

# ReCor Medical

Ultrasound Denervation Therapies

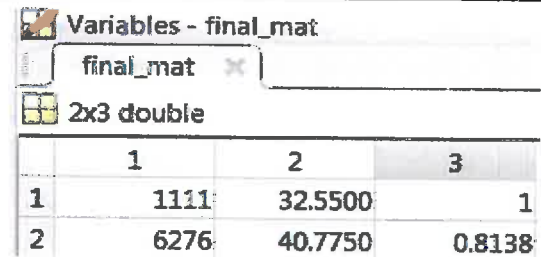
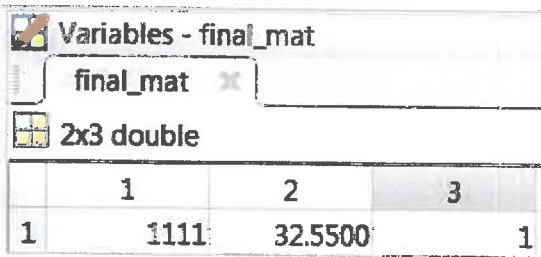
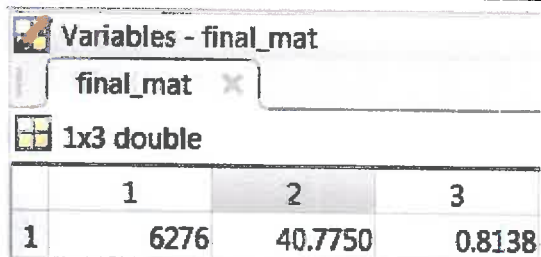
To: SW-0018(01) Uniformity Time and Ratio Calculator, Attachment 2  
From: Shruthi Thirumalai, R&D Engineer  
Subject: Verification Memo  
Date: September 5, 2017

*9/6/2017*

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SW-0018(01) is a MATLAB based script that can calculate uniformity time and uniformity ratio of a transducer from raw scan data captured using FXT-00049, Uniformity Scan System. This memo documents the test scripts that were used to verify the functionality of the software. The test data is attached to this memo.

Attachment A - Software testing data

| Step      | Action   | Expected Result  |           |                 | Actual Result   | P/F  |        |   |      |        |        |   |  |  |   |
|-----------|--|--|-----------|-----------------|---|------|--------|---|------|--------|--------|---|--|--|---|
| 1         | <p>This section verifies the ability of the software to calculate uniformity times and ratios for all the raw data files in the selected folder and lists data in a final matrix with serial number listed in column 1, uniformity time in column 2, and uniformity ratio in column 3.</p> <p>The selected folder should have the following files:</p> <p>TXR 1111 RM428 R24.txt</p> <p>TXR 6276 RM428 R24.txt</p>   | <table><tr><th>Serial No</th><th>Uniformity Time</th><th>Uniformity Ratio</th></tr><tr><td>1111</td><td>32.550</td><td>1</td></tr><tr><td>6276</td><td>40.775</td><td>0.8138</td></tr></table> | Serial No | Uniformity Time | Uniformity Ratio  | 1111 | 32.550 | 1 | 6276 | 40.775 | 0.8138 |  |  |  | P |
| Serial No | Uniformity Time  | Uniformity Ratio   |           |                 |   |      |        |   |      |        |        |   |  |  |   |
| 1111      | 32.550   | 1  |           |                 |   |      |        |   |      |        |        |   |  |  |   |
| 6276      | 40.775   | 0.8138   |           |                 |   |      |        |   |      |        |        |   |  |  |   |
| 2         | <p>This section verifies the ability of the software to calculate the uniformity ratio from raw data. Calculate the uniformity ratio for TXR 1111 RM428 R24.txt using the SW-0018(01) software.</p> <p>TXR 1111 RM428 R24.txt is artificially filled with values of 0.5 at every hydrophone location. Uniformity ratio is the ratio of the min normalized intensity to the max normalized intensity. Hence, the uniformity ratio of this dataset is 1.</p> | A value of '1' should be displayed in cell (1,3) with the appropriate SN:1111 in cell (1,1).   |           |                 |    | P    |        |   |      |        |        |   |  |  |   |
| 3         | <p>This section verifies the ability of the software to calculate the uniformity time from raw data. Calculate the uniformity time for TXR 6276 RM428 R24.txt using SW-0018(01) software.</p> <p>Transducer SN:6276 has a uniformity time value of 40.775 s. This time was calculated for this dataset using a validated software SW-0014 and stored at the end of the file.</p>   | A value of '40.7750' should be displayed in cell (1,2) with the appropriate SN:6276 in cell (1,1).   |           |                 |  | P    |        |   |      |        |        |   |  |  |   |

## Approval

|                                       |                               |                       |
|---------------------------------------|-------------------------------|-----------------------|
| Tester Name: <i>SHRUTHI THIRUMALA</i> | Signature: <i>[Signature]</i> | Date: <i>9/6/2017</i> |
| Reviewed by: <i>Megan Lopez</i>       | Signature: <i>[Signature]</i> | Date: <i>9/6/17</i>   |