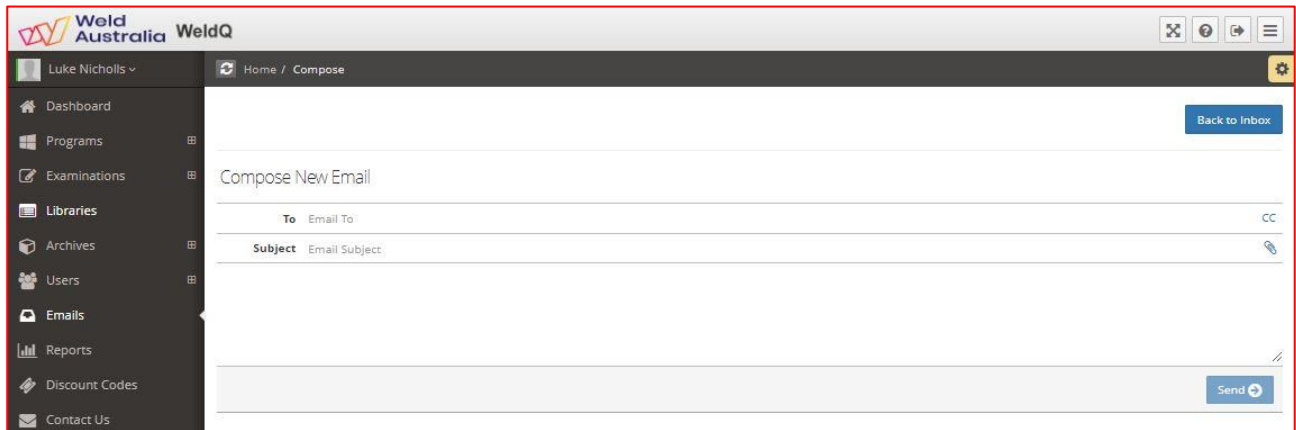
Role	Control	Account Level Roles		Program Level Roles					External User
		AC	**IU**	**PM**	**PC**	**PA**	**PE**	**PI**	**EU**
Dashboard	**Screen**	No	No						Yes
Programs – List	**Screen**	Yes	No	Yes*	Yes*	Yes*	Yes*	Yes*	Yes
Create New Program	**Button**	No	No	No	No	No	No	No	No
Program View - Edit	**Button**	No	No	Yes	No	No	No	No	No
Program View - Archive	**Button**	No	No	No	No	No	No	No	No
Program Code	**Link**	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Programs - Applicants	**Screen**	No	No	Yes	Yes	Yes	Yes*	Yes	No
Programs - Reports	**Screen**	No	No	Yes	Yes	No	No	No	No
Application - View	**Button**	No	No	Yes	Yes	Yes	Yes*	Yes	Yes
Application - Edit	**Button**	No	No	Yes	Yes	No	No	No	No
Application - Create	**Button**	No	No	No	No	No	No	No	Yes
Application - Workflow	**Screen**	No	No	Yes*	Yes*	Yes*	Yes*	Yes*	No
Examinations	**All screens & controls**	Yes	No	No	No	No	No	No	No
Libraries		Yes	Yes*	No	No	No	No	No	Yes*
Archives		Yes	No	No	No	No	No	No	No
Users	**All screens & controls**	Yes	No	No	No	No	No	No	No
Emails		Yes	No	No	No	No	No	No	Yes*
Reports		Yes	No	No	No	No	No	No	Yes*

* - Data shown based on user's role

9.0 Emails

WeldQ has facilities to send and receive emails. All emails sent to applicants including system generated emails are saved and may be reviewed within this menu item.

Administrators may also compose and send emails. Click on Compose to compose an email.

When finished, click on *Send* to transmit the email to the recipient.

9.1 Templates

WeldQ contains a number of email templates for system generated emails. These are not generally accessible.

10.0 Reports

Currently, the only generally available report configured for internal users of **WeldQ** is a schedule of examinations. Other reports may be added ion future developments of **WeldQ**.
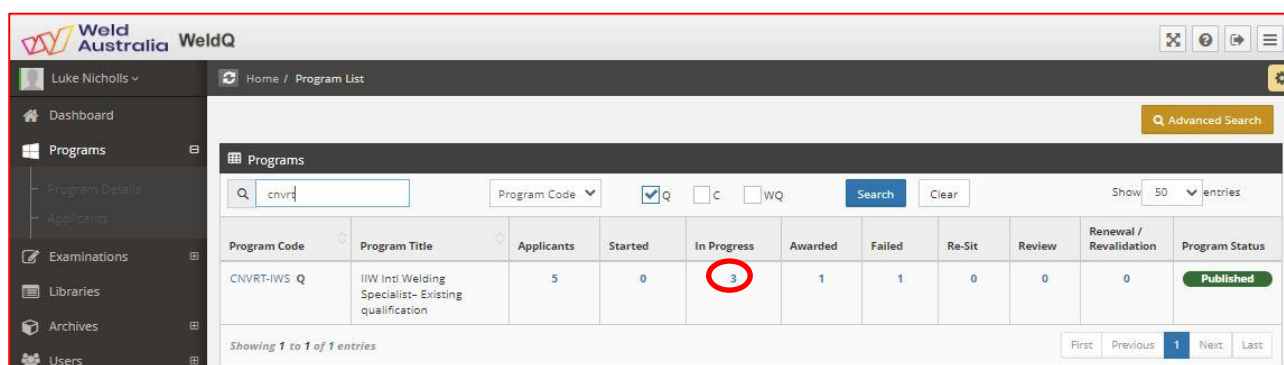
11.0 Processing Applications

11.1 Qualifications

11.1.1 Assessment

After the *User* submits an application for a qualification, the Program Manager and Program Coordinator are sent a system generated email notifying them of the user's application. A copy is also retained in the Email section of the register.

