Warsaw, 15 July 2014

Rules of Reporting Valuation and Collateral to the KDPW Trade Repository

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Introduction

This document describes the rules of reporting valuation and collateral updates to the Trade Repository operated by KDPW.

Entities required to report valuation and collateral updates include all financial counterparties (FC) as well as those non-financial counterparties which exceed the clearing threshold (NFC+) – Article 11(2)-(4) of EMIR.

Valuation and collateral may be updated in the KDPW_TR system in the main message trar.ins.001.01, in which case only the details of a single trade are updated.

Valuation of products may be updated collectively in the dedicated message trar.ins.002.01.

Collateral for a portfolio may be updated collectively in the dedicated message trar.ins.003.01.

A valuation and collateral update message is cancelled by sending the same message with action type 'error' (AT=E) and the completed Linkages section. Updates in the main message trar.ins.001.01 are cancelled in the main message trar.ins.001.01 with AT=E. Updates in the collective messages trar.ins.002.01 and trar.ins.003.01 are cancelled in the collective messages trar.ins.002.01 and trar.ins.003.01, respectively, with AT=E including reference to the SMR in the dedicated cancellation message.

This document presents guidelines for reporting and KDPW_TR processing under different valuation and collateral update scenarios.

Abbreviations used in the document:

- ✓ Reporting timestamp - ReTm;
- ✓ Valuation timestamp – VlTm;
- ✓ Eligibility Date – EG;
- ✓ Execution timestamp – EX.

Valuation Reporting

A KDPW_TR reporting participant may report valuation of a traded contract in the main message trar.ins.001.01 (AT=V) or valuation of a contract product in the message trar.ins.002.01. In other words:

Trade valuation = contract valuation * contract quantity (field Quantity);

Contract valuation = product valuation. Product is defined in the TR database with a key comprised of four fields: Taxonomy, Product1, Product2, Underlying, i.e., this is contract identification by underlying.

1. Contract valuation may be reported in the main message trar.ins.001.01 with action type New (N) and completed Section 3.1 provided that the EG date must match the VlTm date. If the EG date does not match the VlTm date, the message is rejected.

2. Contract valuation may be reported or updated with a modification of:
   a. a single trade with the message trar.ins.00.01 – (AT=V) with completed Section 3;
   b. potentially many trades with the collective message trar.ins.002.01 (AT=V) including product valuation.

3. When reporting valuation, the dedicated field VlTm copies the valuation date and time. This is particularly relevant where valuation modification is reported many times at the same date. In that case, the report valid at such date is the report with the latest time reported in the VlTm field at that date. All reports with an earlier VlTm time at such date are inactive but they are maintained in the TR database. In practice, valuation is determined not according to the ReTm as for other modifications but by the date and time in the VlTm field.

4. Valuation reported in the main message (trar.ins.001.01 AT=V) where the VlTm is equal to the VlTm previously reported by a participant in trar.ins.001.01 AT=V valuation is rejected.

5. A collective valuation report where the VlTm date and time matches the VlTm previously reported by a participant in collective valuation is rejected.

6. The priority of valuation reported in the message trar.ins.001.01 AT=V is higher than the priority of collective valuation, i.e., where valuation is reported in a main message and a collective message with the same VlTm, the active valuation is the valuation reported in the main message as it refers to the specific trade.

7. Each valuation record is entered in the database even if the VlTm of the record is earlier than the VlTm of any other valuation in the database at the given valuation date.

8. Collective valuation (per product) reported at a given date is assigned to all active trades in the product at that date. Such valuation also applies to trades reported after the message

trar.ins.002.01 is accepted and processed, i.e., with a later ReTm, unless valuation with a later time is assigned to them.

9. Valuation reported in the collective message (per product) is accepted whether or not there are any trades in the product whose valuation is reported in the collective message.

10. Valuation is cancelled by sending AT=E referring to the SMR of the valuation message. If AT=E is sent for a single valuation report (message trar.ins.001.01 AT=E), only one record (or two records for a bilateral AT=E) is cancelled. If AT=E is sent for valuation in a collective report (message trar.ins.002.01 AT=E), all records whose SMR matches the SMR of the collective valuation are cancelled.

11. Cancellation of valuation active at a given date and time means that it is removed from public data available to participants. Furthermore, if there are other valuation records at a given date in the database, then the record with the latest valuation time (VlTm) at such date becomes public and available to participants. After cancellation of a valuation message, a participant may resend valuation with the same VlTm date and time.

