Bayesian Cluster Tool

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Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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Chapter 2

File Index

2.1 File List

Here is a list of all documented files with brief descriptions:

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Chapter 3

Class Documentation

3.1 ClusterWrapper Struct Reference

A struct for storing extracted parameters from a cluster.

`#include <API.hpp>`

Public Member Functions

- bool operator< (const ClusterWrapper &aOther)
  Comparison operator for sorting.
- bool operator== (const ClusterWrapper &aOther)
  Equality operator required by boost python.

Public Attributes

- std::size_t localizations
  The number of localizations in the cluster.
- long double area
  The area of the spanning convex hull.
- long double perimeter
  The perimeter of the spanning convex hull.
- double centroid_x
  The x-position of the centroid.
- double centroid_y
  The y-position of the centroid.

3.1.1 Detailed Description

A struct for storing extracted parameters from a cluster.

Definition at line 44 of file API.hpp.

3.1.2 Member Function Documentation

3.1.2.1 operator<()

```
bool ClusterWrapper::operator< (
            const ClusterWrapper & aOther )  [inline]
```

Comparison operator for sorting.

Returns

Whether we are smaller than the other

Parameters

aOther	Another ClusterWrapper to compare against

Definition at line 54 of file API.hpp.

References area, localizations, and perimeter.

3.1.2.2 operator==()

```
bool ClusterWrapper::operator== (
            const ClusterWrapper & aOther )  [inline]
```

Equality operator required by boost python.

Returns

Whether we are equal to the other

Parameters

aOther	Another ClusterWrapper to compare against

Definition at line 64 of file API.hpp.

References centroid_x, and centroid_y.

The documentation for this struct was generated from the following file:

- include/BayesianClustering/API.hpp

3.2 ScanEntry Struct Reference

A struct for storing a result of an individual scan configuration.

`#include <API.hpp>`

Public Member Functions

- bool operator< (const ScanEntry &aOther)
  Comparison operator for sorting.
- bool operator== (const ScanEntry &aOther)
  Equality operator required by boost python.

Public Attributes

- double r
  The R parameter
- double t
  The T parameter.
- double score
  The score.

3.2.1 Detailed Description

A struct for storing a result of an individual scan configuration.

Definition at line 16 of file API.hpp.

3.2.2 Member Function Documentation

3.2.2.1 operator<()

```
bool ScanEntry::operator< (
            const ScanEntry & aOther )  [inline]
```

Comparison operator for sorting.

Returns

Whether we are smaller than the other

Parameters

aOther	Another ScanEntry to compare against

Definition at line 24 of file API.hpp.

References r, and t.

3.2.2.2 operator==()

```
bool ScanEntry::operator== (
            const ScanEntry & aOther )  [inline]
```

Equality operator required by boost python.

Returns

Whether we are equal to the other

Parameters

aOther	Another ScanEntry to compare against

Definition at line 33 of file API.hpp.

References r, score, and t.

The documentation for this struct was generated from the following file:

- include/BayesianClustering/API.hpp

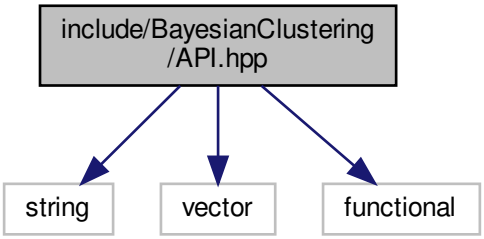
Chapter 4

File Documentation

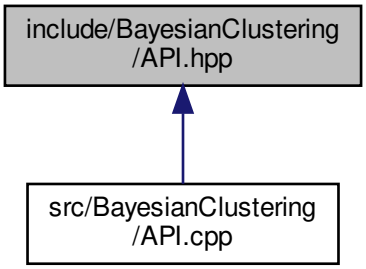
4.1 include/BayesianClustering/API.hpp File Reference

```
#include <string>
#include <vector>
#include <functional>
```

Include dependency graph for API.hpp:



This graph shows which files directly or indirectly include this file:



Classes

- struct ScanEntry

  A struct for storing a result of an individual scan configuration.
- struct ClusterWrapper

  A struct for storing extracted parameters from a cluster.

