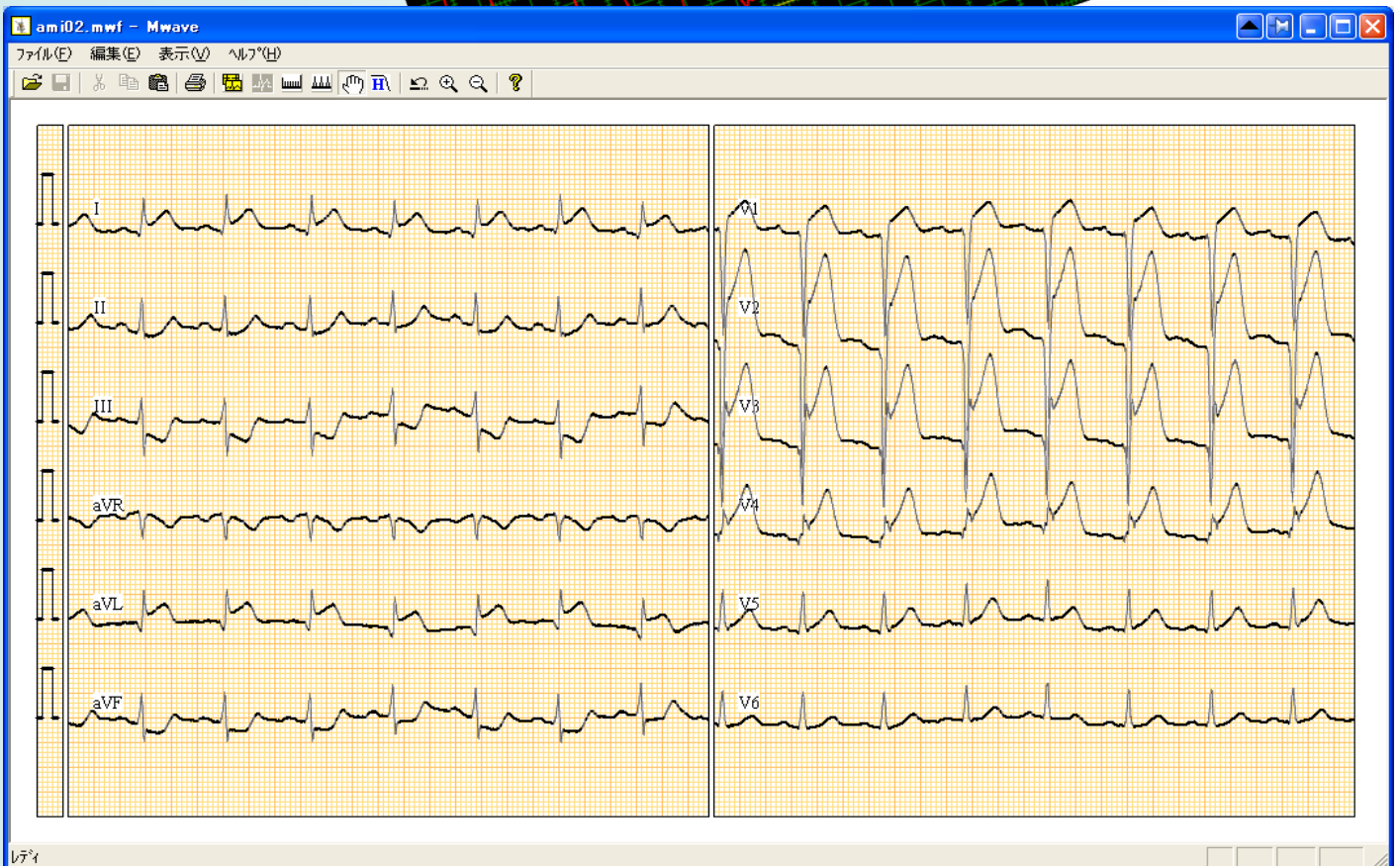
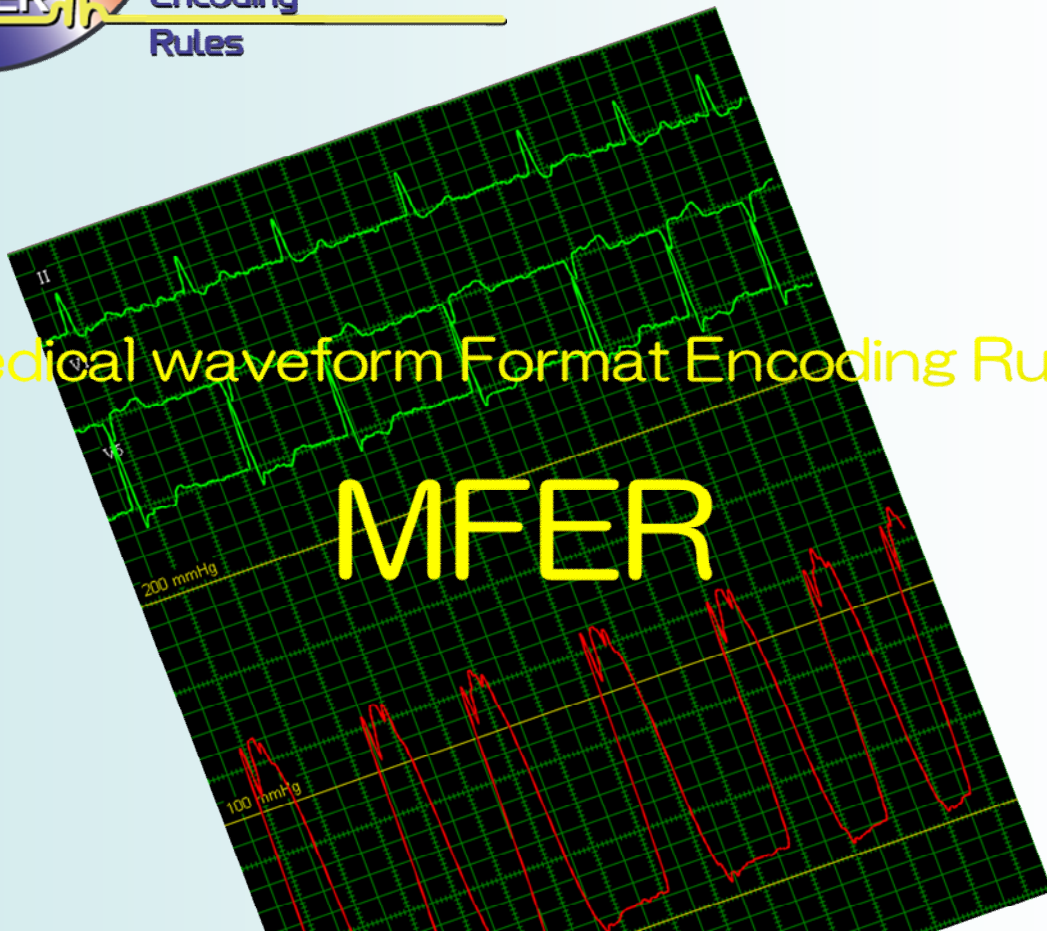


