32- and 64-bit DLL, VIs for LabVIEW and Visual Basic for MPA-3

Features

- MS-Windows based customer-specific user interfaces can be easily made using supplied documentation, libraries and examples
- Example programs in Visual Basic, VB2800, C and Delphi
- Example LabVIEW application and library containing basic LabVIEW VI’s
- Automatic execution through MACRO commands
- Custom DLL functions allow user-defined calculated parameter spectra
- A special DLL including source shows calculated spectra with routing bits in MPANT
- Local Area TCP/IP Network support for remote control via optional MPA-3 Control software

Description

The 32- and 64-bit MPANT software for the multi-parameter system MPA-3 consists of a hardware-dependent program with DLL and a general graphics program that controls the hardware via the DLL. Any other Windows application can also control the server hardware via the DLL. To support the programming of such customer-specific user interfaces, as an option we deliver documentation such as sourcecode and example programs for Visual Basic, C, Delphi and LabVIEW.

The software includes the complete sourcecode of the DMPA3.DLL that controls the hardware via the server program. A custom module allows own calculated parameter spectra, as an example for a 2D position dependent detector a position-dependent energy spectra correction is implemented via a lookup table. A special new FMPA3.DLL including source code with examples like $F^*(x-x’)/(x+x’)$ where $x’$ is marked by a routing bit allows to display calculated spectra including calculated error bars in the MPANT program.

Here is the demo LabVIEW application for the access to ROI data
For LabVIEW a demo program and a library containing some basic VI’s are delivered.

Here are some VI’s contained in the VI library MPA3.LLB:

- **Commanc**
  - Response: MPA3
  - Request: MPA3
  - Error
  - **MPCad.vi**
  - Execute a MPA3 command.

- **Spectrum II**
  - **MPSts.vi**
  - Get a copy of the MPA-3 strings.

- **Cnt (old)**
  - Cnt: MPA3
  - Cnt: MPCnt
  - Error
  - **MPCnt.vi**
  - Get a copy of the MPA-3 Cnt numbers as [DBL] or [I32].

- **Roi (old)**
  - Spectrum II
  - **MPRoi.vi**
  - Get a copy of the MPA-3 Roi boundaries as [I32] or [I64].

- **Array In**
  - ROI ID
  - **FROI.DAT**
  - Get data from curved or polygonal ROIs.

The following MPA-3 additional software products are presently available:

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPA-3Rplay</td>
<td>Replay program for off-line reconstruction of spectra from listmode</td>
<td>MP3502</td>
</tr>
<tr>
<td>MPA-3RplayEx</td>
<td>Replay program, runs on computer without MPA3 system</td>
<td>MP3504</td>
</tr>
<tr>
<td>MPA-3EXTCTL</td>
<td>External Control Software, Commands via TCP/IP and/or RS232</td>
<td>MP3503</td>
</tr>
<tr>
<td>MPA3_NTDLL</td>
<td>DLL for LabVIEW / Visual Basic</td>
<td>MP3580</td>
</tr>
</tbody>
</table>