

SWXess Maintenance Release

SMR12 Release Guide (Version 5.10)

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1 Introduction

1.1 Purpose and Scope

This document provides all relevant information for SMR12 including functional and technical changes, regulatory impact, relevant documents and artefacts, configuration changes, migration plan and testing activities.

1.2 Structure of this Document

This document contains information relevant to both business audience and technical audience. The target audience of major sections is indicated with pictograms and text. The major sections are given below.

	Audience	Major Sections					
命。血	Business and Technical Audience	2 Summary					
		3 Key Dates					
		7 Overview of Documents and Artefacts					
		8 Migration					
		9 Testing Activities During Member Test Phase					
血	Business Audience	4 Functional Changes					
_		6 Regulatory Impact					
°.	Technical Audience	5 Technical Changes					

1.3 Revision History

Version	Description
1.00	Initial version
2.00	Information regarding the following topics added:
	 Introduction of QOD Auction Termination Message via OTI and QTI
	 Trading Suspension via QTI for the Early Redemption of Structured Products
	 Amendments Following the Partial Revision of FinMIO-FINMA*
	 Listing, Trading and Settlement of Floating Rate Notes and Fixed to Floating Notes based on TONA
	- Updates in "Functional Changes" section
	- Updates in "Technical Changes" section
	 Updates in "Regulatory Impact" section
	- Updates in "Migration" section
3.00	Information regarding the following topics added:
	- Updates in "Summary" section
	- Updates in "Key Dates" section
	 Adding "Decommissioning of the Exchange Traded Structured Funds (ETSF) Trading Segment" section
	 Adding "Instrument and Segment Reference Data"
	 Updates in "Introduction of ETF/ETP QOD Europe Test-Only Securities" section

Version	Description
4.00	Information regarding the following topics added:
	- Updates in "Summary" section
	- Updates in "Key Dates" section
	- Updates in "Functional Changes" section
	- Updates in "Technical Changes" section
	 Updates in "Overview of Documents and Artefacts" section
	- Updates in "Migration" section
	 Updates in "Testing Activities During Member Test Phase" section
5.00	Information regarding the following topics added:
	- Updates in "Key Dates" section
	- Updates in "Regulatory Impact" section
	- Updates in "Overview of Documents and Artefacts" section
	 Updates in "Testing Activities During Member Test Phase" section
	- Updates in "Production Migration Schedule" section
	- Updates in "Trading Hours and Availability" section
5.10	Update in sections 4.1.1.2 and 4.1.1.13

1.4 References

Document Reference	Subject
SIX Swiss Exchange messages	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/market-data/news-tools/swiss-exchange-messages.html
Trading Rules	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/trading-provisions/regulation.html
Trading Guides	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/trading-provisions/regulation.html#trading-guides
Forms	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/participation.html#application-forms
SMR Releases	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading.html#swxess-maintenance-releases
MSC Messages	https://secure.six-swiss-exchange.com/member_section/it/messages.html
Interface Specifications, Manuals and Guides	https://secure.six-swiss-exchange.com/member_section/it/manuals.html
Release Documents	https://secure.six-swiss-exchange.com/member_section/it/release_docs.html

1.5 Contact

Market Operations

If you have business related questions, please do not hesitate to contact Market Operations.

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Reporting			
Clearing & Settlement			
Billing			

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Emergency Deletions	Operations		
Suspensions			
Instrument Reference Data	Static Data Operations	+41 58 399 2490	<u>zulassung@six-group.com</u>

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Local Support Center Zurich	+41 58 399 2400	lsz@six-group.com				



Find further contact information in the <u>SIX Swiss Exchange Contact Center</u> of the SIX Swiss Exchange website.

2 Summary



Business and Technical Audience

2.1 Introduction

SIX Swiss Exchange will introduce a new maintenance release of the SWXess trading platform. The SWXess Maintenance Release 12 (SMR12) will contain required interface changes for SWXess participants.

SMR12 will be introduced in the Membertest environment in a staged approach. Membertest stage 1 is scheduled for 11 September 2023 and Membertest stage 2 is scheduled for 9 October 2023. SWXess interface changes required to support the functionality of both Membertest stage 1 and stage 2 will be delivered with Membertest stage 1.

SMR12 is scheduled to go live in the **Production Environment** on **4 December 2023**.

The key functionality of SMR12 will be released into the Membertest environment in stages as follows:

Change	Stage 1	Stage 2	Section
Introduction of ETF/ETP QOD Europe			4.1.1
Pre-trade Controls in Different Currencies			4.1.2
Decommissioning SwissAtMid Block Orders in SIX Trading User Interface			4.1.3
QOD Auction Termination Message via OTI and QTI			4.1.4
Trading Suspension via QTI for the Early Redemption of Structured Products			4.1.7
Increased Optionality for Order Transfer to Trading-At-Last	a		4.1.5
Retail Customer Flag via OTI	**		4.1.6
Amendments following the partial revision of FinMIO-FINMA*			4.2.1
Listing, Trading and Settlement of Floating Rate Notes and Fixed to Floating Notes based on TONA**			4.1.8
Decommissioning of Exchange Traded Structured Funds (ETSF) Trading Segment**			4.1.9
Removal of the OTI Order Delay on the Non-Equity Partition		[3]	4.1.10

^{*} These changes will be effective in production only after SMR12. The regulatory go-live date will be communicated in due course

^{**} Production only



Required Interface Changes

The interface changes are implemented but the functionality does not yet work, that is the new field is available on the interface and can be populated but it has no effect until the functional change is implemented.



Functional Changes



For further information on the stages and the functionalities of SMR12, please refer to section 3.

2.2 SMR12 Matrix Changes vs Interfaces and Services

The table below shows the changes introduced with SMR12 and the impact on interfaces and services.



= business change

Click on the section number to see the business description.



= technical change

Click on the section number to see the technical description.

= not affected

	SWXess Interfaces and Services															
Changes	Business Changes only	ПО	ф	IMI	STI	SIX MDDX	RDI	SIX Trading User Interface	Sponsored Access FIX Drop Copy	TRI - Transaction Reporting Interface	TXR - Transaction Reconciliation Report	TRR - Participant Trade Reconciliation Report	ORR - Participant Order Reconciliation Report	XBTR - Bilateral Trading Platform	Billing Report Interface	SCAP
Introduction of ETF/ETP QOD Europe		4.1.1	4.1.1	4.1.1 	4.1.1 • • • • • • • • • • • • • • • • • • •	4.1.1 .* 5.2.1	4.1.1 	4.1.3				5.2.1	°;‡ 5.2.1			
Implementation of Pre- trade Controls in Different Currencies	4.1.2															
SIX Trading User Interface – SwissAtMid Block Orders Decommissioning								<u></u> 4.1.3								

						SV	VXess I	nterfac	es and	Servic	es					
Changes	Business Changes only	ОТІ	φп	IMI	STI	SIX MDDX	RDI	SIX Trading User Interface	Sponsored Access FIX Drop Copy	TRI - Transaction Reporting Interface	TXR - Transaction Reconciliation Report	TRR – Participant Trade Reconciliation Report	ORR - Participant Order Reconciliation Report	XBTR - Bilateral Trading Platform	Billing Report Interface	SCAP
Introduction of QOD Auction Termination Message via OTI and		4.1.4	4.1.4													
QTI		5.2.1.7	5.2.1.7													
Increased Optionality for Order Transfer to Trading-At-Last		4.1.5			4.1.5											
Trading Ac East		5.2.3			5.2.3				5.2.3				5.2.3			
Introduction of Retail Customer Flag		4.1.6							<u>û</u> 4.1.6							
		5.2.4							5.2.4						5.2.4	
Trading Suspension via QTI for the Early Redemption of Structured Products			<u></u>													
Listing, Trading and Settlement of Floating Rate Notes and Fixed to Floating Notes based on TONA	4.1.8															
Amendments following the partial revision of										4.2.1						
FinMIO-FINMA										5.3.1						
Decommissioning of Exchange Traded Structured Funds (ETSF) Trading Segment**	4.1.9															
Removal of the OTI Order Delay on the Non-Equity Partition	4.1.10															
Other Technical Changes					5.4.3	5.4.2	5.4.4						5.4.1			

3 Key Dates



Business and Technical Audience

The following table shows the key dates of SMR12 as scheduled at this stage:

Date	Test	Prod	Activity
5 June 2023		\square	Initial Announcement of SMR12 and publication of SMR12 Release Guide and publication of affected SWXess interface specifications
31 July 2023		\square	Publication of updated SMR12 Release Guide and affected SWXess interface specifications
1 September 2023		\square	Confirmation of Start Membertest with publication of updated SMR12 Release Guide and affected SWXess interface specifications (if applicable)
8/9 September 2023	V		SMR12 Membertest Migration weekend stage 1 Contains structural interface changes
10 September 2023	V		Contingency Day – SMR12 Membertest Migration stage 1
11 September 2023	V		SMR12 Membertest stage 1 live date and first trading day includes: Introduction of QOD Auction Termination Message via OTI and QTI Introduction of ETF/ETP QOD Europe SIX Trading User Interface – SwissAtMid Block Orders Decommissioning Pre-Trade Control Values in Different Currencies will be implemented (no structural changes) Trading Suspension via QTI for the Early Redemption of Structured Products Amendments following the partial revision of FinMIO-FINMA
27 September 2023	V		Intraday Recovery Test – On Book Matcher Partition 1 down
29 September 2023	\checkmark	\square	Publication of updated SMR12 Release Guide and affected SWXess interface specifications (if applicable)
30 September 2023	V		Performance Load Test
4 October 2023	V		Intraday Recovery Test – On Book Matcher Partition 2 down
6/7 October 2023	V		SMR12 Membertest Migration weekend stage 2
8 October 2023	V		Contingency Day – SMR12 Membertest Migration stage 2
9 October 2023	V		SMR12 Membertest stage 2 live date and first trading day includes: - Increased Optionality for Order Transfer to Trading-At-Last - Introduction of Retail Customer Flag via OTI - Removal of the OTI Order Delay on the Non-Equity Partition
25 October 2023	V		Intraday Recovery Test – STI FIX Infrastructure down (Single FIX Gateway Failure and Double FIX Gateway Failure)
1 November 2023	V		Intraday Recovery Test – MDDX Infrastructure down
7 November 2023	Ø	Ø	Publication of updated Directives and Guidelines for SMR12 Production Publication of updated SMR12 Release Guide
8 November 2023	\square		Intraday Recovery Test – Both On Book Matcher Partitions down
11 November 2023			Performance Load Test
15 November 2023			Intraday Recovery Test – Contingency

Date	Test	Prod	Activity
2/3 December 2023		$\overline{\checkmark}$	SMR12 Production Migration weekend
4 December 2023			 SMR12 Production live date and first trading day includes: Introduction of ETF/ETP QOD Europe SIX Trading User Interface – SwissAtMid Block Orders Decommissioning Pre-Trade Control Values in Different Currencies will be implemented (no structural changes) Trading Suspension via QTI for the Early Redemption of Structured Products Introduction of QOD Auction Termination Message via OTI and QTI Increased Optionality for Order Transfer to Trading-At-Last Introduction of Retail Customer Flag via OTI Listing, Trading and Settlement of Floating Rate Notes and Fixed to Floating Notes based on TONA Decommissioning of the Exchange Traded Structured Funds (ETSF) Trading
			Segment - Removal of the OTI Order Delay on the Non-Equity Partition