12. Cancellation of a trade, i.e., sending AT=E for AT=N, cancels the entire trade history including all AT=V for the trade. Collective AT=V are not removed from the KDPW_TR database as they may also concern other trades.

13. After product valuation is assigned to a trade (report), contract valuation is available in the website interface and returned as a result of trar.rqs.001.01 requests.

14. In the website interface, contract valuation is available in the tabs 'Searching and Reports Download' and 'Archive'. Values in four fields are presented:
    - Contract valuation at market value,
    - Valuation currency,
    - Valuation date and time,
    - Valuation type.

    After selecting values in the EG field at the top of the screen, the table presents details of trades at the EG date and the valuation at the EG date.

15. In response to a trar.rqs.001.01 request, a participant receives a trade history (including valuation).

EXAMPLE:

A participant reports the following:

1) Collective valuation V1 for product P1, EG= D;
2) AT=N for product P1 without valuation, EX=D+5, EG=D+5;
3) AT=V (main message) V2, EG=D+5;
4) AT=V collective for product P1 V3, EG=D+7;
5) AT=V collective for product P1 V4, EG=D+8;
6) AT=M, EG=D+9;
7) AT=V (collective) V7, EG=D+11;
8) AT=C do AT=N, EG=D+10;

By selecting the EG dates in the interface, the participant sees the following:

EG=D-›D+4: no trade yet
EG=D+5, AT=V, valuation V2
EG=D+6, AT=V, valuation V2
EG=D+7, AT=V, valuation V3
EG=D+8, AT=V, valuation V4
EG=D+9, AT=M, valuation V4
EG=D+10, tab Archive: AT=C, valuation V4;
EG=D+11, tab Archive: AT=C, valuation V4;

After sending the message trar.rqs.001.01 requesting trade history in the period D-D+10, the participant receives the following:

EG	AT	Valuation
D+5	V	V2
D+7	V	V3
D+8	V	V4
D+9	M	V4
D+10	C	V4

Collateral Reporting

A KDPW_TR reporting participant may report collateral of a trade using the main message trar.ins.001.01 (AT=N or AT=V) or collateral for a portfolio (analytic or synthetic) in the message trar.ins.003.01 (AT=V).

The TR database maintains two fields with the portfolio code:

- ✓ Analytic portfolio code, and
- ✓ Synthetic portfolio code.

A synthetic portfolio may include many analytic portfolios. An analytic portfolio may include many trades.

1. A participant may send the message trar.ins.001.01 (AT=N, M) to report / modify the portfolio code of a trade in field 2.4.9 Collateral portfolio code.

2. A participant may send the message trar.ins.001.01 (AT=V) to report the (analytic) portfolio code for collateral in field 3.2.3 Portfolio code. The field Portfolio collateral should have the value 'Y'. Otherwise, the message is rejected.

3. Field 2.4.9 Collateral portfolio code is only used to link valuations reported collectively. If a participant reports AT=V (trar.ins.001.01) with a portfolio code other than that in field 2.4.9, the message is accepted and the field Valuation portfolio code is updated but the field Portfolio code in Section 2.4 is not updated. Likewise, if a participant reports AT=V (trar.ins.001.01) and specifies no portfolio collateral, the section Collateral is updated but field 2.4.9 is not updated.

4. A participant sends the message trar.ins.003.01 to report collateral for a portfolio (analytic and potentially synthetic). Field 2.1 Analytic portfolio code is mandatory. Field 2.2 Synthetic portfolio code is optional. If a value is presented in field 2.2, the collateral is for a synthetic portfolio.

5. The value in the field Synthetic portfolio code may only by reported and modified with the message trar.ins.003.01. AT=V (trar.ins.001.01) does not report the field Synthetic portfolio code. If a previous collateral was reported collectively including a synthetic

portfolio, then after AT=V is reported for an analytic portfolio the synthetic portfolio code will be blank in the current valuation and filled only in the collectively reported collateral.

6. In collectively reported collateral, a participant cannot report a value in the field Collateral because it concerns a portfolio and not a trade. To report a new value or to modify the value in the field, a participant may send AT=V in the message trar.ins.001.01. A participant who sends trar.ins.001.01 AT=V may only change the field Collateral in the section. The values in the other fields in the section are not modified (unless they are reported in AT=V trar.ins.001.01). If the section is displayed in the website interface or an rqs message, all recently reported values of the section are visible, even if not reported in AT=V trar.ins.001.01.

