.IRIS

HashCode Tester Documentation
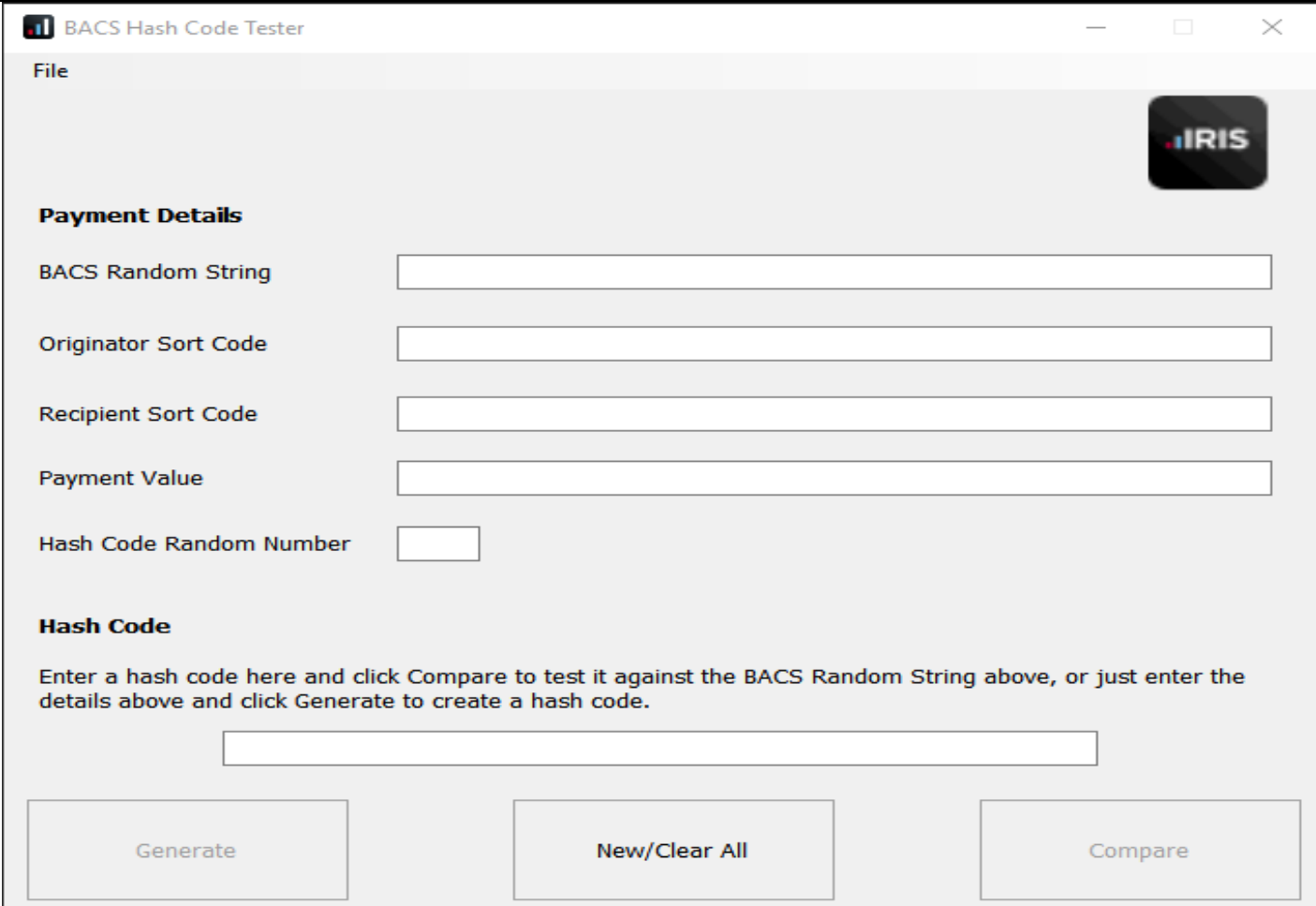
Document History

