

Bloomberg L.P.

Confirmation Extension

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Document History

| **Revision** | **Date** | **Author** | **Revision Comments** |
| --- | --- | --- | --- |
| 0.1 | October 11, 2018 | Brook Path Partners, Inc., for Bloomberg L.P. | • Initial version. |
| 0.2 | October 16, 2018 | Brook Path Partners, Inc., for Bloomberg L.P. | • Add the MatchExceptionGrp and MatchingDataPointGrp components. |
| 0.3 | October 19, 2018 | Brook Path Partners, Inc., for Bloomberg L.P. | • Minor changes based on presentation feedback• Sample message added to Appendix D - Usage Examples. |

The above document history section, including date, author, and comments, is required to track editing changes to the document. List revisions in **ascending order**. Please insert additional rows in the table as needed.

Template version information:

r2: 2010-11-13 Revised to support abbreviations, inlined component references

r3: 2011-12-02 Revised to add additional usage clarification

r3.1: 2013-01-04 Revised Copyright year, changed template to Office 2013 .docx version, updated font to Calibri for cleaner look. Added additional template usage clarification.

R3.2 2016-05-23 – revised the copyright date, corrected document references and replaced the FIX logo with the most current graphic.

r3.2 2017-05-18 - revised copyright date

# Introduction

This gap analysis seeks to enhance the workflow when a third-party facility provides the confirmation matching function between the dealer and the investment manager. When there is a mismatch the matching facility should hold the confirmation pending and report the mis-match status and details awaiting action from the investment manager without rejecting the confirmation outright.

# Business Requirements

When a matching facility fails to match a Confirmation(35=AK) due to various reasons such as breach of tolerance levels, the facility will forward a Confirmation(35=AK) message to the Investment Manager with MatchStatus(573)=<tbd> (Mismatched), while the submitter of the Confirmation(35=AK) will receive a ConfirmationAck(35=AU) with MatchStatus(573)= <tbd> (Mismatched).

The proposal to assign a new MatchStatus(573) value rather than to extend an existing value is to differentiate the new richer content of the confirmation messages from simply AffirmStatus(940)=2 (Rejected) with a single value in ConfirmRejReason(774). The new components accompanying MatchStatus(573)=<tbd> (Mismatched) establish the conversation points that will need to take place between buy-side and sell-side to resolve differences.

The matching facility will communicate back to the customer the matching attributes and tolerance that caused the match to fail, for this the new MatchExceptionGrp component is proposed to convey these exceptions.

Lastly a new component, MatchingDataPointGrp, is also proposed in order for the matching facility to identify the current setting for the attributes used for matching between the specific parties to the trade.

The two new components are used together in order to identify for both the customer and broker what the current settings are and which attributes failed the matching criteria and tolerance.

## Summary of changes

The following summarizes the changes proposed

* Add MatchSttus(573) to the Confirmation(35=AK) message to a matching facility can convey match status within the message to the recipient.
* Add a new MatchStatus(573) = <tbd> (Mismatched) enumeration value.
* Add the new MatchingDataPointGrp and MatchExceptionGrp components to Confirmation(35=AK) and ConfirmationAck(35=AU).

# Issues and Discussion Points

The following table raises any issues and discussions, along with their resolution.

Table 1: Issues and Discussions

| **#** | **Subject** | **Reference** | **Change Request** | **Resolution** |
| --- | --- | --- | --- | --- |
| 1 | Proposed new MatchStatus(573) value to be "m" (lower case M). |  | Currently this field is defined as a char data type field but the existing values are integer values. Bloomberg has been using the custom value "m" (lower case M) to represent "mismatched". We would like to request whether it is possible to make this value "m" part of the standard with this submission. | Bloomberg accepted assignment of the next available enumeration digit. |
|  |  |  |  |  |

# Proposed Message Flow

Note in the figure below that the matching facility returns [in the red message elements] MatchedStatus=*Mismatched* to both the buy-side and sell-side and retains the confirmation data pending resolution.

