

# EXCHANGE TRADED FUNDS (ETF)

**RECORD LAYOUT: ENHANCED ETF CREATE AND REDEEM INSTRUCTION DATA OUTPUT (MRO):  
AUTOROUTE PRODUCTION 02261254/PSE 02981254**

JULY 16, 2019



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**Publication Date:** July 16, 2019

**Publication Code:** ETF159

**Service:** Exchange Traded Fund (ETF)

**Title:** Record Layout: Enhanced ETF Create and Redeem Instruction Data Output (MRO): AutoRoute Production 02261254/PSE 02981254

## Record Layout: Enhanced ETF Create and Redeem Instruction Data Output (MRO): AutoRoute Production 02261254/PSE 02981254

This section contains the record layout information for the Enhanced ETF Create and Redeem Instruction Data Output (MRO) for AutoRoute Production 02261254/PSE 02981254.

### Type 1–File Header Record

The following table show the Type 1–File Header record details for the Enhanced ETF Create and Redeem Instruction Data Output (MRO) for AutoRoute Production 02261254/PSE 02981254.

AutoRoute Production 02261254/PSE 02981254					
Type 1–File Header Record					
Record Length = 300					
Seq	Description	Length	Start	Type	Comments
1	Record Type	2	1	A/N	01 = Header Record One per instruction.
2	Major Clearing Firm	8	3	A/N	NSCC participant (member) number
3	File Description	25	11	A/N	CREATE REDEEM MRO
4	NSCC Processing Date	8	36	N	CCYYMMDD
5	NSCC Processing Time	6	44	N	HHMMSS
6	Future Use	250	50	A/N	
<b>END OF RECORD</b>					

## Type 2–Instruction Record

The following table show the type 2–instruction record details for the Enhanced ETF Create and Redeem Instruction Data Output (MRO) for AutoRoute Production 02261254/PSE 02981254.

AutoRoute Production 02261254/PSE 02981254					
Type 2–Instruction Record					
Record length=300					
Seq	Description	Length	Start	Type	Comments
1	Record Type	2	1	A/N	02 = Record Type 2; One per instruction.
2	Major Clearing Firm	8	3		NSCC participant (member) number.
3	Transaction ID	12	11	N	ETF agent provided ID of instruction. The same transaction ID should be used for each record of an instruction.
4	Trade Date	8	23	N	CCYYMMDD –Trade date or as/of date.
5	Settlement Date	8	31	N	CCYYMMDD
6	NSCC Portfolio ID	9	39	A/N	NSCC assigned Portfolio ID of the basket.
7	NSCC Portfolio Symbol	15	48	A/N	Assigned by NSCC.
8	Trading CUSIP Number	9	63	A/N	Assigned by S&P
9	Trading ISIN	12	72	A/N	
10	Trading Symbol	15	84	A/N	
11	Contra Clearing Firm	8	99	N	NSCC assigned clearing number of the broker dealer.
12	Executing Broker ID	8	107		Executing Broker ID Provided by the ETF agent.
13	SI Components Only	1	115	A/N	<ul style="list-style-type: none"> <li>• Y = No Create/Redeem</li> <li>• N = Create/Redeem</li> </ul>
14	Create Redeem Code	1	116	A/N	<ul style="list-style-type: none"> <li>• C = Create</li> <li>• R = Redeem</li> </ul>
15	Unit Quantity	9	117	N	999,999,999 Number of units of create or redeem.
16	<b>Cash Only Indicator</b>	1	126	A/N	<ul style="list-style-type: none"> <li>• Y = Cash only (no components settled)</li> <li>• space = not cash only</li> </ul>

