



Guidelines for the simplified FIA Execution Source Code Schema

Executive Summary

- At time of writing, the FIA¹ Execution Code Schema is supported by CME Group, Intercontinental Exchange and Eurex Group.
- The simplified FIA Execution Source Code Schema aims to clearly identify the execution method used for Exchange Traded Derivative trades at point of origin, allowing executing and clearing brokers to easily reference the appropriate brokerage rate for the execution method.
- The simplified schema aims to reflect common industry practice regarding different types of execution, providing both a simple model that differentiates between “high touch” and “low touch” execution, and a more complex model that allows for greater granularity regarding different types of electronic (“low touch”) execution.
- “High touch” execution reflects intermediation by an executing broker’s desk and may be identified through the desk’s use of the executing broker’s own order routing systems, their use of third-party software provider’s systems, or the use of an exchange’s own trading interface. In all cases the Execution Source Code would be “W”.
- “Low touch” execution reflects the client’s use of systems to facilitate self-execution of trades *without* manual intervention by an executing broker. In the simple model, all client self-executed order flow would use Execution Source Code value “Y”.
- Self-execution can be further split into the following categories (with suggested Execution Source Codes values), allowing greater granularity for the more complex model proposed:
 1. All client self-executed order flow using a premium algorithmic trading provider, Execution Source Code value = “H”;
 2. All client self-executed order flow using a third-party software provider, Execution Source Code value = “C”;
 3. All client self-executed order flow using sponsored access, Execution Source Code value = “G”;

For any other client self-executed order flow use Execution Source Code value = “Y” (for example using the executing broker’s infrastructure).

Note that the guidelines prioritize values in the more complex model, for example clients may self-execute using a premium algo provider through a third-party software provider, in which case it is suggested that the premium algo provider rate takes precedence – however this is at the discretion of the executing broker and how they decide to charge brokerage accordingly, particularly with regards to the rates agreed within schedules related to give-up agreements.

¹ FIA is the leading global trade organization for the futures, options and centrally cleared derivatives markets, with offices in Brussels, London, Singapore and Washington, D.C. FIA’s membership includes clearing firms, exchanges, clearinghouses, trading firms and commodities specialists from more than 48 countries as well as technology vendors, lawyers and other professionals serving the industry. FIA’s mission is to support open, transparent, and competitive markets; protect and enhance the integrity of the financial system; and promote high standards of professional conduct. As the principal members of derivatives clearinghouses worldwide, FIA’s member firms play a critical role in the reduction of systemic risk in global financial markets. Further information is available at www.fia.org.



Introduction

This document offers revised guidelines for the use of the FIA² Execution Source Code within FIX and FIXML messages in the execution of exchange-traded derivatives (ETD). The guidelines apply equally to buy-side firms, sell-side firms, exchanges, and clearinghouses, as well as the independent software vendors (ISVs) that provide pre-trade and post-trade solutions.

The Execution Source Code (also known as the “Rate Identifier”) is intended to represent the method of execution used for ETD, so executing and clearing brokers can readily identify the appropriate brokerage rate to be applied to a transaction. Brokerage rates for buy-side self-directed electronic execution typically differ from brokerage rates for orders placed with the sell-side desk to execute on behalf of the buy-side, although there are increasingly more nuanced scenarios where different brokerage rates may apply for different types of electronic execution.

This document provides a simplified schema of scenarios that industry participants can use to populate Execution Source Code on orders *prior* to their execution. This Execution Source Code value is intended to flow through pre-trade vendor and broker systems on orders sent to the exchange matching engine, and then be passed through on trades sent to the clearing house. The clearing house can then pass the Execution Source Code on the trades through to the clearing FCM through the clearing house give-up system so that the both executing and clearing brokers can reference the correct brokerage.

Examples of implementation include the **F**inancial **I**nformation **eX**change (FIX) protocol tag 1031 (CustOrderHandlingInst) for orders prior to execution, and the **F**inancial **I**nformation **eX**change **M**arkup **L**anguage (FIXML) for reporting of trades after execution. However, the practices are equally applicable to other protocols that support the Execution Source Code, such as binary order entry protocols or proprietary **A**pplication **P**rogramming **I**nterfaces (APIs).

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History

Several years ago, industry participants and FIA identified an issue with brokerage settlement for ETD due to the clearing firms' inability to identify how a given-in trade was transacted through its executing broker. These inefficiencies led to clearing firms disputing brokerage billed by the executing broker on trades where differing rates were applied to trades executed via the desk versus other means. This problem became more acute as executing brokers provided their clients with more options for electronic execution.

