

```
1  /**
2   * Copyright (c) 2011-2025 libbitcoin developers (see AUTHORS)
3   *
4   * This file is part of libbitcoin.
5   *
6   * This program is free software: you can redistribute it and/or modify
7   * it under the terms of the GNU Affero General Public License as published by
8   * the Free Software Foundation, either version 3 of the License, or
9   * (at your option) any later version.
10  *
11  * This program is distributed in the hope that it will be useful,
12  * but WITHOUT ANY WARRANTY; without even the implied warranty of
13  * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
14  * GNU Affero General Public License for more details.
15  *
16  * You should have received a copy of the GNU Affero General Public License
17  * along with this program. If not, see <http://www.gnu.org/licenses/>.
18  */
19 #ifndef LIBBITCOIN_NETWORK_MESSAGES_RPC_INTERFACES_EXPLORE_HPP
20 #define LIBBITCOIN_NETWORK_MESSAGES_RPC_INTERFACES_EXPLORE_HPP
21
22 #include <bitcoin/network/define.hpp>
23 #include <bitcoin/network/messages/rpc/interface.hpp>
24
25 namespace libbitcoin {
26 namespace network {
27 namespace rpc {
28
29 struct explore_methods
30 {
31     static constexpr std::tuple methods
32     {
33         method<"block", nullable<string_t>, nullable<number_t>>{ "hash", "height" },
34         method<"header", nullable<string_t>, nullable<number_t>>{ "hash", "height" },
35         method<"filter", nullable<string_t>, nullable<number_t>>{ "hash", "height" },
```

```
36     method<"block_tx", nullable<string_t>, nullable<number_t>, number_t>{ "hash", "height",  
    "position" },  
37     method<"block_txs", nullable<string_t>, nullable<number_t>>{ "hash", "height" },  
38     method<"transaction", string_t>{ "hash" },  
39     method<"input", string_t, nullable<number_t>>{ "hash", "index" },  
40     method<"inputs", string_t>{ "hash" },  
41     method<"input_script", string_t, nullable<number_t>>{ "hash", "index" },  
42     method<"input_scripts", string_t>{ "hash" },  
43     method<"input_witness", string_t, nullable<number_t>>{ "hash", "index" },  
44     method<"input_witnesses", string_t>{ "hash" },  
45     method<"output", string_t, nullable<number_t>>{ "hash", "index" },  
46     method<"outputs", string_t>{ "hash" },  
47     method<"output_script", string_t, nullable<number_t>>{ "hash", "index" },  
48     method<"output_scripts", string_t>{ "hash" },  
49     method<"output_spender", string_t, nullable<number_t>>{ "hash", "index" },  
50     method<"output_spenders", string_t>{ "hash" },  
51     method<"addresses", string_t>{ "hash" }  
52 };  
53  
54     using block = at<0, decltype(methods)>;  
55     using header = at<1, decltype(methods)>;  
56     using filter = at<2, decltype(methods)>;  
57     using block_tx = at<3, decltype(methods)>;  
58     using block_txs = at<4, decltype(methods)>;  
59     using transaction = at<5, decltype(methods)>;  
60     using input = at<6, decltype(methods)>;  
61     using inputs = at<7, decltype(methods)>;  
62     using input_script = at<8, decltype(methods)>;  
63     using input_scripts = at<9, decltype(methods)>;  
64     using input_witness = at<10, decltype(methods)>;  
65     using input_witnesses = at<11, decltype(methods)>;  
66     using output = at<12, decltype(methods)>;  
67     using outputs = at<13, decltype(methods)>;  
68     using output_script = at<14, decltype(methods)>;  
69     using output_scripts = at<15, decltype(methods)>;
```

```
70     using output_spender = at<16, decltype(methods)>;
71     using output_spenders = at<17, decltype(methods)>;
72     using addresses = at<18, decltype(methods)>;
73 };
74
75 using interface_explore = interface<explore_methods>;
76
77 /// Pagination and filtering are via query string.
78 enum explore_targets
79 {
80     /// /v[]/block/hash/[bkhhash] {1}
81     /// /v[]/block/height/[height] {1}s
82     block,
83
84     /// /v[]/block/hash/[bkhhash]/header {1}
85     /// /v[]/block/height/[height]/header {1}
86     header,
87
88     /// /v[]/block/hash/[bkhhash]/filter {1}
89     /// /v[]/block/height/[height]/filter {1}
90     filter,
91
92     /// -----
93
94     /// /v[]/block/hash/[bkhhash]/transaction/[position] {1}
95     /// /v[]/block/height/[height]/transaction/[position] {1}
96     block_tx,
97
98     /// /v[]/block/hash/[bkhhash]/transactions {all txs in the block}
99     /// /v[]/block/height/[height]/transactions {all txs in the block}
100    block_txs,
101
102    /// /v[]/transaction/hash/[txhash] {1}
103    transaction,
104
```

```
105  /// -----
106
107  /// /v[/input/[txhash]/[index] {1}
108  input,
109
110  /// /v[/inputs/[txhash] {all inputs in the tx}
111  inputs,
112
113  /// /v[/input/[txhash]/[index]/script {1}
114  input_script,
115
116  /// /v[/input/[txhash]/scripts {all input scripts in the tx}
117  input_scripts,
118
119  /// /v[/input/[txhash]/[index]/witness {1}
120  input_witness,
121
122  /// /v[/input/[txhash]/witnesses {all witnesses in the tx}
123  input_witnesses,
124
125  /// -----
126
127  /// /v[/output/[txhash]/[index] {1}
128  output,
129
130  /// /v[/outputs/[txhash] {all outputs in the tx}
131  outputs,
132
133  /// /v[/output/[txhash]/[index]/script {1}
134  output_script,
135
136  /// /v[/output/[txhash]/scripts {all output scripts in the tx}
137  output_scripts,
138
139  /// /v[/output/[txhash]/[index]/spender {1 - confirmed}
```

```
140     output_spender,  
141  
142     /// /v[]/output/[txhash]/spenders {all}  
143     output_spenders,  
144  
145     /// -----  
146  
147     /// /v[]/address/[output-script-hash] {all}  
148     address  
149 };  
150  
151 } // namespace rpc  
152 } // namespace network  
153 } // namespace libbitcoin  
154  
155 #endif  
156
```