AutoRoute Production 02261254/PSE 02981254					
Type 2—Instruction Record					
Record length=300					
Seq	Description	Length	Start	Type	Comments
17	Currency Indicator	3	127	A/N	If no Indicator is provided and not SI-only, USD will be used.
18	Cash Amount	16	130	N	99,999,999,999,999.99
19	Cash Amount Debit / Credit Indicator	2	146	A/N	<ul style="list-style-type: none"> <li>• DB = Debit</li> <li>• CR = Credit</li> </ul>
20	Transaction Fee	11	148	N	999,999,999.99
21	Transaction Fee Debit / Credit Indicator	2	159	A/N	<ul style="list-style-type: none"> <li>• DB = Debit</li> <li>• CR = Credit</li> </ul>
22	Total of Component Shares	13	161	N	9,999,999,999,999 Total component shares per unit of create or redeem.
23	Total Component Shares to be Settled	13	174	N	9,999,999,999,999 Total component shares for all units of create or redeem.
24	Total Settlement Value, All Components	20	187	N	99,999,999,999,999.999999
25	Total Settlement Value, All Components Debit / Credit Indicator	2	207	A/N	<ul style="list-style-type: none"> <li>• CR = Credit</li> <li>• DB = Debit</li> </ul>
26	Create Redeem Unit Size	10	209	N	9,999,999,999 Number of ETF shares per unit of create or redeem.
27	ETF Shares to be Settled	13	219	N	9,999,999,999,999 Total number of ETF shares for all units of create or redeem.
28	Total ETF Settlement Value	20	232	N	99,999,999,999,999.999999
29	Total ETF Settlement Value Debit / Credit Indicator	2	252	A/N	<ul style="list-style-type: none"> <li>• CR = Credit</li> <li>• DB = Debit</li> </ul>
30	Transaction Timestamp	9	254	N	HHMMSSMSS
31	Reversal Indicator	1	263	N	<ul style="list-style-type: none"> <li>• 0 = New Trade</li> <li>• 2 = Replace/Correct</li> <li>• 4 = Reverse/Cancel</li> </ul>
32	Future use	37	264	A/N	
<b>END OF RECORD</b>					

## Type 3–Custom Removed Components record

The following table show the type 3–Custom Removed Components record for the Enhanced ETF Create and Redeem Instruction Data Output (MRO) for AutoRoute Production 02261254/PSE 02981254.

AutoRoute Production 02261254/PSE 02981254					
Type 3–Custom Removed Components Record					
Record length=300					
Note: Required only if the portfolio is customized on the create and redeem instructions.					
Seq	Description	Length	Start	Type	Comments
1	Record Type	2	1	A/N	03 = Record Type 3 One for each component removed from the instruction.
2	Major Clearing Firm	8	3	A/N	NSCC Participant (member) Number
3	Transaction ID	12	11	N	ID of Instruction
4	Trade Date	8	23	N	CCYYMMDD Trade date or as/of date
5	Settlement Date	8	31	N	CCYYMMDD
6	NSCC Portfolio ID	9	39	A/N	NSCC assigned portfolio ID of the basket.
7	NSCC Portfolio Symbol	15	48	A/N	Assigned by NSCC
8	Component ID Code	2	63	A/N	<ul style="list-style-type: none"> <li>• 01=CUSIP</li> <li>• 03=ISIN</li> <li>• 04=ISIN/SEDOL</li> </ul>
9	Component ID	25	65	A/N	Defined by the <a href="#">Component ID Code</a> .
10	Cash in Lieu Indicator	1	90	A/N	<ul style="list-style-type: none"> <li>• Y = Cash in Lieu</li> <li>• SPACE = Not Cash In Lieu</li> </ul>
11	Dollar value of cash-in-lieu component	16	91	N	99,999,999,999,999.99 For informational purposes only.
12	Future Use	194	107		
<b>END OF RECORD</b>					

## Type 5–Components Record

The following table show the Type 5–Components Record for the Enhanced ETF Create and Redeem Instruction Data Output (MRO) for AutoRoute Production 02261254/PSE 02981254.

AutoRoute Production 02261254/PSE 02981254					
Type 5–Components Record					
Record length=300					
Note: Optional for all instructions.					
Seq	Description	Length	Start	Type	Comments
1	Record Type	2	1	A/N	05 = Record Type 5 One for each component, except for cash creates and redeem and SI only component.
2	Major Clearing Firm	8	3	A/N	NSCC participant (member) number.
3	Transaction ID	12	11	N	ID of instruction.
4	Trade Date	8	23	N	CCYYMMDD Trade date or as/of Date
5	Settlement Date	8	31	N	CCYYMMDD
6	NSCC Portfolio ID	9	39	A/N	NSCC assigned portfolio ID of the basket.
7	NSCC Portfolio Symbol	15	48	A/N	Assigned by NSCC
8	Component ID Code	2	63	A/N	<ul style="list-style-type: none"> <li>• 01=CUSIP</li> <li>• 03=ISIN</li> <li>• 04=ISIN/SEDOL</li> </ul>
9	Component ID	25	65	A/N	Defined by the <a href="#">Component ID Code</a> .
10	Component When Issue Indicator	1	90	N	<ul style="list-style-type: none"> <li>• 0 = Regular Way</li> <li>• 1 = When Issue</li> </ul>
11	Component Symbol	15	91	A/N	Trading symbol
12	Custom Add Indicator	1	106	A/N	Y = Indicates that the component was received in the create/redeem process (not in the Portfolio Composition file).
13	CNS Indicator	1	107	A/N	<ul style="list-style-type: none"> <li>• Y = CNS Eligible</li> <li>• N = Not CNS Eligible</li> </ul>
14	Component Undergoing Corporate Action	1	108	A/N	<ul style="list-style-type: none"> <li>• M = Mandatory Corporate Action</li> <li>• V = Voluntary Corporate Action</li> <li>• SPACE = No Corporate Action</li> </ul>