In 2010, FIA proposed a solution through the original FIA Execution Source Code schema. Discussion with the FIX Trading Community³ led to the implementation of the Execution Source Code within the FIX Protocol.⁴ In the proposal, orders could be tagged with one of thirteen single character values indicating its source using FIX tag 1031 (CustOrderHandlingInst)⁵ for both FIX order entry and FIXML post trade messages passed through the clearing house for clearing firms to use in their brokerage calculations.

In response, CME,⁶ Eurex,⁷ and ICE⁸ began support for the Execution Source Code schema in both order entry and clearing house messages. At the same time, FIA Tech provided a mechanism within its EGUS platform (currently operating as Docs) for brokers to create rate schedules which could have different rates for each of the newly defined Execution Source Codes.

However, adoption of the original schema was sparse at best.⁹ Despite implementation at several exchanges and clearing houses, executing brokers did not populate the value on new orders leaving most clearing firms unable to use an Executions Source Code for brokerage calculations. Many firms continue to rely on a variety of homegrown solutions to identify and reconcile brokerage.

³ <https://www.fixtrading.org/>

⁴ FIA Post-Trade Standards Working Group FIA Execution Source Code Gap Analysis, March 23, 2011, <https://www.fixtrading.org/packages/ep133/>

⁵ Note that tag 1031 is also used for FINRA OATS reporting for US equity trading and is a multiple string value field in the FIX 4.4 schema. Use of the FIA Execution Source Code instead of OATS is determined using tag 1032=2 (OrderHandlingInstSource). The FIA Execution Source Code was added in FIX 5.0 Service Pack 2 Expansion Pack 133 and has typically been implemented as a single character value field for ETD-specific usage.

⁶ CME Advisory: FIA "Rate Identifier" Indicator Coming Soon, January 19, 2012, <https://www.cmegroup.com/tools-information/lookups/advisories/clearing/Chadv12-026.html#pageNumber=1>

⁷ Eurex Clearing C7 release 3.0, <http://www.mds.deutsche-boerse.com/blob/8846/74d000d7b3df582314237f10e761239c/eurex-clearing-s-c7---release-3-0-data.pdf>

⁸ ICE Clear US Notice 12-039, https://www.theice.com/publicdocs/clear_us/notices/12-039_Platform_Release_Update.pdf

⁹ As of Q3 2018, rate schedules in Docs (previously known as EGUS) have mostly been coded with different rates for "desk", "electronic", or "not entered" as Execution Source Codes. When questioned, Industry participants either expressed the view that the Execution Source Code value definitions are too complex to understand and use appropriately, or that they did not provide appropriate granularity for differing execution options and the rates charged for them. In April 2017, FIA Tech released the Atlantis platform, which facilitates the straight-through-processing (STP) for settlement of brokerage between executing and clearing brokers. One of the key issues affecting efficiency of settlement on the platform was the fact that both payers and receivers on the platform would routinely accrue different brokerage on trades because the method of execution had not been clearly marked at trade execution.



Simplified Execution Source Code Schema

The following sections of the document outline the simplified Execution Source Code schema and provide a description of each proposed value.

Note that for ease of implementation, the guidelines utilize values originally proposed in 2010 based on a single character; however, the descriptions of each value have been modified to reflect current practices. This approach has been adopted to avoid further build out of any systems that already support the Execution Source Code and retain backwards-compatibility. It is also intended to minimize any changes required to give up agreements and their rate schedules between clients, executing brokers and clearing brokers – most of which, as previously noted, utilize Exchange Source Codes for voice/desk execution (“W”) and electronic execution (“Y”).

Importantly, the guidelines make a distinction between “high-touch” execution and “low-touch” execution. “High-touch” execution indicates that a person at the executing broker has been involved in the execution chain. These orders typically incur a higher brokerage rate. “Low-touch” indicates that there has been no human interaction with the order by the executing broker. Typically, a lower brokerage rate is used for these orders. This distinction leads to a very simple usage model based on whether orders are executed “high-touch” via the executing broker’s desk (“W”) or “low-touch” via self-directed electronic executions (“Y”), though this can be further broken down into a further three different categories to create a slightly more complex model.

The simplified schema has been designed for electronic trading only, reflecting that most trading now occurs via electronic matching engines as opposed to open outcry venues. Where trading still occurs manually through an open outcry medium, it is assumed that there is alternative information provided on the trade that makes the Execution Source Code redundant for the brokerage calculation.