Typedefs

- typedef std::function< void(RoIproxy &, const double &, const double &) > tFullScanCallback

  Typedef the full scan callback for clarity.
- typedef std::function< void(const std::vector< ScanEntry > &) > tSimpleScanCallback

  Typedef the simplified scan callback for clarity.
- typedef std::function< void(RoIproxy &) > tFullClusterCallback

  Typedef the full clustering callback for clarity.
- typedef std::function< void(const std::vector< ClusterWrapper > &) > tSimpleClusterCallback

  Typedef the simplified clustering callback for clarity.

Functions

- void AutoRoi_Scan_FullCallback (const std::string &aInFile, const ScanConfiguration &aScanConfig, const tFullScanCallback &aCallback)

  Automatically extract RoI, run scan and apply a full call-back.
- void AutoRoi_Scan_SimpleCallback (const std::string &aInFile, const ScanConfiguration &aScanConfig, const tSimpleScanCallback &aCallback)

  Automatically extract RoI, run scan and apply a simple call-back.
- void AutoRoi_Scan_ToJson (const std::string &aInFile, const ScanConfiguration &aScanConfig, const std::string &aOutputPattern)

  Automatically extract RoI, run scan and dump to JSON file.
- void AutoRoi_Cluster_FullCallback (const std::string &aInFile, const double &aR, const double &aT, const tFullClusterCallback &aCallback)

  Automatically extract RoI, clusterize and apply a full call-back.
- void AutoRoi_Cluster_SimpleCallback (const std::string &aInFile, const double &aR, const double &aT, const tSimpleClusterCallback &aCallback)

  Automatically extract RoI, clusterize and apply a full call-back.
- void AutoRoi_Cluster_ToJson (const std::string &aInFile, const double &aR, const double &aT, const std::string &aOutputPattern)

  Automatically specify RoI, clusterize and apply a full call-back.
- void ManualRoi_Scan_FullCallback (const std::string &aInFile, const ManualRoI &aManualRoI, const ScanConfiguration &aScanConfig, const tFullScanCallback &aCallback)

  Manually specify RoI, run scan and apply a full call-back.
- void ManualRoi_Scan_SimpleCallback (const std::string &aInFile, const ManualRoI &aManualRoI, const ScanConfiguration &aScanConfig, const tSimpleScanCallback &aCallback)

  Manually specify RoI, run scan and apply a simple call-back.
- void ManualRoi_Scan_ToJson (const std::string &aInFile, const ManualRoI &aManualRoI, const ScanConfiguration &aScanConfig, const std::string &aOutputPattern)

  Manually specify RoI, run scan and dump to JSON file.
- void ManualRoi_Cluster_FullCallback (const std::string &aInFile, const ManualRoI &aManualRoI, const double &aR, const double &aT, const tFullClusterCallback &aCallback)

  Manually specify RoI, clusterize and apply a full call-back.
- void ManualRoi_Cluster_SimpleCallback (const std::string &aInFile, const ManualRoI &aManualRoI, const double &aR, const double &aT, const tSimpleClusterCallback &aCallback)

  Manually specify RoI, clusterize and apply a full call-back.
- void ManualRoi_Cluster_ToJson (const std::string &aInFile, const ManualRoI &aManualRoI, const double &aR, const double &aT, const std::string &aOutputPattern)

  Manually specify RoI, clusterize and apply a full call-back.

4.1.1 Function Documentation

4.1.1.1 AutoRoi_Cluster_FullCallback()

```
void AutoRoi_Cluster_FullCallback (
            const std::string & aInFile,
            const double & aR,
            const double & aT,
            const tFullClusterCallback & aCallback )
```

Automatically extract RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aCallback	The callback to be applied

Definition at line 163 of file API.cpp.

Referenced by AutoRoi_Cluster_SimpleCallback().

4.1.1.2 AutoRoi_Cluster_SimpleCallback()

```
void AutoRoi_Cluster_SimpleCallback (
            const std::string & aInFile,
            const double & aR,
            const double & aT,
            const tSimpleClusterCallback & aCallback )
```

Automatically extract RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aCallback	The callback to be applied

Definition at line 169 of file API.cpp.

References _FullClusterToSimpleCluster_(), and AutoRoi_Cluster_FullCallback().

Referenced by AutoRoi_Cluster_ToJson().

4.1.1.3 AutoRoi_Cluster_ToJson()

```
void AutoRoi_Cluster_ToJson (
            const std::string & aInFile,
            const double & aR,
            const double & aT,
            const std::string & aOutputPattern )
```

Automatically specify RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aOutputPattern	A formattable-string specifying the name of the output JSON files. Substitutable fields are {input} (giving the stem of the input file name) and {roi} (giving the RoI id).