To access the application, PM/PC goes to the *Programs* page where they will see an application listed under *In Progress* (circled). ***Note that they will only see applications and programs that they have access to***.

Clicking on the number in the *In Progress* column brings up the details of the applicant(s).

Clicking on the application number brings up further detail and allows the *Program Manager* or *Program Coordinator* to select the application assessor. Instructions for the Assessor may be added if required.

Save the application if not complete otherwise click on the green **Submit** button and WeldQ will report the status as *Being assessed*.

After submitting the application, the *Assessor* reviews the application details by clicking on the application number. The *Assessor* reviews the application considering pre-requisites and sets the assessment outcome including the need for specific module(s). If the *Applicant* is exempt for a specific module, the outcome set is *Not required*, otherwise *Required* is selected. On completion, the application should be either saved if incomplete or otherwise click on the blue *Submit* button and **WeldQ** will move the application to the pre-exam phase if the *Applicant* is not exempt from the examination.

The *Program Manager* or *Program Coordinator* is able to amend the fee requirements at this point if required, otherwise, clicking on the blue *Submit* button closes the application and reports that a request for payment has been sent to the applicant. If a Discount Code is applicable, the Account Coordinator (or Weld Australia staff where applicable) should also be requested to generate the appropriate code and send it to the applicant prior to payment.

Module Code	Module Title	Exam Type	Required ?	Exam Fees
IWX-1	Welding processes and equipment	Pen & Paper	Required	530

Payment Requested

Once payment has been received, the summary screen reports *PAID* under *Payment Status*, and to proceed to the next step, click on the blue *Submit* button.
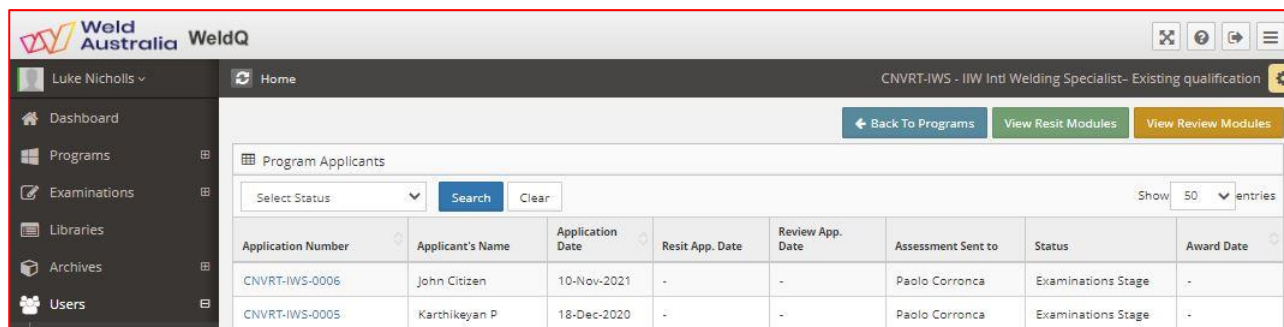
Status now reported as *Assessment Completed* and the *Program Coordinator* is able to allocate the examination paper, confirm the test invigilator, and set the examination type, date (type in *dd/mm/yy* format or use the date tool) and location (Venue). For on-line examination the start and finish time of the exam are also required. Once details are complete, click on the Save & Send button.

The examination paper and details are then emailed to the *Invigilator*. In the case of an online exam, a link is forwarded rather than the paper.

11.1.2 Examination
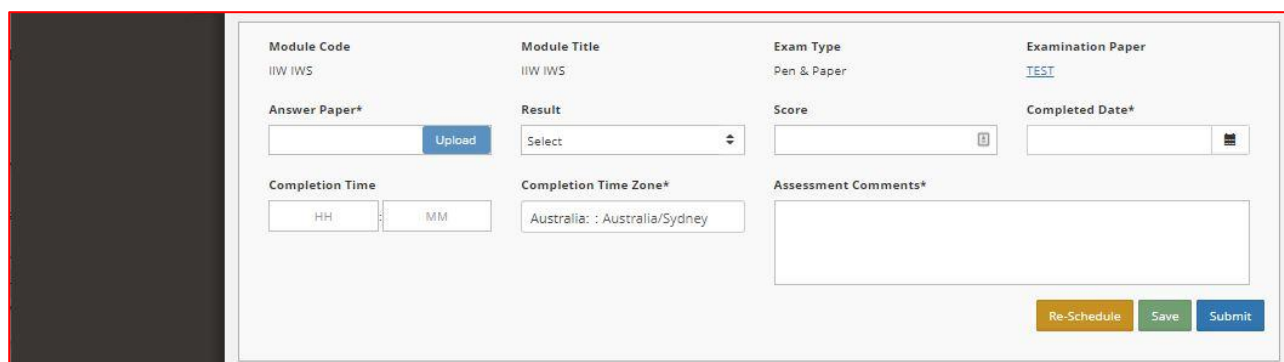
Examinations are conducted in the usual manner with candidates being notified by the *Examiners* or *Invigilators* where and when the examination will take place. The status column with show *Examination Stage* (see below).
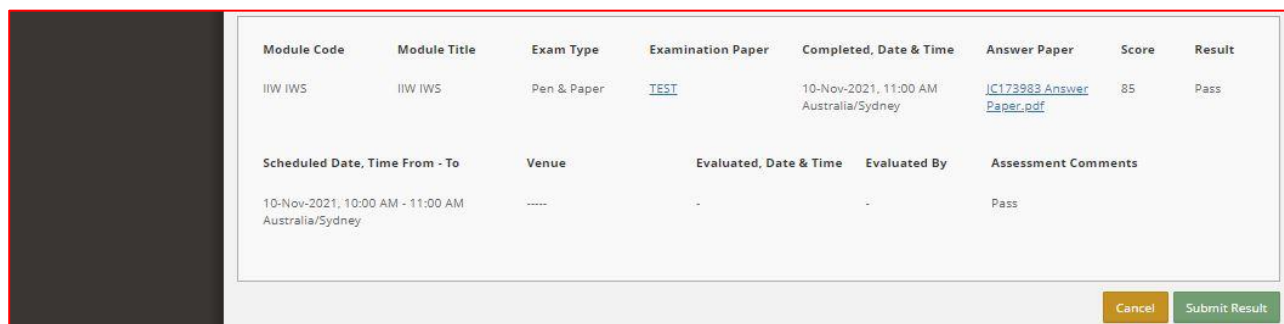
Pen & Paper exams are marked in the usual manner by the *Program Assessor* with the opportunity for review and/or resit permitted in the event of failure as defined in the examination set up process. Once exams are marked, the papers are uploaded by the *Invigilator*, the marks entered etc then submitted.

