File Description

- Document: WBAG APA File Description.docx
- Abstract: This documentation provides information about the availability and format of APA data of the Vienna Stock Exchange (WBAG) in batch file format.

Contact mds@wienerboerse.at

Change history

Date	Files	What
2022-02-17	WBAG APA file Description.docx	Document Creation

File availability

Filename	Production Days	Approximate Time
APAW_ALL_DDMM_DDMM_YYYY.xlxs	All trading days	19:05 CET

Data Access

- File access requires the signing of the Market Data Agreement.
- The files are available in csv-format for download from the Vienna SFTP Server.
- For further information please send an email to mds@wienerboerse.at

Format description of WBAG APA Data

The WBAG APA file consists of all Trade TRd messages as dissemianted by the Viennamarket data feed ADH during a given day in real-time.

Message Specification

Trade

The Trade message is sent when a trade occurs. It holds information about a specific trade all multiple netted trades with the same price.

Message type: TRd

Field name	Key	Mand.	Tag	Type	Length	Description
SequenceNumber	SK		n	Integer	10	Sequence number. Starts at 1 within the scope of the vendor session. Hence the sequence number is not tied to any message, but rather to the session. The sequence number is a key value. However, this key value has nothing to do with the object itself. It is primarily used in case of a session recovery. It is possible to perform recovery from a specific sequence number. For more information on session recovery, see the section specifically related to this.
IdCode	TK		i	Id	10	See chapter 6.4 for a general description of IdCode. The IdCode refers to the unique identifier of a tradable. WBAG strongly recommends not using IdCode, but Si instead. See Annex 2 for details (TARGIN™ vs Information Key Groups). **Message** BasicDataShare BasicDataDerivative BasicDataBond BasicDataETF BasicDataUTC BasicDataRight BasicDataRate
SourceId	IK		Si	String	32	Object identity in the source system.
SourceSystem	IK		s	SourceSystem	9	Identity of the source system. This refers to a TranslationId of a translation table entry message with the key SourceSystem.Values and description - see Annex 1 **Value** **Name** 1 unused_source_1 2 unused_source_2 3 unused_source_3 4 CEEESEG 5 FIX 6 unused_source_6 7 Index

						8 ViennaCashMarket 9 ViennaStructuredProducts 10 unused_source_10 11 Miscellaneous 12 Customized_Index 13 unused_source_13 14 TTR2_APA 15 unused_source_15 **Message** BasicDataXltEntry
ExchangeSourceId	IK		ESi	String	32	Exchange source id in the source system.
MarketSourceId	IK		MSi	String	32	Market source id in the source system.
TradeKey	IK		TRk	Integer	10	Trade key in the source system.
TradeNumber			Tn	Integer	10	Trade number
TradeCancel			TCl	YesNo	1	Trade cancel flag
TimeExec			Tx	Time	9	Time, execution time.
TimestampAgreement			Ta	Time	9	Agreement timeADH: for future use
TimestampTradeCancel			TCt	Time	9	Trade cancel timeADH: for future use
TimestampDissemination			TDi	Time	9	Time when the trade was made public in the source system.
SettlementDate			STd	Date	8	If the settlement date is not disseminated, the default date is three days from the trade date.
TradedPrice			Tp	Float	38,19	Traded price
TradedQuantity			Tq	Float	38,19	Traded quantity
TradeBuyer			Tb	String	6	Buyer name
TradeSeller			Ts	String	6	Seller
TradeType			Tt	Integer	9	Trade type. This refers to a TranslationId of a translation table entry message with the key TradeType.Values and description - see Annex 1 **Message** BasicDataXltEntry
TradeClass			Tc	Integer	9	Trade class. This refers to a TranslationId of a translation table entry message with the key TradeClass.ADH: not applicableValues and description - see Annex 1 **Message** BasicDataXltEntry
TradeUpdatesLastPaid			Ul	YesNo	1	Trade updates last paid on orderbookADH: for future use
TradeUpdatesHighLow			Uh	YesNo	1	Trade updates high/low
TradeUpdatesAverage			Ua	YesNo	1	Trade updates average price.
TradeUpdatesTurnover			Uv	YesNo	1	Trade updates turnover for an orderbook
TradeUpdatesLastAuctionPrice			ULa	YesNo	1	Trade updates last auction price
TradeUpdatesLastAuctionQuantity			ULq	YesNo	1	Trade updates last auction quantity
TradeUpdatesLastAuctionTime			ULm	YesNo	1	Trade updates last auction time
IsLatestTrade			Lt	YesNo	1	This field might be missing for trades executed at one point in time but published later (delayed

