



BSIS V1.2.0 Components & Labelling: *Release Notes*

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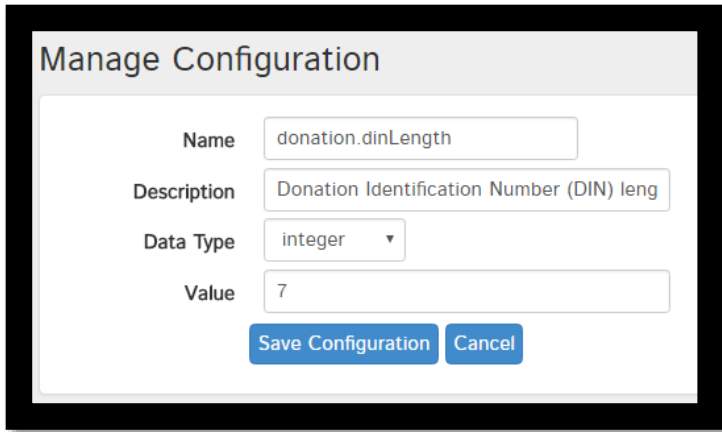
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New Features

1. Settings

1.1. DIN length configuration

A new setting has been added to the General Configurations whereby the administrator can configure the length of DINS used at the blood service. The maximum DIN length is 20 characters and is specified according to DINS in use at the blood services.



The screenshot shows a 'Manage Configuration' window with the following fields:

Name	donation.dinLength
Description	Donation Identification Number (DIN) leng
Data Type	integer
Value	7

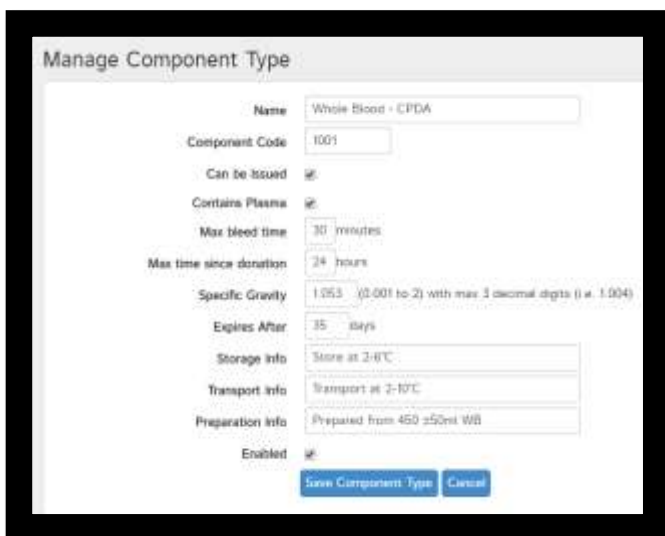
Buttons: Save Configuration, Cancel

1.2. Set maximum bleed times and maximum processing times for component types

When logged in as administrator the user can specify the minimum and maximum bleed times in minutes (0-60 minutes) and the maximum time elapsed since collection in hours (0-30 hours) for each component type. These values will be used when validating the processing of components. If the duration of either the bleed time and/or the time elapsed since collection exceeds the specified maximum then those components will be automatically marked as UNSAFE.

1.3. Set specific gravity of component type

As an administrator, the user is able to set the specific gravity settings of a component type up to 3 decimal digits in order for the volume of the pack to be calculated and printed on the pack label. The input range limits are: min: 0.001 and max: 2.000.