On-line exams are electronically locked out before the start time and after the finish time. They are automatically submitted if not submitted within the set time frame. On-line exams may be marked automatically, or may be checked manually by the *Program Assessor* and marks allocated upon completion.

Once results are upload and submitted, the results are viewed by the *Program Coordinator* and if OK submitted for the creation of the final award. In the event of a failure or problem, once the applicant is notified, the review and/or resit process can be initiated and follows a similar process route to that described above.

If all is successful, an award is set within **WeldQ**.

11.1.1.1 Qualification – Typical workflow
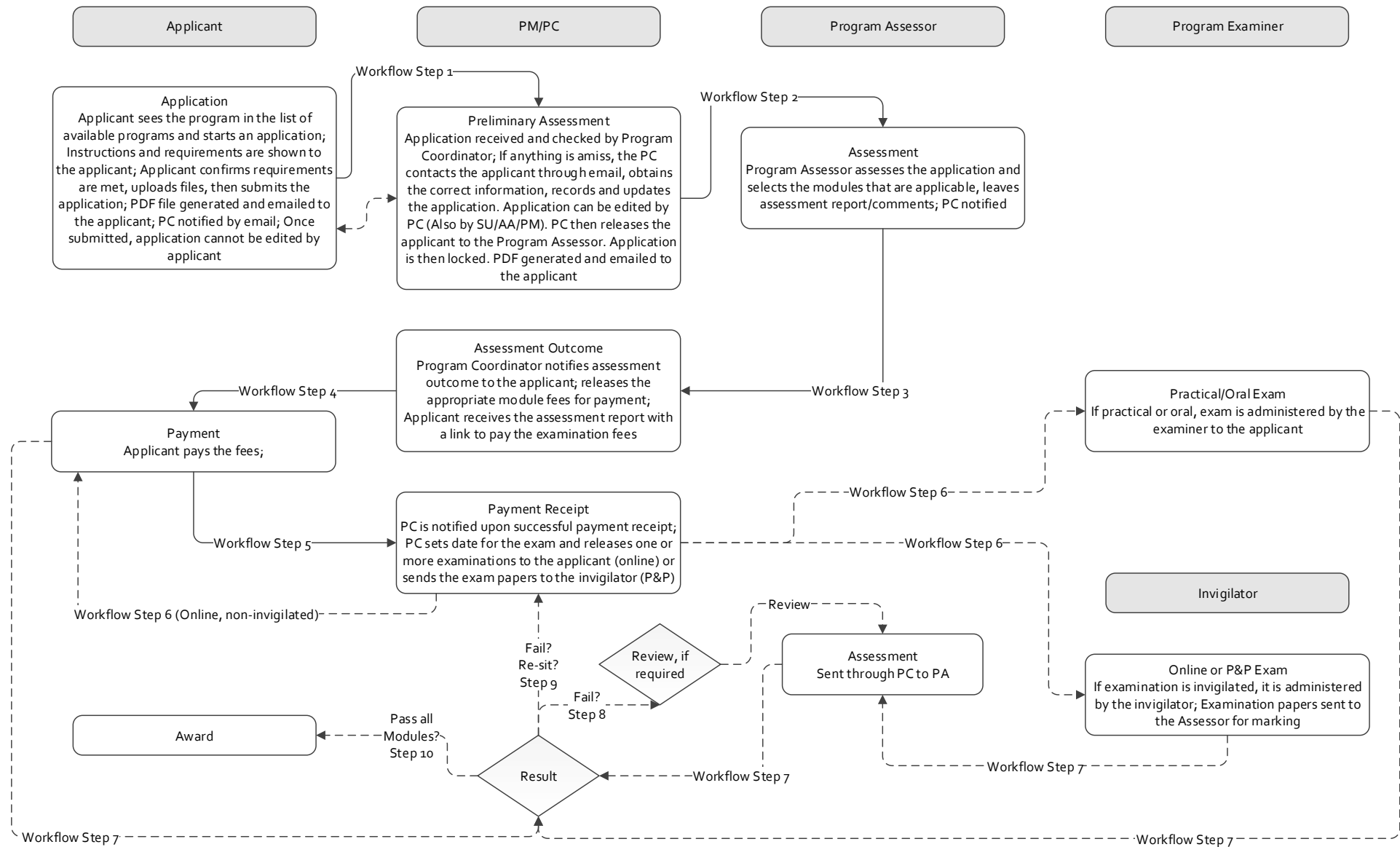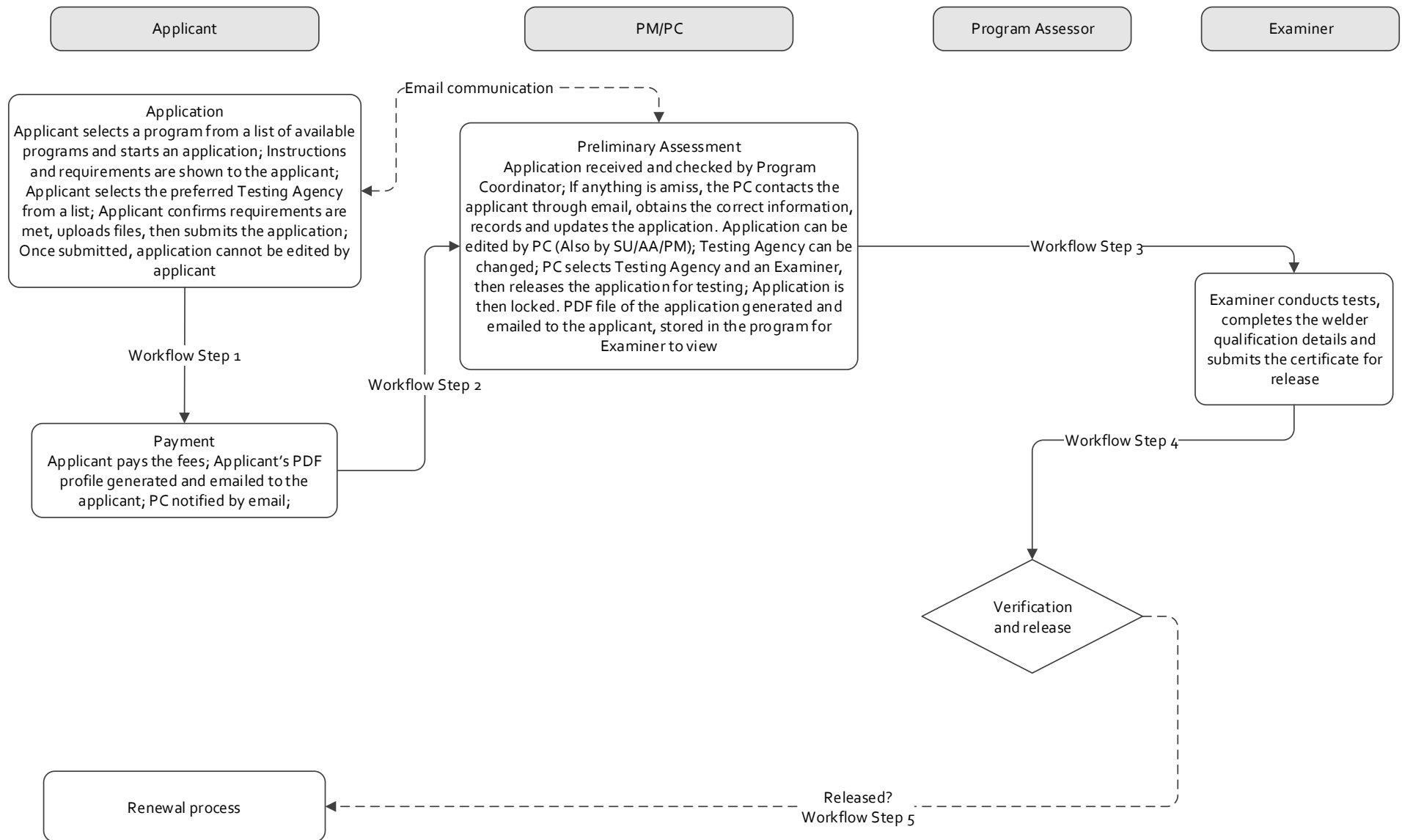
11.2 Welder Qualifications

11.2.1 Welder qualification workflow

The process flow for welder applying for a welder qualification test is shown on the next page. Each section of the workflow is explained step by step below.

Requirements from the Welder's (i.e. the Applicant) perspective are also detailed within the User's manual.

In previous discussion in the introductory sections of the manual, the overview of the ISO 9606-1 process from the standards perspective was depicted. This depiction in practice comes after process flow step 3.
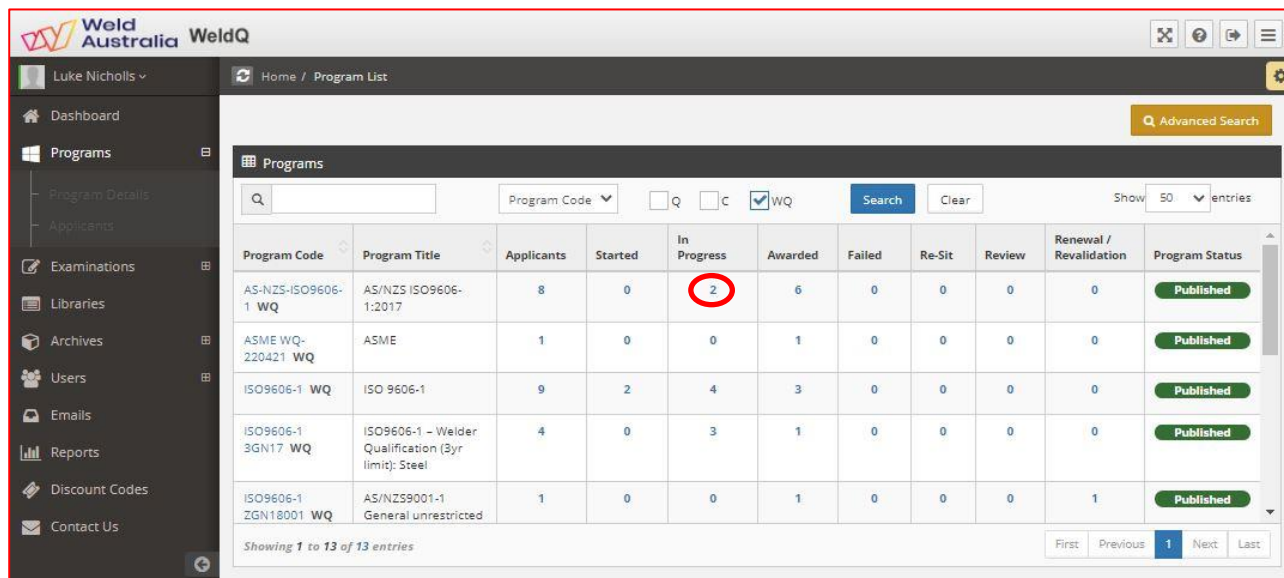
11.2.1.1 Welder qualification – Workflow diagram