Version	Date	Author	Details
1.0	14/11/2019	Richard	Initial Draft
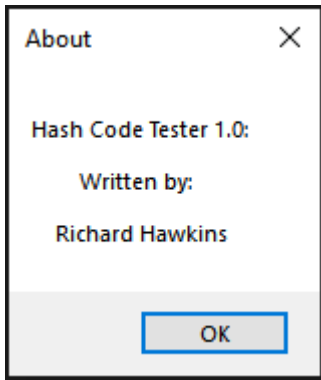
Contents

1. HashCode Tester Screen Design

Test No.	Ref	Test
1.1.		HashCode Tester Screen Design

Expected Procedure & Outcome

Test No.	Ref	Test	
1.2.			
Expected Procedure & Outcome			**Pass**

2. Functions

Test No.	Ref	Test
2.1.		File menu

Expected Procedure & Outcome

Added a File menu with the following items:

- New/Clear All (the keyboard shortcut is 'Alt + C') (This clear **all** textboxes of information)
- Help (the keyboard shortcut is 'F1') (This displays the help file)

Exit (the keyboard shortcut is 'Alt + X') (This exits the HashCode Tester)

Test No.	Ref	Test
2.2.		Picturebox

Expected Procedure & Outcome

Created a picturebox icon that displays the author & version of the program.

Test No.	Ref	Test
2.3.		Frames

Expected Procedure & Outcome

Created 2 frames

1. Payment Details
2. Hash Code

Test No.	Ref	Test
2.4.		Text boxes

Expected Procedure & Outcome

Created 6 text boxes:

1. The 'BACS Random String' textbox allows any character up to a maximum of 64.
2. The 'Originator Sort Code' textbox allows up to 6 numerical characters only, a warning message will be displayed if the digits are below 6.
3. The 'Recipient Sort Code' textbox allows up to 6 numerical characters only, a warning message will be displayed if the digits are below 6.
4. The 'Payment Value' textbox allows up to 12 numerical characters only, including negative values.
5. The 'Hash Code Random Number' textbox allows any character up to a maximum of 4. A warning message will be displayed if the digits are below 4.
6. The Hash Code textbox will display the Hash Code generated from once the above textboxes have been fully completed. In addition, this textbox allows any character up to a maximum of 64.

Test No.	Ref	Test
2.5.		Buttons

Expected Procedure & Outcome

Added a 'New/Clear All' button to clear **all** textboxes of information

Added a 'Generate' button to generate the Hash-256 code

Added a 'Compare' button, to compare the 2 BACS Hash codes & added code to verify that the 2 hash codes do or do not match.

> **Note:** Both the 'Generate' & 'Compare' buttons will be disabled until the details have been entered fully within the 'Payment Details' frame.

Test No.	Ref	Test
2.6.		Tooltips

Expected Procedure & Outcome

Added tooltips for all textboxes & buttons

Test No.	Ref	Test
2.7.		

Expected Procedure & Outcome		**Pass**

3. Use of the HashCode Tester

Test No.	Ref	Test
3.1.		How to Use (step-by-step guide)

Expected Procedure & Outcome	Pass

1st step: Ensure that the employees are to be paid via BACS

2nd step: Print out a report displaying the employee's pay details, including the Hash Code

3rd step: Submit your FPS

4th step: Open your send.xml file, usually located in the 'xml' directory of your installation folder

5th step: Locate the BACS random string that was created by your payroll product & paste that into the 'BACS Random String' textbox.

6th step: Enter the employer's sort code in the format of nnnnnn [6n]

7th step: Enter the employee's sort code in the format of nnnnnn [6n]

8th step: Enter the employee's NET pay, up to a maximum value of 12 digits.

9th step: Enter the Hash Code generated by your payroll product

10th step: Once all the above has been entered, clicking the 'Generate' button will display the Hash Code.

11th step: Clicking the 'Compare' button will compare step 5 with step 10.

12th step: This will clear all data on the screen, ready for the whole process to start over.

Note: different payroll products may differ in the steps required.

Test No.	Ref	Test
3.2.		