Definition at line 175 of file API.cpp.

References _ClusterCallback_Json_(), and AutoRoi_Cluster_SimpleCallback().

4.1.1.4 AutoRoi_Scan_FullCallback()

```
void AutoRoi_Scan_FullCallback (
            const std::string & aInFile,
            const ScanConfiguration & aScanConfig,
            const tFullScanCallback & aCallback )
```

Automatically extract RoI, run scan and apply a full call-back.

Parameters

aInFile	The name of the localization file
aScanConfig	The configuration for the scan
aCallback	The full callback to be applied

Definition at line 143 of file API.cpp.

4.1.1.5 AutoRoi_Scan_SimpleCallback()

```
void AutoRoi_Scan_SimpleCallback (
            const std::string & aInFile,
            const ScanConfiguration & aScanConfig,
            const tSimpleScanCallback & aCallback )
```

Automatically extract RoI, run scan and apply a simple call-back.

Parameters

aInFile	The name of the localization file
aScanConfig	The configuration for the scan
aCallback	The simple callback to be applied

Definition at line 149 of file API.cpp.

References _FullScanToSimpleScan_().

Referenced by AutoRoi_Scan_ToJson().

4.1.1.6 AutoRoi_Scan_ToJson()

```
void AutoRoi_Scan_ToJson (
            const std::string & aInFile,
            const ScanConfiguration & aScanConfig,
            const std::string & aOutputPattern )
```

Automatically extract RoI, run scan and dump to JSON file.

Parameters

aInFile	The name of the localization file
aScanConfig	The configuration for the scan
aOutputPattern	A formattable-string specifying the name of the output JSON files. Substitutable fields are {input} (giving the stem of the input file name) and {roi} (giving the RoI id).

Definition at line 155 of file API.cpp.

References _ScanCallback_Json_(), and AutoRoi_Scan_SimpleCallback().

4.1.1.7 ManualRoi_Cluster_FullCallback()

```
void ManualRoi_Cluster_FullCallback (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const double & aR,
            const double & aT,
            const tFullClusterCallback & aCallback )
```

Manually specify RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aCallback	The callback to be applied

Definition at line 203 of file API.cpp.

Referenced by ManualRoi_Cluster_SimpleCallback().

4.1.1.8 ManualRoi_Cluster_SimpleCallback()

```
void ManualRoi_Cluster_SimpleCallback (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const double & aR,
            const double & aT,
            const tSimpleClusterCallback & aCallback )
```

Manually specify RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aCallback	The callback to be applied

Definition at line 209 of file API.cpp.

References _FullClusterToSimpleCluster_(), and ManualRoi_Cluster_FullCallback().

Referenced by ManualRoi_Cluster_ToJson().

4.1.1.9 ManualRoi_Cluster_ToJson()

```
void ManualRoi_Cluster_ToJson (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const double & aR,
            const double & aT,
            const std::string & aOutputPattern )
```

Manually specify RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aOutputPattern	A formattable-string specifying the name of the output JSON files. Substitutable fields are {input} (giving the stem of the input file name) and {roi} (giving the RoI id).

Definition at line 215 of file API.cpp.

References _ClusterCallback_Json_(), and ManualRoi_Cluster_SimpleCallback().

4.1.1.10 ManualRoi_Scan_FullCallback()

```
void ManualRoi_Scan_FullCallback (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const ScanConfiguration & aScanConfig,
            const tFullScanCallback & aCallback )
```

Manually specify RoI, run scan and apply a full call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aScanConfig	The configuration for the scan
aCallback	The full callback to be applied

Definition at line 183 of file API.cpp.

4.1.1.11 ManualRoi_Scan_SimpleCallback()

```
void ManualRoi_Scan_SimpleCallback (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const ScanConfiguration & aScanConfig,
            const tSimpleScanCallback & aCallback )
```

Manually specify RoI, run scan and apply a simple call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aScanConfig	The configuration for the scan
aCallback	The simple callback to be applied

Definition at line 189 of file API.cpp.

References _FullScanToSimpleScan_().

Referenced by ManualRoi_Scan_ToJson().

4.1.1.12 ManualRoi_Scan_ToJson()

```
void ManualRoi_Scan_ToJson (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const ScanConfiguration & aScanConfig,
            const std::string & aOutputPattern )
```

Manually specify RoI, run scan and dump to JSON file.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aScanConfig	The configuration for the scan
aOutputPattern	A formattable-string specifying the name of the output JSON files. Substitutable fields are {input} (giving the stem of the input file name) and {roi} (giving the RoI id).

