Interface Requirements for the Rasnik Analysis

1. On Windows PCs the analysis module is available as .dll.
2. The dll has to provide 3 routines. The C++ declarations are:
   - `void _init_analysis(int* version);`
   - `void _do_analysis(int* nin, float* fin, BYTE* image, int* error, double *dout);`
   - `void _exit_analysis(void);`

For each analysis these 3 routines are called in sequence. However, the _init and _exit routine may be skipped. The _init could be called once, in order to get the version of the analysis and the _exit routine could be skipped always. It is kept for historical reasons.

The **_do_analysis** routine performs the actual analysis.
The necessary arguments are:

- **nin**: array of integer parameters (size = 32). Indices 0-4 are reserved/predefined:
  - 0: # of nin parameters
  - 1: # of fin parameters
  - 2: input definition file (not used)
  - 3: width of image (#pixels)
  - 4: height of image (#pixels)
- **fin**: array of float parameters (size = 32)
- **image**: the raw image to be analyzed (BYTE = unsigned char)
- **error**: 0 = okay
- **dout**: array of results (size = 32). Indices 0-8 are predefined:
  - 0: time of analysis
  - 1: X
  - 2: Y
  - 3: Scale
  - 4: RotZ
  - 5: error margin X
  - 6: error margin Y
  - 7: error margin Scale
  - 8: error margin RotZ

Except for the predefined indices (nin and dout), the others are free to use.