4 Functional Changes



Business and Technical Audience

4.1 Trading and Alternative Trading

4.1.1 Introduction of ETF/ETP QOD Europe

New with SMR12, SIX Swiss Exchange will expand the product universe for the trading service "Quote on Demand" (QOD). Exchange Traded Funds (ETF) and Exchange Traded Products (ETP) that have Swiss Regulatory approval from FINMA and have a listing on SIX Swiss Exchange can now also be admitted to trading if they are listed on the following European regulated markets:

- London Stock Exchange (XLON)
- Euronext Amsterdam (XAMS)
- Euronext Brussels (XBRU)
- Euronext Paris (XPAR)
- Deutsche Börse XETRA (XETR)
- Borsa Italiana (XMIL, ETFP, MTAA)
- Wiener Börse AG (XWBO)
- Nasdaq Stockholm AB (XSTO)

4.1.1.1 Overview of ETF/ETP QOD Europe

ETF/ETP QOD Europe is supported for	
Trading Interfaces	 Standard Trading Interface (STI) for QOD Requests SIX Trading User Interface for QOD Requests Quote Trading Interface (QTI) for QOD Quotes OUCH Trading Interface (OTI) for QOD Requests and QOD Quotes
Market Data Interfaces	SIX Multi-Dimensional Data FluX Interface (SIX MDDX)ITCH Market Data Interface (IMI)
On Book Matcher	- On Book Matcher Partition 2 "non-equities"
Trading Segments	- ETF/ETP QOD Europe (new)
Trading Period	- Continuous Trading
Trading Mode	Discretion onlyAuto-Execute or CancelAuto-Execute and optional Discretion
Market Model	- Quote on Demand (QOD)
Order Types	 QOD Request (STI, SIX Trading User Interface and OTI) QODN (Quote on Demand non-Sweep) QOD Quote (QTI and OTI)

4.1.1.2 Participation

All participants of SIX Swiss Exchange can generally enter QOD Requests to the Quote on Demand service for ETF/ETP QOD Europe, provided that they have updated their existing Clearing and Settlement standing instructions in advance of the start of trading (see Important Note below).

All participants who already act as Liquidity Providers for the Quote On Demand service may use their existing dedicated QOD Liquidity Provider QTI BOIL Users and/or OTI Users to act as Liquidity Providers for ETFs/ETPs for

QOD Europe, provided that they have updated their existing Clearing and Settlement standing instructions in advance of the start of trading (see Important Note below). However, participants who have no dedicated Liquidity Providers for the Quote on Demand service must set up dedicated QTI and/or OTI users for this purpose and can request this by submitting the "Application for Quote on Demand Liquidity Provider" and CSSI form to Member Services (member.services@six-group.com).

Participants may identify the registered Liquidity Providers for Quote on Demand via the existing attribute in the Reference Data Interface (RDI):

Object	Attribute	Туре
Party	qodLiquiditiyProviderFlag	Boolean



Important Note

Participants wishing to trade in the new the Quote on Demand service for ETF/ETP QOD Europe are required to update their existing Clearing and Settlement standing instructions in advance of the start of trading. The changes must be submitted via the CSSI Notification Forms to Member Services (member.services@six-group.com) at least three (3) business days prior to the beginning of trading.



Further Reading

- Standard Trading Interface (STI) Specification Orders and Executions (Version 2.73.0)
- OUCH Trading Interface (OTI) Specification (Version 1.18.0)
- Quote Trading Interface (QTI) Specification (Version 1.10.0)
- SIX Trading User Interface User Manual (Version 2.00)
- Reference Data Interface (RDI) Specification (Version 2.38.0)
- SMR9 Readiness Guide
- SMR10 Readiness Guide, section 4.2.2
- <u>Directive 5: Alternative Trading</u>

4.1.1.3 Securities

SIX Swiss Exchange will introduce a new Trading Segment for ETF/ETP QOD Europe:

Trading Segment ID	Trading Segment Name	Security Exchange	Instrument Partition Code
620	ETF/ETP QOD Europe	XSWX	P2

The trading hours of the new Trading Segment will be provided in due course in the respective Annex of the <u>"Trading Parameters" Guideline</u> (to be updated for SMR12).

ETFs and ETPs in the ETF/ETP QOD Europe trading segment can be traded only in the QOD order book and therefore a new attribute "qodOnlyFlag" will be introduced in the Reference Data Interface (RDI) to identify these securities:

Object	Attribute	Туре
TradingSegment	qodOnlyFlag	Boolean

In order to facilitate testing of ETF/ETP QOD Europe, SIX Swiss Exchange will set up a number of instruments for Membertest stage 1 and 2. Please see section 9.2.1.



Please go to section 5.2.1 for a detailed technical description.



Further Reading

Reference Data Interface (RDI) Specification (Version 2.38.0)

4.1.1.4 Reference Exchange

SIX Swiss Exchange will specify a new mandatory reference data attribute "Reference Exchange" for all QOD Europe ETFs and ETPs in order to uniquely distinguish them from other securities trading in the QOD orderbook. The Reference Exchange will refer to the market associated with the venue where the trade will be settled. The currently supported Reference Exchanges are as follows:

Code	Description
XETR	XETRA
XLON	London Stock Exchange
XAMS	Euronext Amsterdam
XBRU	Euronext Brussels
XPAR	Euronext Paris
XMIL	
ETFP	Borsa Italiana
MTAA	_
XSTO	Nasdaq Nordic
XWBO	Wiener Börse AG

The new attribute will be disseminated via the **Reference Data Interface (RDI)** as follows:

Object	Attribute	Туре
TradedInstrument	referenceExchange	Enumeration-4

On the **ITCH Market Data Interface (IMI)**, as well as the new attribute "Reference Exchange", a further new attribute "Security Exchange" will be introduced to the IMI Orderbook Directory Message [R] to harmonize the unique key of the instrument across the SWXess interfaces.

On the **MDDX Multi-Dimensional Data FluX**TM **Interface (MDDX)**, the unique key of the instrument will be expanded to include the new attribute "RefExchange" for post-trade messages only. This will not apply for pre-trade messages.

On the **Standard Trading Interface (STI)**, the new attribute "ReferenceExchange" (FIX Tag 27003) is introduced as an optional field for both inbound and outbound STI messages. For ETF/ETP QOD Europe this field is required.

On the **OUCH Trading Interface (OTI)** and Quote Trading Interface (QTI) it is not necessary to identify ETF/ETP QOD Europe instruments by the Reference Exchange as they are uniquely identified by the SIX Swiss Exchange security identifier (SecCode).

For the **SIX Trading User Interface**, the new attribute "Reference Exchange" will be included in the Order Entry Mask.



Important Note

Via OTI and QTI it is possible to uniquely identify securities for ETF/ETP QOD Europe via the SecCode, however on STI this is not the case. On STI, the Reference Exchange must be provided to uniquely identify these securities. If this information is required but not provided on an incoming STI order, the order will be rejected.



Please see section 5.2.1 for a detailed technical description.



Further Reading

- ITCH Market Data Interface (IMI) Specification (Version 1.17.0)
- Standard Trading Interface (STI) Specification Orders and Executions (Version 2.73.0)
- Reference Data Interface (RDI) Specification (Version 2.38.0)
- SIX MDDX Interface Specification (Version 1.43.0)

4.1.1.5 Technical Connectivity

Submitting QOD Requests for ETF/ETP QOD Europe is supported via the Standard Trading Interface (STI), the OUCH Trading Interface (OTI) and via the SIX Trading User Interface.

Providing QOD Quotes for ETF/ETP QOD Europe is supported via the OUCH Trading Interface (OTI) and the Quote Trading Interface (QTI).

4.1.1.6 Market Data Dissemination

The Reference Price of ETFs/ETPs for QOD Europe will be set at the start of each day to the Reference Price of the associated listed security on SIX Swiss Exchange in the Quote Driven Market (QDM), that is the security with the same ISIN, with an adjustment made for the currency conversion. This Reference Price will not be updated throughout the trading day and will be equivalent to the existing "Inside Market Price". To reflect this change, in the MDDX On-Book Price [PR] message, the Reference Price Type enumerator "Inside Market Price" will be changed to "Market Adjustment". Furthermore, the MDDX On-Book Price [PR] will not disseminate the following information: TheoOpenPrice, DailyHigh, DailyLow, Open, Close, First, Last. Moreover, the MDDX Closing Inside Market [CI] will also not be disseminated.

For details on pre-trade transparency please see section 4.1.1.11. For further details on post-trade information, please see section 4.1.1.12.



Further Reading

- ITCH Market Data Interface (IMI) Specification (Version 1.17.0)
- SIX MDDX Interface Specification (Version 1.43.0)

4.1.1.7 Order Handling

ETF/ETP QOD Europe supports executions in the Quote on Demand order book only and therefore Quote Requests with Routing Instruction QODS (Quote on Demand with Sweep) are not supported.

For a detailed overview of the order attributes for QOD Requests and Quotes, please see <u>SMR9 Participant Readiness</u> <u>Guide</u>, section 3.1.7, <u>SMR9.1 Participant Readiness Guide</u>, section 3.1.5 and <u>SMR10 Release Guide</u>, section 4.2.2.

No Stop Trading or Avalanche Stop Trading is available for Quote on Demand. ETFs and ETPs for QOD Europe is completely independent of trading in the Quote Driven Market (QDM). Consequently, there is no impact on the QOD book if trading in the QDM is interrupted.



Important Note

For ETF/ETP QOD Europe, the Routing Instruction "QODS" (Quote on Demand with Sweep) is not supported for QOD requests. QODS orders will not be rejected but will be treated as QODN orders and therefore routed to the QOD order book. They can execute only in the QOD order book.

4.1.1.8 Market Model and Matching Rules

ETF/ETP QOD Europe is supported in On Book Matcher (OBM) in Partition 2 "non-equities" for the **Quote on Demand** (QOD) book only. In the QOD trading service a QOD Call Phase is triggered for each submitted QOD Request during the trading day. At the start of the QOD Call Phase, all or a selection of registered Liquidity Providers chosen by the QOD client will be invited to submit buy and/or sell Quotes with the quantity defined by the participant on the QOD Request. Depending on the Trading Mode defined on the QOD Request, SIX will execute the QOD Request against inlimit Quotes from Liquidity Providers according to the Price-Full Quantity-Time principle.

For further details, please refer to the <u>SMR9 Readiness Guide</u>, sections 3.1.6, 3.1.7 and 3.1.9, <u>SMR9.1 Participant</u> <u>Readiness Guide</u>, section 3.1.5 and <u>SMR10 Release Guide</u>, section 4.2.2.

4.1.1.9 Price Steps (Tick Size)

The price steps (tick size) for ETFs and ETPs for QOD Europe will be the same as for other QOD securities. For further details, please refer to the <u>"Trading Parameters" Guideline</u>.

4.1.1.10 Pre-Trade Controls

QOD Requests from participants and Quotes from Liquidity Providers are validated against the existing Pre-Trade Controls:

- QOD Price Collar
- QOD Maximum Order Volume
- QOD Maximum Order Value
- QOD Deviation Limit

Please find the applicable pre-trade control values in the respective Annex of the <u>"Trading Parameters" Guideline</u> (will be updated for SMR12).

