

Outlook Rules (.RWZ) File Format

1. Introduction

The Outlook Rules (.rwz) File Format is used to store an export of Outlook rules.

1.1. Glossary

Little-endian: Multiple-byte values that are byte-ordered with the least significant byte stored in the memory location with the lowest address.

Timestamp: A variant time is stored as an 8-byte real value (double), representing a date between January 1, 100 and December 31, 9999, inclusive. The value 2.0 represents January 1, 1900; 3.0 represents January 2, 1900, and so on. Adding 1 to the value increments the date by a day. The fractional part of the value represents the time of day. Therefore, 2.5 represents noon on January 1, 1900; 3.25 represents 6:00 A.M. on January 2, 1900, and so on. Negative numbers represent dates prior to December 30, 1899. The variant time resolves to one second. Any milliseconds in the input date are ignored.

UTF-16: A standard for encoding Unicode characters, defined in the Unicode standard, in which the most commonly used characters are defined as double-byte characters. Unless specified otherwise, this term refers to the UTF-16 encoding form specified in [UNICODE5.0.0/2007] section 3.9.

1.2. References

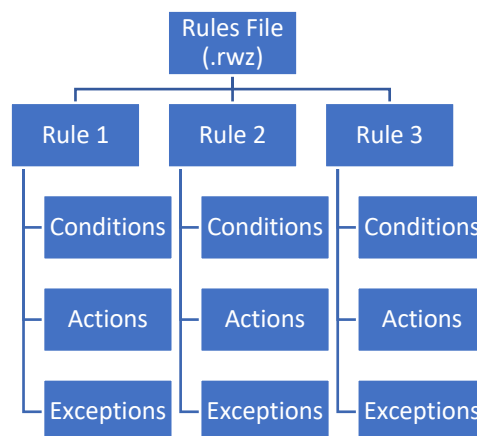
1.2.1. Normative References

[UNICODE5.0.0] The Unicode Consortium, "Unicode Default Case Conversion Algorithm 5.0.0", March 2006, <http://www.unicode.org/Public/5.0.0/ucd/CaseFolding.txt>

1.3. Overview

A rules file is a structure that is used to store a list of rules into a single file or memory buffer. A rule consists of a list of conditions, actions and exceptions that are defined in this specification.

In a rules file, all integer fields, including Unicode characters that are encoded in UTF-16, MUST be stored in **little-endian** byte order.



2. Structures

| |
|--------|
| Header |
| Rule 0 |
| ... |
| Rule N |
| Footer |

Header (50 bytes): [RulesHeader](#) containing information that defines the characteristics of the rules file, including the number of rules it holds.

Rules (variable): An array of [Rule](#) objects of length **Header.Number of Rules**.

Footer (variable): [RulesFooter](#) containing information that defines the characteristics of the rules file, including timestamp information.

2.1. RulesHeader

The header for the top-level of the .rwz file. This structure contains information such as the number of rules contained in the file.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Signature | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of Rules | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Signature (3 bytes): An unsigned integer that specifies the signature/version of the rule file

- Seen 0x000F4240 with 0x03140000
 - Interestingly: 1000000 in decimal
 - Seen in 2002 compatible exporting in Outlook 2019
- Seen 0x00140000 with 0x06140000
 - Seen in exporting in Outlook 2019
- Seen 0x000ED03C with 0x00000000
 - Seen in 2000/98 compatible exporting in Outlook 2019
- Seen 0x00124F80 with 0x06140000
 - Seen in exporting in Outlook 2007

Unknown2 (4 bytes): An unsigned integer with unknown meaning.

Unknown3 (24 bytes): An unsigned integer with unknown meaning. Always zero.

Unknown1 (1 byte): An unsigned integer with unknown meaning.

Name (variable): A **String** that specifies the rule's name.

Note: Outlook limits the length of this field to 255 characters.

Enabled (4 bytes): An unsigned integer that specifies if the rule is enabled. 1 if enabled. 0 if disabled.

Unknown2 (4 bytes): An unsigned integer with unknown meaning.

Unknown3 (4 bytes): An unsigned integer with unknown meaning.

Unknown4 (4 bytes): An unsigned integer with unknown meaning.

Unknown5 (4 bytes): An unsigned integer with unknown meaning.

Data Size (4 bytes): An unsigned integer that specifies the length of the remaining data.

Number of Rule Elements (2 bytes): An unsigned integer that specifies the number of rule elements (conditions, actions, exceptions etc.) that the rule contains.

Separator (2 bytes): An unsigned integer that specifies a separator. If it is 0xFFFF then the **Class Name Length** and **Class Name**. Sometimes is 0x8001.

Unknown6 (2 bytes): An unsigned integer with unknown meaning. Always zero.

Class Name Length (2 bytes): An unsigned integer that specifies the length of the class name in bytes.

Class Name (variable): An ASCII encoded string that specifies the rule's class name. Always "CRuleElement".