7. Collective (portfolio) collateral is assigned by linking the field 2.4.9 Analytic portfolio code reported in the message trar.ins.001.01 with the field 2.1 in the message trar.ins.003.01, i.e., collective collateral is assigned to all those reports where the field 2.4.9 Analytic portfolio code has a portfolio code matching the field 2.1 Analytic portfolio code reported in collective collateral.

8. If collateral modifications are reported many times at the same date, the report with the latest reporting date is active at that date. All earlier reports at such date are inactive but they are maintained in the TR database.

9. Collective (portfolio) collateral reported at a given date is assigned to all trades active at such date where the field Portfolio code has a code matching that reported in the collective message. Such a report also applies to trades reported after the message trar.ins.003.01 is accepted and processed, i.e., with a later ReTm, unless collateral section 3.2 is completed in such messages.

10. Collateral reported in a collective (portfolio) message is accepted and recorded in the TR database whether or not there are any trades with the portfolio code whose collateral is reported in such collective message.

11. Reported collateral is cancelled by sending AT=E referring to the SMR of the collateral message. If AT=E is sent for a single collateral report (message trar.ins.001.01 AT=E), only one record (or two records for a bilateral AT=E) is cancelled. If AT=E is sent for collateral in a collective report (message trar.ins.003.01 AT=E), all records whose SMR matches the SMR of the collective collateral are cancelled.

12. Cancellation of collateral active at a given date and time means that it is removed from public data available to participants. Furthermore, if there are other collateral records at a given date in the database, then the record with the latest reporting time (ReTm) at such date becomes available to participants.

13. After portfolio collateral is assigned to a trade (report), such collateral is available in the website interface and returned as a result of trar.rqs.001.01 requests.

14. In the website interface, trade collateral is available in the tabs 'Searching and Reports Download' and 'Archive'. Values in the following fields are presented:
    - Collateral,
    - Portfolio collateral,
    - Analytic portfolio code,
    - Synthetic portfolio code,
    - Collateral value,
    - Collateral currency.

    After selecting values in the EG field at the top of the screen, the table presents details of trades at the EG date and the valuation at the EG date.

    For collateral reported collectively, the field Portfolio collateral is always filled with the value 'Y'.

15. In response to a trar.rqs.001.01 request, a participant receives a trade history (including collateral).

EXAMPLE:

A participant reports the following:

1) Collective collateral Z1 for portfolio P1, EG= D;
2) AT=N, portfolio P1 without collateral, EX=D+5, EG=D+5;
3) AT=V (main message) Z2, EG=D+5;
4) AT=V collective Z3 for portfolio P1, EG=D+7;
5) AT=V collective Z4 for portfolio P1, EG=D+8;
6) AT=M, EG=D+9;
7) AT=V (collective) Z7, EG=D+11;

8) AT=C do AT=N, EG=D+10;

By selecting the EG dates in the interface, the participant sees the following:

EG=D->D+4: no trade yet

EG=D+5, AT=V, collateral Z2

EG=D+6, AT=V, collateral Z2

EG=D+7, AT=V, collateral Z3

EG=D+8, AT=V, collateral Z4

EG=D+9, AT=M, collateral Z4

EG=D+10, tab Archive: AT=C, collateral Z4

EG=D+11, tab Archive: AT=C, collateral Z4

After sending the message trar.rqs.001.01 requesting trade history in the period D-D+10, the participant receives the following:

EG	AT	Collateral
D+5	V	Z2
D+7	V	Z3
D+8	V	Z4
D+9	M	Z4
D+10	C	Z4

Collective Reporting: Reference Keys, XML and Interface Processing

VALUATION UPDATES

For a collective report with a valuation update, valuation reported collectively is assigned to many derivatives trade reports to TR only if the data in the following product definition (product key) fields match:

- ✓ Taxonomy (Txnm),
- ✓ Product Identifier 1 (PrdctId1),
- ✓ Product Identifier 2 (PrdctId2),
- ✓ Underlying (Undrlyg).

A collective XML message (trar.ins.002.01) with a valuation update in Section 2.1.2 (Product identification) is built by defining the product concerned by the valuation update. When processing the message, once the KDPW_TR system encounters trades reported for such product key, it assigns the valuation update to each such product trade according to the XML message. Potentially many reports are updated with a single message. Assuming that 10,000 corn derivatives trades are reported with the following product key:

- ✓ E,
- ✓ CO,
- ✓ OT,
- ✓ zboze,

then 10,000 reports are updated by reporting collective valuation in a single message / completing one interface form. To update valuation individually, 10,000 single updates are reported, i.e., 10,000 single messages (trar.ins.001.01) are sent or 10,000 records are manually modified in the interface.