The QOD pre-trade control values for this new trading segment will also be available in the Trading Segment file of the Reference Data Interface (RDI).

QOD Call Phases are not started if the price of the QOD Request deviates by more than the defined range from the Reference Price. The Reference Price will be that of the security with the same ISIN in the Quote Driven Market (QDM) with a daily adjustment made for the currency conversion.

4.1.1.11 Pre-Trade Transparency

All QOD Requests and Quotes which are executed using an order management facility of the Exchange are exempted from pre-trade transparency regulations according to Art. 27 para. 4 let. c <u>FMIO</u>. The QOD Requests and Quotes are not published via the SWXess public market information channels during the QOD Call Phase.

Pre-trade information is not published for QOD Requests and Quotes.

For further details, please refer to <u>Directive 5: Alternative Trading</u>.

4.1.1.12 Post-Trade Transparency

Trades executed in ETFs/ETPs for QOD Europe are deemed to be "On-Exchange" in accordance with Clause 10.1 <u>Trading Rules</u>. Participants will receive post-trade trade information from ETFs/ETPs for QOD Europe via ITCH Market Data Interface (IMI) as well as via MDDX Multi-Dimensional Data FluXTM Interface.

ETFs/ETPs for QOD Europe trades are published immediately except for Quote on Demand trades which are large-volume transactions (LIS) in accordance with Art. 28 para. 4 let. a <u>FMIO</u>, which will be published with a delay.

If the turnover of the Quote on Demand trade for ETFs/ETPs for QOD Europe meets the criteria, SIX Swiss Exchange will automatically delay the publication of the trade according to the following table:

QOD Trade Turnover CHF	QOD Trade Publication
Smaller than 10 million	Immediate Publication
Between 10 million and 50 million	Delayed Publication – 60 Minutes
Greater than 50 million	Delayed Publication – End of Trading

For further details, please refer to Directive 5: Alternative Trading

The QOD Trade Turnover is defined in Swiss Francs. For securities with a different trading currency than Swiss Francs, the QOD Trade Turnover is converted using the daily maintained exchange rate of the Exchange. The parameters for the QOD Delayed Publication are not included in the Reference Data Interface (RDI).

If a ETFs/ETPs for QOD Europe trade subject to delayed publication is cancelled before its publication, the publication of the original trade and of the cancellation will be suppressed.

Participants will receive the Execution Reports via STI, OTI and QTI for QOD trades subject to delayed publication immediately after execution and not at the publication time.

ETFs/ETPs for QOD Europe trades subject to delayed publication will be published at the publication time and not at the execution time via the market data interfaces.

4.1.1.13 Post-Trade Processing

ETFs/ETPs for QOD Europe trades must be cleared via a Central Counterparty and are settled in the respective local market central securities depository (CSD) defined in the reference data. The provisions of Clause 17 <u>Trading Rules</u> apply. For the ETF/ETP QOD Europe segment, it is therefore not possible for participants to request the prevention of clearing and settlement.

The standard settlement cycle is T+2 trading days.

The identity of the counterparty is disclosed to the participants involved in the ETFs/ETPs for QOD Europe trades.

ETF/ETP QOD Europe trades will settle into the local Central Securities Depositories (CSDs) of the defined Reference Exchange, even if the same ISIN/Currency combination is listed at SIX and settles in SIS. Therefore, new Clearing and Settlement Standing Instructions (CSSI) will be set up for these trades based on the Reference Exchange of the security.

New Clearing and Settlement Segments with different Central Clearing Counterparties (CCPs) will be introduced for each of the Reference Exchanges to allow participants to select different Clearing Rules based on the Reference Exchange if they wish.

The Clearing and Settlement Segments currently supported for ETF/ETP QOD Europe are as follows:

Code	Description
ETFP	ETF/ETP QOD EU (cleared all CCPs) - ETFP
MTAA	ETF/ETP QOD EU (cleared all CCPs) - MTAA
XAMS	ETF/ETP QOD EU (cleared all CCPs) - XAMS

Code	Description
XBRU	ETF/ETP QOD EU (cleared all CCPs) - XBRU
XETR	ETF/ETP QOD EU (cleared all CCPs) - XETR
XLON	ETF/ETP QOD EU (cleared all CCPs) – XLON
XMIL	ETF/ETP QOD EU (cleared all CCPs) - XMIL
XPAR	ETF/ETP QOD EU (cleared all CCPs) - XPAR
XSTO	ETF/ETP QOD EU (cleared all CCPs) - XSTO
XWBO	ETF/ETP QOD EU (cleared all CCPs) - XWBO

These values will be disseminated via the existing attributes in the Reference Data Interface (RDI) as follows:

Object	Attribute
TradedInstrument	clearingSettlementSegmentCode
TradedInstrument	clearingSettlementSegmentDescription



Important Note

Participants wishing to trade in the new the Quote on Demand service for ETF/ETP QOD Europe are required to update their existing Clearing and Settlement standing instructions in advance of the start of trading. The changes must be submitted via the CSSI Notification Forms to Member Services (member.services@six-group.com) at least three (3) business days prior to the beginning of trading.

Participants who are currently using the CSD-centric netting model will need to change to CCP-centric netting to enable netting for ETF/ETP QOD Europe securities.

Participants are requested to contact the responsible Relationship Manager or Solutions & Onboarding (+41 58 399 4551) / <u>solutions.onboarding@six-securities-services.com</u>) for information on their current model.

4.1.1.14 Reporting Obligation

The participants and Liquidity Providers are obliged to submit a Transaction Report according to Clause 13 <u>Trading</u> <u>Rules</u> for trades executed in the trading segment ETF/ETP QOD Europe.

Trade Reporting is supported but off-book trades will not be instructed for clearing and settlement by SIX Swiss Exchange AG.

4.1.1.15 Corrections, Cancellations and Countertrades

Corrections, Cancellations and Countertrades are supported for ETFs/ETPs for QOD Europe trades.

4.1.1.16 Market Control

Market Control of SIX actively monitors the integrity of trading of ETFs/ETPs for QOD Europe in the Quote on Demand book on an ongoing basis and ensures efficient, fair and orderly trading in line with the rules of the Exchange. For further details, please refer to the SMR9 Readiness Guide, section 3.1.20.

4.1.1.17 Fees and Costs

The trading fees for QOD Requests and Quotes related to ETFs/ETPs for QOD Europe, remain the same as for other on-exchange trading with quote requests in Quote on Demand, please see Annex P <u>List of Charges under the Trading Rules</u>.

4.1.1.18 Billing Reports

Please note that the Billing Report File Interface (BRI) has been adapted to support trades from ETF/ETP QOD Europe as follows:

 A new column "referenceExchange" with new attributes to show the supported Reference Exchange codes for ETF/ETP QOD Europe securities has been added.

This change might require adjustments to the participant own applications. The new Billing Reports will be available from the go-live of SMR12 in the Production environment and cannot be tested in the Membertest environment beforehand.



Further Reading

Billing Report File (BRI) Interface Specification (Version 1.36.0)

4.1.2 Implementation of Pre-trade Controls in Different Currencies

Currently, the following pre-trade controls for On-Book trading at SIX Swiss Exchange have been defined in Swiss Francs:

- Maximum Order Value
- Minimum Iceberg Order Value
- Pre-Trade Block Threshold

Up until now, this has meant that for non-Swiss Franc securities, the values were converted using the Exchange's daily maintained exchange rates. With SMR11, SIX Swiss Exchange announced that these values would in the future be directly calculated in the trading currency of the individual security and modified the description of existing attributes "minIcebergOrderValue" and "maxOrderValue" in the Reference Data Interface (RDI) accordingly. For further details, please see the <u>SMR11 Release Guide</u>, section 5.2.7.

Now with SMR12, SIX Swiss Exchange will implement this new functionality and use pre-trade controls directly in the different trading currencies of the securities according to the currency described for these attributes in the Reference Data Interface (RDI).



Important Note

The attributes Maximum Order Value and Minimum Iceberg Order Value will be calculated in the Membertest environment according to the currency shown for these fields in the RDI file from Membertest stage 1.

The attribute Pre-Trade Block Threshold will be calculated in the Membertest and Production environments according to the currency shown for this field in the RDI file only from the Production go-live of SMR12.



Further Reading

SMR11 Release Guide, section 5.2.7

4.1.3 SIX Trading User Interface – SwissAtMid Block Orders Decommissioning

Since the introduction of SwissAtMid Block Orders with SMR10, participants have been able to submit, maintain and delete SwissAtMid Block Orders via the SWXess Trading Interfaces Standard Trading Interface (STI) and OUCH Trading Interface (OTI), as well as via the SIX Trading User Interface.

New with SMR12, the possibility to trade SwissAtMid Block Orders via the SIX Trading User Interface will be decommissioned. Participants currently using the SwissAtMid Block service are doing so via STI and OTI and therefore it is no longer necessary to offer SwissAtMid Block Order functionality via the SIX Trading User Interface.



Further Reading

SIX Trading User Interface - User Manual (Version 2.00) (updated for SMR12)

4.1.4 Introduction of QOD Auction Termination Message via OTI and QTI

SIX Swiss Exchange is introducing a new QOD Auction Termination message for the Quote on Demand (QOD) trading service. The new message type will inform all QOD Liquidity Providers invited to participate in a QOD Auction about the ending of that Auction. The new message will be disseminated via the OUCH Trading Interface (OTI) and the Quote Trading Interface (QTI).

A QOD Auction is triggered each time a QOD Request is entered during continuous trading. At the start of the QOD Call Phase all registered QOD Liquidity Providers eligible to submit quotes based on the QOD Requester's counterparty list, are invited to submit buy and sell Quotes with the quantity defined by the participant on the QOD Request. During the Call Phase, SIX will attempt to execute the QOD Request against in-limit Quotes depending on the routing instructions and Trading Mode defined in the QOD Request. QOD Auctions terminate once the QOD request is fulfilled or otherwise expire at the end of their maximum time duration as defined by the QOD Trading Mode selected. QOD Auctions may also expire due to trading interruptions.

Currently with SMR11, only Liquidity Providers who submit quotes in response to a QOD Request are able to determine when a QOD Auction ends as they are kept informed about the status of their quotes. New with SMR12, all Liquidity Providers who receive an invitation to quote for a QOD Request will receive the new explicit QOD Auction Termination message which will inform them about the ending of that Auction, regardless of whether they have submitted quotes to that Auction or not.

The new QOD Call Phase Termination message shall not count towards the user's capacity usage (QPS/OTPS).

- OTI QOD LP Auction Termination Message [6]
- QTI Quote Auction Termination Message [T]



Please see section 5.2.1.7 for a detailed technical description.



Further Reading

- OUCH Trading Interface (OTI) Specification (Version 1.18.0)
- Quote Trading Interface (QTI) Specification (Version 1.10.0)

4.1.5 Increased Optionality for Order Transfer to Trading-At-Last

With SMR8.2, the "Trading-At-Last" (TAL) service was introduced to allow executions at the Closing Price in the Central Limit Order Book after the Closing Auction. The TAL period offers matching of additional volume in Swiss equities at the Closing Price and the details of the service offering can be found in the SMR8.2 Readiness Guide. Currently, participants can choose whether or not their open orders are transferred from the closing auction to TAL via a configuration on their PartyID/PartyIDs, for which the default is set to allow orders to take part in TAL. For further details, please see SMR8.2 Readiness Guide, section 3.1.3.1.1.