Applicant
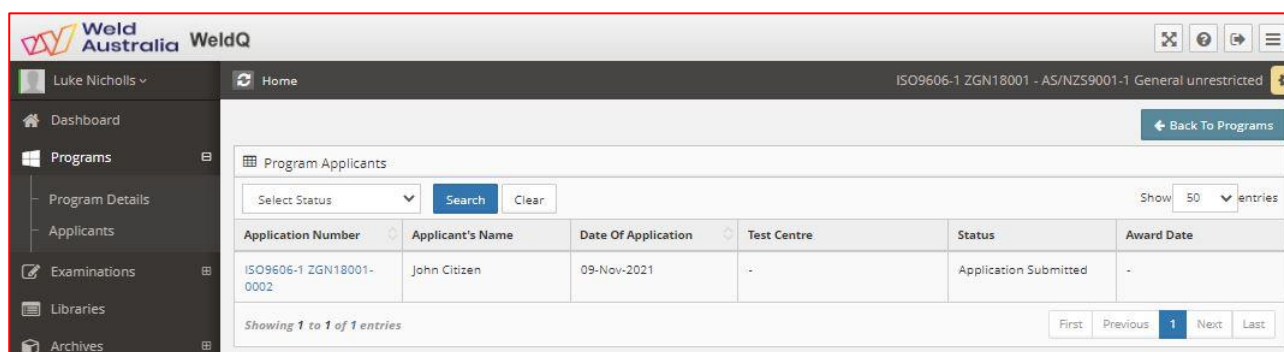
PM/PC

Program Assessor

Examiner

Application
Applicant selects a program from a list of available programs and starts an application; Instructions and requirements are shown to the applicant; Applicant selects the preferred Testing Agency from a list; Applicant confirms requirements are met, uploads files, then submits the application; Once submitted, application cannot be edited by applicant

Email communication

Preliminary Assessment
Application received and checked by Program Coordinator; If anything is amiss, the PC contacts the applicant through email, obtains the correct information, records and updates the application. Application can be edited by PC (Also by SU/AA/PM); Testing Agency can be changed; PC selects Testing Agency and an Examiner, then releases the application for testing; Application is then locked. PDF file of the application generated and emailed to the applicant, stored in the program for Examiner to view

Workflow Step 3

Examiner conducts tests, completes the welder qualification details and submits the certificate for release

Workflow Step 1

Workflow Step 2

Payment
Applicant pays the fees; Applicant's PDF profile generated and emailed to the applicant; PC notified by email;

Workflow Step 4

Verification and release

Renewal process

Released?
Workflow Step 5

11.2.2 Assessment

After the *User* submits an application for a welder qualification, the Program Manager and Program Coordinator are sent a system generated email notifying them of the user's application. A copy is also retained in the Email section of the register.

To access the application, PM/PC goes to the *Programs* page where they will see an application listed under *In Progress* (circled). Note that they will only see applications and programs that they have access to.
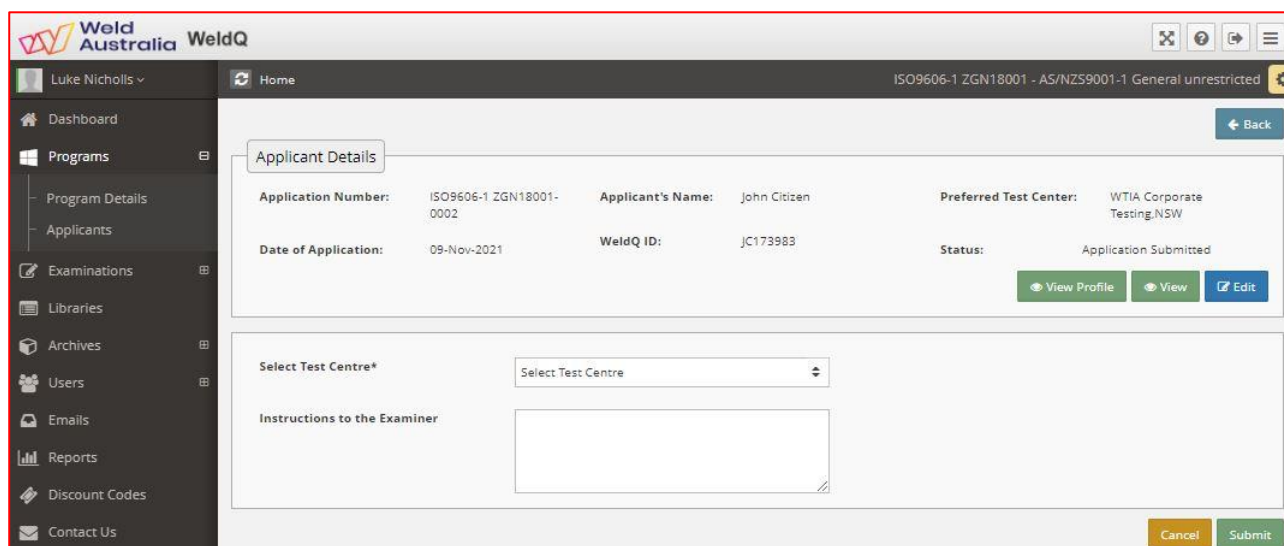