The screenshot shows a 'Manage Component Type' window with the following fields:

Name	Whole Blood - CPDA
Component Code	1001
Can be issued	<input checked="" type="checkbox"/>
Contains Plasma	<input checked="" type="checkbox"/>
Max bleed time	30 minutes
Max time since donation	24 hours
Specific Gravity	1.053 (0.001 to 2) with max 3 decimal digits (i.e. 1.004)
Expires After	35 days
Storage Info	Store at 2-6°C
Transport Info	Transport at 2-10°C
Preparation Info	Prepared from 450 ±50ml WB
Enabled	<input checked="" type="checkbox"/>

Buttons: Save Component Type, Cancel

2. Donations

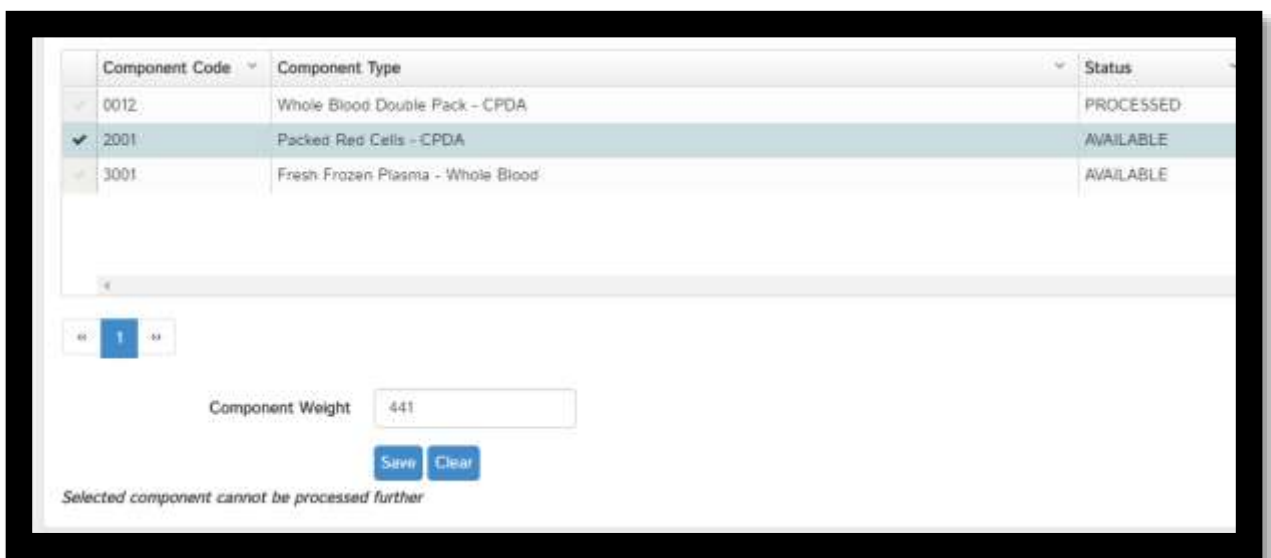
2.1. Donor Search: “Include similar results” checked by default

In order to maximise the search results when searching for a donor, the “include similar results” checkbox is selected by default in order bring back donors that partly match so that duplicates aren’t unnecessarily created.

3. Components

3.1. Record weights of processed components

When processing components, once the parent component has been processed, the child components may have their own individual weight recorded. The child component may never weigh more than the parent component. If the sum of the child components weights is equal to or more than the weight of the parent component then the system will display a warning but will allow the weight to be captured.



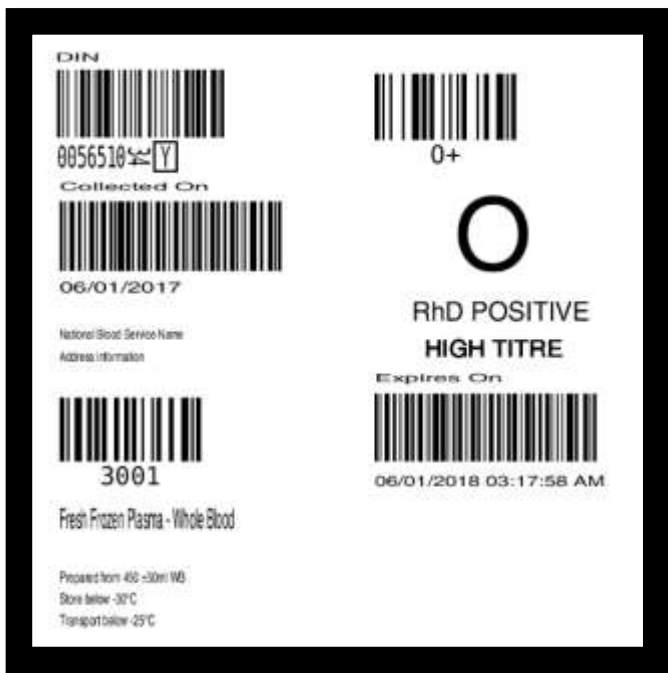
The screenshot displays a web application interface. At the top, there is a table with three columns: 'Component Code', 'Component Type', and 'Status'. The table contains three rows:

Component Code	Component Type	Status
0012	Whole Blood Double Pack - CPDA	PROCESSED
2001	Packed Red Cells - CPDA	AVAILABLE
3001	Fresh Frozen Plasma - Whole Blood	AVAILABLE

Below the table, there is a pagination control showing '1' of 1 pages. Underneath, there is a form with a label 'Component Weight' and a text input field containing the value '441'. To the right of the input field are two buttons: 'Save' and 'Clear'. At the bottom of the form, there is a message: 'Selected component cannot be processed further'.

3.2. Print HIGH TITRE on pack label for O blood groups

When printing a label for a Type O blood pack that has a HIGH test outcome for Titre, any components that contain plasma will have the additional information of “HIGH TITRE” printed on the pack labels. If the test outcome for TITRE is LOW or NT (Not Tested) then the information will not be printed on the pack label.

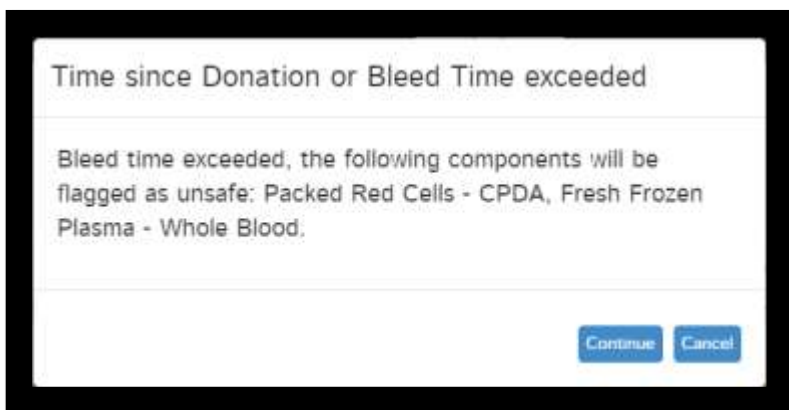


3.3. Bleed time validation when processing components

New functionality has been added whereby when recording components, the component staff must check and record the bleed times for the donation and the system will display warnings if the bleed times are outside the acceptable range for processing of specific component types. Two bleed times are validated:

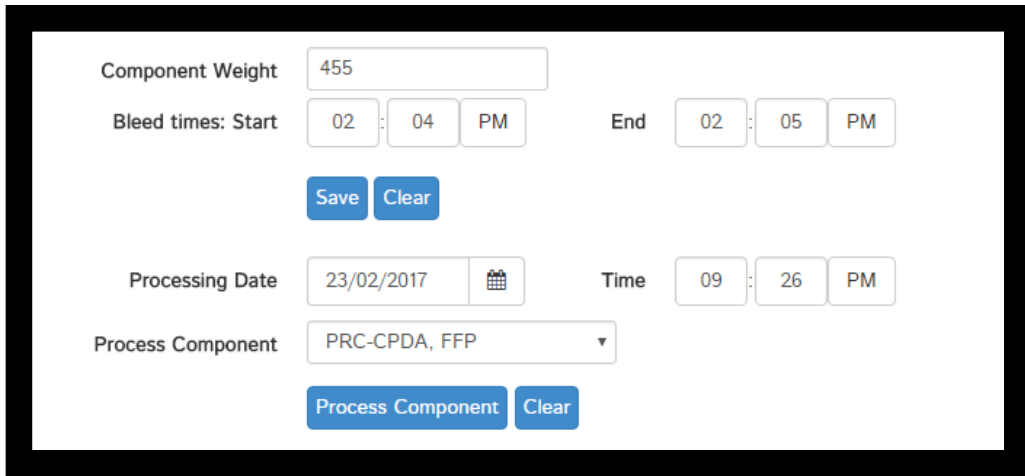
1. If the bleed time duration is longer than the specified maximum duration as configured in settings then system will display a warning and if the user opts to continue, then the components will be automatically flagged as UNSAFE.