New with SMR12, the functionality to determine whether an order shall participate in TAL or not will be removed from the PartyID level and instead participants will be able to choose whether or not to participate in TAL on a per order basis simply by communicating their preference when entering or updating an order.

On the **Standard Trading Interface (STI)**, participants can submit "N" for NoTAL via the new field "OrderRestrictions" (FIX Tag 529) on the "New Order Single" (MsgType=D) message and in the Order Cancel Replace Request (MsgType=G). If not set the value is null and the order can participate in TAL. If participants wish to change their

preference from NoTAL back to the participating in TAL, they should submit "T" for no restrictions which resets the value to the null, via the new field "OrderRestrictions" (FIX Tag 529) in the Order Cancel Replace Request (MsgType=G). The selection of "N" for "No TAL" will be distributed via the new attribute "OrderRestrictions" (FIX Tag 529) in the "Execution Report" (MsgType=8).

On the **Sponsored Access FIX Drop Copy Interface**, the selection of "N" for "No TAL" will be distributed via the new attribute OrderRestrictions" (FIX Tag 529) in the "Execution Report (MsgType=8).

On the **OUCH Trading Interface (OTI)**, participants can submit "0" for no participation in TAL in bit 0 of the new attribute "OrderFlags1" in the "Enter Order Message" [O]. Participants wishing to participate in TAL should submit "1" in bit 0 of the new attribute "OrderFlags1". Participants may change their preference via the Replace Order Message [U]. The selection for participation in TAL or not will be distributed via the Accepted Message [A] and Replaced Message [U].



Please see section 5.2.3 for a detailed technical description.



Further Reading

- <u>SMR8.2 Readiness Guide</u>, section 3.1.3
- Standard Trading Interface (STI) Specification Orders and Executions (Version 2.73.0)
- OUCH Trading Interface (OTI) Specification (Version 1.18.0)
- Sponsored Access FIX Drop Copy Interface Specification (Version 1.42.0)

4.1.6 Introduction of Retail Customer Flag via OTI

With SMR11, SIX Swiss Exchange introduced the functionality over the Standard Trading Interface (STI) to allow participants to indicate that their orders originate from a retail customer, that is non-professional client. New with SMR12, this functionality is extended to the OUCH Trading Interface (OTI).

For further information on the use of the Retail Customer Flag, please refer to the <u>SMR11 Release Guide</u>, section 4.1.9.

For the **OUCH Trading Interface (OTI)**, participants should submit "1" for Retail Customer in bit 1 of the new attribute "OrderFlags1" in the "Enter Order Message" [O] and Replace Order Message [U]. If the order does not originate from a retail customer, participants should submit "0" in bit 1 of the new attribute "OrderFlags1". For the full impact on OTI, please refer to the technical description referenced below.

Where participants have defined the entry of Retail Order Flow over OTI as described above, the STI "Execution Report" (MsgType=8) in the Sponsored Access FIX Drop Copy Interface Specification will display "5" (Retail Customer) in the field "CustOrderCapacity" (FIX Tag 582).



Please see section 5.2.4 for a detailed technical description.



Further Reading

- Sponsored Access FIX Drop Copy Interface Specification (Version 1.42.0)
- OUCH Trading Interface (OTI) Specification (Version 1.18.0)
- Billing Report File (BRI) Interface Specification (Version 1.36.0)

4.1.7 Trading Suspension via QTI for the Early Redemption of Structured Products

Market Makers and Liquidity Providers have the option to suspend listed leverage products subject to an early redemption and an Active Product Package.

According to Art. 11 point 2.07 of the <u>Directive on Regular Reporting Obligations</u> (DRRO), issuers of derivatives that are terminated early are obliged to inform the Exchange about the new termination date.

If the early terminated Leveraged Product should be suspended from trading prior to the termination date and the issuer of the product has a running Active Product Package according to Art. 5.1.8 of the <u>List of Charges under the Listing Rules</u>, then the registered market maker and/or liquidity provider must initiate the suspension of trading on the Exchange.

Currently, the early redemption of listed Structured Products to SIX Swiss Exchange is reported solely via Connexor Events with the Event Type Code ERDM "Early Redemption". Upon receipt of this information and if the early redemption date for the security is today (T), T+1 or T+2, the Exchange Operations team of SIX Swiss Exchange will immediately suspend the Structured Product from trading.

Market Makers and Liquidity Providers have the option to suspend listed leverage products subject to an early redemption and an Active Product Package. In order to provide a faster and leaner process for them to do so, the following new functionality will be offered for SMR12:

Market Makers and Liquidity Providers wishing to suspend the above mentioned products following an early redemption, must do so themselves via the Quote Trading Interface (QTI) as it will no longer be possible for Exchange Operations to suspend products on their behalf.

For the purpose of suspending listed Structured Products which have achieved an early redemption, the following existing message types can be used in QTI:

- The Participant Trading Action Message [H] which can be used by Market Makers and Liquidity Providers to suspend their listed Structured Products which have an early redemption. The [H] message is not counted towards the Quotes per Seconds.
- The **Participant Trading Action Confirmation Message [I]** which acknowledges the receipt of a Participant Trading Action message [H].

The Participant Trading Action Message [H] should be filled in as shown below for an Early Redemption:

Message Type	Impacted Fields	Impact
Participant Trading Action Message	Trading State	"V" – Suspended
[H]	Barrier Date	"11111111" – Early Redemption
	Barrier Time	"0" – Early Redemption or LP Bid only
	Barrier Level	"0" – Early Redemption or LP Bid only

There is no change regarding the publication of the suspension of the security concerned in the market data interfaces:

Interface	Message Type	Impacted Fields	Impact
SIX MDDX	Security Status Message [ST]	Trading State	"V" – Suspended
IMI	Orderbook Trading Action Message [H]		

If the Market Maker or Liquidity Provider has erroneously suspended a listed Structured Product, the trading state change from suspended back to trading cannot be executed via the Quote Trading Interface (QTI). The Market Maker or Liquidity Provider must make the request by telephone by contacting Exchange Operations (+41 (0)58 399 2475). In addition written confirmation for the resumption of trading must be sent via email to Exchange Operations (helpdesk.exc@six-group.com) as soon as possible, but no later than before the end of the current trading day.



Important

Even if the suspension is triggered via QTI, the early redemption of the product must still be reported via Connexor. The reporting obligation to submit an "Official Notice" for an Early Redemption remains in place. This obligation must be done via Connexor Events. The Connexor Event will be published as an "Official Notice" by SIX Swiss Exchange.



Further Reading

Quote Trading Interface (QTI) Specification (Version 1.10.0)

4.1.8 Listing, Trading and Settlement of Floating Rate Notes and Fixed to Floating Notes based on TONA

Currently SIX Swiss Exchange supports the listing, trading and settlement of Floating Rate Notes (FRNs) based on SARON, SOFR, ESTR and SONIA. New with SMR12 go-live in the Production environment, SIX Swiss Exchange will expand its product range in the Bond market to also support the listing, trading and settlement of Floating Rate Notes and Fixed to Floating Notes based on the Japanese Yen (JPY) reference rate TONA (Tokyo Overnight Average Rate). The methodology for TONA is similar to that of SARON and details of this can be found in section 3.1.6 of the SMR9.1 Participant Readiness Guide

The listing of Floating Rate Notes (FRNs) and Fixed to Floating Rate Notes based on the reference rate in JPY may be requested only via <u>CONNEXOR</u>.

The trading and settlement of Floating rate notes and Fixed to Floating Rate Notes based on the reference rate in JPY will be conducted in accordance with the rules of the trading segment "Bonds – Non-CHF" in line with Annex O of the "Trading Parameters" Guideline.

The introduction of Floating Rate Notes (FRNs) and Fixed to Floating Rate Notes based on the reference rate in JPY does not affect the issuer and trading regulations of SIX Swiss Exchange AG. The applicable regulations may be found under the following links:

- <u>Issuer Regulations</u>
- Trading Regulations

The introduction of Floating Rate Notes (FRNs) and Fixed to Floating Rate Notes based on the reference rate in JPY does not affect the trading, reference and market data interfaces of the SWXess trading platform and does not require mandatory adjustments on the part of participants, ISVs and ASPs.



Further Reading

Accrued Interest Calculations and Determination of Holiday (updated for SMR12)

4.1.9 Decommissioning of the Exchange Traded Structured Funds (ETSF) Trading Segment

With SMR12 go-live in the Production environment, the Trading Segment for Exchange Traded Structured Funds (ETSF) will be decommissioned. There are currently no instruments associated with this segment, thus the removal of this Trading Segment will be transparent to participants. The ETSF Trading Segment will continue to appear in the Reference Data Interface (RDI) files during the SMR12 Membertest phases but will disappear when SMR12 goes live.

4.1.10 Removal of the OTI Order Delay on the Non-Equity Partition

Currently SIX Swiss Exchange applies a delay to all inbound OUCH Trading Interface (OTI) orders messages sent to the Non-Equity Partition (Partition 2). This delay has been in place since the introduction of OTI on the Non-Equity

Partition in 2013 and was configured in order to reduce the potential latency arbitrage between the OTI interface and the slower Standard Trading Interface (STI). However, during the intervening years, the latency on STI has been significantly reduced and the rationale for the artificial delay on OTI has subsequently become redundant. Therefore, new with SMR12, the artificial delay on OTI inbound orders to Partition 2 will be removed.

4.2 Trade and Transaction Reporting

4.2.1 Amendments Following the Partial Revision of FinMIO-FINMA

On 8 December 2022 FINMA announced a change to the terms of Article 3 of the Financial Market Infrastructure Ordinance (FinMIO-FINMA). The aim of the change was to increase the quality of the information being submitted in Transaction Reports, particularly those for derivative instruments. In order to bring the transaction reporting interfaces at SIX in line with these requirements, new with SMR12 Membertest stage 1, the following changes will apply to both CH-Style and RTS-Style Transaction Reporting interfaces in the Membertest environment:

- The CFI code field must be populated including attributes for all new Transaction Reports in instruments that are neither listed or admitted to a SIX trading venue to avoid rejection. For instruments that are neither listed or admitted to a SIX trading venue, the CFI code and the fields regarding the derivative attributes will not be technically validated, if it is provided.
- No rejection if fields regarding attributes of instruments admitted to a SIX trading venue are empty.
- The submission of underlying ISINs separate to the initial transaction report will no longer be supported
- The inclusion of the Settlement Date will no longer be validated

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Important

Please note that any technical validations in the interfaces related to the above changes (which are described in more detail below) will take effect with SMR12 Membertest stage 1 but not with SMR12 Production. It will therefore be possible to test some of the changes described above with SMR12 Membertest stage 1.

Any changes to Transaction Reporting described above which effect the fulfilment of the reporting obligation will **not** be enforced in the Production environment until after SMR12. The date when these changes take effect in the Production environment will be communicated in due course.