2.4. RuleElement

Rule elements specify a rule's conditions, actions and exceptions, e.g. "sent only to me", "mark as read", "except if sent only to me".

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Identifier | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Identifier (4 bytes): An unsigned integer that specifies the type of the rule element's data.

Mandatory Rule Elements

| Value | Description | Data |
|------------|---|----------------------------|
| 0x00000064 | Unknown meaning | UnknownRuleElement0x64Data |
| 0x00000190 | "type of messages to which this rule applies" | ApplyRuleElementData |

Conditions

| Value | Description | Data |
|-------|-------------|------|
|-------|-------------|------|

| | | |
|------------|---|--|
| 0x000000C8 | “where my name is in the To box” | SimpleRuleElementData |
| 0x000000C9 | “sent only to me” | SimpleRuleElementData |
| 0x000000CA | “where my name is not in the To box” | SimpleRuleElementData |
| 0x000000CB | “from <people or public group>” | PeopleOrPublicGroupListRuleElementData |
| 0x000000CC | “sent to <people or public group>” | PeopleOrPublicGroupListRuleElementData |
| 0x000000CD | “with <specific words> in the subject” | StringsListRuleElementData |
| 0x000000CE | “with <specific words> in the body” | StringsListRuleElementData |
| 0x000000CF | “with <specific words> in the subject or body” | StringsListRuleElementData |
| 0x000000D0 | “flagged for <action>” | FlaggedForActionRuleElementData |
| 0x000000D2 | “marked as <importance>” | ImportanceRuleElementData |
| 0x000000D3 | “marked as <sensitivity>” | SensitivityRuleElementData |
| 0x000000D7 | “assigned to <category> category” | CategoriesListRuleElementData |
| 0x000000DC | “which is an automatic reply” | SimpleRuleElementData |
| 0x000000DE | “which has attachment” | SimpleRuleElementData |
| 0x000000DF | “with <selected properties> of documents or forms” | WithSelectedPropertiesOfDocumentOrFormsRuleElementData |
| 0x000000E0 | “with a size <in a specific range>” | SizeInSpecificRangeRuleElementData |
| 0x000000E1 | “received <in a specific date span>” | ReceivedInSpecificDateSpanRuleElementData |
| 0x000000E2 | “where my name is in the Cc box” | SimpleRuleElementData |
| 0x000000E3 | “where my name is in the To or Cc box” | SimpleRuleElementData |
| 0x000000E4 | “uses the <form name> form” | UsesFormRuleElementData |
| 0x000000E5 | “with <specific words> in the recipient’s address” | StringsListRuleElementData |
| 0x000000E6 | “with <specific words> in the sender’s address” | StringsListRuleElementData |
| 0x000000E8 | “with <specific words> in the message header” | StringsListRuleElementData |
| 0x000000EE | “through the <specified> account” | ThroughAccountRuleElementData |
| 0x000000EF | “on this computer only” | OnThisComputerOnlyRuleElementData |
| 0x000000F0 | “sender is in <specified> Address Book” | SenderInSpecifiedAddressBookRuleElementData |
| 0x000000F1 | “which is a meeting invitation or update” | SimpleRuleElementData |
| 0x000000F5 | “from RSS feeds with <specified text> in the title” | StringsListRuleElementData |
| 0x000000F6 | “assigned to any category” | SimpleRuleElementData |
| 0x000000F7 | “from any RSS feed” | SimpleRuleElementData |

Actions

| Value | Description | Data |
|------------|-------------------------------------|-----------------------------|
| 0x0000012C | “move it to the <specified> folder” | MoveToFolderRuleElementData |
| 0x0000012D | “delete it” | SimpleRuleElementData |

| | | |
|------------|---|---|
| 0x0000012E | “forward it to <people or public group>” | PeopleOrPublicGroupListRuleElementData |
| 0x0000012F | “reply using <template>” | PathRuleElementData |
| 0x00000130 | “display <a specific message> in the New Item Alert window” | DisplayMessageInNewItemAlertWindowRuleElementData |
| 0x00000131 | "flag message for <action in a number of days>" | FlagRuleElementData |
| 0x00000132 | “clear the Message flag” | SimpleRuleElementData |
| 0x00000133 | “assign it to the <category> category” | CategoriesListRuleElementData |
| 0x00000136 | “play <sound>” | PathRuleElementData |
| 0x00000137 | “mark it as <importance>” | ImportanceRuleElementData |
| 0x00000138 | “mark it as <sensitivity>” | SensitivityRuleElementData |
| 0x00000139 | “move a copy to the <specified> folder” | MoveToFolderRuleElementData |
| 0x0000013A | “notify me when it is read” | SimpleRuleElementData |
| 0x0000013B | “notify me when it is delivered” | SimpleRuleElementData |
| 0x0000013C | “Cc the message to <people or public group>” | PeopleOrPublicGroupRuleElementData |
| 0x0000013E | “defer delivery by <a number of> minutes” | DeferDeliveryRuleElementData |
| 0x00000142 | “stop processing more rules” | SimpleRuleElementData |
| 0x00000143 | “redirect it to <people or public group>” | PeopleOrPublicGroupRuleElementData |
| 0x00000146 | “have server reply using <a specific message>” | AutomaticReplyRuleElementData |
| 0x00000147 | “forward it to <people or public group> as attachment” | PeopleOrPublicGroupListRuleElementData |
| 0x00000148 | “print it” | SimpleRuleElementData |
| 0x00000149 | “start <application>” Note: this has been hidden in Outlook 2016 | PathRuleElementData |
| 0x0000014A | “permanently delete it” | SimpleRuleElementData |
| 0x0000014B | “run <script>” Note: this has been hidden in Outlook 2016 | RunScriptRuleElementData |
| 0x0000014C | “mark as read” | SimpleRuleElementData |
| 0x0000014F | “display a Desktop alert” | SimpleRuleElementData |
| 0x00000151 | “flag message for <follow up at this time>” | FlagForFollowUpRuleElementData |
| 0x00000152 | “clear message’s categories” | SimpleRuleElementData |