The guidelines also do not address off-exchange trades that are then reported to the clearing house, for example block trades or exchange for related position (EFRP) trades. Again, it is assumed that there is alternative information provided on such trades for brokerage calculation.

Firms may consider that block EFRP trades are “high-touch” and look to apply the value “W” to all such trades, however this document does not formally make this recommendation to allow for future developments regarding electronic discovery and execution of such trades.¹⁰ However, we may revisit whether the revised Execution Source Code schema should be extended to include open outcry and off-exchange trades once the goal of correctly identifying the Execution Source Code for electronic trades has been achieved.

The following table shows the simplified set of Execution Source Code values for use in FIX tag 1031. A brief overview of each value and its envisaged scenario follows:

¹⁰ In December 2017, Eurex launched their EnLight product for off-book price formation of ETDs, see http://www.eurexchange.com/blob/3066278/dedc9115bc10c81ba40dc78cea7634bd/data/presentation_rfq_platform.pdf



Value	Description	High/Low Touch	Mandatory?
W	Desk	High	Yes
Y	Electronic (Default)	Low	Yes
C	Vendor-provided Platform billed by Executing Broker	Low	Optional for complex model
G	Sponsored Access via Exchange API or FIX provided by Executing Broker	Low	Optional for complex model
H	Premium Algorithmic Trading Provider billed by Executing Broker	Low	Optional for complex model
D	Other, including Other-provided Screen	Low	Optional, used with discretion

TABLE 1: SIMPLIFIED EXECUTION SOURCE CODE VALUES (FOR USE IN FIX TAG 1031)

At a minimum, FIA supports that all parties adopt the simple model of using Execution Source Code values “W” and “Y” for high- and low-touch orders respectively, regardless of whether trades are full service, allocated, and/or given up. We support that clients executing into a single account with a clearing firm (for example principal trading firms) use Execution Source Code Value “Y” for consistency.

The following sections provide an overview of the proposed “simple” model of high-touch versus low-touch, and the more complex model with increased granularity for low-touch order flow.

Simple Model

Value = “W” (Desk)

- The executing broker works the client’s order directly on the exchange’s matching engine or uses an execution algorithm to manage the client’s order.
- The order sent to the exchange is considered “high touch” since it is intermediated by the executing broker and may incur a higher brokerage rate than an order placed directly on the matching engine by the client.
- For simplicity, all orders placed electronically on an exchange by an agency execution desk at the executing broker can be considered this value (“W”) even if they are placed by the client using phone, instant message/chat, or other medium of communication such as a “care” order.¹¹

¹¹ A “care order” is communicated by the client electronically to the executing broker to be worked on the client’s behalf, and is considered “high touch”. Care orders are increasingly transmitted electronically from the client’s order or execution management system via an API or message protocol such as FIX. An advantage of electronic order communication is that executions are reported



Value = “Y” (Electronic)

- The client electronically transmits the order using the systems provided by the executing broker, including screens provided by the executing broker that do not incur additional brokerage to cover vendor costs.
- The client determines the execution of the order by choosing to execute directly on the exchange matching engine, or through an execution algorithm provided by the executing broker.
- The executing broker does not intermediate the order, so it is considered “low touch”, and may incur a lower brokerage rate.
- For simplicity, all orders placed electronically by a client can be considered to default to this value (“Y”), unless the executing broker has decided to apply further granularity within their rate schedules using the values described next.

More Complex Model

Value = “C” (Vendor-provided Platform, billed by Executing Broker)

- The client electronically transmits the order via an independent software vendor’s trading system¹² provided to the client by the executing broker. Use of a third-party vendor system typically incurs an additional cost which is billed to the executing broker and may be recovered through a higher brokerage rate compared to use of the executing broker’s own systems.
- Such an order is considered “low touch” since it is not intermediated by the executing broker.
- An order placed using this value (“C”) may be charged at a different brokerage rate to other low touch orders if the executing broker has decided to apply additional granularity within their rate schedules.

back to the client electronically, avoiding duplication of input in the client’s order or execution management system, thus reducing the chance of keying error.

¹² FIA acknowledges the emergence of several independent software vendors that focus on providing multi-broker and/or multi-asset trading capabilities to the buy-side. Such vendors may provide order management systems (OMS), execution management systems (EMS), or a hybrid combination of both (O/EMS), with trading screens and/or the ability to stage orders electronically via an API or FIX. Their typical business model is based on incurring a transaction fee to the execution broker on a per lot basis. If trades are given-up and the brokerage rate charged by the clearing broker issuing daily statements does not reflect this additional transaction fee correctly then there are reconciliation issues between what the clearing broker charges the client, what the clearing broker pays to the executing broker, and what the executing broker expects.