The bleed start and end time may be entered when capturing the donation but it is not mandatory so the bleed time may also be captured at the point of processing. If the bleed time is 0 (i.e. the start and end time are the same) then the user must enter the start and end times and the bleed time must be greater than 0.



3.4. Processing time validation when processing components

New functionality has been added whereby when recording components, the component staff must record the time of processing. The user will enter in the date and time of processing: this will be validated against the max time since donation as configured in Settings. . If the time that has elapsed between the bleed start time and the time the pack is processed has exceeded the maximum time allowed, then the system will display a warning. If the user opts to continue, then the components will be automatically flagged as UNSAFE.



The screenshot shows a web form for processing components. It includes the following fields and controls:

- Component Weight:** A text input field containing the value "455".
- Bleed times:** Two time selection fields. The "Start" field is set to "02 : 04 PM" and the "End" field is set to "02 : 05 PM".
- Buttons:** Below the bleed times are two buttons: "Save" and "Clear".
- Processing Date:** A date selection field showing "23/02/2017" with a calendar icon.
- Time:** A time selection field set to "09 : 26 PM".
- Process Component:** A dropdown menu currently showing "PRC-CPDA, FFP".
- Buttons:** Below the dropdown are two buttons: "Process Component" and "Clear".

For example: If the maximum time since donation for Fresh Frozen Plasma is set at 8 hours and the donation bleed start time was 8am and the processing start time is at 6pm, then the time elapsed since donation is 10 hours and so the system will automatically mark the fresh frozen plasma as UNSAFE. This means that the component will not be able to be labelled or released to inventory and must be discarded.

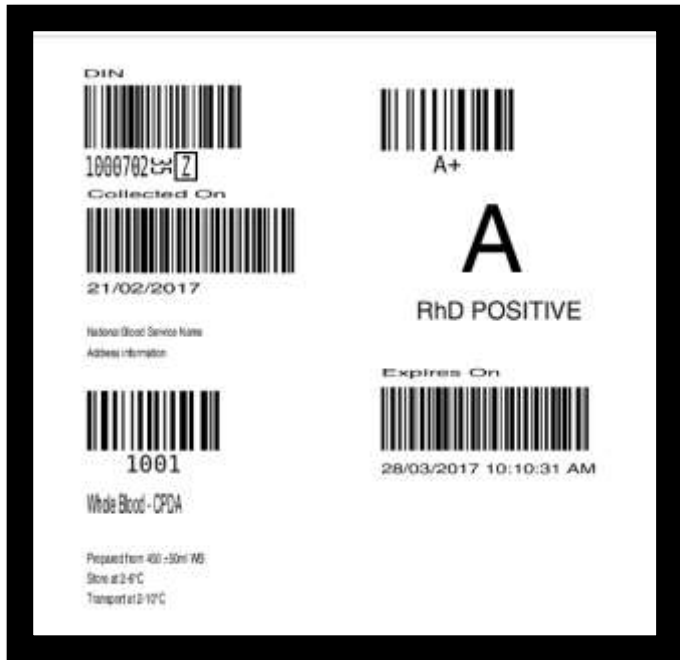
3.5. Include DIN on discard labels

The discard label has been updated to include the DIN when printing discard labels.