						dissemination)ADH: for future use
OutsideSpread			Os	YesNo	1	Outside spread flag
TradeReportType			TRt	Integer	9	A trade resulting from automatic matching does not have a trade report type value.ADH: for future use **Message** BasicDataXltEntry
DeliveryDate			DDa	Date	8	Delivery Date
ReferenceValue			RFv	Float	38,19	Reference Value
PriceCode			PRd	Integer	9	Price code. This refers to a TranslationId of a translation table entry message with the key PriceCode. **Message** BasicDataXltEntry
BoardName			BNm	Integer	9	Board Name. This refers to a TranslationId of a translation table entry message with the key BoardName.Values and description - see Annex 1 **Message** BasicDataXltEntry
SystemValue			SVa	Float	38,19	Trading value in system currency.
ClearingValue			CVa	Float	38,19	Trading value of in clearing currency.
IsMarketPrice			IMp	YesNo	1	Trade is considered as market price.
Delay			DEl	Float	38,19	Delay in case of deferred publication.ADH: for future use
PlaceOfTrade			PTr	String	16	Place of trade, ISO 10383 "OTC" only for SourceSystem TTR, the WBAG solution for Trade Transparency
TradeUpdatesAverageVolume			UAv	YesNo	1	Trade updates average volume.
CountryCode			Cc	String	2	Country Code, ISO 3166.
DirtyPrice			DPr	Float	38,19	Dirty Price.
TradeCorrection			COr	YesNo	1	Trade Correction.
DateExec			Dx	Date	8	If this tag is present, TimeExec refers to this date.
TradeStatSuppress			TSSp	YesNo	1	WBAG internal field, is not disseminated by ADH.For unternal use only
PreviousPrice			TPo	Float	38,19	Previous traded price
PreviousQuantity			TQo	Float	38,19	Previous quantity
TradeKeyCorr			TRKc	Integer	10	Corrected trade key in the source system.
AccumulatedVolume			Aq	Float	38,19	Accumulated volume.For internal use only
ReportedTurnover			Rt	Float	38,19	Reported turnover if sent from source system.For internal use only
CorrectionFactor			Cf	Float	38,19	Correction factor at split, emissions etc. Previous closing values should be multiplied by this value in order to get continous statistics.