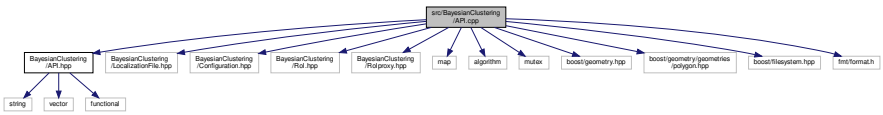
Definition at line 195 of file API.cpp.

References _ScanCallback_Json_(), and ManualRoi_Scan_SimpleCallback().

4.2 src/BayesianClustering/API.cpp File Reference

```
#include "BayesianClustering/API.hpp"
#include "BayesianClustering/LocalizationFile.hpp"
#include "BayesianClustering/Configuration.hpp"
#include "BayesianClustering/RoI.hpp"
#include "BayesianClustering/RoIproxy.hpp"
#include <map>
#include <algorithm>
#include <mutex>
#include <boost/geometry.hpp>
#include <boost/geometry/geometries/polygon.hpp>
#include <boost/filesystem.hpp>
#include <fmt/format.h>
```

Include dependency graph for API.cpp:



Functions

- void _ScanCallback_Json_ (const std::vector< ScanEntry > &aVector, const std::string &aInFile, const std::string &aOutputPattern)

  A callback to dump a scan to a JSON file.

- void _FullScanToSimpleScan_ (RoI &aRoI, const ScanConfiguration &aScanConfig, const tSimpleScanCallback &aCallback)

  A callback to neatly package the scan results for easy consumption.
- void _ClusterCallback_Json_ (const std::vector< ClusterWrapper > &aVector, const std::string &aInFile, const std::string &aOutputPattern)

  A callback to dump a clustering run to a JSON file.
- void _FullClusterToSimpleCluster_ (RoIproxy &aRoIproxy, const std::function< void(const std::vector< ClusterWrapper > &) > &aCallback)

  A callback to neatly package the scan results for easy consumption.
- void AutoRoi_Scan_FullCallback (const std::string &aInFile, const ScanConfiguration &aScanConfig, const tFullScanCallback &aCallback)

  Automatically extract RoI, run scan and apply a full call-back.
- void AutoRoi_Scan_SimpleCallback (const std::string &aInFile, const ScanConfiguration &aScanConfig, const tSimpleScanCallback &aCallback)

  Automatically extract RoI, run scan and apply a simple call-back.
- void AutoRoi_Scan_ToJson (const std::string &aInFile, const ScanConfiguration &aScanConfig, const std::string &aOutputPattern)

  Automatically extract RoI, run scan and dump to JSON file.
- void AutoRoi_Cluster_FullCallback (const std::string &aInFile, const double &aR, const double &aT, const tFullClusterCallback &aCallback)

  Automatically extract RoI, clusterize and apply a full call-back.
- void AutoRoi_Cluster_SimpleCallback (const std::string &aInFile, const double &aR, const double &aT, const tSimpleClusterCallback &aCallback)

  Automatically extract RoI, clusterize and apply a full call-back.
- void AutoRoi_Cluster_ToJson (const std::string &aInFile, const double &aR, const double &aT, const std::string &aOutputPattern)

  Automatically specify RoI, clusterize and apply a full call-back.
- void ManualRoi_Scan_FullCallback (const std::string &aInFile, const ManualRoI &aManualRoI, const ScanConfiguration &aScanConfig, const tFullScanCallback &aCallback)

  Manually specify RoI, run scan and apply a full call-back.
- void ManualRoi_Scan_SimpleCallback (const std::string &aInFile, const ManualRoI &aManualRoI, const ScanConfiguration &aScanConfig, const tSimpleScanCallback &aCallback)

  Manually specify RoI, run scan and apply a simple call-back.
- void ManualRoi_Scan_ToJson (const std::string &aInFile, const ManualRoI &aManualRoI, const ScanConfiguration &aScanConfig, const std::string &aOutputPattern)

  Manually specify RoI, run scan and dump to JSON file.
- void ManualRoi_Cluster_FullCallback (const std::string &aInFile, const ManualRoI &aManualRoI, const double &aR, const double &aT, const tFullClusterCallback &aCallback)

  Manually specify RoI, clusterize and apply a full call-back.
- void ManualRoi_Cluster_SimpleCallback (const std::string &aInFile, const ManualRoI &aManualRoI, const double &aR, const double &aT, const tSimpleClusterCallback &aCallback)

  Manually specify RoI, clusterize and apply a full call-back.
- void ManualRoi_Cluster_ToJson (const std::string &aInFile, const ManualRoI &aManualRoI, const double &aR, const double &aT, const std::string &aOutputPattern)

  Manually specify RoI, clusterize and apply a full call-back.

