CareRight - Assessment Builder

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Printed: June 2018 in Australia.

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1 Introduction

The assessment builder enables the conversion of forms and assessment tools into electronic format.

Electronic assessments can have added features such as:
- Automatic calculations
- Importing data from other assessments
- Trigger actions on approval such as sending SMS, adding additional assessments and creating invoices
- Show certain questions based on specific answers (branching logic)
- Show/edit patient data
- Upload/attach files and images to assessments
- Embed images into assessments
- Write data to clinical notes
- Choose locations, staff members or patients via pickers
- Use generic code lists
- Perform Medicare OPVs.

At present, Assessments can be linked to a patient.

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2 Assessments Screen

When first clicking Administration > Assessments, the Assessments screen displays the following information:

Field Name	Description
Name	Code of the assessment
Title	Title of the Assessment
Version	Version number of the assessment
Timestamp	Date assessment last updated
Actions Links	Links to actions • Edit • Destroy (only on unpublished forms) • Publish (only on unpublished forms) • Enable / Disable • Export • Copy • Archive – moves an assessment to the Archive View • Restore - moves an assessment to Current View.

2.1 Filter

Type a key word for the assessment you are looking for and click the apply button to filter for particular assessment/s.

2.2 Archived

Link to the list of archived assessments. Archived assessments can be restored to the current view.

2.3 New Assessment

To build a New Assessment

1. Select Administration
2. Select Assessments from menu
3. The Assessments screen will display.
4. Select New Assessment button
5. Fill in the fields below.

Field Name	Description	Example
Name	Code for the assessment	File1-Section2
Title	Title for the assessment	Initial Assessment
Version	Version of the assessment. Assessments are version controlled, whenever you create a new copy of an assessment, it's version number is incremented by 1.	1.0

Field Name	Description	Example
	In most cases start with version 1.0. Then the next version of the assessment will be 1.1, then 1.2, and so on.	
Type	Type of intelligent form	Assessment
Category	Categorise your assessments	Administration Clinical Admission Billing
Layout	Horizontal or Stacked	Horizontal
Description	Description of the assessment.	
Ongoing Assessment (check box)	If TRUE then when the assessment is performed, any changes made are locked down upon saving and those changes become read only. Recommended that this is left as FALSE. May suit a document completed over a number of days / weeks and information already entered is made read only i.e Monthly Bowel Charts	FALSE
In which views should this assessment be available? (Check boxes) (this can also be referred to Type of Assessment)	The Assessment will be linked to and available in these areas: • Patient - links to the current patient. *(The following options are displayed but not available in the current release of CareRight):* • Admission - links to the current admission (must be used with Patient ticked as well) • Location - links to current location • Provider - links to current provider • Care Plan (defunct - do not select). N.B. Admission Type Assessments must also have the Patient box checked, as they will link the assessment to a patient's current admission. It is not advisable to change the Type of Assessment after an assessment has been created. For example, if you need to make a Patient Assessment, also an Admission Assessment, then it is best to create a new assessment from scratch.	Initial Assessment: Patient Provider Time log: Provider Location Handover: Location Admission details: Patient, Admission
Workflow Support Workflow Controller		
Which trigger-able classes does this assessment support?	Select any Trigger Scripts to be run when the assessment is approved. These scripts allow actions to happen such as sending SMS, creating additional assessments or creating invoices. Writing of trigger scripts requires JavaScript skills and is not covered in this section.	

6. Select Create Assessment button
7. Once the form has been saved, click the Edit button to begin building your form.

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NB: If you wish to make changes to an existing form, use the Copy function and edit the copy.

2.4 Import

Alternatively, you can Import an existing assessment into CareRight. This assessment has to have been built in CareRight and exported.
The Import file is an XML file, with the extension ".FORM".

To Import an assessment:
1. Select Administration
2. Select Assessments from menu
3. Click Import
4. Click Browse > Select the .form file
5. Click Open
6. Click Import.

The Assessment will now appear in the Current view (Administration > Assessments).

3 Editing Assessments

Once the Assessment has been create you can select the Edit button to begin building your assessment:

1. Select Administration
2. Select Assessments from menu
3. Search for the assessment name you want to edit
4. Select the Edit button
5. This opens up the Assessment Builder window.

3.1 Assessment Builder Window

The Assessment Builder Window is split into the following sections:

Section	Description	Reference
Element toolbar	Each icon represents an element such as a text field, drop down list, calculation, etc.	A
Search Box	Allows searching of form element names - simply type in a term and the element will be highlighted in the Assessment Window (D). If they are in a group that is collapsed, it will expand. N.B. you only need to type into the box, there is no need to hit RETURN or ENTER on your keyboard.	B
Buttons	Expand All Preview Export Check Close * see next section for definitions	C
Assessment Window / Tree	Drag and drop elements from the Element Toolbar into the Assessment Window on the left. This is how the assessment is built.	D
Element details / Properties	By clicking on an element in the Assessment Window, its editable attributes are displayed in the window on the right.	E
Resize bar	The resize bar that separates sections D and allows you to resize the screen manually or by clicking the coloured sections: • Blue: Maximise Element details / Properties (E) • Red: Maximise Assessment Window / Tree (D) • Green: Split D and E 50% each	F