Example: XML file trar.ins.002.01

```xml
<?xml version="1.0" encoding="utf-8"?>
<KDPWDocument xmlns:xsd="http://www.w3.org/2001/XMLSchema"
              xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
              Sndr="RZ16" Rcvr="R001" xmlns="urn:kdpw:xsd:trar.ins.002.01">
  <trar.ins.002.01>
    <GnlInf>
      <TRRprtId>
        <Id>259400BAAAAAAAAAAC16</Id>
        <Tp>LEIC</Tp>
      </TRRprtId>
      <SndrMsgRef>SMR_KP20140711</SndrMsgRef>
      <FuncOfMsg>NEWM</FuncOfMsg>
      <ActnTp>V</ActnTp>
      <CreDtTm>
        <DtTm>2014-07-11T00:00:00</DtTm>
      </CreDtTm>
      <EligDt>2014-07-09</EligDt>
      <DtlLvl>S</DtlLvl>
    </GnlInf>
    <VaItnDtls>
      <CtrPtyAndPrdctInf>
        <CtrPtyInf />
        <PrdctInf>
          <Txnm>E</Txnm>
          <PrdctId1>CO</PrdctId1>
          <PrdctId2>OT</PrdctId2>
          <Undrlyg>zboze</Undrlyg>
        </PrdctInf>
      </CtrPtyAndPrdctInf>
      <ValtnInf>
        <MtMVal>152.32</MtMVal>
        <Ccy>PLN</Ccy>
        <ValtnDtTm>2014-07-09T00:00:00</ValtnDtTm>
        <ValtnTp>O</ValtnTp>
      </ValtnInf>
    </VaItnDtls>
  </trar.ins.002.01>
</KDPWDocument>
```

A collective update may be made with a collective XML message or by using the interface tab 'Reporting service – action type valuation update – Valuation summary'.

Fig. 1
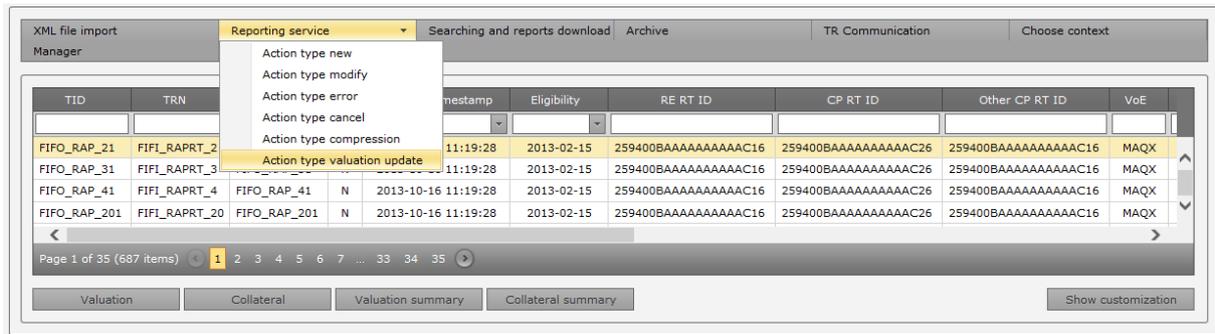
Select the option 'Valuation summary' in the lower panel and use the new screen to complete the mandatory fields: Sender Message Reference; Eligible Date; product taxonomy fields: Taxonomy, Product ID 1, Product ID 2, Underlying; and valuation fields: Mark to market Value, Currency, Valuation Type and Valuation Date.

Fig. 2

Filled with data:

Valuation summary

Reporting

Reporting Entity RT ID	259400BAAAAAAAAAAC16	Reporting Entity RT ID Type	Legal Entity Identifier
Sender Message Reference	SMR1	Reporting Timestamp	11/07/2014 15:39:44
Previous Sender Message Reference		Eligible Date	07/07/2014
Backloading			

Valuation details

CP RT ID		CP RT ID	
Clearing Member ID		Clearing Member ID Type	
Taxonomy	Interim taxonomy	Underlying	zboze
Product 1 ID	CO	Product 2 ID	OT
Mark to market Value	514.2	Currency	USD
Valuation Date	11/07/2014 07:30:00	Valuation Type	Mark to market

Save

As a result of the update, the system updates all reports defined with the product key with the entered valuation.