TimeOffsetUTC			TOUt	String	5	Time offset from UTC.Given in format [+/-] HHMM.
LiquityIndicator			LQi	Integer	1	BVB only Liquidity Indicator - see Annex1
APAIndividualTransactionID			AITi	Integer	9	Will be used to identify individual sub-transactions for all types (order, quote, trade, pcc) like new, change, modify and delete.
PackageTransactionID			PTi	String	52	In case the MiFID2TradeFlag "TPAC" is set, the field has to be filled mandatory for all affected trades.
VolumWeightedAverageAPA			VWPa	Float	38,19	VolumeWeightedAverage as provided by APA customer, APA only (mandatory if TPw=FULA, COAF, FWAF or IDAF)
TotalTradedVolumeAPA			TTVa	Float	38,19	Total traded volume in according measurement unit, APA only (mandatory if TPw=FULA, COAF, FWAF or IDAF)
TotalNumberTransactionsAPA			TNTa	Integer	9	Total number of Transactions, APA only (mandatory if TPw=(DATF, FULA, VOLW, COAF, FWAF, IDAF)
QuantityInMeasurementUnit			QMu	Float	38,19	For commodity derivatives, emission allowance derivatives and emission allowances. Quantity in measurement unit.
NotationMeasurementUnit			NMu	String	25	For commodity derivatives, emission allowance derivatives and emission allowances. Identification of measurement units in which the quantity in measurement unit is expressed.
PricePending			PRp	String	4	If the price of a transaction is not available at the time of execution, investment firms should fulfill the applicable reporting obligations using 'PNDG' as price - APA only.
VenueOfExecution			VOe	String	16	MIC Code (regular MIC code, "XOFF" if off exchange and without participation of an SI, "SINT" if SI is involved / executes the transaction and N/A if not applicable) .
MiFID2TradeFlag			MTf	Stringlist	240	Trade Flags following MiFID2 / MIFIR, RTS 1, Table 4.
ISIX			ISx	String	9	Up to 9 digits, XETRA'S unique identifier (double listings!).
PostTradeTransparencyWaiver			PTTw	Stringlist	240	Describes the used waiver for delayed publishing.
PriceNotation			Pn	Integer	9	Price Notation **Message** BasicDataXltEntry
LegalEntityIdentifier			LEi	String	20	The Legal Entity Identifier (LEI) is a 20-character, alpha-numeric code, to uniquely identify legally distinct entities that engage in financial transactions. Systematic Internalisers (SI) are obliged to disclose their identity

						when publishing quotes (Regulation C(2016) 2860).
APAClient			APAc	YesNo	1	To be populated with "SI" or empty.
APAClientCounterparty			APCc	YesNo	1	to be populated with "SI" or empty.
SourceAPA			SAPa	Integer	9	Describes the source APA. **Message** BasicDataXltEntry
Reprint			RPn	String	4	ORGN if original trade report, DUPL if reported as duplicate, APA only.
TradingDateTime			TDt	String	40	ISO 8601 Time: YYYY-MM-DDThh:mm:ss.ddddddZ (Z=UTC).Matching timestamp trading system. APA matching timestamp OTC trade.
PublicationDateTime			PDt	String	40	ISO 8601 Time: YYYY-MM-DDThh:mm:ss.ddddddZ (Z=UTC).Publication timestamp in direct trading system interface (e.g. EnBS, EMDI).APA: dissemination time.
DisseminationDateTime			DDt	String	40	ISO 8601 Time: YYYY-MM-DDThh:mm:ss.ddddddZ (Z=UTC).Dissemination time APA: n/a
NominalCurrency			NMc	String	3	ISO 4217 Currency.
TransactionToBeCleared			TTBc	YesNo	1	Derivatives only.Y = 'true' - transaction to be clearedN = 'false' - transaction not to be cleared
ESMACheck			ECh	YesNo	1	Check if data shall be checked against ESMA DB at APA input.
InstrumentTypeMiFIR			INTm	String	4	Complete list of instrument types following MiFIR.
InstrumentUnderlyingTypeMiFIR			INUm	String	4	Underlying type for derivatives and emission allowances following MiFIR.
EMALTypeAPA			TYp	String	4	Refers to RTS 2 / Annex II / Table 2 / 'Type' For emission allowances and emission allowance derivatives only: 'EUAE' – EUA, 'CERE' – CER, 'ERUE' – ERU, ‘EUAA’ – EUAA, 'OTHR' – Other (for derivatives only)
TradeUpdatesAccumulatedVolume			UVo	YesNo	1	Trade updates accumulated volume in TradeStatistics TSt.
Date			Dt	Date	8	Date
MMTAgencyCross			MMTAc	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTBenchmarReference			MMTBr	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTSpecialDividend			MMTSd	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTOffBookAutomated			MMTOb	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTAlgoritmicIndicator			MMTAi	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.