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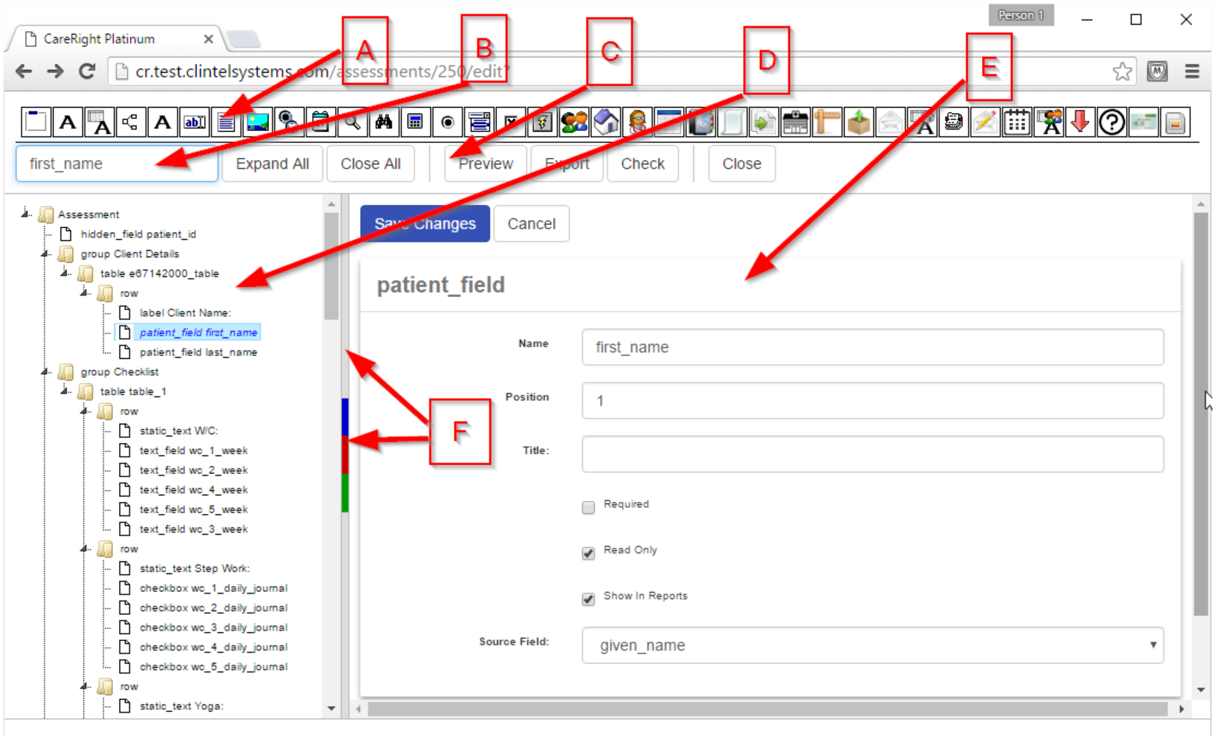


3.2 Buttons

Below is an explanation of what each button does on the main Assessment Builder Window:

Section	Description
Expand All	Expand all of elements in the left hand window
Close All	Close/collapse all elements in the left hand window
Preview	Preview your assessment. If you have a test patient selected, then any patient related fields will prefill with the patient's data. See next section for details (Assessment Details > Test Patient)
Export	Export your assessment in XML format for importing into another instance of CareRight
Check	Check your assessment for errors
Close	Close your assessment - takes you back to the Assessments page

3.3 Assessment Details

In the Assessment Window on the left, click on the top level item - Assessment.
This displays all of the Assessment details that you set up earlier, with 2 additional fields.
After making any changes, click Save Changes.

Field Name	Description	Example
Name	Code for the assessment	File1-Section2
Title	Title for the assessment	Initial Assessment
Version	Version of the assessment. Assessments are version controlled, whenever you create a new copy of an assessment, it's version number is incremented by 1. In most cases start with version 1.0. Then the next version of the assessment will be 1.1, then 1.2, and so on.	1.0
Type	Type of intelligent form	Assessment

Field Name	Description	Example
Category	Categorise your assessments	Administration Clinical Admission Billing
Layout	Horizontal or Stacked	Horizontal
Description	Description of the assessment.	
Ongoing Assessment (check box)	If TRUE then when the assessment is performed, any changes made are locked down upon saving and those changes become read only. Recommended that this is left as FALSE. May suit a document completed over a number of days / weeks and information already entered is made read only i.e Monthly Bowel Charts	FALSE
In which views should this assessment be available? (Check boxes) (this can also be referred to Type of Assessment)	The Assessment will be linked to and available in these areas: • Patient - links to the current patient. *(The following options are displayed but not available in the current release of CareRight):* • Admission - links to the current admission (must be used with Patient ticked as well) • Location - links to current location • Provider - links to current provider • Care Plan (defunct - do not select). N.B. Admission Type Assessments must also have the Patient box checked, as they will link the assessment to a patient's current admission. It is not advisable to change the Type of Assessment after an assessment has been created. For example, if you need to make a Patient Assessment, also an Admission Assessment, then it is best to create a new assessment from scratch.	Initial Assessment: Patient Provider Time log: Provider Location Handover: Location Admission details: Patient, Admission
Workflow Support Workflow Controller		
Which trigger-able classes does this assessment support?	Select any Trigger Scripts to be run when the assessment is approved. These scripts allow actions to happen such as sending SMS, creating additional assessments or creating invoices. Writing of trigger scripts requires JavaScript skills and is not covered in this section.	
Testing Test patient	Patient to use when you Preview the assessment. If you use Patient Fields then the patient's details will display upon Preview. Type the name of a patient to perform a search.	i.e Mr Clintel Test
Unique Identifier	This field is no longer in use.	

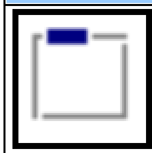
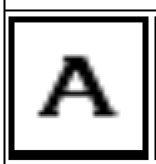
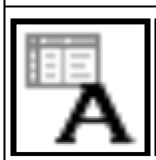
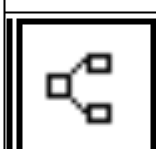
3.4 Drag and Drop Elements

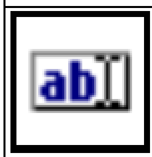
To Build your assessment:

- Drag and drop elements from the Elements Toolbar into the Assessment Window on the left of the screen
- Click each element to edit the attributes. The editable attributes will display to the right.
- Right click to copy or delete an element

3.5 Available Assessment Elements

The following elements are available to build assessments:

Element Name	Description	Element options / Comments / Examples
 **Group box**	Use a group box to place a set of logically related questions together	Position: order this appears in the assessment. Title: The title will display at the top of the group as a header. Panel Style: Choose from the following: • **Framed**: (Default) Render the group using "panel" styling with headers and borders. • **Plain**: Render with no header or borders. • **Information**: Render using "Panel" styling. Colour border and title light blue. Restrict width of panel to 500 pixels. • **Warning**: Render using "Panel" styling. Colour border and title yellow. Restrict width of panel to 500 pixels. • **Success**: Render using "Panel" styling. Colour border and title green. Restrict width of panel to 500 pixels. • **Error**: Render using "Panel" styling. Colour border and title red. Restrict width of panel to 500 pixels.
 **Static text**	The static text box displays text to the user, with a grey background. This is good for adding instructional text	
 **Dynamic text**	The dynamic text element allows the results of calculations to be displayed to the user. Any text placed between curly braces - { and } - is interpreted as a calculation result. See calculations for more details	Example: BMI = {BMI} Will display "BMI = {BMI VARIABLE}"
 **Show if**	The show_if element displays any elements it contains if it's condition property evaluates to true. This can be useful to show or hide sections of an assessment based on answers to questions in the assessment.	**Add a Condition** Drag and drop the "show if" button onto the assessment definition Click on the heading and the condition builder will display on the right hand side.

Element Name	Description	Element options / Comments / Examples
		Select the question to which the condition will apply Two further fields display – most commonly you will choose “equals” in the next field and type in Yes in the last field. Then you need to drag and drop what you want to display into the show if box. e.g. a Text field or static text element
 **Label**	Displays a simple piece of text in the assessment. This is useful for a simple description of an element and as column headers in tables.	
 **Text field**	The text field element can contain small amounts of free text. It can be restricted in what types of values it may contain using the **assessment** property.	**Name:** name given to the field by user **Position:** position number in the list of elements **Title:** Enter the field title to be displayed **Display format**: This allows you to control the number of decimal places a field displays. For 2 decimal places use the following code: *%0.2f* **Size:** enter the number of characters for the field to accept **Required:** Yes makes the field mandatory for user to complete before approving the assessment. **Read Only:** Yes – that you don’t wish the user to alter. **Show in reports:** Yes – the default option – change to No if the item is not required for reports.

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<table>
<tr><th>Element Name</th><th>Description</th><th>Element options / Comments / Examples</th></tr>
<tr><td></td><td></td><td>Format: – It can be restricted in what types of values it may contain using the format property.
<table><tr><th>Option</th><th>Meaning</th></tr><tr><td>any</td><td>Any type of data may be entered into the field</td></tr><tr><td>integer</td><td>Only whole numbers may be entered</td></tr><tr><td>number</td><td>Any number may be entered</td></tr></table>
On change: allows advanced users to add code</td></tr>
<tr><td> Text area</td><td>The text_area element is used to enter large amounts of free text into an assessment. This is useful for things such as comments and notes.</td><td>Name: name given to the field by user

Position: position number in the list of elements

Title: Enter the field title to be displayed

Columns: enter the number of columns for the field to accept – this adjusts the width of the text area

Rows: enter the number of rows for the field to accept – this adjusts the depth of the text area

Required: Yes - makes the field mandatory for user to complete before approving an assessment.

Read Only: Yes – indicates that you don’t wish the user to alter this field.</td></tr>
</table>

Element Name	Description	Element options / Comments / Examples
		Show in reports: Yes – the default option – change to No if the item is not required for reports. **On change:** allows advanced users to add code
 **Image**	The image element allows an image to be embedded into an assessment. The image can either be referenced via an URL or uploaded directly into the system. Unless you control the server where the images are stored it is not recommended to use the URL property.	
 **Yes no**	The yes_no element displays a pair of radio buttons pre-configured to answer "Yes or No" type questions.	**Name:** name given to the field by user **Position:** position number in the list of elements **Description:** Enter the question required for yes/no **Required:** Yes - makes the field mandatory for user to complete before approving an assessment. **Read Only:** Yes – indicates that you don't wish the user to alter this field. **Show in reports:** Yes – the default option – change to No if the item is not required for reports. **On change:** allows advanced users to add code

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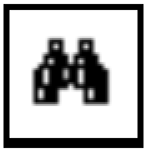
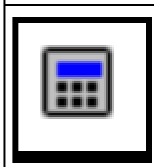
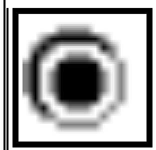
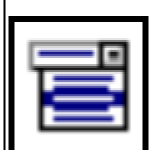
Element Name	Description	Element options / Comments / Examples
 **Date picker**	The date_picker element allows a date and time to be embedded into an assessment.	**Name:** name given to the field by user **Position:** position number in the list of elements **Title:** Enter the field title to be displayed **Size:** enter a number for preferred size – around 15 is minimum size to display full date **Required:** Yes - makes the field mandatory for user to complete before approving an assessment. **Read Only:** Yes – indicates that you don't wish the user to alter this field. **Show in reports:** Yes – the default option – change to No if the item is not required for reports. **On change:** allows advanced users to add code
 **Hidden field**	Hidden fields can contain data that you want to attach to an assessment that you do not necessarily want the users of the assessment to have access to directly. The hidden field element also assessments the basis of linking an assessment to a patient. If you have a field called **patient_id** it will be linked to the current patient when the assessment is initiated.	**Size:** n/a **Show in reports:** Yes – the default option – change to No if the item is not required for reports. **format** • Any • Number • Integer • Date • Time • Timestamp

Element Name	Description	Element options / Comments / Examples
	NB: All assessments for use in the patient *record should have the hidden field patient_id*	
 **Generic code**	The Generic Code button allows for the selection of items from any of the existing Generic Codes. These are the drop down lists that appear through CareRight. You can create your own Generic Codes tables for use in assessments.	**Name:** name given to the field by user **Position:** position number in the list of elements **Title:** Enter the field title to be displayed **Table**: table name in Generic Codes **Required:** Yes - makes the field mandatory for user to complete before approving an assessment. **Read Only:** Yes – indicates that you don't wish the user to alter this field. **Show in reports:** Yes – the default option – change to No if the item is not required for reports. **On change:** allows advanced users to add code
 **Calculation**	The assessment system allows calculations to be performed based on the answers to the questions contained in the assessment. Calculations do not display the value, you may use a Dynamic Text field to display the data.	See Performing Calculations for an example.