Medical waveform Format Encoding Rules

MFER



Waveform for patient

◆ Do you have any experience that you would not be able to use due to the incompatibility among devices?

MFER doesn't depend on compatibility between devices.

◆ Do you still use average criteria for understanding abnormality?

Individual data should be used to classify abnormal conditions because MFER waveforms are used for one's own life.

◆ Do you examine repeatedly?

MFER guarantees interoperability for medical waveforms.

Standards are yours.

◆ MFER specification is open, therefore

You can easily convert it into other standard formats if necessary.

You will be able to convert it to a new standard if it will be developed.

You can even convert it to your proprietary standard.

From clinical to education or basic research

◆ You can utilize the valuable data obtained at ordinary clinical work.

You can utilize the waveform for real data for education.

You can utilize it for interoperable research.

◆ Are waveform data commonly utilized among researchers?

Why don't you attach MFER waveform data to your science paper?

MFER is easy and simple

- ◆ The MFER specification is simple.
- ◆ Is it difficult to understand the specification for you?
- ◆ It is quite easy that implementation and validation.
- ◆ Standard 12 lead ECG is completely described with only nine tags

Data	Type	Length	Contents
08 01 01	08 Waveform identifier	1	Standard 12 lead ECG
0B 04 01 FD 00 01	0B Sampling frequency	4	Sampling interval=1ms
0C 04 00 F7 03 E8	0C Sampling resolution	4	Resolution(volt)=1 μ V
04 04 00 00 00 01	04 Data block length	4	Block length=1
05 04 00 00 00 08	05 Channel number	4	Channel=8
06 04 00 00 27 10	06 Sequence number	4	Sequence=10000
3F 00 03 09 01 01	3F Channel(0) attribute	3	
09 01 01	09 Waveform or lead name	1	Lead I
3F 01 03 09 01 02	3F Channel(1) attribute	3	
09 01 02	09 Waveform or lead name	1	Lead II
3F 02 03 09 01 03	3F Channel(2) attribute	3	
09 01 03	09 Waveform or lead name	1	Lead V1
3F 03 03 09 01 04	3F Channel(3) attribute	3	
09 01 04	09 Waveform or lead name	1	Lead V2
3F 04 03 09 01 05	3F Channel(4) attribute	3	
09 01 05	09 Waveform or lead name	1	Lead V3
3F 05 03 09 01 06	3F Channel(5) attribute	3	
09 01 06	09 Waveform or lead name	1	Lead V4
3F 06 03 09 01 07	3F Channel(6) attribute	3	
09 01 07	09 Waveform or lead name	1	Lead V5
3F 07 03 09 01 08	3F Channel(7) attribute	3	
09 01 08	09 Waveform or lead name	1	Lead V6
1E 84 00 02 71 ...	1E Waveform	160000	Waveform data=80000

MFER can describe all medical waveforms

- ◆ MFER can describe not only all ECG waveforms but also EEG, respiratory waveforms including spirometry and so on.
- ◆ 12 lead ECG, Holter ECG, Stress ECG, Monitoring ECG, etc.

MFER is used with other excellent standard such as HL7, DICOM, IEEE etc.

- ◆ It is easily handled on DBMS
- ◆ You can study and search easily by managing examination data, findings, etc. on a database.
- ◆ MFER is established as ISO/TS 11073-92001:2007.

MFER is for IT age.

- ◆ MFER is used on EMR
- ◆ MFER is utilized beyond paper base application.
- ◆ You can do the practical use that is not possible in paper use.



You can easily make MEGA database.

- ◆ You can easily make database with MFER for medical waveform.
- ◆ You can easily retrieve and do decision making with excellent data base engine.
- ◆ You can easily make human sharable database for medical waveforms.

Corporations

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TERUMO
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Information

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