Exceptions

| Value | Description | Data |
|------------|---|--|
| 0x000001F4 | “except where my name is in the To box” | SimpleRuleElementData |
| 0x000001F5 | “except if sent only to me” | SimpleRuleElementData |
| 0x000001F6 | “except where my name is not in the To Box” | SimpleRuleElementData |
| 0x000001F7 | “except if from <people or public group>” | PeopleOrPublicGroupListRuleElementData |

| | | |
|------------|---|--|
| 0x000001F8 | “except if sent to <people or public group>” | PeopleOrPublicGroupListRuleElementData |
| 0x000001F9 | “except if the subject contains <specific words>” | StringsListRuleElementData |
| 0x000001FA | “except if the body contains <specific words>” | StringsListRuleElementData |
| 0x000001FB | “except if the subject or body contains <specific words>” | StringsListRuleElementData |
| 0x000001FC | “except if it is flagged for <action>” | FlaggedForActionRuleElementData |
| 0x000001FE | “except if it is marked as <importance>” | ImportanceRuleElementData |
| 0x000001FF | “except if it is marked as <sensitivity>” | SensitivityRuleElementData |
| 0x00000203 | “except if it is assigned to <category> category” | CategoriesListRuleElementData |
| 0x00000208 | “except if it is an automatic reply” | SimpleRuleElementData |
| 0x0000020A | “except if it has an attachment” | SimpleRuleElementData |
| 0x0000020B | “except with <selected properties> of documents or forms” | WithSelectedPropertiesOfDocumentOrFormsRuleElementData |
| 0x0000020C | “except with a size <in a specific range>” | SizeInSpecificRangeRuleElementData |
| 0x0000020D | “except if received <in a specific date span>” | ReceivedInSpecificDateSpanRuleElementData |
| 0x0000020E | “except where my name is in the Cc box” | SimpleRuleElementData |
| 0x0000020F | “except if my name is in the To or Cc box” | SimpleRuleElementData |
| 0x00000210 | “except if it uses the <form name> form” | UsesFormRuleElementData |
| 0x00000211 | “except with <specific words> in the recipient's address” | StringsListRuleElementData |
| 0x00000212 | “except with <specific words> in the sender's address” | StringsListRuleElementData |
| 0x00000213 | “except if the message header contains <specific words>” | StringsListRuleElementData |
| 0x00000214 | “except through the <specified> account” | ThroughAccountRuleElementData |
| 0x00000215 | “except if sender is <specified> Address Book” | SenderInSpecifiedAddressBookRuleElementData |
| 0x00000216 | “except if it is a meeting invitation or update” | SimpleRuleElementData |
| 0x00000219 | “except if it is from RSS Feeds with <specified text> in the title” | StringsListRuleElementData |
| 0x0000021A | “except if it is assigned to any category” | SimpleRuleElementData |
| 0x0000021B | “except from any RSS Feed” | SimpleRuleElementData |

Notes

- Outlook requires the rule element 0x00000142 (“stop processing more rules”) to be present if the rule element 0x0000014A (“permanently delete it”) is selected.
- Outlook requires the rule element 0x000000EF (“on this computer only” condition) to be present for the following rule elements
 - 0x000000EE (“through the <specified> account” condition) – this cannot be unselected)

- 0x000000F0 (“sender is in the <specified> Address Book” condition) – this cannot be unselected
- 0x00000116 (“play <sound>” action) – this can be unselected
- 0x00000149 (“start <application>” action) – this can be unselected
- 0x0000014B (“run <script>” action) – this can be unselected
- 0x0000014F (“display a Desktop alert” action) – this can be unselected
- 0x00000214 (“except through the <specified> account” exception) – this cannot be unselected)
- 0x00000215 (“except if sender is in the <specified> Address Book” exception) – this cannot be unselected

Data (variable): The rule element's data that depends on the value of **Identifier**.

