



BRAIN QUICK SOFTWARE EXTERNAL PROGRAM CALCULATION DESCRIPTION

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Via Giotto 2 - 31021
Mogliano Veneto (TV) - Italy
tel. +39.041.5937000
fax. +39.041.5937011
e-mail micromed@micromed.eu
web: www.micromed.eu

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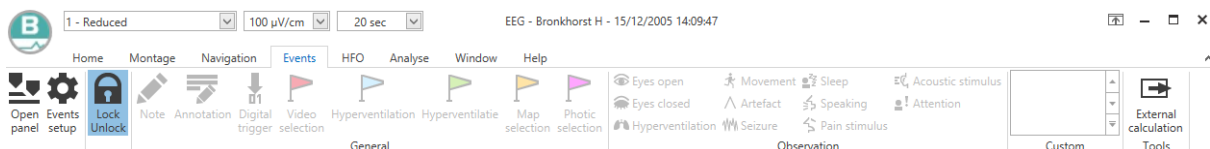
INTRODUCTION

This is a description of the Micromed External Program Calculation interface by Brain Quick Software for calling External Program.

External Program can analyse Micromed EEG Trc file or Micromed Exchange EEG trace file and can output to Micromed Event file, Report doc file and Micromed Exchange Trend file

USE CASE

User presses “External calculation” button from Brain Quick Software Ribbon Bar:



Brain Quick opens the following window:

User choose the external program (ex: Micromed Hfo Automatic Detection) and clicks on Start.
At the end of the process BRAIN QUICK SOFTWARE shows the Event on the trace.

PLUGIN DEFINITION

plugin Fields/Methods/Properties/Events:

Fields/Methods/Properties/Events	Description
<code>Guid Guid { get; }</code>	Unique guid
<code>string Name { get; }</code>	Plugin name that will be visualized in Micromed Brain Quick EEG review window
<code>string Description { get; }</code>	A brief plugin description
<code>string Author { get; }</code>	Author name
<code>string Version { get; }</code>	Version information
<code>bool NeedTraceFilePathList { get; }</code>	true: need trace file path list (input parameter of external program)
<code>bool NeedExchangeTraceFilePathList { get; }</code>	true: need exchange trace file path list created (input parameter of external program)
<code>bool NeedExchangeEventFilePath { get; }</code>	true: need exchange event file path list created (output parameter of external program)
<code>bool NeedExchangeReportFilePath { get; }</code>	true: need report file path (output parameter of external program).
<code>bool NeedExchangeTrendFilePathList { get; }</code>	true: need exchange trend file path list (output parameter of external program).

<code>bool DerivationOptionEnabled { get; }</code>	true: show derivation options (used to create exchange trace file)
<code>bool TraceSelectionOptionEnabled { get; }</code>	true: show trace selection options (used to create exchange trace file)
<code>bool NeedFilteredData { get; }</code>	If Brain Quick needs to filter data (used to create exchange trace file)
<code>bool Start(PluginParametersDto pluginParameters);</code>	Start Event Calculation.
<code>bool Stop();</code>	Stop Event Calculation.
<code>event EventHandler Completed;</code>	Event Calculation is Completed
<code>event EventHandler Cancelled;</code>	Event Calculation is Cancelled
<code>event EventHandler<string> Error;</code>	Error in Event Calculation (pass error message string)
<code>event EventHandler<int> Progress;</code>	Progress of Event Calculation (pass progress value 0..100)

PluginParametersDto structure

Fields/Methods/Properties/Events	Description
<code>List<string> TraceFilePathList</code>	List of trace file path
<code>List<string> ExchangeTraceFilePathList</code>	List of exchange trace file path
<code>string ExchangeEventFilePath</code>	exchange event file pat
<code>string ExchangeReportFilePath</code>	exchange report file path
<code>List<string> ExchangeTrendFilePathList</code>	List of exchange trend file path

The plugin calls the external calculation .exe file program with following optional arguments

<code>[sourceTrc]</code>	if <code>NeedTraceFilePathList = true</code>
<code>[sourceExchangeTrc]</code>	if <code>NeedExchangeTraceFilePathList = true</code>
<code>[exchangeEvent]</code>	if <code>NeedExchangeEventFilePath = true</code>
<code>[exchangeReport]</code>	if <code>NeedExchangeReportFilePath = true</code>
<code>[exchangeTrend]</code>	if <code>NeedExchangeTrendFilePathList = true</code>

examples:

localizer.exe

```
sourceTrc:C:\System98Local\Patient\Pat_65\EEG_xxxx.trc
exchangeReport:C:\System98Local\Patient\Pat_65\REP_xxxx.doc
exchangeTrend:C:\System98Local\Patient\Pat_65\EXT_xxxx.fft
```

externalProgram.exe

```
sourceExchangeTrc:C:\System98\Temp\EEG_1.mxt;C:\System98\Temp\EEG_1.mxt
exchangeEvent:C:\System98\Temp\ext_1.evt
```

NOTES

See **EVOLUTION_EEG_File_Structure_4_ENG_1.04.docx** for Micromed EEG Trc File Structure

See **BQS_Exchange_EEG_Trace_File_Structure_1.00.003.docx** for Micromed Exchange EEG Trace File Structure

See **BQS_Event_File_Structure_1.00.docx** for Micromed Event File Structure

Exchange trace files folder can be set as temporary Folder (ex: c:\System98\Temp) that differs from patient folder that contains source eeg data (ex: c:\resources\EEG\pat_1\eeeg_1.trc). At the moment the folder is fixed to c:\System98\Temp. It will be possible to set the folder in a setting file (externalProgramParameter.xml)