Element Name	Description	Element options / Comments / Examples
 **Radio Group**	The radio group element displays a set of mutually exclusive options and allows the user to choose **only one** of them. Each option can have a value applied if required which can then be used to calculate results.	**Name:** name given to the field by user **Position:** position number in the list of elements **Title:** Enter the field title to be displayed **Required:** Yes - makes the field mandatory for user to complete before approving an assessment. **Read Only:** Yes – indicates that you don't wish the user to alter this field. **Show in reports:** Yes – the default option – change to No if the item is not required for reports. **On change:** allows advanced users to add code
 **Select**	The select element enables the setup of a list of mutually exclusive options and allows the user to choose one of them.	**Name:** name given to the field by user **Position:** position number in the list of elements **Title:** Enter the field title to be displayed **Required:** Yes - makes the field mandatory for user to complete before approving an assessment. **Read Only:** Yes – indicates that you don't wish the user to alter this field. **Show in reports:** Yes – the default option – change to No if

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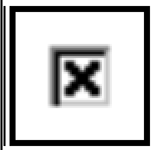
Element Name	Description	Element options / Comments / Examples
		the item is not required for reports. **On change:** allows advanced users to add code
 **Check Box**	The check_box element allows presents the user with a “Tick the box” on the assessment. Check box lists allow multiple selections. You need to add a new check box item for every check box required They are either *true* or *false*	**Name:** name given to the field by user **Position:** position number in the list of elements **Description:** Enter the field title to be displayed **Required:** Yes - makes the field mandatory for user to complete before approving an assessment. **Read Only:** Yes – indicates that you don’t wish the user to alter this field. **Show in reports:** Yes – the default option – change to No if the item is not required for reports. **On change:** allows advanced users to add code
 **Suggest**	The suggest element allows the results of an assessment to be used to suggest new assessments. A condition must be set which triggers the system to add the required assessment(s). This will fire on approval. The resulting assessment appears under the “suggested” tab.	**Condition**: Set the condition for which the Assessment **Assessment**: enter the code of the suggested assessment (latest version is used). Use commas to add multiple assessments OR **Plan item**: *no longer used.* **Extra care plan text**: *no longer used.*

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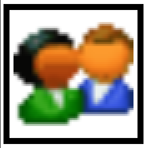
Element Name	Description	Element options / Comments / Examples
 **Patient Picker**	Insertion of this item enables the user to select any patient in the database to display on the assessment. It uses the same search functions as elsewhere in the application.	**Name:** name given to the field by user **Position:** position number in the list of elements **Title:** Enter the field title to be displayed **Required:** Yes - makes the field mandatory for user to complete before approving an assessment. **Read Only:** Yes – indicates that you don't wish the user to alter this field. **Show in reports:** Yes – the default option – change to No if the item is not required for reports. **On change:** allows advanced users to add code
 **Location Picker**	Inserting this item enables the user to select any location within the organisation to add to an assessment. The search feature works the same as elsewhere in the application.	**Name:** name given to the field by user **Position:** position number in the list of elements **Title:** Enter the field title to be displayed **Required:** Yes - makes the field mandatory for user to complete before approving an assessment. **Read Only:** Yes – indicates that you don't wish the user to alter this field. **Show in reports:** Yes – the default option – change to No if

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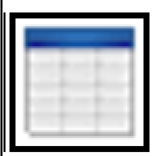
Element Name	Description	Element options / Comments / Examples
		the item is not required for reports. **On change:** allows advanced users to add code
 **Staff Picker**	Adding this item to an assessment enables the user to select a staff member of provider from the system e.g. Doctor. The search function works the same as elsewhere in the application.	**Name:** name given to the field by user **Position:** position number in the list of elements **Title:** Enter the field title to be displayed **Required:** Yes - makes the field mandatory for user to complete before approving an assessment. **Read Only:** Yes – indicates that you don't wish the user to alter this field. **Show in reports:** Yes – the default option – change to No if the item is not required for reports. **On change:** allows advanced users to add code
 **Table Layout**	Tables provide the ability to display fields horizontally across the screen but care needs to be taken that too many fields are not placed across the page causing spill over off the screen. Groups are used to represent a row in a table. Show if elements can also be used as a row in a table. Consideration needs to be given to any "show if" elements that may also be part of the row. In general for average size fields, 3 - 4 columns is the maximum that will reasonably fit on an average screen.	An example of how to lay out a table is found in the next section - Tables

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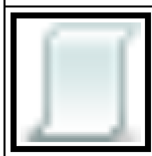
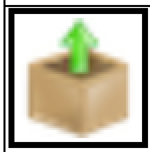
Element Name	Description	Element options / Comments / Examples
	If questions or field headings are particularly long, reduce the number of columns accordingly. WARNING: Tables are not recommended if you are building assessments for mobile devices and tablets as they will cause layout issues.	
 **Journal Log**	The Journal log enables you to specify what assessment details are included in the Clinical Notes entry. It operates in similar fashion to the Dynamic text fields.	Example: Comments: {comments} This would add the text "Comments: " plus the contents of the field *comments*, as a progress notes entry upon approval.
 **Trigger Script (button)**	This element allows you to add a button into the form that fires a Trigger Script. **Important information** When creating the associated trigger script, the following needs to be set for it to be available as a trigger script button: • The Trigger Script needs to be included under the assessment details > trigger-able classes In the Trigger Script Class Setup: • Trigger Class > Type = Assessment • Trigger Script > Trigger = Manual Script • Trigger Script > State = User Initiated This is an advanced field and will require Clintel 's involvement to implement Trigger Scripts.	**Name:** element name, must be unique within this form. **Position:** Position in the group of elements - 0 will appear first, 1 will appear second, etc **Button Caption:** the title that appears on the button **Trigger Action:** Set to manual for the user to initiate the script via clicking the button. **Script:** Choose the script that the button will fire. The criteria in "Important information" needs to be met for the trigger script to be selectable here.
 **Import data**	The import_data element allows data entered on previous assessments to be copied into the current assessment. The values will be copied from the most recently approved instance of the chosen assessment.	The **Assessment code** field contains the **assessment name** to copy values from and optionally the **Assessment version field** contains the minimum assessment version. If the Assessment version field is not specified then the latest approved assessment will be used. Each field to be imported must be defined here with the name of the