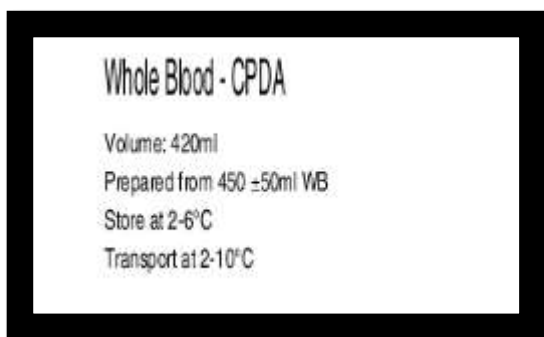
3.6. Update DIN to include check digit for DIN verification

The printed pack label from BSIS has been updated to include a check digit on the DIN. The check digit is to ensure that the DINS match when scanning in the DIN for Label Verification. The check digits are an extra measure to ensure that the correct pack label is placed on the corresponding blood pack.



3.7. Update pack label to include component volume

Once components have been processed, it is now possible to record pack weights of the individual child components. When printing the pack label the system will calculate the pack volume and this is now be displayed on the pack label. The pack volume is calculated using the specific gravity as configured in Settings for component types. If the child component weight is not recorded then the volume is not printed on the pack label.



3.8. Find safe components ready to be labelled

In order for component staff to know which components are ready for labelling, the system provides an option to Find Safe Components to Label. When the user selects this option, the system provides the ability to search for safe components using different search criteria. The user can search for a

specific unit using the DIN and Component Code, or can use a combination of processing site, component type, blood group and date period in which the donation was collected.

Only i.e. components that are AVAILABLE are listed. The user has the option to search for safe components that are NOT-IN-STOCK i.e. they have not yet been labelled but have been tested and are safe for use. The user also has the option to search for components that are IN-STOCK I. have already been labelled and are in inventory. The system provides the user with the option to print to PDF or CSV.

DIN	Component Code	Date Collected	Component Type	Component Status	Inventory Status
6045896	3001	02/03/2017	Fresh Frozen Plasma - W	AVAILABLE	NOT IN STOCK

Improvements & Updates

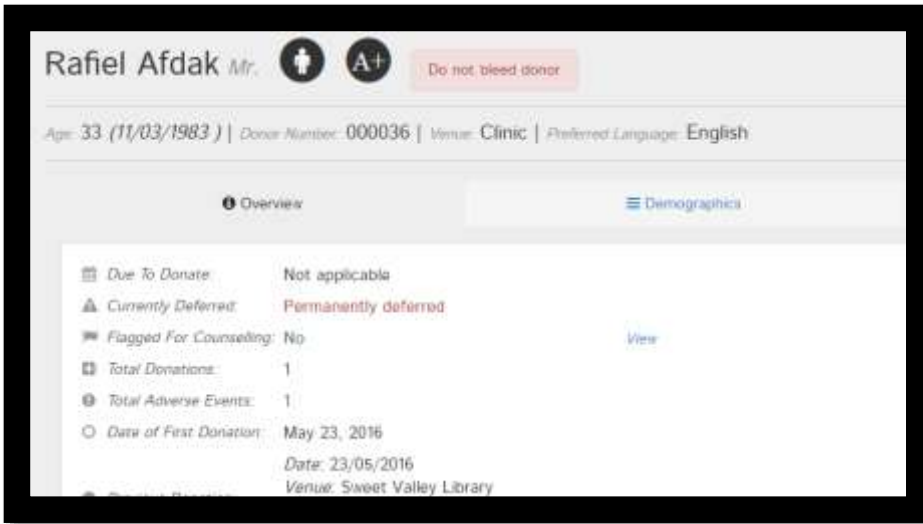
1. Donations

1.1. Donor counselling notes only viewable by donor counsel staff

When logged in as Donor Clinic Staff or Donor Clinic Supervisor, the user is able to select a donor and a donation to view and may view and edit the donation notes. Previously these donation notes were overwritten by the donor counselling staff, but now donor counselling notes are only shown in the donor counselling screen, and donation notes are viewable on the donor dashboard under the specific donation.