Value = “G” (Sponsored Access via Exchange API or FIX, provided by Executing Broker)

- The client electronically transmits the order directly to exchange via sponsored access¹³ using the executing broker’s membership of the exchange.
- This value may be used to differentiate brokerage rates between client order flow placed via the executing broker’s order routing systems (commonly known as “direct market access”, or DMA) and client order flow placed through its sponsored access agreement with the executing broker.
- Such an order is considered “low touch” since it is not intermediated by the executing broker.
- An order placed using this value (“G”) *may* be charged at a different brokerage rate to other low touch orders if the executing broker has decided to apply additional granularity within their rate schedules.

Value = “H” (Premium Algorithmic Trading Provider, billed by Executing Broker)

- The client uses a premium algorithmic trading provider’s system¹⁴ that works their order based on the client’s selected parameters, and which subsequently electronically transmits “child” orders to the exchange matching engine for execution.
- These child orders can be submitted via ISV infrastructure interfacing directly with the exchange, the executing broker’s FIX or API connectivity, via sponsored access under the executing broker’s exchange membership, or via direct access under the client’s own exchange membership.
- Child orders generated by the premium algorithmic trading provider would be sent to the exchange using this value (“H”) regardless of how the order may have been originally placed with the algorithmic trading provider.
- The executing broker does not intermediate the original order or its child orders, so all order flow is considered “low touch”.
- Any order placed using this value (“H”) *may* be charged at a different brokerage rate to other low touch orders if the executing broker has decided to apply additional granularity within their rate schedules.

¹³ Sponsored access is an arrangement where a member of an exchange allows a client to connect directly to the exchange’s API or FIX interface using the member’s credentials. Orders do not pass through the member’s order routing systems or risk controls, instead the member typically has control over the order flow through pre-trade risk controls provided by the exchange to the member and has visibility of the order flow through drop copies or other trade reporting services provided by the exchange to the member.

¹⁴ FIA acknowledges the emergence of several independent software vendors that focus on providing sophisticated algorithmic trading capabilities to the buy-side. Their typical business model is based on incurring a transaction fee to the user of their execution algorithms on a per lot basis. Due to current limitations with the ETD billing process, this transaction fee is typically paid by the executing broker on behalf of the client and charged back to the client via a higher brokerage rate. If trades are given-up and the brokerage rate charged by the clearing broker issuing daily statements does not reflect this correctly then there are reconciliation issues between what the clearing broker charges the client, what the clearing broker pays to the executing broker, and what the executing broker expects based on what has been paid to the premium algorithmic trading provider.



Value = “D” (Other, including Other-provided Screen)

- The simplified Execution Source Code schema support this value to allow for scenarios not currently outlined using values “W”, “Y”, “C”, “G” or “H”.
- FIA suggests that usage of this value should be discretionary and only implemented after careful consideration of its impact to all parties involved, and any legal mechanisms employed to agree the brokerage rate between parties, such as the rate schedule applied to any give-up agreement(s).
- A possible scenario for this value is an exchange provided GUI where the client and executing broker may agree that a different brokerage rate applies for transactions via the GUI compared to other client self-directed transactions.