2.4.1. String8

Specifies an ASCII encoded string.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Length... | | | | | | | | | | Value... | | | | | | | | | | | | | | | | | | | | | |

Length (1 byte): An unsigned integer that specifies the number of ASCII in the **Value** field. If this value is 0xFF then there are 2 little-endian bytes following the length field that specifies the length.

Value (variable): An ASCII encoded string of length **Length**.

2.4.2. String

Specifies a UTF-16 little endian encoded string.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Length... | | | | | | | | | | Value... | | | | | | | | | | | | | | | | | | | | | |

Length (1 byte): An unsigned integer that specifies the number of Unicode little endian bytes in the **Value** field.

If this value is 0xFF then there are 2 little-endian bytes following the length field that specifies the length.

Value (variable): A UTF-16 little-endian encoded string of length **Length * 2**.

2.4.3. SearchEntry

Specifies the entry in a list of strings.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Unknown | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown (4 bytes): An unsigned integer with unknown meaning. Always zero. Possibly flags.

Value (variable): A **String** that specifies the entry's value.

2.4.4. PropertyValueArray

Specifies a list of values.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Unknown | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of Properties | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Property Data Size | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Property Header 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Property Header N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Property Data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown (4 bytes): An unsigned integer with unknown meaning. Always zero.

Number of Properties (4 bytes): An unsigned integer that specifies the number of properties contained in this array.

Property Data Size (4 bytes): An unsigned integer that specifies the length in bytes of data following this field.

Property Header (variable): An array of **PropertyValueHeader** values of length **Number of Properties** that specifies the property values contained in the array.

Property Data (variable): An array of bytes of length **Number of Properties – Number of Properties * 12**

2.4.5. PropertyValueHeader

Specifies a list of values.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | | | | | | | | | | | | | | |
| Data Type | | | | | | | | | | | | | | | | Id | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Data Type (2 bytes): An unsigned integer specified in [\[MS-OXCDATA\]](#) section 2.11.1 that defines the type of data stored by this property.

Id (2 bytes): An unsigned integer that defines the id of this property.

Data 1 (4 bytes): An unsigned integer that defines the first 4 bytes of data of this property.

Data 2 (4 bytes): An unsigned integer that defines the second 4 bytes of data of this property.

Data 3 (4 bytes): An unsigned integer that defines the third 4 bytes of data of this property.

2.4.5.2. Fixed Length Properties

Following is a list of fixed length property types. All of these property types are specified in [\[MS-OXCDATA\]](#) section 2.11.1

- **PtypInteger16** *[TODO: not seen in wild, can't verify]*
- **PtypInteger32**
- **PtypFloating32** *[TODO: not seen in wild, can't verify]*
- **PtypFloating64** *[TODO: not seen in wild, can't verify]*
- **PtypBoolean** *[TODO: not seen in wild, can't verify]*
- **PtypCurrency** *[TODO: not seen in wild, can't verify]*
- **PtypFloatingTime** *[TODO: not seen in wild, can't verify]*
- **PtypTime** *[TODO: not seen in wild, can't verify]*
- **PtypInteger64** *[TODO: not seen in wild, can't verify]*
- **PtypErrorCode**

All fixed length properties are stored in the **Data2** field of the **PropertyValueHeader**.

2.4.5.3. Variable Length Properties

A variable length property, within the context of this document, is defined as one where each instance of the property can have a value of a different size. Such properties are specified along with their lengths or have alternate mechanisms (such as terminating null characters) for determining their size. Following is an exhaustive list of property types that are either variable length or stored in a stream like variable length property types

- **PtypString:** value is a null terminated Unicode little endian starting at the offset **Data2** field of the **PropertyValueHeader**
- **PtypBinary:** value is an array of bytes of length **Data3** field of the **PropertyValueHeader** starting at the offset **Data2** of the **PropertyValueHeader**
- **PtypString8** *[TODO: not seen in wild, can't verify]*
- **PtypGuid** *[TODO: not seen in wild, can't verify]*
- **PtypObject** *[TODO: not seen in wild, can't verify]*

2.4.6. Form

Specifies a form.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Unknown | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Class Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown (4 bytes): An unsigned integer with unknown meaning. Always zero.

Name (variable): A **String** that specifies the name of the form.

Note: Outlook limits the length of this field to 128 characters.