## AutoRoute Production 02261254/PSE 02981254

## Type 5—Components Record

Record length=300

Note: Optional for all instructions.

Seq	Description	Length	Start	Type	Comments
15	Unit Quantity of Create or Redeem	9	109	N	999,999,999 Total units of create or redeem.
16	Component Shares per Unit	13	118	N	9,999,999,999,999 Shares per unit of create or redeem.
17	Component Shares to be Settled	13	131	N	9,999,999,999,999 Total number of shares for all units of create or redeem.
18	Currency Indicator	3	144	A/N	Literal USD
19	Component Price per Share	16	147	N	9,999,999,999.999999
20	Component Settlement Value	20	163	N	99,999,999,999,999.999999
21	Value Debit / Credit Indicator	2	183	A/N	<ul style="list-style-type: none"> <li>• DB = Debit</li> <li>• CR = Credit</li> </ul>
22	Future Use	116	185	A/N	
<b>END OF RECORD</b>					



## Type 90–SI Instructions

The following table show the Type 90–SI Instructions for the Enhanced ETF Create and Redeem Instruction Data Output (MRO) for AutoRoute Production 02261254/PSE 02981254.

AutoRoute Production 02261254/PSE 02981254					
Type 90–SI Instructions					
Record length = 300					
Note: Optional for all instructions.					
Seq	Description	Length	Start	Type	Comments
1	Record Type	2	1	A/N	90 = Record Type 90 Optionally, one per SI component.
2	Transaction ID	12	3	N	ID of Instruction
3	Trade Date	8	15	N	CCYYMMDD
4	Settlement Date	8	23	N	CCYYMMDD
5	Settlement Instruction Type	1	31	A/N	<ul style="list-style-type: none"> <li>E = ETF Share</li> <li>C = Underlying Component</li> </ul>
6	Component ID Code	2	32	A/N	<ul style="list-style-type: none"> <li>01=CUSIP</li> <li>02=SEDOL</li> <li>03=ISIN</li> <li>04=ISIN/SEDOL</li> <li>05=Bloomberg</li> <li>06=Reuters</li> <li>07=NYSE Life</li> <li>99=Other</li> </ul>
7	Component ID	25	34	A/N	Defined by the <a href="#">Component ID Code</a> .
8	Component Name	60	59	A/N	
9	Component Symbol	15	119	A/N	
10	Component Quantity	13	134	N	9,999,999,999,999 Share or par value.
11	Settlement Code	1	147	N	<ul style="list-style-type: none"> <li>1=Receive Free</li> <li>2=Receive against Payment</li> <li>3=Deliver Free</li> <li>4=Deliver against Payment</li> </ul>
12	Place of Settlement ID Type	1	148	A/N	This identifies the type of settlement ID. <ul style="list-style-type: none"> <li>1 = BIC</li> <li>2 = Country</li> </ul>

## AutoRoute Production 02261254/PSE 02981254

## Type 90–SI Instructions

Record length = 300

Note: Optional for all instructions.

Seq	Description	Length	Start	Type	Comments
13	Place of Settlement ID	35	149	A/N	BIC or ISO country code
14	Component Price Qualifier	4	184	A/N	Qualifier values are: <ul style="list-style-type: none"> <li>• INDC</li> <li>• MRKT</li> <li>• EXER</li> </ul> For more information, see the ISO documentation.
15	Component Price Amount Type Code	4	188	A/N	Price Per Unit Amount Codes are: <ul style="list-style-type: none"> <li>• ACTU</li> <li>• DISC</li> <li>• PREM</li> </ul> For more information, see the ISO documentation.
16	Component Price Currency Code	3	192	A/N	ISO currency code
17	Component Price Per Unit	16	195	N	9,999,999,999.999999
18	Future Use	90	211		
<b>END OF RECORD</b>					

## Type 91–SI Party Instructions

The following table show the Type 91–SI Party Instructions for the Enhanced ETF Create and Redeem Instruction Data Output (MRO) for AutoRoute Production 02261254/PSE 02981254.