Element Name	Description	Element options / Comments / Examples
		Source field and the **Destination field** (NB: They can have the same name) The destination field should be the same element type as the source field e.g. if source is Yes/No then the destination should be Yes/No
 **File upload**	The file upload button enables the user to upload any file type to an assessment e.g. PDF, word, zip, etc	**Name:** element name, must be unique within this form. **Position:** Position in the group of elements - 0 will appear first, 1 will appear second, etc **Title:** Title appears above the Browse button **Show Preview:** show a thumbnail preview of the file **Show in Reports:** this field will appear in report if yes
 **Correspondence**	Allows generation of correspondence (SMS and Letters) in the form however this element needs to be used in conjunction with trigger scripts (it cannot be used alone). This will require input from Clintel so please contact us if you wish to use this element.	
 **Address Field**	Allows you to add a field to the form which updates the patient's address in CareRight. The following source fields are available: • Address1 • Address2 • Suburb • Postcode • Phone • Fax • Email • Mobile • longitude • Latitude • State • Country Code • Clinical SMS Consent • Clinical Email Consent • Marketing SMS Consent • Marketing Email Consent These source fields will be linked to one of the different types of address	**Name:** element name, must be unique within this form. **Position:** Position in the group of elements - 0 will appear first, 1 will appear second, etc **Title:** Title appears on the left of the element **Show Preview:** show a thumbnail preview of the file **Show in Reports:** this field will appear in report if yes **Source Field**: The field you wish to include in the form e.g. Address1 **Address Type**: The Address Type the source field is nested under. e.g. Home Address **Use of this element:** When this element is used in a form, changes to the address field are only saved to the patient's address record when the form is approved. If the user saves and continues, the next time they open the form up again the changes will be lost and the value from the real time value

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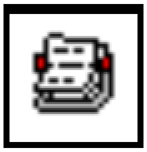
Element Name	Description	Element options / Comments / Examples
	in CareRight (set by your system administrator) - examples are: • Home • Postal • Work	from address record will be displayed.
 **Patient Detail**	Inserting this item allows the user to automate insertion of patient details into the form including:- • Address - read only view - superseded by Address Field element • Alerts • Allergies • Notices Insertion of any of these items provide access to the active grids so items can be added to the client record via the assessment in real time. Once an assessment has been Approved, these items become read only in the assessment, ensuring they correctly reflect the client's status at the date and time of the assessment.	**Name:** Element name, must be unique within this form. **Position:** Position in the group of elements - 0 will appear first, 1 will appear second, etc **Title:** Title appears above the grid - this can usually be left blank as the grids have titles already. **Patient Detail**: type of detail to add e.g. Alerts.
 **Consent**	This is used in conjunction with the Correspondence element and show if the patient has consented to SMS or Email correspondence. This will require input from Clintel so please contact us if you wish to use this element.	**Name:** Element name, must be unique within this form. **Position:** Position in the group of elements - 0 will appear first, 1 will appear second, etc **Title:** Title appears next to the consent result. **Consent available message:** text that displays if the patient has given the appropriate consent **Consent not available message:** text that displays if the patient has **not** given the appropriate consent **Consent Type**: Select from: • Clinical SMS • Clinical Email • Marketing SMS • Marketing Email **Patient ID field**: Select the correct Patient_ID field from your form.

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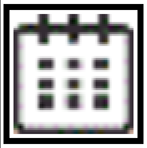
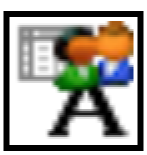
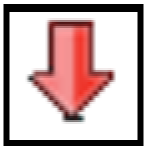
Element Name	Description	Element options / Comments / Examples
 **Appointment Picker**	This element links an appointment to the form via a drop down box that appears in the form. If the appointment selected in the form is a "Reservation" (a reservation is a reserved appointment slot that is not yet linked to a patient) then upon Approval of the form, the reservation is converted into an appointment for the patient. As a result, this element should only be used in Patient Forms. **Please Note - Hidden Field required:** This element requires a hidden field to represent the appointment id. If you are using multiple Appointment Pickers then you will need multiple hidden fields to represent each appointment id. **Using a Single Appointment Picker:** Hidden field element example name: • appointment_id **Multiple appointment Pickers**: Hidden field element example names: • appointment_1_id • appointment_2_id • appointment_3_id	**Name:** Element name, must be unique within this form. **Position:** Position in the group of elements - 0 will appear first, 1 will appear second, etc **Title:** Title appears next to the field. **Appointment ID Field:** Select the hidden field that represents the appointment_id in your form
 **Patient Field**	Inserting this item allows the user to automate insertion of patient details including: • MRN • Given Name • Family Name • DOB • Gender • Mobile Phone (from Summary > Contact Details section) • Work Phone (from Summary > Contact Details section) • Plus many more These fields all appear on the patient summary screen. You can also include custom fields.	**Name**: name given to the field by user **Position**: position number in the list of elements **Title**: Enter the field title to be displayed **Required:** Field is mandatory and form cannot be approved without it being filled in **Read Only**: Field is read only **Show in reports**: Yes – the default option – change to No if the field is not required for reports. **Source Field**: select which Patient field this element uses to e.g. MRN