Class Name (variable): A **String8** that specifies the class name of the form. See https://docs.microsoft.com/en-us/openspecs/exchange_server_protocols/ms-oxcmmsg/6bff5405-8132-4e03-b852-d5241ff173b1

| Value | Description | Notes |
|---|--|--|
| IPM | Generic | |
| IPM.Activity | Journal Entry | Can create subclass |
| IPM.Appointment | Appointment | |
| IPM.Conflict | Conflict Message | |
| IPM.Conflict.Resolution.Message | Conflict Resolution Form | |
| IPM.Contact | Contact | Can create subclass |
| IPM.DistList | Distribution List | |
| IPM.Document | Document | |
| IPM.InfoPathForm | InfoPath Form | |
| IPM.Note | Message | Can create subclass |
| IPM.Note.Mobile.MMS | Multimedia Message | |
| IPM.Note.RECEIPT.SMIME | SMIME Receipt | |
| IPM.Note.Rules.OofTemplate.Mic rosoft | Automatic Replies template | |
| IPM.Note.Rules.ReplyTemplate.Mic rosoft | Rule reply template | |
| IPM.Note.SMIME | SMIME Encrypted form | |
| IPM.Note.SMIME.MultipartSigned | SMIME digitally signed form | |
| IPM.Note.Secure | Encrypted Message | |
| IPM.Note.Secure.Sign | Digitally Signed Message | |
| IPM.OLE.CLASS.{00061055-0000- 0000-C000-0000000000046} | Message class of recurring exceptions | See https://docs.microsoft.com/en-us/openspecs/exchange_server_protocols/ms-oxcical/6911f0f9-a26b-44bd-be7e-0fe38059fae0 |
| IPM.Outlook.Recall | Recall Message Form | |
| IPM.POST | Post | Can create subclass |
| IPM.POST.RSS | RSS Article | Can create subclass |
| IPM.Recall | Message Recall Report | |
| IPM.Remote | Remote | |
| IPM.Resend | Resend | |
| IPM.Schedule.Meeting.Cancelled | Meeting Cancellation | |
| IPM.Schedule.Meeting.Request | Meeting Request | Can create subclass |
| IPM.Schedule.Meeting.Request.Neg | Decline Meeting Response | |
| IPM.Schedule.Meeting.Resp.Pos | Accept Meeting Response | |
| IPM.Schedule.Meeting.Resp.Tent | Tentative Meeting Response | |
| IPM.Sharing | Sharing Request | |
| IPM.StickyNote | Note | |
| IPM.Task | Task | Can create subclass |
| IPM.TaskRequest | Task Request | |
| IPM.TaskRequest.Accept | Task Accept | |

| | | |
|-------------------------|--------------|--|
| IPM.TaskRequest.Decline | Task Decline | |
| IPM.TaskRequest.Update | Task Update | |
| REPORT | Report | |

2.4.7. DocumentProperty

Specifies a form.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | |
| Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data Type | | | | | | | | | | | | | | | | Id | | | | | | | | | | | | | | | |
| String Match Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| String Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number Match Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date Match Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Field (variable): A **String** that specifies the field of the document.

Note: Outlook limits the length of this field to 32 characters.

Data Type (2 bytes): An unsigned integer specified in [\[MS-OXCDATA\]](#) section 2.11.1 that defines the type of data stored by this property.

Id (2 bytes): An unsigned integer that defines the id of this property.

| Value | Data Type | Field |
|--------|----------------------------|------------------|
| 0x8222 | PtypString, 0x001F | Author |
| 0x8223 | PtypInteger32, 0x0003 | Bytes |
| 0x8224 | PtypString, 0x001F | Category |
| 0x8225 | PtypInteger32, 0x0003 | Characters |
| 0x8226 | PtypString, 0x001F | Comments |
| 0x8227 | PtypString, 0x001F | Company |
| 0x8228 | PtypTime, 0x0040 | Creation Time |
| 0x8229 | PtypString, 0x001F | Document Subject |
| 0x822A | PtypString, 0x001F | Edit Time |
| 0x822B | PtypInteger32, 0x0003 | Hidden Slides |
| 0x8032 | PtypMultipleString, 0x101F | Keywords |
| 0x822C | PtypString, 0x001F | Last Author |
| 0x822D | PtypTime, 0x0040 | Last Saved Time |
| 0x822E | PtypInteger32, 0x0003 | Lines |
| 0x822F | PtypString, 0x001F | Manager |

Unknown3 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Date Value (8 bytes): An unsigned little-endian that defines the value used when matching date fields.

Unknown4 (4 bytes): An unsigned integer with unknown meaning. Always zero.

2.4.8. UnknownRuleElement0x64Data

Contains data for rule elements with identifier 0x00000064 with unknown meaning.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always one.