As with the current AffirmStatus(940)=2 (Rejected), final resolution of the variance is either for the buy-side to resubmit corrected allocation instructions or for the sell-side to cancel the mismatched Confirmation(35=AK) messages and resubmit corrected ones.

Figure 1 Matching Facility Flow



# FIX Message Tables

## Confirmation (35=AK)

|  |
| --- |
| To be completed at the time of the proposal – all information provided will be stored in the repository |
| Message Name | Confirmation |
| Message Abbreviated Name (for FIXML) | Cnfm |
| Category | (no change) |
| Action | \_\_New \_X\_Change |
| Message SynopsisRequired, short, one or two paragraph description of the message. | (no change) |
| Message ElaborationOptional longer description of the message usage  | (no change) |
| To be finalized by FPL Technical Office |
| (MsgType(tag 35) Enumeration | J |
| Repository Component ID | 19 |

| *Tag* | *Field Name* | *Req'd* | *Action* | *Mappings and Usage Comments* | *FIX Spec Comments* |
| --- | --- | --- | --- | --- | --- |
| ***Standard Header*** | Y |  |  | MsgType=AK |
| *(…truncated…)* |  |  |  |  |
| 650 | LegalConfirm |  |  |  |  |
| 665 | ConfirmStatus |  |  |  |  |
| 573 | MatchStatus |  | ADD |  |  |
| 940 | AffirmStatus |  |  |  |  |
| 2390 | TradeConfirmationReferenceID |  |  |  |  |
| *(…truncated…)* |  |  |  |  |
| **<CommissionDataGrp> component** |  |  |  |  |
| **<Stipulations> component** |  |  |  |  |
| **<MiscFeesGrp> component** |  |  |  |  |
| ***<MatchExceptionGrp>* component** |  | NEW |  |  |
| ***<MatchingDataPointGrp>* component** |  | NEW |  |  |
| *(…truncated…)* |  |  |  |  |
| ***Standard Trailer*** | Y |  |  |  |

## ConfirmationAck (35=AU)

|  |
| --- |
| To be completed at the time of the proposal – all information provided will be stored in the repository |
| Message Name | ConfirmationAck |
| Message Abbreviated Name (for FIXML) | CnfmAck |
| Category | (no change) |
| Action | \_\_New \_X\_Change |
| Message SynopsisRequired, short, one or two paragraph description of the message. | (no change) |
| Message ElaborationOptional longer description of the message usage  | (no change) |
| To be finalized by FPL Technical Office |
| (MsgType(tag 35) Enumeration | J |
| Repository Component ID | 19 |

| *Tag* | *Field Name* | *Req'd* | *Action* | *Mappings and Usage Comments* | *FIX Spec Comments* |
| --- | --- | --- | --- | --- | --- |
| ***Standard Header*** | Y |  |  | MsgType=AK |
| *(…truncated…)* |  |  |  |  |
| 774 | ConfirmRejReason |  |  |  | Required for ConfirmStatus = 1 (rejected) |
| 573 | MatchStatus |  |  |  | Denotes whether the financial details provided on the Confirmation were successfully matched. |
| ***<MatchExceptionGrp>* component** |  | NEW |  |  |
| ***<MatchingDataPointGrp>* component** |  | NEW |  |  |
| 58 | Text |  | CHANGE |  | Can include explanation for ConfirmRejReason = 99 (Other)~~AllocRejCode = 7 (other)~~ |
| 354 | EncodedTextLen |  |  |  | Must be set if EncodedText field is specified and must immediately precede it. |
| 355 | EncodedText |  |  |  | Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field. |
| ***Standard Trailer*** | Y |  |  |  |