4.2.1.1 CFI Field Mandatory for Instruments not Admitted to a SIX Trading Venue

New with SMR12, the CFI field will become a mandatory attribute for all new Transaction Reports in instruments neither listed or admitted to a SIX trading venue and must be a valid six-letter code from ISO 10962. The field continues to be ignored for cancellations. For Transaction Reports in instruments admitted to a SIX trading venue, the addition of the CFI code will not be technically validated by SIX.

4.2.1.2 Mandatory Attributes for Derivatives Transaction Reports

In addition to the change described above, for transaction reports in derivatives for instruments not admitted to a SIX trading venue and depending on the CFI Code of the instrument, the following information must be provided:

- ExpirationDate
- OptionType
- StrikePrice
- LeverageIndicator
- UnderlyingIsin(s)

For Transaction Reports in instruments admitted to a SIX trading venue, it is not required to enter the additional fields required for reports in instruments of these CFI types if the instrument can be traded on a SIX venue. The CFI

code and related additional attributes for derivatives will not be technically validated by SIX but especially the related additional attributes will be required to fulfil the reporting obligation.

4.2.1.3 Removal of the Separate Underlyings File

Currently participants have four ways of providing information on underlyings.

- In three dedicated fields in the CH-style interface;
- In one field in the CH-style interface where many underlyings can be submitted together;
- In a separate file which may be submitted up to five days after a transaction is first reported in the CH-style interface;
- In RTS 22 format

In order to improve the quality of the data for derivative transactions, FINMA now require that transaction reports be validated in full on entry and that incomplete reports will be rejected immediately. As it is no longer possible to accept incomplete reports, the submission of the underlying information a few days later in a separate file can no longer be supported. Therefore the dedicated underlying reports will be decommissioned and a valid CH-style report will become an entity in which all data is reported at the same time, as is already the case for RTS 22-style reports.

4.2.1.4 Settlement Date No Longer Validated

New with SMR12 Membertest stage 1, information included in the attribute Settlement Date field will be ignored in a CH-Style Transaction Report.



Please see section 5.3 for a technical description.



Further Reading

- Reporting Guide (valid as of 1 August 2023)
- <u>Directive 3: Trading</u> (valid as of 1 August 2023)
- <u>Trading Rules</u> (valid as of 1 August 2023)
- Reporting Office Rules (valid as of 1 August 2023)

4.3 Market and Reference Data

Please refer to section 4.1.1 of this Release Guide for details in relation to the changes in the market data interfaces IMI and SIX MDDX as well as in the Reference Data Interface (RDI) due to the introduction of ETF/ETP QOD Europe.

4.4 Billing

There are no changes to the pricing at SIX Swiss Exchange.

4.5 Other Services

4.5.1 Sponsored Access (SA)

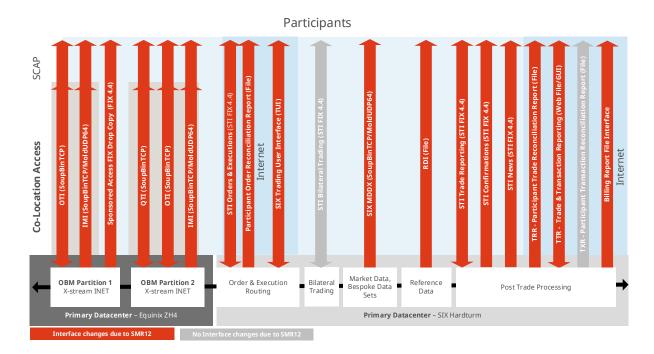
Please refer to section 4.1.5 of this Release Guide for details about the changes for the FIX Drop Copy in relation to the increased optionality for order transfer to TAL.

5 Technical Changes

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Technical Audience

5.1 Overview SMR12 Interface Changes



5.2 Trading and Alternative Trading

5.2.1 ETF/ETP QOD Europe

Please see section 4.1.1 for a detailed business description.

5.2.1.1 STI Trading Interface (STI)

The following table shows the impacted messages and fields:

Message Type	FIX Tag	Impact
New Order Single (MsgType=D)		
Execution Report (MsgType=8)		
Order Cancel Request (MsgType=F)	ReferenceExchange (27003) New FIX Tag	
Order Cancel Replace Request (MsgType=G)		New FIX Tag
Market Data Incremental Refresh (MsgType=X)		
Confirmation (MsgType=AK)		

Message Type	FIX Tag	Impact
News (MsgType = B)		
Trade Capture Report (MsgType=AE) Inbound	_	
Trade Capture Report (MsgType=AE) Outbound		
Trade Capture Report Ack (MsgType=AR) Inbound		
Trade Capture Report Ack (MsgType=AR) Outbound		

Trade Report Matching Criteria

A new field will be added to the matching criteria of a two-sided trade report:

FIX Tag	Field	Description
27003	ReferenceExchange	Must be identical, if specified



Further Reading

Standard Trading Interface (STI) Specification - Orders and Executions (Version 2.73.0)

Standard Trading Interface (STI) Specification - Confirmations (Version 2.32.0)

Standard Trading Interface (STI) Specification - News (Version 2.11.0)

Standard Trading Interface (STI) Specification - Trade Reporting (Version 4.26.0)

5.2.1.2 ITCH Market Data Interface (IMI)

The following table shows the impacted file and fields:

Message	Fields	Impact
Orderbook Directory Message [R]	Security Exchange	New Field
	Reference Exchange	New Field



Further Reading

ITCH Market Data Interface (IMI) Specification (Version 1.17.0)

5.2.1.3 SIX MDDX Multi-Dimensional Data fluX™ Interface (SIX MDDX)

The following table shows the impacted messages and fields:

Message Type	Impacted Field	Impact
Traded Instrument [ID]		
News [NW]	D. (5. 1	N. E.H.
Traded Volume [VO]	RefExchange	New Field
Trade Cancellation [TC]		

Message Type	Impacted Field	Impact
Trade [TR]		
Security Status [ST]	RefExchange	New Field
On-Book Price [PR]		
Data Dictionary [DD]	FieldId 8 Product_ReferenceExchange	New Element
Code Table [CO]	SecurityType - XZ - OBSOLETE	New Element



Hint

Please note: With SMR12, new elements are introduced in the **MDDX Data Dictionary and MDDX Code Tables**.

The complete MDDX Data Dictionary and MDDX Code Tables will be disseminated on MDDX feed and are available for download (version 4.0) from the **Downloads** area of the Member Section as an Excel spreadsheet.

https://secure.six-swiss-exchange.com/member_section/it/downloads.html



Further Reading

SIX MDDX Interface Specification (Version 1.43.0)

5.2.1.4 Reference Data Interface (RDI)

The following table shows the impacted object and fields:

Object	Fields	Impact
TradingSegment	qodOnlyFlag	New field
TradedInstrument	referenceExchange	New field
	tradingSessionId	Removed
TradingSession	tradingSessionId	Field renamed to boardId
ReportingEligibleSecurity	referenceExchange	New field
TradedInstrumentMDDXChannel	referenceExchange	New field

The field tradingSessionId in the Object TradedInstrument is removed because the same information can be found in the field boardId.



Further Reading

Reference Data Interface (RDI) Specification (Version 2.38.0)

5.2.1.5 Participant Order Reconciliation Report (ORR)

The following table shows the impacted file and fields:

Data Fields	Impact
ReferenceExchange	New Field



Further Reading

Participant Order Reconciliation Report Specification (Version 1.28.0)

5.2.1.6 Participant Trade Reconciliation Report (TRR)

The following table shows the impacted file and fields:

Data Fields	Impact
referenceExchange	New Field



Further Reading

Participant Trade Reconciliation Report Specification (Version 1.48.0)

5.2.1.7 Billing Report File Interface (BRI)

The following table shows the impacted file and fields:

Data Fields	Impact
referenceExchange	New Field



Further Reading

Billing Report File (BRI) Interface Specification (Version 1.36.0)

5.2.2 QOD Auction Termination Message (OTI, QTI)

Please see section 4.1.4 for a detailed business description.

5.2.2.1 OUCH Trading Interface (OTI)

The following table shows the impacted messages and fields:

Message Type	Field	Impact
QOD LP Auction Termination Message [6]	All	New message



Further Reading

OUCH Trading Interface (OTI) Specification (Version 1.18.0)

5.2.2.2 Quote Trading Interface (QTI)

The following table shows all impacted messages and fields:

Message Type	Field	Impact
Auction Termination Message [T]	All	New message type



Further Reading

Quote Trading Interface (QTI) Specification (Version 1.10.0)

5.2.3 Increased Optionality for Order Transfer to Trading-At-Last

Please see section 4.1.5 for a detailed business description.

5.2.3.1 STI Trading Interface (STI)

The following table shows the impacted messages and fields:

Message Type	FIX Tag	Impact
New Order Single (MsgType=D)	OrderRestrictions (529)	New FIX Tag
Execution Report (MsgType= 8)		
Order Cancel Replace Request (MsgType=G)		



Further Reading

Standard Trading Interface (STI) Specification - Orders and Executions (Version 2.73.0)

5.2.3.2 OUCH Trading Interface (OTI)

With SMR12 the Time in Force Field will be reduced from a four Byte Field to a one Byte Field. Also, three OrderFlag Fields with one Byte will be introduced.

The following table shows the impacted messages and fields:

Message Type	Field	Impact
Enter Order Message [O]	Time in Force	Change of field size and values
Replace Order Message [U]		
Accepted Message [A]		
Replaced Message [U]	OrderFlags1	New Field
Firm-up Request Message [F]	Orderriags	New Field
QOD Enter Order Message [o]		
QOD Replace Order Message [u]		
QOD Accepted Message [a]	OrderFlags2	
QOD Replaced Order Message [u]		
QOD LP Enter Order Message [2]		

Field	Impact	
OrderFlags3		



Further Reading

OUCH Trading Interface (OTI) Specification (Version 1.18.0)

5.2.3.3 Sponsored Access FIX Drop Copy (SA)

The following table shows the impacted message and FIX Tags:

Message Type	FIX Tag	Impact
Execution Report (MsgType=8)	OrderRestrictions (529)	New FIX Tag



Further Reading

Sponsored Access FIX Drop Copy Interface Specification (Version 1.42.0)

5.2.3.4 Participant Order Reconciliation Report (ORR)

The following table shows the impacted file and fields:

Data Fields	Impact
TradingAtLastIndicator	New Field



Further Reading

Participant Order Reconciliation Report Specification (Version 1.28.0)

5.2.4 Retail Customer Flag (OTI)

Please see section 4.1.6 for a detailed business description.

5.2.4.1 OUCH Trading Interface (OTI)

The following table shows the impacted messages and fields:

Message Type	Field	Impact
Enter Order Message [O]	OrderFlags1	New Field
Replace Order Message [U]		
Accepted Message [A]		
Replaced Message [U]		
Firm-up Request Message [F]		
QOD Enter Order Message [o]		
QOD Replace Order Message [u]		
QOD Accepted Message [a]		
QOD Replaced Order Message [u]		
QOD LP Enter Order Message [2]		
QOD LP Replace Order Message [3]		
QOD LP Accepted Message [4]		
QOD LP Replaced Message [5]		



Further Reading

OUCH Trading Interface (OTI) Specification (Version 1.18.0)

5.2.4.2 Billing Report File (BRI)

The following table shows the impacted file and fields:

File	Fields	Impact
Detail Reports	custOrderCapacity	New Field



Further Reading

Billing Report File (BRI) Interface Specification (Version 1.36.0)

5.3 Trade and Transaction Reporting

With SMR12 the aim is to increase the quality of the information being submitted in Transaction Reports. The technical changes described below are required to achieve this goal.