1.2. Donor Dashboard: Due to Donate field now displays “Not Applicable” for permanently deferred donors

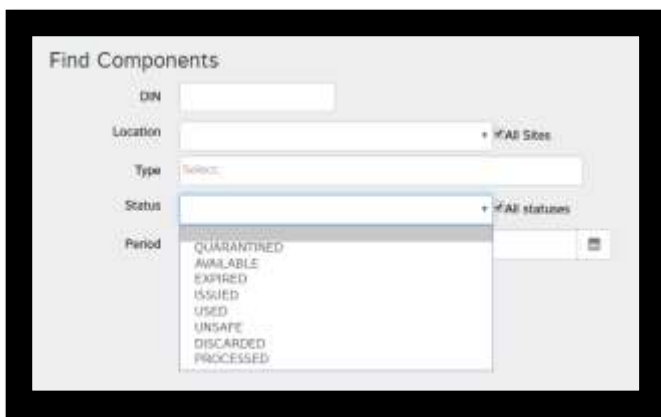
When viewing donors who are permanently deferred, the due to donate field now displays “Not Applicable” for donors who are permanently deferred.



2. Components & Labelling

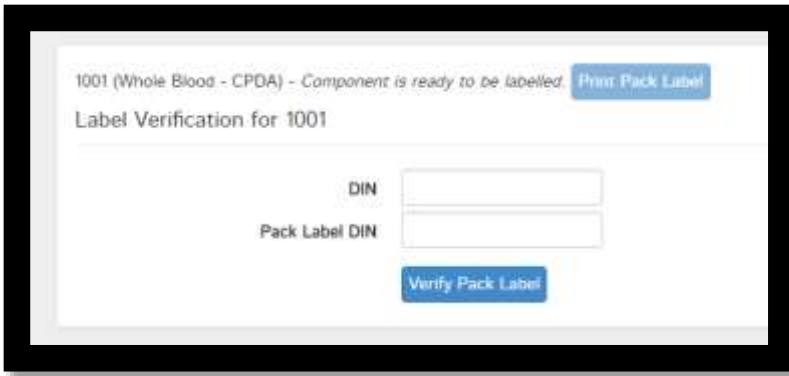
2.1. Update Find Components screen

New filters have been added to the Find Components screen. The user may now search according to Component Status and Component Location.

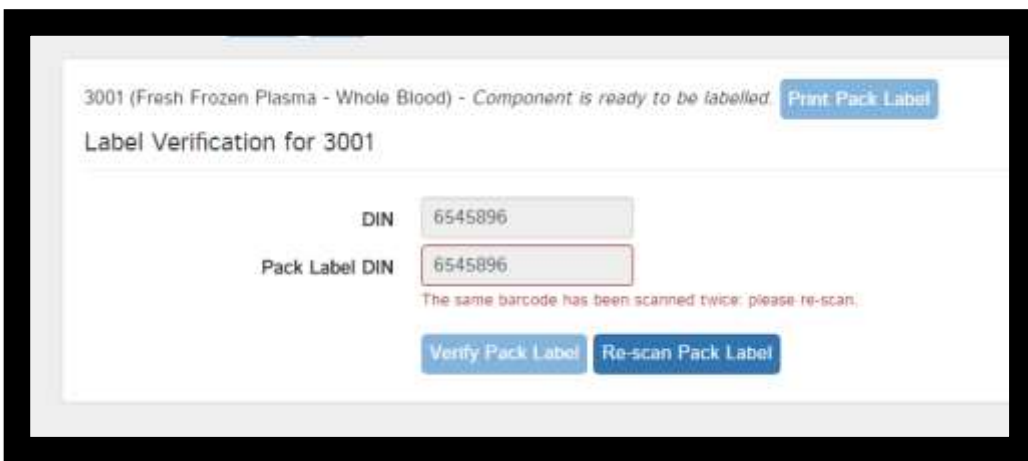


2.2. Verify pack label

Extra measures have been put in place so that after the pack label has been printed, the user must verify this pack label DIN with the original pre-printed DIN in order to ensure that the pack label has been placed on the correct blood pack. The pack label DIN printed by the system now includes a check digit differentiating the DIN from the original DIN on the pre-printed label. Once the user has printed the pack label and placed it on the pack they must scan the original DIN label and the DIN on the Pack Label and click Verify Pack Label. If the DINs do not match OR if the user scans the same DIN twice the system will display a warning and force the user to e-verify the label. Only once the pack label has been verified is the component automatically placed in stock.