AutoRoute Production 02261254/PSE 02981254					
Type 91–SI Party Instructions					
Record length = 300					
Note: Optional for all instructions.					
Seq	Description	Length	Start	Type	Comments
1	Record Type	2	1	A/N	91 = Record Type 91 One or more per SI component.
2	Transaction ID	12	3	N	ID of instruction
3	Settlement Date	8	15	N	CCYYMMDD
4	Component ID Code	2	23	A/N	<ul style="list-style-type: none"> <li>• 01=CUSIP</li> <li>• 02=SEDOL</li> <li>• 03=ISIN</li> <li>• 04=ISIN/SEDOL</li> <li>• 05=Bloomberg</li> <li>• 06=Reuters</li> <li>• 07=NYSE Life</li> <li>• 99=Other</li> </ul>
5	Component ID	25	25	A/N	Defined by the <a href="#">Component ID Code</a> .
6	Settlement Party Qualifier	4	50	A/N	Qualifier values are: <ul style="list-style-type: none"> <li>• BUYR</li> <li>• SELL</li> <li>• DECU</li> <li>• RECU</li> <li>• DEAG</li> <li>• REAG</li> <li>• DEI1</li> <li>• REI1</li> <li>• DE2</li> <li>• REI2</li> </ul> For more information, see the ISO documentation.

**AutoRoute Production 02261254/PSE 02981254****Type 91–SI Party Instructions****Record length = 300****Note: Optional for all instructions.**

Seq	Description	Length	Start	Type	Comments
7	Settlement Party ID Code	1	54	A/N	This identifies the type of Settlement Party ID. <ul style="list-style-type: none"> <li>• 1= BIC</li> <li>• 2= Fed Code</li> <li>• 3= Other</li> </ul>
8	Settlement Party ID	34	55	A/N	
9	Account Number	35	89	A/N	
10	Future Use	177	124		
<b>END OF RECORD</b>					

## Type 92–SI Amount

The following table show the Type 92–SI Amount for the Enhanced ETF Create and Redeem Instruction Data Output (MRO) for AutoRoute Production 02261254/PSE 02981254.

AutoRoute Production 02261254/PSE 02981254					
Type 92–SI Amount					
Record Length = 300					
Note: Optional for all instructions.					
Seq	Description	Length	Start	Type	Comments
1	Record Type	2	1	A/N	92 = Record Type 92 Optionally, one or more per component.
2	Transaction ID	12	3	N	ID of Instruction
3	Settlement Date	8	15	N	CCYYMMDD
4	Component ID Code	2	23	A/N	<ul style="list-style-type: none"> <li>• 01=CUSIP</li> <li>• 02=SEDOL</li> <li>• 03=ISIN</li> <li>• 04=ISIN/SEDOL</li> <li>• 05=Bloomberg</li> <li>• 06=Reuters</li> <li>• 07=NYSE Life</li> <li>• 99=Other</li> </ul>
5	Component ID	25	25	A/N	Defined by the <a href="#">Component ID Code</a> .
6	Amount Qualifier	4	50	A/N	Identifier for the Cash Amount; For example: SETT, ACRU, STAM For full list of qualifiers, see the ISO documentation.
7	Sign for Cash Amount	1	54	A/N	+ or -
8	Currency	3	55	A/N	Currency of this amount.
9	Cash Amount	14	58	N	999,999,999,999.99
10	Exchange Rate From Currency Code	3	72	A/N	ISO currency code
11	Exchange Rate to Currency Code	3	75	A/N	ISO currency code
12	Exchange Rate	15	78	N	Conversion rate
13	Par Value Adjustment Factor	14	93	N	99,999,999.999999
14	Future Use	194	107		
<b>END OF RECORD</b>					

## Type 99–File Trailer Record

The following table show the Type 99–File Trailer record for the Enhanced ETF Create and Redeem Instruction Data Output (MRO) for AutoRoute Production 02261254/PSE 02981254.

AutoRoute Production 02261254/PSE 02981254					
Type 99–File Trailer Record					
Record length = 300					
Note: Required for all instructions.					
Seq	Description	Length	Start	Type	Comments
1	Record Type	2	1	A/N	99 = Trailer record One per instruction.
2	Record Count	13	3	N	Number of records in the transmission, including the trailer.
3	Future Use	285	16	A/N	Spaces
<b>END OF RECORD</b>					

## FOR MORE INFORMATION

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