Please see section 4.2 for a detailed business description.

5.3.1 Transaction Reporting Interface (TRI – CH Style)

With SMR12, Underlyings can no longer be reported with the underlying reporting file.

Object	Impact
<pre><partyid>_UNDERLYINGS_<date>_<submissionnumber>.txt</submissionnumber></date></partyid></pre>	Removal of separated underlying reporting file



Further Reading

Transaction Reporting Interface Specification (TRI - CH Style) (Version 4.18.0)

5.4 Other Technical Changes

5.4.1 Participant Order Reconciliation Report (ORR)

The following table shows the impacted file and fields:

Data Fields	Impact
Triggered	Removal of value 0



Further Reading

Participant Order Reconciliation Report Specification (Version 1.28.0)

5.4.2 SIX MDDX - Other Technical Changes

All SIX MDDX customers will be impacted with additional fields in the [IM] and [AG] messages, even if this business feature is not applicable for SWXess customers.

The following table shows the impacted messages and fields:

Message Type	Field	Impact
Inside Market [IM]	BidRetailOrderPresence	N. 6:11
	AskRetailOrderPresence	New field
Aggregated Book [AG]	RetailOrderPresence	New field



Further Reading

SIX MDDX Interface Specification (Version 1.43.0)

5.4.3 Change of Match Type Character of TrdMatchID for TAL Trades (Non-AVD)

Currently the Match Type Character (8th character) is different for trades happening in TAL AVD ('D') and TAL non-AVD ('U'). Due to downstream consolidation with SMR12, both TAL trades (AVD and non-AVD) will be flagged with 'D'.



Hint

Please note this change does not require any technical change on any interfaces.

5.4.3.1 STI Trading Interface (STI)

The following table shows the impacted messages and fields:

FIX Tag	Impact
880 (TrdMatchID)	Change of Match Type Character of TrdMatchID for TAL Trades (Non-AVD)



Further Reading

Standard Trading Interface (STI) Specification - Orders and Executions (Version 2.73.0)

5.4.3.2 OUCH Trading Interface (OTI)

The following table shows the impacted messages and fields:

Field	Impact	
Match Number	Change of Match Type Character of	
	TrdMatchID for TAL Trades (Non-AVD)	



Further Reading

OUCH Trading Interface (OTI) Specification (Version 1.18.0)

5.4.4 Technical Impact on Reference Data Interface (RDI)

The field securityExchange in the Party and BtParty objects are removed because the files in question are only generated and relevant for that particular market (that is, XSWX or XBTR respectively), therefore making this securityExchange field now redundant.

The following table shows the impacted object and fields:

Object	Fields	Impact
Party	securityExchange	Removed
BtParty	securityExchange	Removed



Further Reading

Reference Data Interface (RDI) Specification (Version 2.38.0)

6 Regulatory Impact



Business Audience

The functional changes introduced with SMR12 also necessitate changes to the rules and regulations. The following Directives and Guidelines are affected in this respect and have been amended accordingly:

- <u>Directives</u> of SIX Swiss Exchange AG
 - Directive 2: Technical Connectivity
 - Directive 3: Trading
 - Directive 5: Alternative Trading
- Guidelines of SIX Swiss Exchange AG
 - "Trading Parameters" Guideline
 - List of Charges under the Trading Rules
- <u>Listing and Admission to Trading Regulations</u>
 - Rules for the Admission of Equity Securities and Exchange Traded Products to Trading on SIX Swiss Exchange

6.1 Issuer and Trading Regulations

The amended issuer and trading regulations for SMR12 enter into force on 4 December 2023 and are now published under the following links on the website of SIX Swiss Exchange:

Document	Link	
Rules	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/trading-provisions/regulation.html	
Directives	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/trading-provisions/regulation.html#directives	
Guidelines	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/trading-provisions/regulation.html#guidelines	
Issuer Regulations	https://www.ser-ag.com/en/resources/laws-regulations-determinations/regulations.html	

The following table contains a detailed overview of the amendments to the regulations of SIX Swiss Exchange AG as of 4 December 2023:

Document	Туре	Reference	Title
Directive 2: Technical Connectivity	Change	Clause 7.1.4	SIX Trading User Interface
Directive 3: Trading	New	Clause 5.1.3, lit. j) Nr. 1	Order specification
	New	Clause 16.2	Suspension of trading for leverage products subject to a current Active Product Package with early redemption
	Delete	Clause 17.8 para. 5	Central Limit Order Book (CLOB) - Trading-At-Last (TAL)
Directive 5: Alternative Trading	Change	Clause 9.7 para. 1 lit. k) Nr. 1	Order specification
	New	Section V	On Exchange trading with quote requests in ETF/ETP QOD Europe

Document	Туре	Reference	Title
Guideline List of Charges under the Trading Rules	Change	Clause 10	Fees for on-exchange trading with quote requests in Quote on Demand and ETF/ETP QOD Europe
	Change	Annex I	ETF and ETP
	Change	Annex I - Clause 3.1.1	ETF and ETP - Dedicated QPS capacity free of charge
	Change	Annex I - Clause 3.1.2	ETF and ETP - Dedicated QPS capacity for which fees are charged
	Change	Annex J	Sponsored Funds
	Change	Annex J - Clause 1.3.2	Sponsored Funds - Ad valorem fee
	Change	Annex P	Fees for on-exchange trading with quote requests in Quote on Demand and ETF/ETP QOD Europe
	Change	Annex P - Clause 2.1.1	Fees for on-exchange trading with quote requests in Quote on Demand and ETF/ETP QOD Europe - Shared QPS/OPS capacity free of charge
	Change	Annex P - Clause 2.1.2	Fees for on-exchange trading with quote requests in Quote on Demand and ETF/ETP QOD Europe - Shared QPS capacity for which fees are charged
Guideline	Change	Clause 2 lit. b)-f)	Classification of markets and trading segments
Trading Parameters	Change	Annex J – Clause 6.1	Exchange Traded Funds (ETF) – Market Making - Quote-Driven-Market
	New	Annex J – Clause 6.1.2	Exchange Traded Funds (ETF) – Market Making - Quote on Demand
	Change	Annex J - Clause 6.2.1	Exchange Traded Funds (ETF) – Liquidity Provider - Quote-Driven-Market
	New	Annex J – Clause 6.2.2	Exchange Traded Funds (ETF) – Liquidity Provider - Quote on Demand
	Delete	Annex K	Exchange Traded Structured Funds (ETSF)
	Change	Annex Q - Clause 6.1.1	Exchange Traded Products (ETP) – Market Making - Quote Driven Market
	New	Annex Q - Clause 6.1.2	Exchange Traded Products (ETP) – Market Making - Quote on Demand
	Change	Annex Q - Clause 6.2.1	Exchange Traded Products (ETP) – Liquidity Provider - Quote Driven Market
	New	Annex Q - Clause 6.2.2	Exchange Traded Products (ETP) – Liquidity Provider – Quote On Demand
	New	Annex R	ETF/ETP QOD Europe

The detailed list of the adjustments to the issuer and trading regulations can also be found under the following link:

Document	Link
Archive	https://www.ser-ag.com/en/resources/laws-regulations-determinations/archive.html

6.2 Guides

6.2.1 Trading Guide

The Trading Guide has also been revised in connection with the introduction of SMR12. The version effective 4 December 2023 is now available under the following link on the website of the Swiss Stock Exchange:

Document	Link
Trading Guide	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/trading-provisions/regulation.html#scrollTo=trading-guides

7 Overview of Documents and Artefacts



Business and Technical Audience

Please find below the list of all documents and artefacts relevant to SMR12.



All items can be downloaded from the Member Section Manuals or Downloads pages at:

https://secure.six-swiss-exchange.com/member_section/it/manuals.html

https://secure.six-swiss-exchange.com/member_section/it/downloads.html

Status	Date	Subject	Reference
General			
Updated for SMR12	28.11.2023	SMR12 Release Guide (Version 5.10)	This document
Updated for SMR12	31.07.2023	SWXess Business Recovery Guide (Version 7.10)	SWX-RECV-MAN-GUID-710
Updated for SMR12	19.10.2023	IT Related Frequently Asked Questions (FAQ) and Known Issues	See Member Section
SIX Trading Us	er Interface (TUI)		
Updated for SMR12	11.09.2022	SIX Trading User Interface - User Manual (Version 2.00)	SIX-TRD-UI-MAN-200
Direct Trading	Interfaces (OTI, C	QTI, IMI)	
Updated for SMR12	20.07.2023	OUCH Trading Interface (OTI) Specification (Version 1.18.0)	SSX-OTI-TRD-SPEC-1.18.0
Updated for SMR12	30.06.2023	Quote Trading Interface (QTI) Specification (Version 1.10.0)	SSX-QTI-TRD-SPEC-1.10.0
Updated for SMR12	24.05.2023	ITCH Market Data Interface (IMI) Specification (Version 1.17.0)	SSX-IMI-TRD-SPEC-1.17.0
Standard Tradi	ing Interface (STI)		
Updated for SMR12	24.05.2023	Standard Trading Interface (STI) Specification - Orders and Executions (Version 2.73.0)	SWX-SPEC-STI-PRE-2.73.0
Updated for SMR12	26.05.2023	Standard Trading Interface (STI) Specification - Confirmations (Version 2.32.0)	SWX-SPEC-STI-CONF-2.32.0
Unchanged	17.04.2015	Standard Trading Interface (STI) Specification - Session Layer (Version 2.5.0)	SWX-SPEC-STI-SES-2.5.0
Updated for SMR12	15.05.2023	Standard Trading Interface (STI) Specification - News (Version 2.11.0)	SWX-SPEC-STI-NEWS-2.11.0
Updated for SMR12	26.05.2023	Standard Trading Interface (STI) Specification - Trade Reporting (Version 4.26.0)	SWX-SPEC-STI-TCRI-4.26.0
Updated for SMR12	31.07.2023	Standard Trading Interface (STI) FIX 4.4 Repository (Version 12.0.0)	see Member Section <u>Downloads page</u>