2.4.9. SimpleRuleElementData

Contains data for:

- Rule elements with identifier 0x0000000C8 specifying the “where my name is in the To box” condition.
- Rule elements with identifier 0x0000000C9 specifying the “sent only to me” condition.
- Rule elements with identifier 0x0000000CA specifying the “where my name is not in the To box” condition.
- Rule elements with identifier 0x0000000DE specifying the “which has attachment” condition.
- Rule elements with identifier 0x0000000E2 specifying the “where my name is in the Cc box” condition.
- Rule elements with identifier 0x0000000E3 specifying the “where my name is in the To or Cc box” condition.
- Rule elements with identifier 0x0000000F0 specifying the “which is a meeting invitation or update” condition.
- Rule elements with identifier 0x0000000F5 specifying the “from any RSS feed” condition.
- Rule elements with identifier 0x00000012D specifying the “delete it” action.
- Rule elements with identifier 0x000000132 specifying the “clear the Message flag” action.
- Rule elements with identifier 0x00000013A specifying the “notify me when it is read” action.
- Rule elements with identifier 0x00000013B specifying the “notify me when it is delivered” action.
- Rule elements with identifier 0x000000142 specifying the “stop processing more rules” action.
- Rule elements with identifier 0x00000014A specifying the “permanently delete it” action.
- Rule elements with identifier 0x00000014C specifying the “mark as read” action.
- Rule elements with identifier 0x00000014F specifying the “display a Desktop alert” action.

- Rule elements with identifier 0x000000152 specifying the “clear message’s categories” action.
- Rule elements with identifier 0x0000001F4 specifying the “except where my name is in the To box” exception.
- Rule elements with identifier 0x0000001F5 specifying the “except if sent only to me” exception.
- Rule elements with identifier 0x0000001F6 specifying the “except where my name is not in the To Box” exception.
- Rule elements with identifier 0x000000208 specifying the “except if it is an automatic reply” exception.
- Rule elements with identifier 0x00000020A specifying the “except if it has an attachment” exception.
- Rule elements with identifier 0x00000020E specifying the “except where my name is in the Cc box” exception.
- Rule elements with identifier 0x00000020F specifying the “except if my name is in the To or Cc box” exception.
- Rule elements with identifier 0x000000216 specifying the “except if it is a meeting invitation or update” exception.
- Rule elements with identifier 0x00000021A specifying the “except if it is assigned to any category” exception.
- Rule elements with identifier 0x00000020F specifying the “except from any RSS Feed” exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Reserved (4 bytes): An unsigned integer with unknown meaning. Always zero.

2.4.10. PeopleOrPublicGroupListRuleElementData

Contains data for:

- Rule elements with identifier 0x000000CB specifying the “from <people or public group>” condition.
- Rule elements with identifier 0x000000CC specifying the “sent to <people or public group>” condition.
- Rule elements with identifier 0x0000012E specifying the “forward it to <people or public group> as attachment” action.
- Rule elements with identifier 0x0000013C specifying the “Cc the message to <people or public group>” action.
- Rule elements with identifier 0x00000144 specifying the “redirect it to <people or public group>” action.
- Rule elements with identifier 0x00000147 specifying the “forward it to <people or public group> as attachment” action.
- Rule elements with identifier 0x000001F7 specifying the “except if from <people or public group>” action.
- Rule elements with identifier 0x000001F8 specifying the “except if sent to <people or public group>” action.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Number of Values (4 bytes): An unsigned integer that specifies the length of the **Values** field

Values (variable): An array of **PropertyValueArray** values of length **Number of Values** that specifies the people or public group names to use as a filter.

Unknown3 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown4 (4 bytes): An unsigned integer with unknown meaning. Always zero.

2.4.11. StringsListRuleElementData

Contains data for

- Rule elements with identifier 0x000000CD specifying the “with specific words in the subject” condition.
- Rule elements with identifier 0x000000CE specifying the “with specific words in the body” condition.
- Rule elements with identifier 0x000000CF specifying the “with specific words in the subject or body” condition.
- Rule elements with identifier 0x000000E5 specifying the “with specific words in the recipient’s address” condition.
- Rule elements with identifier 0x000000E6 specifying the “with specific words in the sender’s address” condition.
- Rule elements with identifier 0x000000E8 specifying the “with specific words in the message header” condition.
- Rule elements with identifier 0x000000F5 specifying the “from RSS feeds with <specified text> in the title” condition.
- Rule elements with identifier 0x000001F9 specifying the “except if the subject contains <specific words>” exception.
- Rule elements with identifier 0x000001FA specifying the “except if the body contains <specific words>” exception.
- Rule elements with identifier 0x000001FB specifying the “except if the subject or body contains <specific words>” exception.
- Rule elements with identifier 0x00000211 specifying the “except with <specific words> in the recipient's address” exception.
- Rule elements with identifier 0x00000212 specifying the “except with <specific words> in the sender’s address” exception.

- Rule elements with identifier 0x00000213 specifying the “except if the message header contains <specific words>” exception.
- Rule elements with identifier 0x00000219 specifying the “except if it is from RSS Feeds with <specified text> in the title” exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Number of Entries | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Entries | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Number of Entries (4 bytes): An unsigned integer that specifies the number of words or phrases to search for in the subject.

Entries (variable): An array of **SeachEntry** values of length **Number of Entries** that specifies the words or phrases to search for in the subject

2.4.12. ImportanceRuleElementData

Contains data for

- Rule elements with identifier 0x000000D2 specifying the “marked as <importance>” condition.
- Rule elements with identifier 0x00000137 specifying the “mark it as <importance>” action.
- Rule elements with identifier 0x000001FE specifying the “except if it is marked as <importance>” exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Importance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Importance (4 bytes): An integer that indicates the importance of the message to condition on defined in [\[MS-OXCMSG\]](#) section 2.2.1.11.