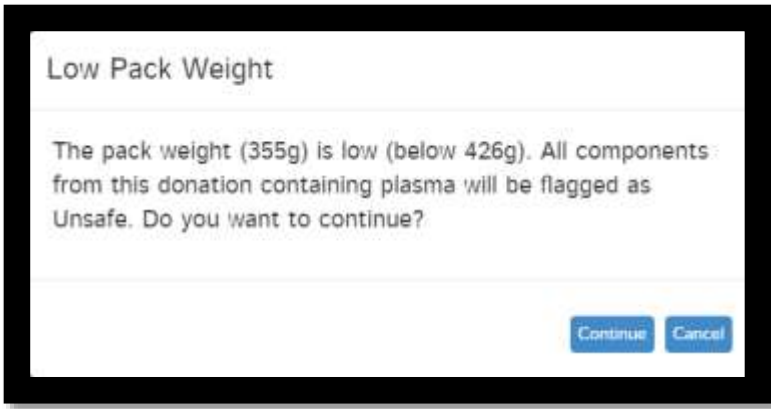


When scanning in DIN's for the verification of pack labels, if the DIN matching fails, the system will now display a Re-Scan button. When the user clicks on the Re-Scan Pack Label button the DIN fields are cleared and puts the cursor back in the text field to scan the DIN again.

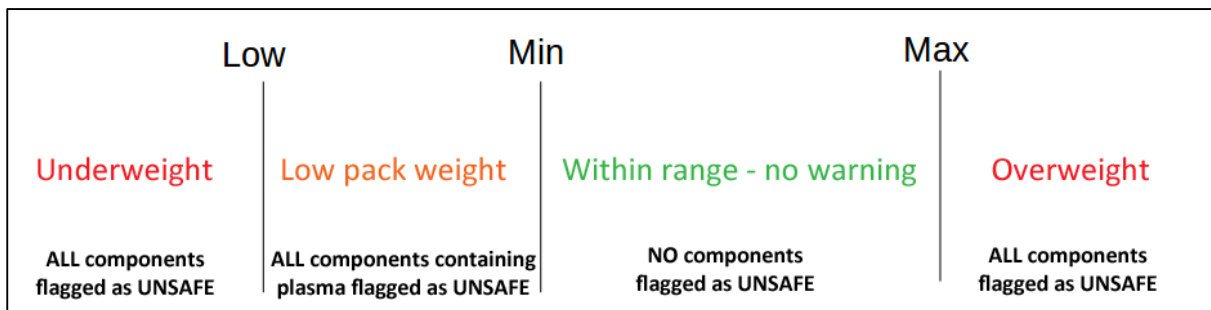


2.3. Flag Components containing plasma as UNSAFE when the pack is under weight

When recording and processing components, if the recorded pack weight is below the minimum weight but greater than the low volume weight, then all the components processed from that pack that contain plasma will be automatically marked as UNSAFE. A popup will display to the user confirming whether they want to continue with processing and if the user selects Continue, then the components containing plasma will be marked as UNSAFE. Components that do not contain plasma (i.e. packed red cells) will NOT be marked as UNSAFE if the pack weight is between the minimum weight and the low volume weight.



The following diagram summarises the impact of the maximum, minimum and low volume pack weights:



Fixes

1. Voided donation not being removed from view

A fix was done whereby now when donations are voided they can no longer be searched for in the system, nor can they be recorded in the component processing.

2. Remove dependency for blood tests that are disabled while in use

Tests outcomes entered for Blood Tests that are no longer active or enabled are no longer validated thus allowing the completion of testing.