Status	Date	Subject	Reference
Reference Dat	ta Interface (RDI)		
Updated for SMR12	18.07.2023	Reference Data Interface (RDI) Specification (Version 2.38.0)	SWX-VCA-SPEC-RDI-2.38.0
SIX MDDX			
Updated for SMR12	15.08.2023	SIX MDDX Interface Specification (Version 1.43.0)	SSX-MDDX-SPEC-1.43.0
Trade and Tra	nsaction Reporti	ng (TTR)	
Updated for SMR12	21.07.2023	Transaction Reporting Interface Specification (TRI - CH Style) (Version 4.18.0)	SER-TRX-INT-CH-4.18.0
Updated for SMR12	21.07.2023	Transaction Reporting Interface (TRI - CH) Validation Concept and Error Codes (Version1.4.0)	SER-TRX-EER-CH-140
Updated for SMR12	29.08.2023	Transaction and Trade Reporting User Manual (Version 12.0.0)	SIX-SSE-MAN-REP-1200
Updated for SMR12	21.07.2023	Transaction Reporting Interface Specification (TRI - EU Style) (Version 1.15.0)	SER-TRX-INT-EU-1.15.0
Transaction R	econciliation Rep	port (TXR)	
Unchanged	13.06.2019	Participant Transaction Reconciliation Report Specification (Version 1.7.0)	SSX-SWXS-SPEC-TXR-1.7.0
Trade Reconci	liation Report (T	RR)	
Updated for SMR12	26.05.2023	Participant Trade Reconciliation Report Specification (Version 1.48.0)	SSX-SWXS-SPEC-TRR-1.48.0
Order Reconci	iliation Report (C	PRR)	
Updated for SMR12	23.06.2023	Participant Order Reconciliation Report Specification (Version 1.28.0)	SSX-SWXS-SPEC-ORR-1.28.0
Billing Report			
Updated for SMR12	12.09.2023	Billing Report File (BRI) Interface Specification (Version 1.36.0)	SWX-SPC-BRI-1.36.0
Sponsored Ac	cess Service		
Updated for SMR12	09.05.2023	Sponsored Access FIX Drop Copy Interface Specification (Version 1.42.0)	SSX-SA-FDC-SPEC-1.42.0
Unchanged	16.04.2020	Sponsored Access File Interface (SFI) Specification (Version 1.7.0)	SSX-SA-SFI-SPEC-1.7.0
Bilateral Trad	ing Platform		
Unchanged	07.07.2021	Standard Trading Interface (STI) Specification - Bilateral Trading (Version 1.45.0)	SSX-SPEC-STI-BTR-1.45.0
Unchanged	04.06.2018	Valuation Price File Specification (Version 1.5.0)	SSX-SWXS-SPEC-VPF-1.5.0
Buyback Prog	ram		
Unchanged	27.04.2020	BPS Reporting Application Interface Specification (Version 1.8.0)	see Member Section BPS Downloads page

8 Migration



Business and Technical Audience

8.1 Migration Concept

The central SWXess infrastructure and all associated interfaces will be upgraded to SWXess Maintenance Release 12 (SMR12) using a staged approach for the Membertest environment. The upgrade of the Production environment will take place over a single migration weekend. The SMR12 changes will become active on the Monday after the migration weekend.

The upgrade to SMR12 requires the migration of transactional as well as participant and instrument reference data. In addition, the migration to SMR12 requires configuration changes. SIX Swiss Exchange will ensure that the technical and business upgrade and the migration impact on participants, ISVs, ASPs as well as data vendors is as minimal as possible.



Required Action

Participants, ISVs and ASPs will need to upgrade their trading applications and other infrastructure on the Membertest stage 1 and Production migration weekends.

8.2 **Business Migration**

8.2.1 Transactional Data

8.2.1.1 Orders

All order books will be migrated to SMR12 during the migration by SIX Swiss Exchange. As a result of the migration, no active orders will be deleted from the order books and participants do not have to take any actions in this regard.

For the topic Increased Optionality for Order Transfer to TAL, please note that any open orders during the Membertest stage 2 migration will automatically be set to participate in TAL. The same procedure will also apply for the Production Migration. This amendment to any open orders will not affect their time priority.

8.2.1.2 On- and Off Order Book Trades

The on order book and off order book trades will be migrated to SMR12 during the migration and therefore no post-trade processing restrictions apply.

On the Monday after the migration it will be possible to correct and cancel on order book trades which were executed or reported on the day before the migration by contacting Exchange Operations (helpdesk.exc@six-group.com / +41 58 399 2475). Countertrades for trades executed on the day before the migration may also be carried out either by Exchange Operations or by participants themselves.

On Monday after the migration, SIX Swiss Exchange may on request correct and cancel off order book trades which were executed or reported on the day before the migration on behalf of participants. It will also be possible for participants to correct and cancel these off order book trades themselves. Countertrades for off book trades executed on the day before the migration may be carried out either by Exchange Operations or by participants themselves.

Unmatched two-sided trade reports from before the migration will match against two-sided trade report legs entered after the migration. The same behavior applies to Delivery Reports.

8.2.1.3 Delayed Publication of Off Order Book Trades and Off Exchange Trades

Off order book and off exchange trades which have been reported before the migration and are subject to delayed publication according to Annex C: Delayed Publication of <u>Directive 3: Trading</u> will be published via Market Data Interfaces as usual after the migrations if applicable.

8.2.1.4 Transaction Reports

The Transaction Reports will be migrated to SMR12 during the migration and therefore no post-trade processing restrictions apply.

8.2.2 Instrument and Segment Reference Data

8.2.2.1 Segment Data

New Trading Segment "ETF/ETP QOD Europe"

For the new trading segment "ETF/ETP QOD Europe" the following new configuration will be set up:

RDI File	Attribute	Configuration
TradedInstrument.txt	tradingSegmentId	620 – ETF/ETP QOD Europe
	boardId	EQMc – ETF/ETP QOD Europe
	referenceExchange	XETR - XETRA
		XLON - London Stock Exchange
		XAMS - Euronext Amsterdam
		XBRU - Euronext Brussels
		XPAR - Euronext Paris
		XMIL - Borsa Italiana
		ETFP- Borsa Italiana
		MTAA - Borsa Italiana
		XSTO - Nasdaq Nordic
		XWBO - Wiener Börse AG
	clearingSettlementSegmentCode	XETR - ETF/ETP QOD EU (cleared all CCPs) – XETR
	$clearing {\sf Settlement Segment Description}$	XLON - ETF/ETP QOD EU (cleared all CCPs) – XLON
		XAMS - ETF/ETP QOD EU (cleared all CCPs) – XAMS
		XBRU - ETF/ETP QOD EU (cleared all CCPs) – XBRU
		XPAR - ETF/ETP QOD EU (cleared all CCPs) – XPAR
		XMIL - ETF/ETP QOD EU (cleared all CCPs) – XMIL
		XWBO - ETF/ETP QOD EU (cleared all CCPs) – XWBO
		XSTO - ETF/ETP QOD EU (cleared all CCPs) – XSTO
		ETFP - ETF/ETP QOD EU (cleared all CCPs) – ETFP
		MTAA - ETF/ETP QOD EU (cleared all CCPs) - MTAA
TradingSegment.txt	tradingSegmentId	620 – ETF/ETP QOD Europe
TradingSession.txt	boardId	EQMc - ETF/ETP QOD Europe
	tradingSegmentId	620 – ETF/ETP QOD Europe

This configuration change is transparent for the participants and will be transmitted via Reference Data Interface (RDI). It is available in the <u>Member Section</u> of SIX Swiss Exchange and via SCAP.



Important Note

Please note that SIX Swiss Exchange will create some test-only instruments to facilitate the testing of this new trading segment during the Membertest stages 1 and 2 of SMR12. Please see section 9.2.1.

8.3 SWXess Migration Weekends

8.3.1 Main Activities

The main activities during the migration weekends will be:

SIX Swiss Exchange:

- Upgrade of trading platform to SMR12

Participants, Data Vendors, ISVs and ASPs

- Update Member Own Applications (MOAs (if required)
- Verify connectivity and log in after upgrade (strongly recommended)

During the platform migration weekends, SIX Swiss Exchange will inform participants about the current status via System Status in the Member Section.

8.3.2 Membertest Migration Schedule

The Membertest migration has been completed.

8.3.2.1 Membertest Stage 1 (Functional and All Interface Changes)

The Membertest stage 1 has been completed.

8.3.2.2 Membertest Stage 2 (Functional Changes Only)

The Membertest stage 2 has been completed.

8.3.3 Production Migration Schedule

On Saturday and Sunday during Production migration, your Local Support Center will be available between 10:00 and 20:00 CET.

Date	Time (CET)	Activity	
Fr 1 Dec 2023	-	Last Trading Day with SMR11	
Sat 2 Dec 2023	All day	Upgrade SWXess Trading Platform to SMR12	Add to calendar
2023	Approx. 16:30	Confirmation will be published on the system status page in the Member Section (and MSC Alert for Subscribers) that the upgrade has been completed.	
	Following confirmation until 20:00	SWXess systems are running, connectivity is possible, however markets are closed and orders/quotes will be rejected.	
Sun 3 Dec 2023	11:00 - 20:00	SWXess systems are running, connectivity is possible, however markets are closed and orders/quotes will be rejected.	
Mon 4 Dec 2023	As from 06:00	First trading day on SMR12 in Production environment (P01)	Add to calendar

8.3.4 Connectivity Testing Checklist During Migration

On the migration weekend, after the SWXess trading platform upgrade has been completed, the SWXess interfaces will be available for testing according to the schedule in section 8.3.2.1 as shown in the following table:

Interface	Available via	Status	Recommended Testing Activities
SCAP	-	Fully available:	
		SCAP network and VPN tunnel connectivity	Test network is up
		reestablished	Test VPN tunnel status is up
			(e.g. ping 146.109.99.254
Co-Location	-	Fully available:	
Access (P01 only)		Network connectivity established	Test Co-Location Access network status is up
STI	SCAP	Available without business functionality:	
		Session management test can be performed	Test network connectivity of your
		Application messages are rejected (application closed for input)	SenderCompIDs (IP/Port) Test login
		No morning snapshots are sent and therefore no	3
		open orders can be seen. Morning Snapshot will	
		only be available on Monday morning	
RDI	SCAP	Fully available:	
		Reference data can be downloaded	Download RDI Files
		Note that the date of the file is 20231204	Process RDI files
IMI	SCAP and Co-	Available without market updates:	
	Location Access	User Logins enabled	Test network connectivity
	(P01 only)	Heartbeat messages are sent	Test login
		UDP re-requester available	Test set-up and reception of
		Reference Data available	messages
OTI	SCAP and Co-	Available without business functionality:	
	Location Access (P01 only)	User login enabled	Test network connectivity
		Application messages are rejected	Test login
		Error "R" (the order is not allowed at this time)	
QTI	SCAP and Co-	Available without business functionality:	
	Location Access	User logins enabled	Test network connectivity
	(P01 only)	Application messages are rejected	Test login
		Error "R" (quote not allowed at this time)	
SIX MDDX	SCAP	Available without market updates:	
		User logins enabled	Test network connectivity

9 Testing Activities During Member Test Phase

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Technical Audience

9.1 Scope of Member Test Phase

SIX Swiss Exchange strongly recommends that all Participants, Independent Software Vendors (ISVs), Application Service Providers (ASPs) and Data Vendors perform the following actions during the Member Test phase:

- Test your Member Own Applications (MOAs) and verify that they are in-line with the latest SMR12 interface specifications, including full loop test with clearing and settlement as well as transaction reporting upload and download according to the new specifications. Please make sure that you test your business processes and back office workflows.
- Participate in the scheduled tests organized by SIX Swiss Exchange:
 - SWXess Intraday Recovery Tests
 - Performance Load Tests
 - Background Load Tests

You are kindly invited to contact Member Services (member.services@six-group.com / +41 58 399 2473) if you require assistance with testing in the Membertest environment.