MMTDeferralEnrichment			MMTDe	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTDuplicativeIndicator			MMTDi	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTTransactionCategory			MMTm	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTMarketMechanism			MMMm	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTTradingMode			MMMo	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTNegotiatedTransactionIndicator			MMTc	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTModificationIndicator			MMCt	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTTransactionType			MMTt	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
MMTPublicationMode			MMTi	String	4	MMT 3.04, XETRA© Classic and T7 and APA data only.
NominalValue			NMv	Float	38,19	Nominal value
BuyOrSell			BSEl	String	1	Indicates whether the issuing participant is buying or selling. Non issuing participants must place orders on the opposite side. B = Buy, S = Sell.
FreeText1			FTa	String	80	To be defined by WBAG
FreeText2			FTb	String	80	To be defined by WBAG.
DerivativeType			DTy	Integer	9	Tradable subtype. This refers to a TranslationId of a translation table entry message with the key DerivativeType.Values and description - see Annex 1 **Message** BasicDataXltEntry
MIFID2TIC			MIFt	String	52	MiFID2 Transaction ID Code.
Isin			ISn	String	12	ISIN. This field will only contain ISIN unless specifically stated otherwise. ISIN is an unambiguous international identification of assets in accordance with ISO standard 6166. ISIN stands for International Securities Identification Number. An ISIN tradable cannot be formed unless the company is registered. (see instrument identifier type)
InstrumentIdentifierType			ISu	InstrumentIdentifierType		Most instruments have ISIN code as an identifier but not all. The others will be a free text field. **Value** / **Name** 1 / ISIN 2 / FreeText 3 / Other
TradingCurrency			CUt	String	3	Trading currency.

Example of disseminated Messages

This file holds one example for an equity and one for a non-equity trade:

APA Example
Messages.xlsx

General Information on TTR 2® – Source System of MiFID 2 compliant OTC data reporting

TTR®II, Transparent Trade Reporting II was introduced as the successor for TTR®. Where TTR only covered equity OTC post-trade transparency, TTR II now offers the full MiFID II / MiFIR range of asset classes and includes pre-trade transparency for Systematic Internalisers. TTR II and ADH constitute the Wiener Börse AG APA service which enables customers to comply to MiFIR Art. 14 and 18 (equity and non-equity pre-trade transparency) resp. 20 and 21 (equity and non-equity post-trade transparency) combined with Delegated Regulations RTS 1_DV (EU) 2017_587 and RTS 2_DV (EU) 2017_583.

Dissemination of OTC data

Used messages and fields

Information Product consists of following messages:

Real-time Data:

Trade – TRd

Population of field "SourceId"

In order to label trading currency of an OTC trade and to be able to uniquely identify each traded instrument and currency SourcId will be populated by [APA MIC]_[ISIN]_[trading currency]. See Chapter **Fehler! Verweisquelle konnte nicht gefunden werden.** for example codes.

Cancellation and Correction out of TTR 2®

Generally, dissemination of cancellation and corrections (amendments) follow the MiFID 2 rules as applied for all markets in ADH.

Dissemination of trade cancellation (Message type: Trade)

A trade cancel is indicated by dissemination of a corresponding trade cancel flag (TIP field: TradeCancel) within the message type Trade. Cancellations are flagged as such with tag TradeCancel TCl (‘Y’) and MIFID2TradeFlag MTf (‘CANC’). Note MTf can hold multiple trade flags following MiFID2.