Element Name	Description	Element options / Comments / Examples
 **Prerequisite**	The prerequisite element allows the creation of an assessment instance to be dependent on another assessment being performed. TIP: If more than one pre-requisite assessment required modify custom message to prompt user about BOTH assessments. The default warning message will only warn for the first pre-requisite.	The Assessment code field contains the assessment name required and optionally the Assessment version field contains the minimum assessment version. If the Assessment version field is not specified then any approved assessment will be used. The Message field contains an optional message to be displayed if the required assessment is not found.
 **Lookup Picker**	This element displays a drop down box with values populated from a lookup table. This will require input from Clintel so please contact us if you wish to use this element.	**Name:** Element name, must be unique within this form. **Position:** Position in the group of elements - 0 will appear first, 1 will appear second, etc **Title:** Title appears next to the field. **Lookup Field:** *contact Clintel* **Lookup Table**: *contact Clintel* **Lookup Key**: *contact Clintel*
 **Medicare OPV (button)**	The Medicare OPV button allows you to perform an Online Patient Verification (OPV) on the patient from within a form. The OPV checked to see if the patient's medicare details are correct. After performing an OPV request any updates from Medicare can be applied to the form data. This element must be used in conjunction with the following Patient Field elements that reference: • Given_name • Family_name • Date_of_birth • Medicare_Number • Medicare_IRN and optionally • medication_concession_entitlement After performing an OPV or CEV request any updates from Medicare	**Name:** Element name, must be unique within this form. **Position:** Position in the group of elements - 0 will appear first, 1 will appear second, etc **Button Text:** text that displays on the OPV button in the form.

Element Name	Description	Element options / Comments / Examples
	can be applied to the assessment data.	
 Image Upload	The image upload button enables the user to upload a jpg image to an assessment e.g an image of a wound	
File upload	The file upload button enables the user to upload any file type to an assessment e.g. PDF, word, zip, etc	

3.6 Warning - using Required Fields

You have the ability to make a field "Required" (Mandatory).
For an assessment to be approved, all Required fields must be filled in. As a result, it is important to **never nest a 'Required field' inside a 'Show If' block**.

A 'Show if' block traditionally only displays values or fields if certain selection is made from a list. If a required field is within a 'Show If' Block and the 'Show if' Block is not displayed on the screen, then the form will not approve and you will not see any error message to say it hasn't approved.

3.7 HTML formatting

You can use a limited number of HTML tags to format some text based description fields. The tabs need to surround the text that you wish to format.

Name	Tag	Description	Example Use
Headings	h1, h2, h3, h4	Formats text into a larger heading font/size	This is a level 1 heading
Bold	b	Formats the text bold	bold text
Italic	i	Formats the text italic	<i>italic text</i>
Underlined	u	Formats the text underlined	<u>underlined text</u>
New line	br	Adds a new line in the paragraph.	Line 1. Line 2. Line3.

3.8 Building Tables

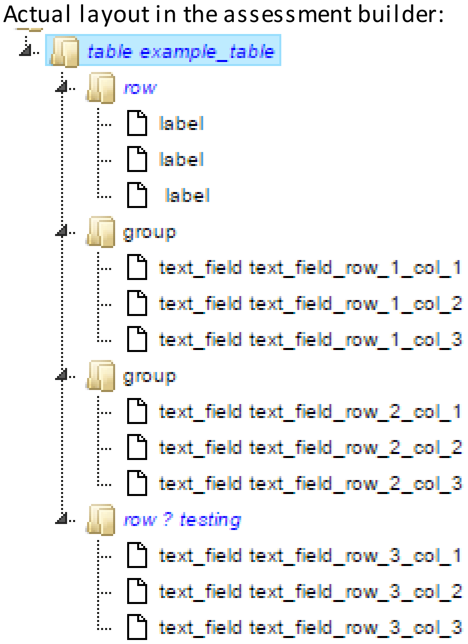
Below is an example of how to lay out a table which is 3 columns wide, and 4 columns high, included a show if which displays as a row if the condition is met.

To build a table, you use Groups or Show Ifs as rows.
Each element added to the group or show if will display in the column in that row.

Elements used to build a table (pseudo code):

```
<table>
    <Group>         <<<< HEADER ROW
          <Label>   <<< Column 1 in Header 1
          <Label>   <<< Column 2 in Header 1
          <Label>   <<< Column 3 in Header 1
    <Group>         <<<<  ROW 1
          <text_field>     <<< Column 1 in ROW 1
          <text_field>     <<< Column 2 in ROW 1
          <text_field>     <<< Column 3 in ROW 1
    <Group>          <<<<  ROW 2
          <text_field>
          <text_field>
          <text_field>
    <show_if>        <<<<  ROW 3
          <text_field>
          <text_field>
          <text_field>
```

Actual layout in the assessment builder:



Resulting table:

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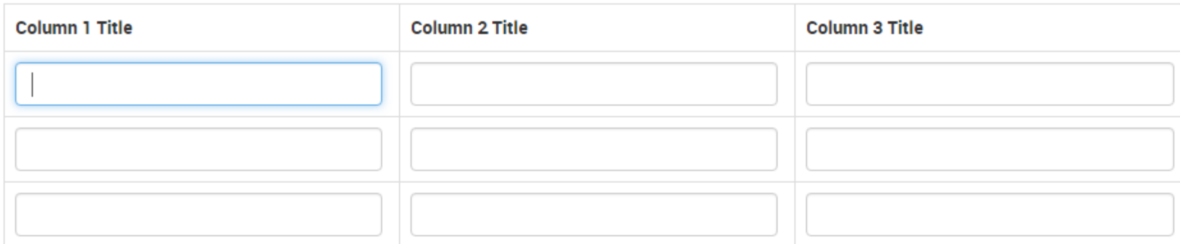

3.8.1 Using Show If to hide table data

You can use a Show If element within a table to:

- Hide an entire row if a condition is not met - How: Use the show if as a Row instead of a Group element
- Hide a cell (element) if a condition is not met - How: place the element in a show if
- Hide an entire column - How: place the element in a show if for all individual cells that appear in that column

3.9 Performing Calculations

The assessment builder is capable of performing complex calculations. This can be use to calculate scores or to alter the visible questions all based on answers to the questions posed in the assessment. The calculations that can be performed are similar to those that are possible in a spreadsheet, but have been simplified for clarity.