9.2 Special Membertest Configuration

9.2.1 Introduction of ETF/ETP QOD Europe Test-Only Securities

To facilitate easier testing of the new trading segment ETF/ETP QOD Europe, SIX Swiss Exchange will provide test securities for the entire Membertest phase (stages 1 and 2).

ISIN	Security Code	Security Name	Trading Currency	Ref Exchange	Security Exchange
DE0005933931	3759152	iShares Core DAX UCITS ETF DE	EUR	XETR	XSWX
IE000BWKUES1	3759161	Global X Clean Water UCITS ETF	GBP	XLON	XSWX
IE00B3RBWM25	3759163	Vanguard FTSE All-World UCITS ETF	USD	XLON	XSWX
IE00B3VWN518	3759154	iShares USD Treasury Bond 7-10yr UCITS ETF USD Acc	USD	XETR	XSWX
IE00B53L3W79	3759160	iShares Core EURO STOXX 50 UCITS ETF	EUR	XLON	XSWX
IE00B7KQ7B66	3759150	UBS Irl ETF plc - MSCI World UCITS ETF	EUR	XAMS	XSWX
IE00BD5FCF91	3759153	SPDR FTSE UK All Share UCITS ETF	GBP	XETR	XSWX
IE00BF2B0K52	3759157	Franklin Emerging Markets UCITS ETF	GBP	XLON	XSWX
IE00BFYN8Y92	3759164	EMQQ Emerging Markets Internet & Ecommerce UCITS ETF	EUR	XPAR	XSWX
IE00BJXRZJ40	3759159	Rize Cybersecurity & Data Privacy UCITS ETF	USD	XLON	XSWX
IE00BYPC1H27	3759149	iShares China CNY Bond UCITS ETF	USD	XAMS	XSWX
IE00BZ0G8B96	3759165	SPDR MSCI Japan UCITS ETF	JPY	XPAR	XSWX
LU0136242590	3759169	UBS Lux Fund Solutions - FTSE 100 UCITS ETF	EUR	ETFP	XSWX
LU0292107991	3759168	Xtrackers MSCI EM Asia ESG Screened Swap UCITS ETF 1C	EUR	XWBO	XSWX

ISIN	Security Code	Security Name	Trading Currency	Ref Exchange	Security Exchange
LU1048314196	3759151	UBS Lux Fund Solutions - Bloomberg Euro Area Liquid	EUR	XAMS	XSWX
LU1377382368	3759167	BNP Paribas Easy Low Carbon 100 PAB	EUR	XPAR	XSWX
LU1437024992	3759155	AMUNDI MSCI BRAZIL	USD	XETR	XSWX
LU1563454310	3759170	Lyxor Green Bond DR UCITS ETF	SEK	XSTO	XSWX
LU1681045297	3759166	Amundi Msci EM Latin America UCITS ETF	USD	XPAR	XSWX
LU1812090543	3759156	Lyxor ESG Euro High Yield DR UCITS ETF	EUR	XLON	XSWX
IE00B7KQ7B66	3759150	UBSETF MSCI WORLD USD DIS	EUR	XETR	XSWX
IE00B579F325	3769401	Invesco Physical Gold ETC*	USD	XBRU	XSWX

^{*}Last listed on 24.11.2023

9.3 Clearing and Settlement During Member Test Phase

The SIX SIS link for Clearing and Settlement is available during the Member test phase except during Performance Load Tests and Background Load Tests. We recommend running full loop tests as soon as possible with your MOAs and back office systems.

9.4 Trading Hours and Availability

The trading hours and the availability of the Membertest environment remain unchanged for the SMR12 Member Test phase, with the exception of the-Investment Funds and Secondary Listing Shares trading segments. These have been updated according to the table below in order to better facilitate testing. The changes marked in bold will take effect from the 7 November 2023.

Trading Segment	Trading Schedule	CURRENT (CET)	NEW from 7 November 2023 (CET)
Investment Funds	Start of Business Day	06:00	06:00
	Opening	10:00	08:00
	Break Periods	14:00 - 14:15	-
	Start Closing Auction	22:20	16:20
	Run Auction and Close	22:30	16:30
	End of Trading	22:30	16:30
	End of Trading-At-Last	22:40	17:00
	End of	23:00	23:00
	Business Day	25.00	
Secondary Listing Shares	Start of Business Day	06:00	06:00
	Opening	08:00	10:00
	Break Periods	-	14:00 - 14:15
	Start Closing Auction	16:20	22:20
	Run Auction and Close	16:30	22:30
	End of Trading	16:30	22:30

Trading Segment	Trading Schedule	CURRENT (CET)	NEW
			from 7 November 2023 (CET
	End of Trading-At-Last	17:00	-
	End of Business Day	23:00	23:00
lease refer to the follow	ing links for details:		
Environment calendar	https://www.six-group.com/en/proctools/environment-calendar.html	ducts-services/the-swiss-s	tock-exchange/market-data/news

9.5 Load Tests

9.5.1 Performance Load Tests

During the SMR12 Member test phase, SIX Swiss Exchange will hold Performance Load Tests in the Membertest environment on the dates given in the table below.

Date	Time (CET)	Load Generated	
30.09.2023	10:00 to 15:00	The detailed load pattern will be published in a separate MSC Message before each test.	Add to calendar
11.11.2023	10:00 to 15:00	The detailed load pattern will be published in a separate MSC Message before each test.	Add to calendar

You are invited to participate in the tests to verify your applications under high load. You are allowed to generate limited transaction load. No registration is required. You are kindly requested to leave your market data clients running and connected during the Performance Load Test, even if you do not participate in the test.

9.5.2 Background Load Tests

SIX Swiss Exchange will hold Background Load Tests each Tuesday and Thursday evening from 18:00 to 20:00 CET using the following load distribution:

Time (CET)	QPS Load	OTPS Load	FTPS Load
18:00 to 20:00	4000	500	250

You are invited to participate and allowed to generate own transaction load up to your test capacity.

The SIX SIS link for Clearing and Settlement is not available during Performance Load Tests and Background Load Tests.

9.6 SWXess Intraday Recovery Tests

9.6.1 Activities

We have scheduled recovery tests on the dates given in the table below. During these tests, you have the possibility to verify the behavior of your applications during a recovery.

Date	Time (CET)	Activity	
27.09.2023	14:00-17:00	Intraday Recovery Test – On Book Matcher partition 1 down	Add to calendar

Date	Time (CET)	Activity	
04.10.2023	14:00-17:00	Intraday Recovery Test - On Book Matcher partition 2 down	Add to calendar
25.10.2023	09:30-12:00	Intraday Recovery Test - STI FIX Infrastructure down: Single FIX Gateway Failure	Add to calendar
25.10.2023	14:00-17:00	Intraday Recovery Test - STI FIX Infrastructure down: Double FIX Gateway Failure	Add to calendar
01.11.2023	14:00-17:00	Intraday Recovery Test - MDDX Infrastructure down	Add to calendar
08.11.2023	14:00-17:00	Intraday Recovery Test - Both On Book Matcher Partitions down	Add to calendar
15.11.2023	14:00-17:00	Intraday Recovery Test - Contingency date	Add to calendar



Hint

You can download all calendar entries mentioned above here (zip file):

https://www.six-group.com/dam/download/market-data/news/environment-calendar/ical/six-swiss-exchange-smr12-activities.zip

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Further Reading

For full details on the testing activities, please refer to the document "SWXess Business Recovery Guide for Participants" (version 7.00) in the Member Section.

https://secure.six-swiss-exchange.com/member_section/it/manuals.html

9.6.2 Information During Intraday Recovery Tests



For system status during the upgrade, please visit the **Membertest status page** in the Member Section.

https://secure.six-swiss-exchange.com/member_section/system_status_test.html



If you wish to receive **MSC Alerts by SMS or email regarding the recovery**, please subscribe to priority "**3-Low**" alerts on the "My Subscriptions" page in the Member Section at:



https://secure.six-swiss-exchange.com/member_section/user_subscriptions.html

Appendix A Known Issues

Open known issues will be published and tracked in the <u>SIX Member Section</u> as they arise.



Further Reading

IT Related Frequently Asked Questions (FAQ) and Known Issues

Appendix B Terms and Abbreviations

Term/Abbreviation	Explanation
APP	Active Product Package for Leverage Products
ASP	Application Service Provider
BPS	Buyback, Price Stabilization, Sales during Buyback Program
BRI	Billing Report File Interface
CLOB	Central Limit Order Book
CSD	Central Security Depository
EBBO	European Best Bid and Offer
ESMA	European Securities and Markets Authority
ETF	Exchange Traded Funds
ETP	Exchange Traded Products
FDC	Sponsored Access – FIX Drop Copy Interface
FIX	Financial Information eXchange Protocol
FMIA	Financial Markets Infrastructure Act
FMIO	Financial Markets Infrastructure Ordinance
FoK	Order with validity Fill or Kill
FTPS	FIX Transactions (orders) per Second (STI)
IMI	ITCH Market Data Interface
ISV	Independent Software Vendor
IoC	Order with validity Immediate or Cancel
ISP	Independent Service Provider
MIC	Market Identifier Code
MiFID	Markets in Financial Instrument Directive
MiFIR	Markets in Financial Instruments Regulation
MMT	Market Model Typology
MOA	Member Own Application
МРОВ	Mid-Point Order Book (SwissAtMid)
MTF	Multilateral Trading Facility as defined by FMIA
OBM	On Book Matcher
OHS	Organized Trading Facility as defined by FMIA
ORR	Order Reconciliation Report
ОТІ	OUCH Trading Interface
OTPS	OUCH Transactions (orders) per Second (OTI)
PBBO	Primary Best Bid and Offer of the displayed Central Limit Order Book of the primary exchange
QDM	Quote Driven Market

Term/Abbreviation	Explanation
QOD	Quote on Demand trading service
QPS	Quotes per Second (QTI)
QTI	Quote Trading Interface
RDI	Reference Data Interface
RSP	Routing Service Provider
RTS	Regulatory Technical Standard
SA	Sponsored Access
SCAP	SIX Common Access Portal
SEB	Swiss EBBO
SFI	Sponsored Access File Interface
SIX MDDX	SIX MDDX Multi-Dimensional Data fluX™ interface
SMP	Self-Match Prevention
SMR	SWXess Maintenance Release
STI	Standard Trading Interface
Swiss EBBO	Swiss EBBO trading service
SwissAtMid	SIX Swiss Exchange at Midpoint trading service
SWXess	Name of the SIX Swiss Exchange trading platform
TAL	Trading-At-Last
TRI	Transaction Reporting Interface
TRR	Trade Reconciliation Report
TTR	Trade and Transaction Reporting
TXR	Transaction Reconciliation Report
UI	User Interface
XBTR	Bilateral Trading Platform
XOFF	Market Identifier Code for Off Exchange Transactions – Listed Instruments
XQMH	Market Identifier Code for SIX Swiss Exchange AG – Structured Products
XQOD	Market Identifier Code for SIX Swiss Exchange AG – Quote on Demand
XSEB	Market Identifier Code for SIX Swiss Exchange AG – Swiss EBBO
X-stream INET	Name of NASDAQ OMX platform
XSWM	Market Identifier Code for SIX Swiss Exchange AG – SwissAtMid
XSWX	Market Identifier Code for SIX Swiss Exchange AG

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