# FIX Component Blocks

## Component MatchExceptionGrp

|  |
| --- |
| To be completed at the time of the proposal – all information provided will be included in the repository |
| Component Name | MatchExceptionGrp |
| Component Abbreviated Name (for FIXML) | MtchExcptn |
| Component Type | \_X\_\_ Block Repeating \_\_\_ Block |
| Category | Common |
| Action | \_X\_New \_\_\_Change |
| Component SynopsisRequired, short, one or two paragraph description of the component.. | The MatchExceptionGrp component details the matching exceptions and variances identified during the matching process based on the defined matching criteria and tolerances. |
| Component ElaborationOptional longer description of the component usage |  |
| To be finalized by FPL Technical Office |
| Repository Component ID | [[id]] |

| Component FIXML Abbreviation: <*MtchExcptn*> |
| --- |
| *Tag* | *Field Name* | *Req'd* | *ICR* | *Action* | *Mappings and Usage Comments* | *FIX Spec Comments* |
| tbd | NoMatchExceptions | N |  | NEW |  |  |
| 🡪 | tbd | MatchExceptionType | N |  | NEW |  | Required if NoMatchExceptions(tbd) > 0. |
| 🡪 | tbd | MatchExceptionElementType | N |  | NEW |  | Required if NoMatchExceptions(tbd) > 0. |
| 🡪 | tbd | MatchExceptionElementName | N |  | NEW |  |  |
| 🡪 | tbd | MatchExceptionAllocValue | N |  | NEW |  |  |
| 🡪 | tbd | MatchExceptionConfirmValue | N |  | NEW |  |  |
| 🡪 | tbd | MatchExceptionToleranceValue | N |  | NEW |  |  |
| 🡪 | tbd | MatchExceptionToleranceValueType | N |  | NEW |  |  |
| 🡪 | tbd | MatchExceptionText | N |  | NEW |  |  |
| *</MtchExcptn>* |

## Component MatchingDataPointGrp

|  |
| --- |
| To be completed at the time of the proposal – all information provided will be included in the repository |
| Component Name | MatchingDataPointGrp |
| Component Abbreviated Name (for FIXML) | MtchgDataPnt |
| Component Type | \_X\_\_ Block Repeating \_\_\_ Block |
| Category | Common |
| Action | \_X\_New \_\_\_Change |
| Component SynopsisRequired, short, one or two paragraph description of the component.. | The MatchingDataPointGrp component details all the trade attributes and tolerances used for trade matching. |
| Component ElaborationOptional longer description of the component usage |  |
| To be finalized by FPL Technical Office |
| Repository Component ID | [[id]] |

| Component FIXML Abbreviation: <*MtchgDataPnt*> |
| --- |
| *Tag* | *Field Name* | *Req'd* | *ICR* | *Action* | *Mappings and Usage Comments* | *FIX Spec Comments* |
| tbd | NoMatchingDataPoints | N |  | NEW |  |  |
| 🡪 | tbd | MatchingDataPointIndicator | N |  | NEW |  | Required if NoMatchingDataPoints(tbd) > 0. |
| 🡪 | tbd | MatchingDataPointValue | N |  | NEW |  | Required if NoMatchingDataPoints(tbd) > 0. |
| 🡪 | tbd | MatchingDataPointType | N |  | NEW |  | Required if NoMatchingDataPoints(tbd) > 0. |
| 🡪 | tbd | MatchingDataPointName | N |  | NEW |  |  |
| *</MtchgDataPnt>* |

# Category Changes

(no changes)

