MFER setup specification

MFER applet viewer is using "param" tag of applet setup command. (Please refer to the specification document about applet and object tags.)

1. Overview

Parameter of the applet tag applet is as follows.

E.g.

```
<applet ARCHIVE='mwave.jar' code="Mwave" width=1020 height=665>
        <param name="MFER" value="0001_1_20030728_093143.mwf" >
        <param name="CHN" value=" aVL,1,-aVR,2,aVF,3, V1, V2, V3, V4, V5, V6" >
        <param name="SMOOTH" value="1" >
        <param name="FILTER" value="30/IIR" >
        <param name="PEN" value="2" >
        <param name="SUBWIN" value="ON" >
</applet>
```

2. Applet window (required)

Java class of the viewer is represented "Mwave" and "mwave.jar". The width and height of the window is indicated with "width" and "height" parameter.

E.g.

In case of window width is 1020 pixel and height is 665 pixel

```
<applet ARCHIVE='mwave.jar' code="Mwave" width=1020 height=665>
```

If the display ECG channel is over 6 channel, width of view is half of width setting value.

3. MFER ECG file (required)

MFER file is indicated with MFER tag.

E.g.

```
<param name="MFER" value="0001_1_20030728_093143.mwf" >
```

4. Viewing Channel (option)

(1). 6x2 channel mode. (default <param name='ROWS' value='6'>)

All lead of the ECG (up to 12 lead) are displayed as a default. If lead I and II is only described, III, aVR, aVL and aVF lead is calculated with I and II lead. If lead number is less than 7 leads, ECG is displayed on the full size of the applet window set with width. If lead number is over 6 channel, limb lead waveforms are displayed on the left half of the window and chest lead waveforms are displayed on the right half of the window which is set by window setting parameter. When I and II for limb lead is described in MFER file, other limb

lead such as III, aVR, aVL and aVF are calculated with I and II lead.

E.g.

Cabrera lead setting as follows,

    <param name="CHN" value=" aVL,1,-aVR,2,aVF,3, V1, V2, V3, V4, V5, V6" >

E.g.

You can set directly display channel which are described in MFER.　In this case, limb leads are not calculated even if I and II only described.

    <param name="CHN" value=" @1,@2,@3,@4" >

(2). 3x4 channel mode. (default <param name='ROWS' value='3'>)

In this display mode, a waveform is displayed continuously in time.

5.　Anti aliasing mode(option)

There is antialiasing may be unsuitable depending on CRT, LCD feature. You set directly set the anti aliasing mode.

0: Electrocardiograph mode: non-anti aliasing mode on the ECG window.

1: Anti aliasing mode on the selected window

2: Electrocardiograph mode: non-anti aliasing mode on the ECG window, but ECG is processed as anti aliasing on full disclosure window.

3: Anti aliasing mode on both windows.

E.g.

Anti aliasing mode = 3

    <param name="SMOOTH" value="3" >

6.　Low pass filter (option)

When high frequency noise is included such as electromyogram, you can indicate low pass processing.

E.g.

Butterworth 30 Hz low IIR pass filter

    <param name="FILTER" value="30/IIR" >

E.g.

Butterworth 50 Hz low pass filter

    <param name="FILTER" value="50" >

E.g.

Butterworth 30 Hz low FIR pass filter

    <param name="FILTER" value="30/FIR" >

7. Baseline (option)

Indicate ECG baseline.

E.g.

Baseline is 3 pixel (default value is 2 pixel)

    <param name="PEN" value="3" >

You can set value="1.5" for ant aliasing display

8. Sub window ON/OFF (option)

This indicates on or off for sub window. When sub window is off, scroll bar is displayed as necessary.

E.g.

In case of sub window off

    <param name="SUBWIN" value="OFF" >

E.g.

In case of sub window on

    <param name="SUBWIN" value="ON" >

9. ECG display channel

This set 6x2 channel display or 3x4 channel display. When 6x2 display is set, limb lead display on half window and chest lead display on right window is same time, however in 3x4 display mode, I, II, III and aVRE, aVL, aVF, V1, V2, V3 and V4, V5, V6 is continuously in time.

E.g.

6 lead display mode (default)

    <param name='ROWS' value='6'>

E.g.

3 lead display mode (default)

    <param name='ROWS' value='3'>