Acceptance of an update for processing is confirmed in the message trar.sts.002.01 available in the same channel in which the system received the message trar.ins.002.01: in the interface, the feedback message is available under the tab 'TR Communication', in A2A, the feedback message is available on the server.

COLLATERAL UPDATE

For a collective report with a collateral update, collateral reported collectively is assigned to many derivatives trade reports to TR only if the data in the portfolio code fields match.
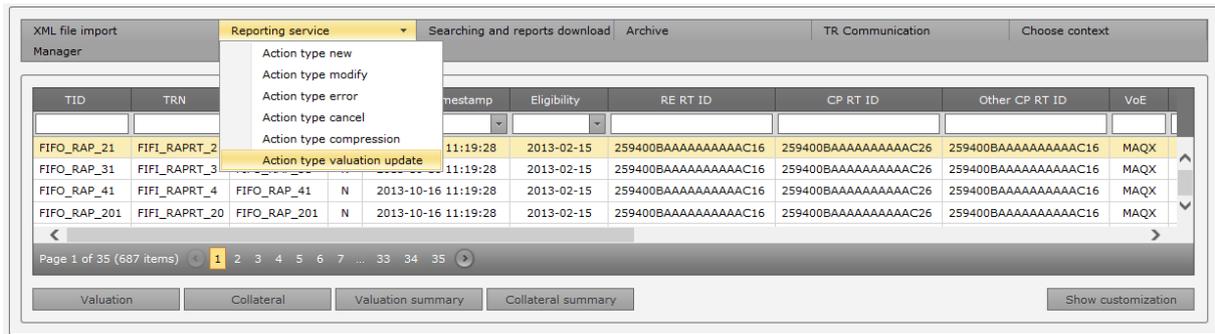
A collective XML message (trar.ins.003.01) with a collateral update in Section 2 (Collateral information) is built by defining the portfolio concerned by the collateral update which must match the portfolio reported in field 2.4.9 (PrtfId) of the main message trar.ins.001.01. When processing the message, once the KDPW_TR system encounters trades reported for such portfolio, it assigns the collateral update to each such portfolio trade according to the XML message. Potentially many reports are updated with a single message. Assuming that 5,000 corn derivatives trades are reported with the collateral portfolio code = 123456 in field 2.4.9, then 5,000 reports are updated by reporting collective collateral update in a single message / completing one interface form. To update collateral individually, 5,000 single updates are reported, i.e., 5,000 single messages (trar.ins.001.01) are sent or 5,000 records are manually modified in the interface.

Example: XML file trar.ins.002.01

```xml
<?xml version="1.0" encoding="utf-8"?>
<KDPWDocument xmlns:xsd="http://www.w3.org/2001/XMLSchema"
              xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
              Sndr="RZ16" Rcvr="R001" xmlns="urn:kdpw:xsd:trar.ins.003.01">
  <trar.ins.003.01>
    <GnlInf>
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        <Tp>LEIC</Tp>
      </TRRprtId>
      <SndrMsgRef>SMR123</SndrMsgRef>
      <FuncOfMsg>NEWM</FuncOfMsg>
      <ActnTp>V</ActnTp>
      <CreDtTm>
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      </CreDtTm>
      <EligDt>2014-07-11</EligDt>
      <DtlLvl>S</DtlLvl>
    </GnlInf>
    <CollDtls>
      <APrtfId>123456</APrtfId>
      <CollVal>56200.25</CollVal>
      <CollCcy>PLN</CollCcy>
    </CollDtls>
  </trar.ins.003.01>
</KDPWDocument>
```

A collective update may be made with a collective XML message or by using the interface tab 'Reporting service – action type valuation update – Collateral summary'.

Fig. 1

Select the option 'Collateral summary' in the lower panel and use the new screen to complete the mandatory fields: Sender Message Reference; Eligible Date; Analytic Portfolio ID, Value of Collateral, and Currency.

Fig. 2

Filled with data:

As a result of the update, the system updates all reports defined with the portfolio (123456) with the entered collateral value.

Acceptance of an update for processing is confirmed in the message trar.sts.002.01 available in the same channel in which the system received the message trar.ins.003.01: in the

interface, the feedback message is available under the tab 'TR Communication', in A2A, the feedback message is available on the server.