Click on this number and you will be taken to a screen with a list of applicants where the applicants of interest will be shown as *Application submitted* under *Status*.

Click on the application number where applicant details can be seen.

Select an appropriate test centre from the drop down list, add any additional instructions required by the examiner, then click on *Submit* if complete or *Save* or *Cancel*. An email containing links to the application will be sent to the Test Centre's primary and secondary email addresses.

Program Managers, Coordinators, Test Centres and Examiners should note that *Applicants* may apply and reapply for a program where qualification to multiple weld procedures is required. In this case, the *Applicant* should be contacted to ascertain their requirements and arrange a suitable test schedule noting whether the tests can be completed in one session, or in one day, or longer, and organised accordingly.

11.2.3 Examination

Similar to the assessment process, the *Examiner* logs into **WeldQ**, then proceeds to the Program page, where they can click on the link under *In progress* for the program of interest. This will bring up the applicant's details but status will show *being assessed*.

Click on the application number and the weld test form is shown.

Prior to the commencement of the test, the *Examiner* is required to verify the applicant's identification using the 100 points method used by governments and financial institutions. They should also confirm that the person presenting for the exam is the person in the photograph.

Once the examination has been completed, fill in all details from the drop down boxes or fill in the required text boxes. Where details for groups of welders need to be entered, the green **Clone** and/or **Replicate** button option may be visible.

To access the *Clone* and/or the *Replicate* feature, type part of the welder's designation of interest in the box to the left of the button and a list of available records will appear. Select the record of interest, then click on the button and the details from the highlighted record will be retrieved and pasted into the current record. Once pasted, the details can be edited or over typed as required. Note that the *Clone* button is only visible if the welder has an award for the program of interest.

The *Clone* feature will retrieve the welder's personal details but does not copy any test records or results. The *Replicate* button retrieves all details from the record of interest but does not retrieve personal information or test records or results.

Take note that if the welding process is MMAW, it will request an input for shielding gas. This will normally be entered as N/A or where a backing gas is used, the gas is identified.

If more than one weld process is used within the test, click on the blue [⊕ Process 2] (*Process 2*) button to add the additional details. Up to three processes can be added.

Examiners should note that the **WeldQ** test upload page has mix of drop down boxes and boxes for freehand text. The drop down boxes are interlinked and inputs validated to minimise the potential for manual entry errors.

The exception to the validation process is *Test methods* boxes. Each box must be set to one of the three options available for the tests undertaken:

- Acceptable
- Not acceptable
- Not tested.

Only the Visual examination is mandatory. Test options available for ISO 9606-1 and AS/NZS 2980 are:

Plate butt welds			
Visual *plus:*			
Radiography *or→* *plus* Additional bends *or* nick-break tests *for all* GMAW[131, 135], FCAW[138] (metal core) and oxyacetylene[311] welding only. One of these tests to come from stop start region	Bend tests *or→*	Nick-break tests *or →*	Ultrasonic (≥8mm ferritic steel only)
Pipe butt welds			
Visual *plus:*			
Radiography *or→* *plus* Additional bends *or* nick-break tests *for all* GMAW[131, 135], FCAW[138] (metal core) and oxyacetylene[311] welding only. One of these tests to come from stop start region	Bend tests *or→* For *OD* ≤ 25mm, notched tensile optional in lieu of bends	Nick-break tests *or →* For *OD* ≤ 25mm, notched tensile optional in lieu of nick-break	Ultrasonic (≥8mm ferritic steel only)
Fillet weld			
Visual *plus:*			
Fillet- break test *or→*	2 macros One macro to come from stop start region		
Branch pipe joint			
Visual *plus:*			
Fillet- break test *or→*	2 macros *or→* One macro to come from stop start region	Radiography	

Note: This summary of test options can also be found in the **WeldQ** Library.

WeldQ Examiner's Check List

1. This checklist must be used in conjunction with ISO 9606-1 or AS/NZS 2980 (as appropriate).
2. Check each step listed to confirm critical actions in the preparation of the *Welder Qualification Record* (WQR).
3. If all green boxes ticked **– OK to submit results.**
4. If any red box ticked **– corrective action required. OK to save, but *DO NOT SUBMIT RESULTS*.**