Each element in an assessment has a name. A calculation can use the values entered by the user into those fields by referencing the name. The following operations can be performed in a calculation.

Operator	Meaning
+	Addition
-	Subtraction
*	Multiplication
/	Division

Calculations may also contain parenthesis to alter the order in which the expression is evaluated.
For example:

(field1+field2)*27

The calculation system can also be used to make decisions. These are done using comparison operators.

Operator	Meaning
=	Equal to
<>	Does not equal
<	Less than
<=	Less than or equal to
>	Greater than
>=	Greater than or equal to

and	both conditions are true For example: gender='M' and age > 50
or	either condition is true For example: gender='M' or (age < 50 and age > 90)

Simple numeric calculations can be performed using the basic arithmetic operators above, however sometimes they are not enough. That is why the system also includes a set of built in functions that augment the abilities of the calculation system. These functions are as follows

Function	Description
if	Returns one of two values depending on the value of the first. Example: if(field1=10, 'it was ten', 'not ten')
number	Converts the value of a given field into a number regardless of weather it is defined to contain numbers. If the field does not contain a valid number it returns 0
decode	Decode can be used transform one value into another. For example: decode(field1, 'a', 1, 'b', 2, 'c', 3) This will transform the value of field1 such that if it contains an ‘a’ it should be interpreted as 1, ‘b’ as 2 and ‘c’ becomes 3
fixed	Formats a numeric result with the specified number of decimal places For example: Fixed(field1, 2)
code	Returns the generic code value for the specified table and code For example: code('Application', 'Patient') will return the system defined term for a patient
hasvalue	Returns true if the specified field has a value
not	Inverts the value of passed expression For example: not(gender='M') will return true for any value of gender other than ‘M’

Contact Clintel for details on usage of the following functions:

case hour

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contains	lower
datediff	minute
day	month
dayname	monthname
dayofweek	not
dayord	now
disable	pow
enable	set
endswith	startswith
error	string
errorif	upper
formatdate	year

3.9.1 Using radio box values for calculations

If you are using Radio Boxes for a questionnaire and wish to calculate a score from the values, you need to use the NUMBER() function to change the value from a TEXT STRING to a NUMBER.
Your calculation code will look something like this:

number(radio_field_1)+number(radio_field_2)

3.9.2 BMI Calculation

This walks you through performing a calculation for Body Mas Index (BMI).
The standard BMI calculation is as follows:

(weight / (height x height))

Where *weight* is in **Kilograms** and *height* is in **Metres.**

To represent this in an assessment, you can use the following elements:

Name	Element Type	Title	Format	Code	Comments
weight	Text_field	Weight (Kgs)	Numeric		
height	Text_field	Height (Metres)	Numeric		
bmi_calculation	Calculation	n/a	Numeric	See below	
bmi_display	Dynamic_text	n/a	n/a	See below	

bmi_calculation field

For whole number results: e.g. 25 use the following code:

*fixed(weight / (height * height), **0**)*

For a specific number of decimal places – replace the "0" with the number: e.g. 25.45 use the following code:

*fixed(weight / (height * height) , **2**)*

***The fixed* function formats the string to a certain number of decimal places.**

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bmi_display field

Use the following text within the dynamic field to display the BMI:

BMI ={bmi_calculation}

3.10 Creating an Assessment on Approval

Although Trigger Scripting (Workflow Engine) is not covered here, below is some sample to code which creates an assessment on approval of the assessment that references this script.
Example: Upon approval of Assessment *Assessment001*, you want to create Assessment *Assessment002*.

Step 1: Create the Trigger Script

Trigger Class Details

Type: Assessment
Name: Create Assessment002 on Approval
Version: 1.0

Trigger Script

Trigger: After Approval
State: User Initiated
Name: Create Assessment
Version: 1.0
Order: 10
Code:

===
CODE
===

```
assessment.current_assessment.patient.add_assessment('[Assessment_Title]', undefined, {performed_by_user: current_user});
```

===
END OF CODE
===

Some example code is also below:

===
EXAMPLE CODE
===

```
assessment.current_assessment.patient.add_assessment('Assessment002', undefined, {performed_by_user: current_user});
```

===
END OF EXAMPLE CODE
===

Step 2: Reference the Trigger Script in the Assessment

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When creating an assessment that requires another assessment to be created after it is approved, make sure under

Which trigger-able classes does this assessment support?
The trigger script you just created is ticked.

E.g. *Assessment001* will have trigger-able class ***Create Assessment002 on Approval*** ticked under its Assessment Details.

See New Assessment for details on creating a new assessment.

3.11 Sending an SMS via Assessments

Although Trigger Scripting (Workflow Engine) is not covered here, below is some sample to code which send an SMS to the patient on approval of the assessment that references this script.

Step 1: Create the Trigger Script

Trigger Class Details

Type: Assessment
Name: Send SMS on Approval
Version: 1.0

Trigger Script

Trigger: After Approval
State: User Initiated
Name: Send SMS
Version: 1.0
Order: 20
Code:

```
=====================================================
 CODE
=====================================================

var now = new Date;
var location = '[LOCATION_CODE]';
var msg_template = '[MESSAGE_TYPE_CODE]';
var patient = assessment.current_assessment.patient;

patient.send_sms(location, msg_template, now);

=====================================================
 END OF CODE
=====================================================
```

N.B.
The Message Template must be a configured Patient SMS template.
The location uses the location's code.

```
=====================================================
 EXAMPLE CODE
=====================================================

var now = new Date;
```

```
var location = 'Clintel Clinic';
var msg_template = 'PATIENT_WELCOME';
var patient = assessment.current_assessment.patient;

patient.send_sms(location, msg_template, now);
```

===
END OF EXAMPLE CODE
===

Step 2: Reference the Trigger Script in the Assessment

When creating an assessment that sends an SMS after it is approved, make sure under

Which trigger-able classes does this assessment support?