2.4.13. SensitivityRuleElementData

Contains data for

- Rule elements with identifier 0x000000D3 specifying the “marked as <sensitivity>” condition.
- Rule elements with identifier 0x00000138 specifying the “mark it as <sensitivity>” action.
- Rule elements with identifier 0x000001FF specifying the “except if it is marked as <sensitivity>” exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Unknown3 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Action (variable): A **String** that specifies the action.

Note: Outlook limits the length of this field to 100 characters.

Unknown4 (4 bytes): An unsigned integer with unknown meaning. Always one.

2.4.16. WithSelectedPropertiesOfDocumentOrFormsRuleElementData

Contains data for

- Rule elements with identifier 0x000000DF specifying the “with <selected properties> of documents or properties” condition.
- Rule elements with identifier 0x0000020B specifying the “except with <selected properties> of documents or forms” exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Forms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of Document Properties | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Document Property 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Document Property N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of Classes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Class 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Class N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Forms (variable): A **String** that specifies the list of forms separated by a semicolon (“;”).

Number of Document Properties (4 bytes): An unsigned integer that specifies the number of document properties in this condition.

Document Properties (variable): An array of **DocumentProperty** values of length **Number of Document Properties** that specifies the forms in this condition.

2.4.17. SizeInSpecificRangeRuleElementData

Contains data for

- Rule elements with identifier 0x000000E0 specifying the “with a size <in a specific range>” condition.

- Rule elements with identifier 0x0000020C specifying the “except with a size <in a specific range> exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Min Size in Kilobytes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max Size in Kilobytes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Min Size in Kilobytes (4 bytes): An unsigned integer that specifies the minimum message size in kilobytes.

Max Size in Kilobytes (4 bytes): An unsigned integer that specifies the maximum message size in kilobytes.

2.4.18. ReceivedInSpecificDateSpanRuleElementData

Contains data for

- Rule elements with identifier 0x000000E1 specifying the “received <in a specific date span>” condition.
- Rule elements with identifier 0x0000020D specifying the “except if received <in a specific date span> exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Include After Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| After Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Include Before Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Before Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Include After Date (4 bytes): A BOOL that specifies whether to include the after date in the condition.

Unknown3 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Before Date (8 bytes): A **timestamp** that specifies whether the before date of the condition.

Include Before Date (4 bytes): A BOOL that specifies whether to include the after date in the condition.

Unknown4 (4 bytes): An unsigned integer with unknown meaning. Always zero.

After Date (8 bytes): A **timestamp** that specifies whether the after date of the condition.

2.4.19. UsesFormRuleElementData

Contains data for

- Rule elements with identifier 0x000000E4 specifying the “uses the <form name> form” condition.
- Rule elements with identifier 0x00000210 specifying the “except if it uses the <form name> form” exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 | |
| Number of Forms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Form 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Form N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Number of Forms (4 bytes): An unsigned integer that specifies the number of forms in this condition.

Forms (variable): An array of **Form** values of length **Number of Forms** that specifies the forms in this condition.

2.4.20. ThroughAccountRuleElementData

Contains data for

- Rule elements with identifier 0x000000EE specifying the “through the specified account” condition.
- Rule elements with identifier 0x00000214 specifying the “except through the <specified> account” exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 | |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Account Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Account Name (variable): A **String** that specifies the account name.
Note: Outlook limits the length of this field to 63 characters.

Unknown3 (variable): A **String8** with unknown meaning. Observed as a 10-digit number (-190692068) represented as an ASCII string.

2.4.21. OnThisComputerOnlyRuleElementData

Contains data for rule elements with identifier 0x0000000EF specifying the “on this computer only” condition

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UUID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

UUID (16 bytes): A UUID with unknown meaning.

2.4.22. SenderInSpecifiedAddressBookRuleElementData

Contains data for

- Rule elements with identifier 0x000000F0 specifying the “sender is in the <specified> Address Book” condition.
- Rule elements with identifier 0x00000215 specifying the “except if sender is <specified> Address Book” exception.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Storage Id Length | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Storage id | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Account Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Storage Id Length (4 bytes): An unsigned integer that specifies the number of bytes in the **Storage Id** field.

Storage Id (variable): A byte array of length **Storage Id Length** that contains the storage id of the Address Book.

Account Name (variable): A **String** that specifies the Address Book name.

2.4.23. MoveToFolderRuleElementData

Contains data for

- Rule elements with identifier 0x0000012C specifying the “move it to the <specified> folder” action.
- Rule elements with identifier 0x00000139 specifying the “move a copy to the <specified> folder” action.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Folder Entry Id Size | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Folder Entry Id | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Store Entry Id Size | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Store Id | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Folder Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Folder Entry Id Size (4 bytes): An unsigned integer that specifies the size of the **Folder Entry Id** field.