# Appendix A - Data Dictionary

| **Tag** | **FieldName** | **Action** | **Datatype** | **Description** | **FIXML Abbreviation** | **Add to / Deprecate from Message type or Component block** |
| --- | --- | --- | --- | --- | --- | --- |
| tbd | NoMatchExceptions | NEW | NumInGroup | Number of match exceptions in the repeating group. | — | Add to MatchExceptionGrp |
| tbd | MatchExceptionType | NEW | int | Type of matching exception.*Enumerations:*0 = No matching confirmation 1 = No matching allocation 2 = Allocation data element missing 3 = Confirmation data element missing 4 = Data difference not within tolerance 5 = Match within tolerance 99 = Other | @Typ | Add to MatchExceptionGrp |
| tbd | MatchExceptionElementType | NEW | int | Identifies the data point used in the matching operation which resulted in an exception.*Uses enumerations from MatchDataPointType(tbd).* | @ID | Add to MatchExceptionGrp |
| tbd | MatchExceptionElementName | NEW | String | The matching exception data point name,for example: "Trade currency". This may be used for display purposes, providing a corresponding description for the value in MatchExecptionElementType(tbd). | @Name | Add to MatchExceptionGrp |
| tbd | MatchExceptionAllocValue | NEW | String | The allocating party's data value used in the match operation. | @AllocVal | Add to MatchExceptionGrp |
| tbd | MatchExceptionConfirmValue | NEW | String | The confirming party's data value used in the match operation. | @CnfmVal | Add to MatchExceptionGrp |
| tbd | MatchExceptionToleranceValue | NEW | float | The data element's tolerance value. Omitted if no tolerance is allowed or not applicable. | @TlrncVal | Add to MatchExceptionGrp |
| tbd | MatchExceptionToleranceValueType | NEW | int | The type of value in MatchExceptionToleranceValue(tbd). Omitted if no tolerance is allowed or not applicable.[Elaboration: For example, if the tolerance for accrued interest is 0.01% of total accrued interest then MatchExceptionElementType(tbd)=1 (Accrued), MatchExceptionToleranceValueType(tbd)=2 (Percentage) and MatchExecptionToleranceValue(tbd)=0.0001. If tolerance for the exchange rate of an FX trade is "0.001" then MatchExceptionElementType(tbd)=2 (Price), MatchExceptionToleranceValueType(tbd)=1 (Fixed) and MatchExecptionToleranceValue(tbd)=0.001.]*Enumerations:*1 = Fixed amount - Default if not specified2 = Percentage | @TlrncValTyp | Add to MatchExceptionGrp |
| tbd | MatchExceptionText | NEW | String | Plain English description of the exception. | @Txt | Add to MatchExceptionGrp |
| tbd | NoMatchingDataPoints | NEW | NumInGroup | Number of matching data points in the repeating group. | — | Add to MatchingDataPointGrp |
| tbd | MatchingDataPointIndicator | NEW | int | Data point's matching type.*Enumerations:*1 = Mandatory 2 = Optional | @Typ | Add to MatchingDataPointGrp |
| tbd | MatchingDataPointValue | NEW | String | Value of the matching data point. | @Val | Add to MatchingDataPointGrp |
| tbd | MatchingDataPointType | NEW | int | Identifies the data point used in the matching operation.[Elaboration: Values may not have applicable tolerance values, in this case this means the data point was used for matching but did not match.]*Enumerations:*1 = Accrued interest 2 = Deal price 3 = Trade date [Elaboration: Tolerance not applicable]4 = Settlement date [Elaboration: Tolerance not applicable]5 = Side indicator [Elaboration: Tolerance not applicable]6 = Tradedcurrency [Elaboration: Tolerance not applicable]7 = Account ID [Elaboration: Tolerance not applicable]8 = Executing broker ID [Elaboration: Tolerance not applicable]9 = Settlement currency and amount 10 = Investment manager ID [Elaboration: Tolerance not applicable]11 = Net amount 12 = Place of settlement [Elaboration: Tolerance not applicable]13 = Commissions 14 = Securityidentifier [Elaboration: Tolerance not applicable]15 = Quantity allocated 16 = Principal 17 = Fees 18 = Tax | @ID | Add to MatchingDataPointGrp |
| tbd | MatchingDataPointName | NEW | String | The matching data point name, for example: "Trade currency". This may be used for display purposes, providing a corresponding description for the value in matchingDataPointType(tbd). | @Name | Add to MatchingDataPointGrp |
| 573 | MatchStatus | CHANGE | char | The status of this trade with respect to matching or comparison.0 = Compared, matched or affirmed1 = Uncompared, unmatched or unaffirmed2 = Advisory or alert*Add enumeration:*<tbd> = Mismatched[Elaboration: Indicates that data points from the AllocationInstruction(35=J) and Confirmation(35=AK) are matched but there are variances. MatchExceptionGrp component may be used to detail on the mis-matched data fields.] | @MtchStat |  |