4.2.1 Function Documentation

4.2.1.1 _ClusterCallback_Json_()

```
void _ClusterCallback_Json_ (
            const std::vector< ClusterWrapper > & aVector,
            const std::string & aInFile,
            const std::string & aOutputPattern )
```

A callback to dump a clustering run to a JSON file.

Parameters

aVector	A vector of cluster-wrappers
aInFile	The name of the localization file
aOutputPattern	The name of the output JSON file

Definition at line 89 of file API.cpp.

Referenced by AutoRoi_Cluster_ToJson(), and ManualRoi_Cluster_ToJson().

4.2.1.2 _FullClusterToSimpleCluster_()

```
void _FullClusterToSimpleCluster_ (
            RoIproxy & aRoIproxy,
            const std::function< void(const std::vector< ClusterWrapper > &) > & aCallback )
```

A callback to neatly package the scan results for easy consumption.

Parameters

aRoIproxy	The region-proxy containing the clusters
aCallback	The simple callback to be applied

Definition at line 110 of file API.cpp.

Referenced by AutoRoi_Cluster_SimpleCallback(), and ManualRoi_Cluster_SimpleCallback().

4.2.1.3 _FullScanToSimpleScan_()

```
void _FullScanToSimpleScan_ (
            RoI & aRoI,
            const ScanConfiguration & aScanConfig,
            const tSimpleScanCallback & aCallback )
```

A callback to neatly package the scan results for easy consumption.

Parameters

aRoI	The region of interest
aScanConfig	The configuration for the scan
aCallback	The simple callback to be applied

Definition at line 75 of file API.cpp.

Referenced by AutoRoi_Scan_SimpleCallback(), and ManualRoi_Scan_SimpleCallback().

4.2.1.4 _ScanCallback_Json_()

```
void _ScanCallback_Json_ (
            const std::vector< ScanEntry > & aVector,
            const std::string & aInFile,
            const std::string & aOutputPattern )
```

A callback to dump a scan to a JSON file.

Parameters

aVector	A vector of scan results
aInFile	The name of the localization file
aOutputPattern	The name of the output JSON file

Definition at line 27 of file API.cpp.

Referenced by AutoRoi_Scan_ToJson(), and ManualRoi_Scan_ToJson().

4.2.1.5 AutoRoi_Cluster_FullCallback()

```
void AutoRoi_Cluster_FullCallback (
            const std::string & aInFile,
            const double & aR,
            const double & aT,
            const tFullClusterCallback & aCallback )
```

Automatically extract RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aCallback	The callback to be applied

Definition at line 163 of file API.cpp.

Referenced by AutoRoi_Cluster_SimpleCallback().

4.2.1.6 AutoRoi_Cluster_SimpleCallback()

```
void AutoRoi_Cluster_SimpleCallback (
            const std::string & aInFile,
            const double & aR,
            const double & aT,
            const tSimpleClusterCallback & aCallback )
```

Automatically extract RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aCallback	The callback to be applied

Definition at line 169 of file API.cpp.

References _FullClusterToSimpleCluster_(), and AutoRoi_Cluster_FullCallback().

Referenced by AutoRoi_Cluster_ToJson().

4.2.1.7 AutoRoi_Cluster_ToJson()

```
void AutoRoi_Cluster_ToJson (
            const std::string & aInFile,
            const double & aR,
            const double & aT,
            const std::string & aOutputPattern )
```

Automatically specify RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aOutputPattern	A formattable-string specifying the name of the output JSON files. Substitutable fields are {input} (giving the stem of the input file name) and {roi} (giving the RoI id).

Definition at line 175 of file API.cpp.

References _ClusterCallback_Json_(), and AutoRoi_Cluster_SimpleCallback().

4.2.1.8 AutoRoi_Scan_FullCallback()

```
void AutoRoi_Scan_FullCallback (
            const std::string & aInFile,
            const ScanConfiguration & aScanConfig,
            const tFullScanCallback & aCallback )
```

Automatically extract RoI, run scan and apply a full call-back.