Example:

Original trade:
TRd;n198498;i2781147;SiXPRA_CZ0009093209;s4;ESiBDX15;MSiPSEEQPMX;TRk1009;Tn1;Tx070030119;Tp250.00;Tq19;Tt1001;UhY;UaY;UvY;ULaY;IMpY;PTrXPRA;Dx20181018;Rt4750.0;TOUt+0000;VOeXPRA;MTfALGO;ISx5357;Pn1001;TDt2018-10-18T07\:00\:30.119871Z;PDt2018-10-18T07\:00\:30.182632Z;DDt2018-10-18T07\:00\:30.217000Z;INTmSHRS;Dt20181018;MMMm1;MMMoO;MMTtP;NMv10;MIFt1009;ISnCZ0009093209;ISu1;CUtCZK

Trade cancelation message:
TRd;n209439;i2781147;SiXPRA_CZ0009093209;s4;ESiBDX15;MSiPSEEQPMX;TRk1009;Tn1;**TClY**;Tx070030119;Tp250.00;Tq19;Tt1001;UhY;UaY;UvY;ULaY;IMpY;PTrXPRA;Dx20181018;TRKc1009;TOUt+0000;VOeXPRA;**MTf**ALGO,**CANC**;ISx5357;Pn1001;TDt2018-10-18T07\:00\:30.119871Z;PDt2018-10-18T07\:01\:25.722576Z;DDt2018-10-18T07\:01\:25.766000Z;INTmSHRS;Dt20181018;NMv10;MIFt1009;ISnCZ0009093209;ISu1;CUtCZK;

Comment: Trade is cancelled.

Dissemination of trade correction (Message type: Trade)

Following MiFID2 rules a cancellation needs to be sent before the correction. Trade corrections are flagged with tag TradeCorrection COr (‘Y’) and MIFID2TradeFlag MTf (‘AMND’). Note MTf can hold multiple trade flags following MiFID2.

Original trade:
TRd;n18555973;i2781119;SiXPRA_CZ0005112300;s4;ESiBDX15;MSiPSEEQPMX;TRk33218;Tn277;;Tx142512022;Tp543.00;Tq181120;Tt1003;UhY;UaY;UvY;ULaY;IMpY;PTrXPRA;Dx20181019;Rt98348160;TOUt+0000;VOeXPRA;ISx5308;Pn1001;TDt2018-10-19T14\:25\:12.022603Z;PDt2018-10-19T14\:25\:12.143714Z;DDt2018-10-19T14\:25\:12.187000Z;INTmSHRS;Dt20181019;MMMm1;MMMoK;MMTtP;NMv100;MIFt33218;ISnCZ0005112300;ISu1;CUtCZK

Cancellation:
TRd;n18701355;i2781119;SiXPRA_CZ0005112300;s4;ESiBDX15;MSiPSEEQPMX;TRk33218;Tn277;**TClY**;Tx142512022;Tp543.00;Tq181120;Tt1003;UhY;UaY;UvY;ULaY;IMpY;PTrXPRA;Dx20181019;TRKc33218;TOUt+0000;VOeXPRA;**MTfCANC**;ISx5308;Pn1001;TDt2018-10-19T14\:25\:12.022603Z;PDt2018-10-19T14\:27\:14.057694Z;DDt2018-10-19T14\:27\:14.423000Z;INTmSHRS;Dt20181019;NMv100;MIFt33218;ISnCZ0005112300;ISu1;CUtCZK

Correction:
TRd;n18701363;i2781119;SiXPRA_CZ0005112300;s4;ESiBDX15;MSiPSEEQPMX;TRk33218;Tn277;;Tx142512022;Tp543.00;Tq184120;Tt1003;UhY;UaY;UvY;ULaY;IMpY;PTrXPRA;**COrY**;Dx20181019;TPo543.00;TQo181120;TRKc33218;TOUt+0000;VOeXPRA;**MTfAMND**;ISx5308;Pn1001;TDt2018-10-19T14\:25\:12.022603Z;PDt2018-10-19T14\:27\:14.057694Z;DDt2018-10-19T14\:27\:14.423000Z;INTmSHRS;Dt20181019;MMCtA;NMv100;MIFt33218;ISnCZ0005112300;ISu1;CUtCZK

Comment: Trade is corrected.