Expected Procedure & Outcome	Pass

4. Functional Unit Tests

Test No.	Ref	Test	
4.1.		File menu	
Expected Procedure & Outcome			**Pass**
Check that a File menu has been added to the 'HashCode tester' with the following 3 items: 1. New/Clear All Check that clicking 'New/Clear All' menu item must clear all textboxes of information without error. Check that the keyboard shortcut of 'Alt + C' must behave in the same way as clicking the 'New/Clear All' menu item. **HashCodeForm1.cs code lines: 402-417** 2. Help Check that clicking 'Help' menu item must display the 'Help' file without error. Check that the keyboard shortcut of 'F1' must behave in the same way as clicking the 'Help' menu item. **HashCodeForm1.cs code lines: 398-401** 3. Exit Check that clicking 'Exit' menu item must display a message asking if exiting the application is what you want to do, with 'Yes/No' buttons without error. Check that clicking the 'No' button must return you back to the 'HashCode Tester' main screen without error. Check that clicking the 'Yes' button must exit the application without error. Check that the keyboard shortcut of 'Exit' must display a message asking if exiting the application is what you want to do, with 'Yes/No' buttons without error. Check that clicking the 'No' button must return you back to the 'HashCode Tester' main screen without error. Check that clicking the 'Yes' button must exit the application without error. **HashCodeForm1.cs code lines: 176-179**			

Test No.	Ref	Test	
4.2.		Picturebox	
Expected Procedure & Outcome			**Pass**
Check that clicking the Picturebox icon (£) must display a [message](#) showing the version of the application & the author of the software. **HashCodeForm1.cs code lines: 33-36**			

Test No.	Ref	Test
4.3.		Frames

Expected Procedure & Outcome	Pass

Check that there are 2 frames called:
 	
    1.   Payment Details
 	
HashCodeForm1.cs code lines: 17-21
 	
Check that the following textboxes are contained within the above frame
 	
    • BACS Random String
    • Originator Sort Code
    • Recipient Sort Code
    • Payment Value
    • Hash Code Random Number
 	
    2.   Hash Code
 	
HashCodeForm1.cs code lines: 24-26
 	
Check that a textbox is contained within the above frame, this is where the BACS Hash Code is displayed when the 'Generate' button is clicked & all pertinent information has been entered.	

Test No.	Ref	Test
4.4.		Text Boxes

Expected Procedure & Outcome	Pass

Check that there are 6 text boxes:
 	
    1. BACS Random String
 	
Check that this textbox allows any character up to a maximum of 64.
 	
Check that this textbox allows alphanumeric & special characters
 	
HashCodeForm1.cs code lines: 146-150
 	
    2. Originator Sort Code
 	
The 'Originator Sort Code' textbox allows up to 6 numerical characters only, a warning message will be displayed if the digits are below 6.
 	
HashCodeForm1.cs code lines: 160-164
 	
    3.   Recipient Sort Code
 	
The 'Recipient Sort Code' textbox allows up to 6 numerical characters only, a warning message will be displayed if the digits are below 6.
 	
HashCodeForm1.cs code lines: 166-169
 	
    4.   Payment Value
 	
The 'Payment Value' textbox allows up to 12 numerical characters only, including negative values.
 	
HashCodeForm1.cs code lines: 171-174	

Test No.	Ref	Test	
4.1.		File menu	
Expected Procedure & Outcome			**Pass**

5. Hash Code Random Number

The 'Hash Code Random Number' textbox allows any character up to a maximum of 4. A warning message will be displayed if the digits are below 4.

HashCodeForm1.cs code lines: 93-102

6. The Hash Code textbox will display the Hash Code generated, once the above textboxes have been fully completed. In addition, this textbox allows any character up to a maximum of 64.

HashCodeForm1.cs code lines: 93-102

Check that this textbox allows alphanumeric & special characters

The Hash Code textbox will display the Hash Code generated from once the above textboxes have been fully completed. In addition, this textbox allows any character up to a maximum of 64.