Item	Yes	No	
WPS qualification			
1. Qualification of applicant's WPS verified (non **WeldQ** procedures only)	🟩	🟥	⬛
2. Acceptance criteria confirmed (e.g. ISO 9606-1 [default], AS/NZS 2980, AS/NZS 3992 etc)			
Welder's identification verification			
1. Welders image consistent with supplied photo ID and image in **WeldQ**	🟩	🟥	⬛
2. Place of birth (City or town) recorded in **WeldQ**	🟩	🟥	⬛
3. Identification document and serial number recorded in **WeldQ**	🟩	🟥	⬛
Welder Practical test			
1. Test weld parameters measured, recorded and attached to WQR	🟩	🟥	⬛
2. All *Qualification Details*, *Joint Details* and *Process Variables* set in **WeldQ**	🟩	🟥	⬛
Test reports and documentation			
1. Visual report (including test piece photo) attached to WQR (all welds)	🟩	🟥	⬛
Weld NDE and Destructive test reports			
1. Plate butt weld tests			
a. Radiography plus, for GMAW[131, 135], FCAW[138] (metal core) and oxyacetylene[311] welding only, additional bend tests or fracture (nick-break) tests **OR,**			
b. Ultrasonic examination (≥8mm ferritic steel only) **OR,**			
c. Bend tests **OR,**			
d. Fracture (Nick-break) tests	🟩	🟥	
2. Pipe butt weld tests			
a. Radiography plus for GMAW[131, 135], FCAW[138] (metal core) and oxyacetylene[311] welding only, additional bend tests or fracture (nick-break) tests **OR,**			
b. Ultrasonic examination (≥8mm ferritic steel only) **OR,**			
c. Bend tests *(for OD ≤ 25mm, notched tensile optional in lieu of bends)* **OR,**			
d. Fracture (Nick-break) tests *(for OD ≤ 25mm, notched tensile optional in lieu of bends)*	🟩	🟥	
3. Fillet weld tests			
a. Fracture (Fillet-break) tests **OR,**			
b. Macro tests (two, one from stop-start region)	🟩	🟥	
4. Pipe branch joint tests			
a. Fracture (Fillet-break) tests **OR,**			
b. Macro tests (two, one from stop-start region) **OR,**			
c. Radiography	🟩	🟥	
All test reports complete, signed and uploaded to WQR *Test Results*.	🟩	🟥	⬛
OK to submit results if all data fields complete and no red boxes ticked.	🟩	🟥	⬛

(Right-hand column note spanning NDE section: ----- Complete report requirements appropriate for test piece type -----)

NDT reports should be uploaded under the link on the relevant line. Under *Test methods*, click on the blue "**+**" button to bring up an addition blank line for input. Use this line of detail to upload your test records such as welding parameters used by the welder to verify that the WPS was followed. For other than Weld Australia WPS's a copy of the WPS should be included within this documentation.

When finished click on *Save* to save an application in progress, *Cancel* to cancel out, *Preview* to preview the certificate of test, and *Submit* to send the form for verification. Note that *Preview* and *Submit* will generate error messages if the form is incomplete. A summary of items the examiner is required to verify and/or action can be found in the **WeldQ** Library and is also shown below. It is also available via the AWCR website.

After the examination results are submitted, the *Program Manager* or *Program Assessor* can then view the examination results, and if satisfactory, ticks in the *Test results acceptable* box, adds any required comments, then clicks on the green Submit button. If incomplete, the *Program Manager* or *Program Assessor* may add comments, make corrections and save or cancel until ready to proceed.

Once submitted, an award is then generated and the examination cycle is complete.

11.2.4 Confirmation

The welder will receive a system generated email approximately one month prior to the due date advising them of the requirements to confirm the ongoing validity of the welder qualification.

Confirmation must be completed by either the person responsible for welding activities (who must be an *External User* within **WeldQ**) where the welder is employed or contracted, or by an authorised *Examiner*. Should a welder approach an *Examiner* to confirm their qualifications, the *Examiner* should only consider confirming the qualification where they have personal knowledge that the welder has complied with confirmation requirements as set out within the standard. *Examiners* should also have records of welding traceable to the welder should this be required.

In the event that the welder has not completed the required steps the qualification will lapse. In limited circumstances, Weld Australia staff may be able to reinstate the qualification where sufficient information is subsequently supplied to satisfy confirmation requirements.

11.2.5 Revalidation

Welder qualifications to ISO 9606-1 are valid for up to two years from the date of the initial testing. Provided that the qualifications have been correctly confirmed every six months, the revalidation process will trigger an alert within the welder's mobile app and on the welder's desktop within **WeldQ** 30 days prior to the date due. The process proceeds as follows:

- Applicant's welder qualification revalidation due date (-30 days to +0 days) - alert shown in applicant's dashboard with a message (mobile app & desktop);
- Applicant can seek prolongation by clicking on an action button (desktop only) - fees and message will be displayed;
- Upon applicant accepting the message and proceeding, applicant will be allowed to view the list of available test centres and select one, upload up to two revalidation files and enter some text and submit the application;
- Applicant is then taken to the payment gateway (fees are set at the time the program is created) and if the payment process is successful, revalidation application is created;
- Email notification is sent to all examiners attached to the test centre;
- Examiner can either accept the records - this will extend the Welder Qualification by another period set in the program; or reject the records - this will put the awarded qualification on hold;
- If the applicant does not seek revalidation before the due date, the awarded qualification will be put on hold;
- Qualifications on hold can then be released by admin (Program Manager or Coordinator) or cancelled.
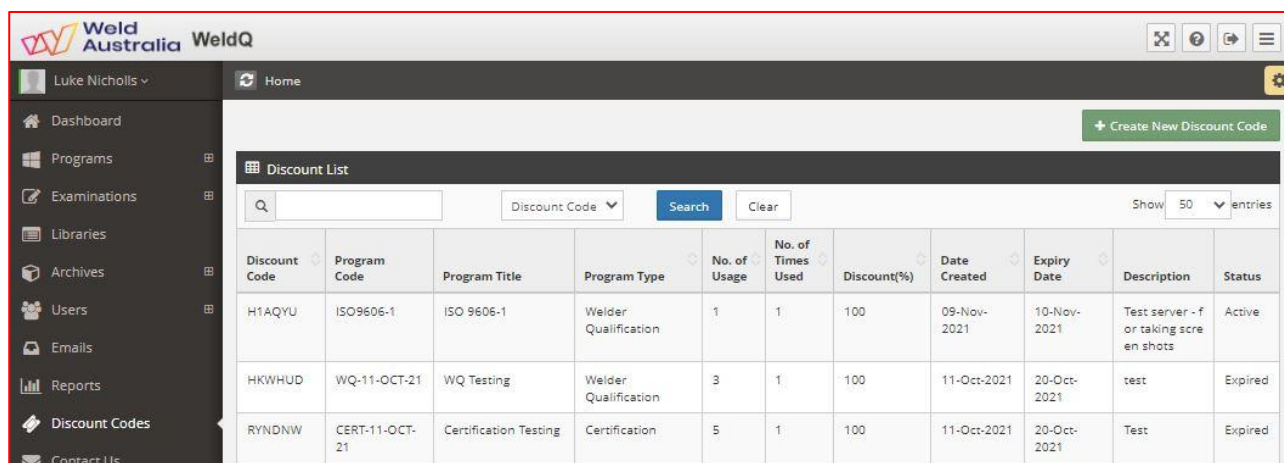
112.6 Three year test alternative