# Appendix B - Glossary Entries

|  |  |  |
| --- | --- | --- |
| **Term** | **Definition** | **Field where used** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# Appendix C - Abbreviations

|  |  |  |
| --- | --- | --- |
| **Term** | **Proposed Abbreviation** | **Proposed Messages, Components, Fields where used** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# Appendix D - Usage Examples

The sample ConfirmationAck(35=AU) below shows a response to the sell-side reporting mis-matched fields in its Confirmation(35-AK) message. The proposed new fields and values are highlighted. A Confirmation(35=AK) message with the same new elements would be sent to the buy-side.

|  |  |  |
| --- | --- | --- |
| **<StandardHeader>** component | 35=AU | ConfirmationAck |
| 664 | ConfirmID | ABCDEFGHI |  |
| 75 | TradeDate | 20181019 |  |
| 60 | TransactTime |  |  |
| 940 | AffirmStatus | 1 | Received |
| 573 | MatchStatus | *tbd* | Mismatched |
| **<MatchExceptionGrp>** component |  |  |
| *tbd* | NoMatchExceptions | 4 |  |
| *tbd* | →MatchExceptionType | 4 | Data difference not within tolerance |
| *tbd* | →MatchExceptionElementType | 16 | Commissions |
| *tbd* | →MatchExceptionElementName | Commissions |  |
| *tbd* | →MatchExceptionAllocValue | 5 |  |
| *tbd* | →MatchExceptionConfirmValue | 100 |  |
| *tbd* | →MatchExceptionToleranceValue | 2 |  |
| *tbd* | →MatchExceptionToleranceValueType | 1 | Fixed amount |
| *tbd* | →MatchExceptionType | 4 | Data difference not within tolerance |
| *tbd* | →MatchExceptionElementType | 22 | Fees |
| *tbd* | →MatchExceptionElementName | Fees |  |
| *tbd* | →MatchExceptionAllocValue | 5 |  |
| *tbd* | →MatchExceptionConfirmValue | 100 |  |
| *tbd* | →MatchExceptionToleranceValue | 1 |  |
| *tbd* | →MatchExceptionToleranceValueType | 1 | Fixed amount |
| *tbd* | →MatchExceptionType | 4 | Data difference not within tolerance |
| *tbd* | →MatchExceptionElementType | 14 | Net Amount |
| *tbd* | →MatchExceptionElementName | Net Amount |  |
| *tbd* | →MatchExceptionAllocValue | 11185 |  |
| *tbd* | →MatchExceptionConfirmValue | 10900 |  |
| *tbd* | →MatchExceptionToleranceValue | 100 |  |
| *tbd* | →MatchExceptionToleranceValueType | 1 | Fixed amount |
| *tbd* | →MatchExceptionType | 4 | Data difference not within tolerance |
| *tbd* | →MatchExceptionElementType | 23 | Tax |
| *tbd* | →MatchExceptionElementName | Tax |  |
| *tbd* | →MatchExceptionAllocValue | 5 |  |
| *tbd* | →MatchExceptionConfirmValue | 100 |  |
| *tbd* | →MatchExceptionToleranceValue | 1 |  |
| *tbd* | →MatchExceptionToleranceValueType | 1 | Fixed amount |
| end **<MatchExceptionGrp>** component |  |  |
| **<StandardTrailer>** component |  |  |