Test No.	Ref	Test	
4.5.		Buttons	
Expected Procedure & Outcome			**Pass**

Check that there will be 3 buttons positioned at the bottom of the 'HashCode Tester' screen:

1. Generate

Check that the above button will be disabled, until the textboxes (i.e. 'BACS Random String', 'Originator Sort Code', 'Recipient Sort Code', 'Payment Value' & 'Hash Code Random Number') have been correctly completed.

Check that once all mentioned textboxes have been completed, the 'Generate' button will become enabled.

Check that clicking the 'Generate' button will create the BACS Hash-256 Code & display this code within the 'Hash Code' textbox.

HashCodeForm1.cs code lines: 50-61

2. New/Clear All

Check that the above button will always be enabled.

Check that clicking the above button will clear all textboxes of information, displaying a message asking if this is what you want to do, with 'Yes/No' buttons

Check that clicking 'No' will close the message taking you back to the 'HashCode Tester' screen, without error.

Check that clicking 'Yes' will close the message & delete all the information entered in the textboxes above, all without error.

HashCodeForm1.cs code lines: 37-49

Test No.	Ref	Test
4.1.		File menu

Expected Procedure & Outcome	**Pass**
3. Compare Check that once the 'BACS Random String' has been copied/pasted from your payroll product, the 'Generate button will automatically move from disabled to enabled. **HashCodeForm1.cs code lines: 62-90** **Note:** Both the 'Generate' & 'Compare' buttons will be disabled until the details have been entered fully within the 'Payment Details' frame.	

Test No.	Ref	Test
4.6.		Tooltips

Expected Procedure & Outcome	**Pass**
• Check that a tooltip has been added to the 'BACS Random String' textbox & the tooltip will be: 'Copy & Paste the BACS hash code from your payroll product' **HashCodeForm1.cs code lines: 293-294** • Check that a tooltip has been added to the 'Originator Sort Code' textbox & the tooltip will be: 'Enter the Employers Bank Sort Code' **HashCodeForm1.cs code lines: 297-298** • Check that a tooltip has been added to the 'Recipient Sort Code' textbox & the tooltip will be: 'Enter the Employees Bank Sort Code' **HashCodeForm1.cs code lines: 301-302** • Check that a tooltip has been added to the 'Payment Value' textbox & the tooltip will be: 'Enter the Employees NET pay' **HashCodeForm1.cs code lines: 305-306** • Check that a tooltip has been added to the 'Hash Code Random Number' textbox & the tooltip will be: 'Enter the Hash Code' **HashCodeForm1.cs code lines: 309-310** • Check that a tooltip has been added to the 'Hash Code' textbox & the tooltip will be: 'Copy & Paste the 'BACS Hash Code' to Compare or click Generate' **HashCodeForm1.cs code lines: 313-314**	

Test No.	Ref	Test
4.1.		File menu

Expected Procedure & Outcome	Pass
• Check that a tooltip has been added to the 'Generate' button & the tooltip will be: 'Generate a hash code' **HashCodeForm1.cs [Design] tooltip1** • Check that a tooltip has been added to the 'New/Clear All' button & the tooltip will be: 'Clear all details' **HashCodeForm1.cs [Design] tooltip2** • Check that a tooltip has been added to the 'Compare' button & the tooltip will be: 'Compare hash codes' **HashCodeForm1.cs [Design] tooltip3**	

Test No.	Ref	Test
4.7.		

Expected Procedure & Outcome	Pass

5. For Future Use

Test No.	Ref	Test	
5.1.			
Expected Procedure & Outcome			**Pass**

Test No.	Ref	Test	
5.2.			
Expected Procedure & Outcome			**Pass**

Test No.	Ref	Test	
5.3.			
Expected Procedure & Outcome			**Pass**

Test No.	Ref	Test	
5.4.			
Expected Procedure & Outcome			**Pass**

Test No.	Ref	Test	
5.5.			
Expected Procedure & Outcome			**Pass**

Test No.	Ref	Test	
5.6.			
Expected Procedure & Outcome			**Pass**

Test No.	Ref	Test	
5.7.			
Expected Procedure & Outcome			**Pass**

Test No.	Ref	Test	
5.8.			
Expected Procedure & Outcome			**Pass**