In limited circumstances, a three year test program may be available to welders. In this situation, the welder is required to confirm the ongoing validity of their qualification for a period of three years in lieu of the standard two years. At the completion of the period, the welder is required to requalify if ongoing qualification is required. Revalidation is not permitted within this program.

12.0 Discount Codes

WeldQ contains facilities where discount codes can be generated and provided to applicants under specific circumstances. These discount codes are generated by Weld Australia staff or where appropriate may be generated by authorised *Account Contributors*.
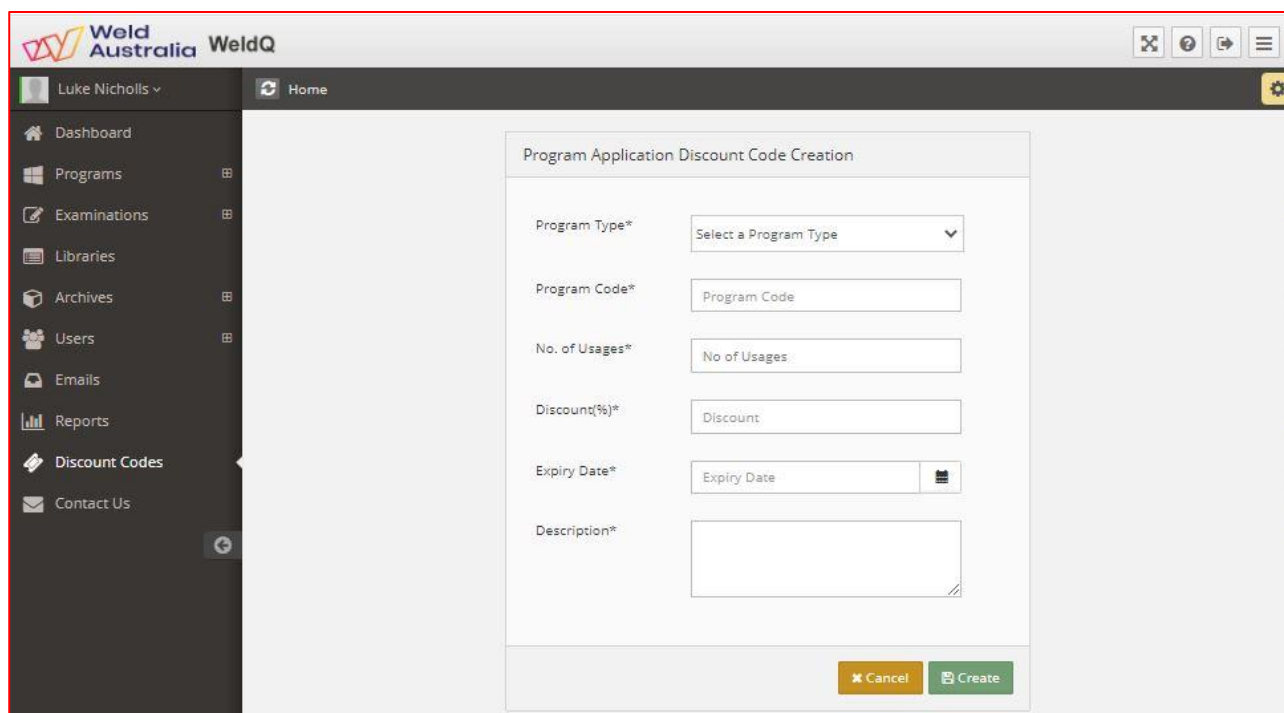
Codes are linked directly to a specific program, are limited to a maximum number of usages and must be set to expire within a reasonable time frame. Codes in operation can be viewed in the following table:

To create a new code, click on the button and complete the following form:

The form above is filled in and a code generated by **WeldQ** after clicking on *Create*. This code is then provided to the authorised User(s). Discounts of 0% to 100% can be applied.

Discount codes only reduce the Weld Australia fees and do not affect Test Centre, Examiners or other charges that may be applicable. Weld Australia discounts may be typically applicable where:

1. A fabricator makes a group booking to test a group of welders and they are to be invoiced directly by the Weld Australia for the applicable Weld Australia fees;
2. A Welder applies for an industry qualification package where the package is purchased, with a discount code then being provided to reduce the cost of the remaining tests;
3. A welder fails a weld test and is being offered one free resit.

13.0 External Users

Detailed instructions for applicants or external users utilising **WeldQ** are shown in a specific User's manual available from the AWCR web site.