Folder Entry Id (variable): A **FolderEntryId** ([\[MS-OXCDATA\]](#) section 2.2.4.1) that specifies the entry ID of the destination folder. This field is filled with the number of bytes specified by the **Folder Entry Id Size** field.

Store Entry Id Size (4 bytes): An unsigned integer that specifies the size of the **Store Entry Id** field.

Store Entry Id (variable): The entry ID of the mailbox that contains the destination folder. This field is filled with the number of bytes specified by the **Store Entry Id Size** field.

FolderName (variable): A **String** that specifies the folder's name.

2.4.24. PathRuleElementData

Contains data for

- Rule elements with identifier 0x0000012F specifying the “reply using <template>” action.
- Rule elements with identifier 0x00000136 specifying the “play <sound>” action.
- Rule elements with identifier 0x00000149 specifying the “start <application>” action.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| |
|----------|
| Unknown2 |
| Path |
| ... |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Path (variable): A **String** that specifies the path.

Note: Outlook limits the length of this field to 260 characters and rejects lengths over 255 characters. Outlook does not appear to validate the path.

2.4.25. DisplayMessageInNewItemAlertWindowRuleElementData

Contains data for rule elements with identifier 0x00000130 specifying the “display <a specific message> in the New Item Alert window” action.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Message | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Message (variable): A **String** that specifies the message to display.

2.4.26. FlagRuleElementData

Contains data for rule elements with identifier 0x00000131 specifying the “flag message for <action in a number of days>” action.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Days | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Action Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Days (4 bytes): An unsigned integer that specifies the number of days to flag the action.

Note: Outlook limits this value of this field to between 0 and 365.

Action Name (variable): A **String** that specifies the name of the action.

Note: Outlook limits the length of this field to 100 characters.

Unknown3 (4 bytes): An unsigned integer with unknown meaning. Always zero.

2.4.27. *DeferDeliveryRuleElementData*

Contains data for rule elements with identifier 0x0000013E specifying the “defer delivery by <a number of> minutes” action.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 | |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Minutes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Minutes (4 bytes): An unsigned integer that specifies the number of minutes for which you want the messages to be held before it is sent.

Note: Outlook limits the maximum value of this field to 120 minutes (2 hours).

2.4.28. *AutomaticReplyRuleElementData*

Contains data for rule elements with identifier 0x00000146 specifying the “have server reply using <a specific message>” action.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Message Entry Id Size | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Message Entry Id | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Function | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Message Entry Id Size (4 bytes): An unsigned integer that specifies the size of the **Message Entry Id** field.

Message Entry Id (variable): A **MessageEntryId** ([\[MS-OXCDATA\]](#) section 2.2.4.2) that specifies the entry ID of the message to send. This field is filled with the number of bytes specified by the **Message Entry Id Size** field.

Name (variable): A **String** that specifies the name of the message.

2.4.29. RunScriptRuleElementData

Contains data for rule elements with identifier 0x0000014B specifying the “run <script>” action.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 0 | 2 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 1 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Function | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Name (variable): A **String** that specifies the name of the function.

Function (variable): A **String** that specifies the name of the function.

2.4.30. FlagForFollowUpRuleElementData

Contains data for rule elements with identifier 0x00000151 specifying the “flag message for <follow up at this time>” action.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 0 | 2 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 1 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Follow Up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Action Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Follow Up (4 bytes): An unsigned integer that specifies when to follow up.

| Value | Name |
|------------|-----------|
| 0x00000001 | Today |
| 0x00000002 | Tomorrow |
| 0x00000003 | This Week |
| 0x00000004 | Next Week |
| 0x00000002 | No Date |
| 0x00000002 | Complete |

Action Name (variable): A **String** that specifies the name of the action.

Note: Outlook limits the length of this field to 100 characters.

2.4.31. ApplyRuleElementData

Contains data for rule elements with identifier 0x00000190 specifying the type of messages to which this rule applies.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flags | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always one.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Flags (4 bytes): An unsigned integer that specifies the target that applies.

| Name | Value |
|--------------------|-------|
| ApplyAfterReceived | 0x01 |
| ApplyAfterSent | 0x04 |

2.5. RulesFooter

The footer information for a list of rules.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Template Directory Length | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Template Directory | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unknown4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Template Directory Length (4 byte): An unsigned integer that specifies the number of characters in the **Template Directory** field.

Template Directory (variable): A UTF-16 little-endian encoding string that specifies the most recently used location from which a template file was used.

Unknown1 (4 bytes): An unsigned integer with unknown meaning. Always two. Could be a version number.

Unknown2 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Unknown3 (4 bytes): An unsigned integer with unknown meaning. Always zero.

Unknown4 (4 bytes): An unsigned integer with unknown meaning. Always zero.