The trigger script you just created is ticked.

See New Assessment for details on creating a new assessment.

4 Enabling an Assessment

For an Assessment to be active it needs to be Published and Enabled:

1. Select Administration
2. Select Assessments from menu
3. All created Assessments will display
4. Search for the name of the assessment you wish to make Active
5. Select the Publish button
6. Then select the Enable button

The Assessment will then be available for use in CareRight.

Note: You should only ever have one version of an assessment active at any time.

See the next section if you are amending an existing version of an assessment and the correct process to follow.

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5 Updating an existing assessment

To update an existing assessment, you need to create a copy of it and work on that copy. The version number will be incremented automatically when you create a copy.

1. Select Administration
2. Select Assessments from menu
3. Search for the name of the assessment
4. Select the Copy button to create a new version of the assessment
5. Edit the new version, making the required changes
6. Whilst editing, use Check and Preview buttons in the edit window to ensure the form changes look OK and don’t cause any errors
7. When you have finished editing the new version of the assessment, don't forget to enable it:
    1. Select Assessments
    2. Locate the new version of the assessment that you have just finished editing
    3. Click Publish
    4. Then click Enable
    5. Follow the steps in the next section to ensure no previous versions of the assessment are active.

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6 Archiving old versions of an assessment

We would advise disabling and archiving all existing versions of a assessment immediately after publishing and enabling an updated version:

1. Select Administration
2. Select Assessments from menu
1. Search for the name of the assessment
2. All old versions of the assessment need to be disabled and archived:
   a. Click Disable
   b. Click Archive

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7 Design Parameters

This section is designed to provide a set of standards for building assessments to ensure consistency and provide guidelines.

Reference

Australian National Audit Office (2006), User Friendly Forms Key principles and practices to effectively design and communicate Australian Government forms.
Department of Innovation, Industry, Science and Research (2007), Form Design Standards

Browser Version

Due to minor differences in display between IE, Chrome and Mozilla – forms created should be TESTED in the browser that will be used..

7.1 Printing

Assessments include the following values on each page in the header:

- Patient details, including Medical Record Number, Surname, First name, Middle name, DOB, Location.
- Assessment title, date and time performed and by who, date and time approved and by who (includes name, title).
- Date and time printed and who printed.

These details do not need to be included as part of the assessment as they are automated.
However, if you want Patient details included in any assessment reports, you need to add them as a Patient Field in the assessment.

7.2 Considerations & Guidelines

Assessments Considerations:

All assessments need to be considered in regards to:
- layout for data entry.
- layout on screen when retrieved.
- layout when printed.
- Abbreviations should be limited to only those in common use it there is any doubt then abbreviations should not be used.
- When asking for dates as part of the assessment consider providing an estimated flag or selecting a year only. Examples include operations, dates of treatments, dates commenced medications.
- The display of numbers should be consistent.
- Temperature, BSL to one decimal point i.e. 37.1
- Pulse, BP, Peak Flow, to a whole number i.e. 88, 120/80
- Others i.e. number of children, number of admissions to be a whole number i.e. 2

General Assessments Guidelines:

- Clear response areas
- Use of colour/grey scaling
- Linear completion
- Clear purpose for the assessment
- Clear who should complete the assessment i.e. RN, Doctor.
- Any prerequisites clear upfront i.e. to complete the form you need X
- Are there adequate instructions is it clear were to get help

- Sufficient space for written responses
- Does the assessment check logic of responses
- Are unnecessary questions skipped based on answers
- Is the user prompted to enter required data
- Is data entered into expanded fields displayed in the print out.
- Option to save and continue later
- On long assessments is it clear where the user is up to and how many questions are left
- Are their appropriate section headings
- Can users provide feedback on the assessment
- Is a privacy statement required
- Are alternative browsers supported
- Can the assessment be used by users without a mouse (+/- requirement)
- Assessment title reveals the purpose
- Avoids the use of obscure terms or acronyms
- Contextual information related to the question if needed.
- If the assessment is long or multi use should it be made into separate forms.
- Simple everyday language
- Are there few words per sentence
- Does the form use words that mirror the users language
- Most questions have pick lists of answers
- The assessment completes calculations if required
- The assessment is self instructing
- Elements like question and answer boxes are placed consistently
- Avoids small print, decorative fonts, italics, extensive capitalisation of text, long line lengths, close line spacing or poor colour/shading contrast
- Follows left to right and top to bottom sequence
- Are the common questions up front and those that only relate to some further down the form
- Does the form display for those with visual impairments/large print
- Has there been client feedback
- Does the assessment address operational as well as policy requirements

The assessment should NOT:
- Have lots of options
- Asks to recall information from the distant past

7.3 Formatting

Layout

Assessment elements are contained in Groups which provide a boxed outline similar to a text box in Word.

1. Each form should have minimum of one group
2. Use a group where a section or group of questions is defined on a paper form
3. Each group has a Title

Text

Forms have a consistent default text in both edit and view mode – it is recommended not use html to change this.

Text fields

Use where only limited text required
- Small – default entry
- Medium – 100 (characters)

- Large – 180 (no wider)

Text areas

- Standard width – No wider than 150 columns
- Standard depth
- Average text area – Default of no entry is suitable
- Large text area – 5 rows
- Extra large – 10 rows.

Note: Text area's wrap text and add scroll bars in edit mode and display all entered text in View mode.

7.4 Data Elements

"Show if "warnings or other instructional text

A consistent approach to user prompts or warnings is required.
All warnings should be a static text element but text not bold.

Select lists

- The Select list element creates drop down lists.
- All select lists should have a blank first item so there is NOT a default selection when the assessment is created.

Assessments with calculations

All questions that result in a calculation should be mandatory.

Date Picker

Minimum size to allow for long month e.g. September is 16.
Default size – no entry in Size field.