Parameters

aInFile	The name of the localization file
aScanConfig	The configuration for the scan
aCallback	The full callback to be applied

Definition at line 143 of file API.cpp.

4.2.1.9 AutoRoi_Scan_SimpleCallback()

```
void AutoRoi_Scan_SimpleCallback (
            const std::string & aInFile,
            const ScanConfiguration & aScanConfig,
            const tSimpleScanCallback & aCallback )
```

Automatically extract RoI, run scan and apply a simple call-back.

Parameters

aInFile	The name of the localization file
aScanConfig	The configuration for the scan
aCallback	The simple callback to be applied

Definition at line 149 of file API.cpp.

References _FullScanToSimpleScan_().

Referenced by AutoRoi_Scan_ToJson().

4.2.1.10 AutoRoi_Scan_ToJson()

```
void AutoRoi_Scan_ToJson (
            const std::string & aInFile,
```

```
            const ScanConfiguration & aScanConfig,
            const std::string & aOutputPattern )
```

Automatically extract RoI, run scan and dump to JSON file.

Parameters

aInFile	The name of the localization file
aScanConfig	The configuration for the scan
aOutputPattern	A formattable-string specifying the name of the output JSON files. Substitutable fields are {input} (giving the stem of the input file name) and {roi} (giving the RoI id).

Definition at line 155 of file API.cpp.

References _ScanCallback_Json_(), and AutoRoi_Scan_SimpleCallback().

4.2.1.11 ManualRoi_Cluster_FullCallback()

```
void ManualRoi_Cluster_FullCallback (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const double & aR,
            const double & aT,
            const tFullClusterCallback & aCallback )
```

Manually specify RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aCallback	The callback to be applied

Definition at line 203 of file API.cpp.

Referenced by ManualRoi_Cluster_SimpleCallback().

4.2.1.12 ManualRoi_Cluster_SimpleCallback()

```
void ManualRoi_Cluster_SimpleCallback (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const double & aR,
            const double & aT,
            const tSimpleClusterCallback & aCallback )
```

Manually specify RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aCallback	The callback to be applied

Definition at line 209 of file API.cpp.

References _FullClusterToSimpleCluster_(), and ManualRoi_Cluster_FullCallback().

Referenced by ManualRoi_Cluster_ToJson().

4.2.1.13 ManualRoi_Cluster_ToJson()

```
void ManualRoi_Cluster_ToJson (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const double & aR,
            const double & aT,
            const std::string & aOutputPattern )
```

Manually specify RoI, clusterize and apply a full call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aR	The R value of the clusterizer
aT	The T value of the clusterizer
aOutputPattern	A formattable-string specifying the name of the output JSON files. Substitutable fields are {input} (giving the stem of the input file name) and {roi} (giving the RoI id).

Definition at line 215 of file API.cpp.

References _ClusterCallback_Json_(), and ManualRoi_Cluster_SimpleCallback().

4.2.1.14 ManualRoi_Scan_FullCallback()

```
void ManualRoi_Scan_FullCallback (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const ScanConfiguration & aScanConfig,
            const tFullScanCallback & aCallback )
```

Manually specify RoI, run scan and apply a full call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aScanConfig	The configuration for the scan
aCallback	The full callback to be applied

Definition at line 183 of file API.cpp.

4.2.1.15 ManualRoi_Scan_SimpleCallback()

```
void ManualRoi_Scan_SimpleCallback (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const ScanConfiguration & aScanConfig,
            const tSimpleScanCallback & aCallback )
```

Manually specify RoI, run scan and apply a simple call-back.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aScanConfig	The configuration for the scan
aCallback	The simple callback to be applied

Definition at line 189 of file API.cpp.

References _FullScanToSimpleScan_().

Referenced by ManualRoi_Scan_ToJson().

4.2.1.16 ManualRoi_Scan_ToJson()

```
void ManualRoi_Scan_ToJson (
            const std::string & aInFile,
            const ManualRoI & aManualRoI,
            const ScanConfiguration & aScanConfig,
            const std::string & aOutputPattern )
```

Manually specify RoI, run scan and dump to JSON file.

Parameters

aInFile	The name of the localization file
aManualRoI	The manually-specified RoI window
aScanConfig	The configuration for the scan
aOutputPattern	A formattable-string specifying the name of the output JSON files. Substitutable fields are {input} (giving the stem of the input file name) and {roi} (giving the RoI id).

Definition at line 195 of file API.cpp.

References _ScanCallback_Json_(), and ManualRoi_Scan_SimpleCallback().

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