**REQUESTS**

**FILES**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ID** | **OPCODE** | **OPERATION** | **MSG\_TYPE** | **ORD\_NO\_RULE** | **OPER\_PARAM** | **METHOD** |
|  | *00* | UPLOAD  CREATE  UPDATE | CONFIRMABLE | >=0 | [CONTENT] | PUT |
|  | DOWNLOAD  ACCES  UPDATE | FTC | =0 | NED | GET |
|  | *01* | MOVE | FTC | = 0 | [NEW\_FILEPATH] | POST |
|  | *02* | DELETE | FTC | = 0 | NED | DELETE |
|  | *03* | RENAME | FTC | = 0 | [NEW\_NAME] | STEPBA |

**DIRECTORIES**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ID** | **OPCODE** | **OPERATION** | **MSG\_TYPE** | **ORD\_NO\_RULE** | **OPER\_PARAM** | **METHOD** |
|  | *04* | CREATE | FTC | = 0 | NED | PUT |
|  | *05* | MOVE | FTC | = 0 | [NEW\_PATH] | POST |
|  | *06* | DELETE | FTC | = 0 | NED | DELETE |
|  | *07* | RENAME | FTC | = 0 | [NEW\_NAME] | STEPBA |

**RESPONSES**

**FILES**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ID** | **OPCODE** | **OPERATION** | **MSG\_TYPE** | **ORD\_NO\_RULE** | **OPER\_PARAM** | **METHOD** |
|  | *00* | UPLOAD  CREATE  UPDATE | NON | =0 | NED | PUT |
|  | DOWNLOAD  ACCES  UPDATE | NON | >=0 | [CONTENT] | GET |
|  | *01* | MOVE | NON | = 0 | NED | POST |
|  | *02* | DELETE | NON | = 0 | NED | DELETE |
|  | *03* | RENAME | NON | = 0 | NED | STEPBA |

**DIRECTORIES**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ID** | **OPCODE** | **OPERATION** | **MSG\_TYPE** | **ORD\_NO\_RULE** | **OPER\_PARAM** | **METHOD** |
|  | *04* | CREATE | NON | = 0 | NED | PUT |
|  | *05* | MOVE | NON | = 0 | NED | POST |
|  | *06* | DELETE | NON | = 0 | NED | DELETE |
|  | *07* | RENAME | NON | = 0 | NED | STEPBA |

**1. DICTIONARY**

***FTC*** = FREE TO CHOOSE.

***MSG\_TYPE*** = MESSAGE TYPE.

***ORD\_NO\_RULE*** = ORDER NUMBER RULE.

***OPER\_PARAM*** = OPERATION PARAMETERS.

***NED*** = NO EXTRA DATA WILL BE PRESENT IN PAYLOAD.

***EOT*** = END OF TRANSMISSION

**2. SYMBOLS USED**

\_ -> THE ONLY SPECIAL CHARACTER TO BE USED FOR FILE/DIRECTORY NAME.

**3. DESCRIPTIONS**

***OPCODE*** – PART OF PAYLOAD. SPECIFIES THE OPERATION CODE.

***MSG\_TYPE*** – THE TYPE OF MESSAGE THROUGH WHICH THE REQUEST WAS SENT.

***ORD\_NO (DOWNLOAD/UPLOAD USE)*** – PART OF PAYLOAD. IDENTIFIES IN ORDER PARTS OF THE SAME FILE, OR MARKS THE EOT FOR THE FILE

***ORD\_NO\_RULE*** – THE ACCEPTED FORMAT FOR ORD\_NO DETERMINED BY OPERATION.

***OPER\_PARAM*** – PART OF PAYLOAD. OPERATION SPECIFIC PARAMETERS.

***METHOD*** – THE METHOD USED TO SENT THE REQUEST.

**4. PACKAGE PARTs ORDER**

1. OP\_CODE – 3 BITs

2. ORD\_NO – 2 BYTEs

3. OPER\_PARAM CONTENT – AS MUCH AS NEED FROM WHAT IS LEFT IN PAYLOAD SPACE

**5. SIZEs**

**ORD\_NO SIZE** IS **2 BYTEs** (2^16-1 POSSIBLE VALUES).

**OP\_CODE SIZE** IS **3 BITs** (8 POSSIBLE VALUES).

**MAXIMUM FILE/DIRECTORY NAME SIZE** IS **30 BYTEs** (30 CHARs) TO REDUCE THE UNUSEFUL LOAD WITH DATA OF PAYLOAD.

**THE REST OF PAYLOAD SIZE IS TO BE USED FOR OPER\_PARAM.**

**6. SERVER RESPONSE**

THE RESPONSE WILL CONTAIN THE SAME OPCODE AS THE REQUEST.

ORD\_NO WILL BE EQUAL TO 0, EXCEPT FOR DOWNLOAD OPERATION WHEN IT WILL KEEP THE PRESENTED MEANING (PART IDENTIFIER OR EOT MARKER).

OPER\_PARAM WILL BE *NED* FOR ALL OPERATIONS, EXCEPT FOR DOWNLOAD WHEN IT WILL CONTAIN THE REQUESTED CONTENT.

**7. OTHERS**

AFTER TRANSMITTING THE MSG WITH **THE LAST PART** OF THE FILE, TO **MARK THE EOT** (FOR THAT FILE), A NEW MSG WILL BE SENT WITH THE SAME TKN, THE SAME OPCODE, BUT THE **ORD\_NO EQUAL TO 0.**

**STEPBA** METHOD IS TO BE ADDED.

***THE PRESENTED FORMAT IS MANDATORY.***

***FAILURE IN APPLYING THE PAYLOAD FORMAT LEADS TO IGNORING THE REQUEST WITH******RETURNING A RESPONSE CODE 4.00 - BAD REQUEST.***