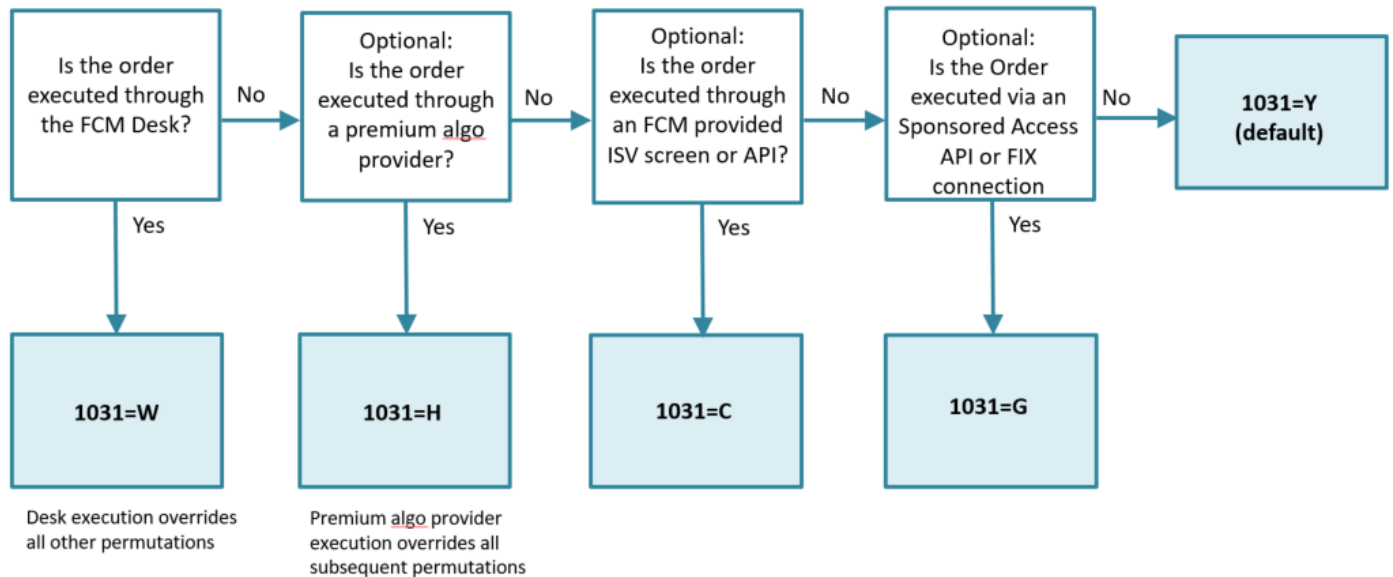


FIGURE1. EXECUTION SOURCE CODE DETERMINATION

Appendices A and B provide examples of how these recommendations may be adopted and utilized throughout the workflow. The examples provided are intended to represent best practice for adoption across multiple parties. For the Execution Source Code to be adopted on a universal basis, it is important that all parties recognize that the value can only be used if it is appropriately populated and the value is propagated correctly throughout the workflow, especially when trades are given up from an executing broker to a separate clearing broker. All parties involved need to adopt a standard approach to populating, propagating, and consuming the Execution Source Code in a manner that is consistent with existing legal agreements and rate schedules.



Execution Source Code and Average Pricing Best Practice

It is very important to note that for the guidelines to help relieve current inefficiencies in brokerage reconciliation and billing across all parties, including buy-side and sell-side, trades executed with different Execution We encourage that source Codes *should not* be comingled when average pricing occurs. The same principle applies to other types of trades such as blocks and EFRPs.

Summary

Ensuring that brokerage is correctly calculated, reconciled, accrued and paid is a major challenge facing the exchange traded derivatives industry. Industry adoption of this initiative has previously faltered due to uncertainty regarding how the set of values should be used, leading to a variety of bespoke solutions being implemented by firms, and a focus on post-trade reconciliation.

Population of the Execution Source Code at the point of order origination has been identified as a key initiative in meeting this challenge. The guidelines presented within this document are intended to facilitate quick adoption of the Execution Source Code via its use in FIX tag 1031, and to provide a framework for all participants looking to adopt either a simple or more complex model for identifying the brokerage rate at order entry within the workflow for ETD globally.

Frequently Asked Questions

Q1. What about off-exchange trades entered through a clearing house portal?

A1. Block trades and EFRPs are typically indicated by other flags within the clearing house API so a separate execution source code is not required.

Q2. Can an FCM use more than six values?

A2. An FCM can use any permutation of values permitted within execution source code if the value is linked to the FCM's rate schedules, especially those used in concord with a give-up agreement. The six values represented in these guidelines are indicative of most scenarios currently employed. FCMs should also check whether any restriction has been placed on the values by the exchange or clearing house, as well as their pre-trade and post-trade service providers.

Q3. Can the execution source code be more than a single character?

A3. The initial schema for tag 1031 proposed by FIA in 2010 limited usage to a single character. However, the FIX Protocol also allows tag 1031 to be a string, as used for OATS reporting. It is theoretically possible to use multiple characters (for example "H1", "H2", "H3", to represent multiple premium algo providers), but this may be limited by the implementation of the field in the exchange matching engine, its order entry interface, the clearing house system, and its trade reporting interface. For backwards compatibility and ease of adoption, it was agreed that a single character would be utilized for the simplified guidelines, again with a view to revisiting whether this extension of the schema is merited after initial adoption. FCMs should also check whether any restriction has been placed on the values by the exchange or clearing house, as well as their pre-trade and post-trade service providers.

Appendix A.1. Suggested Population of Execution Source Code – Simple Model

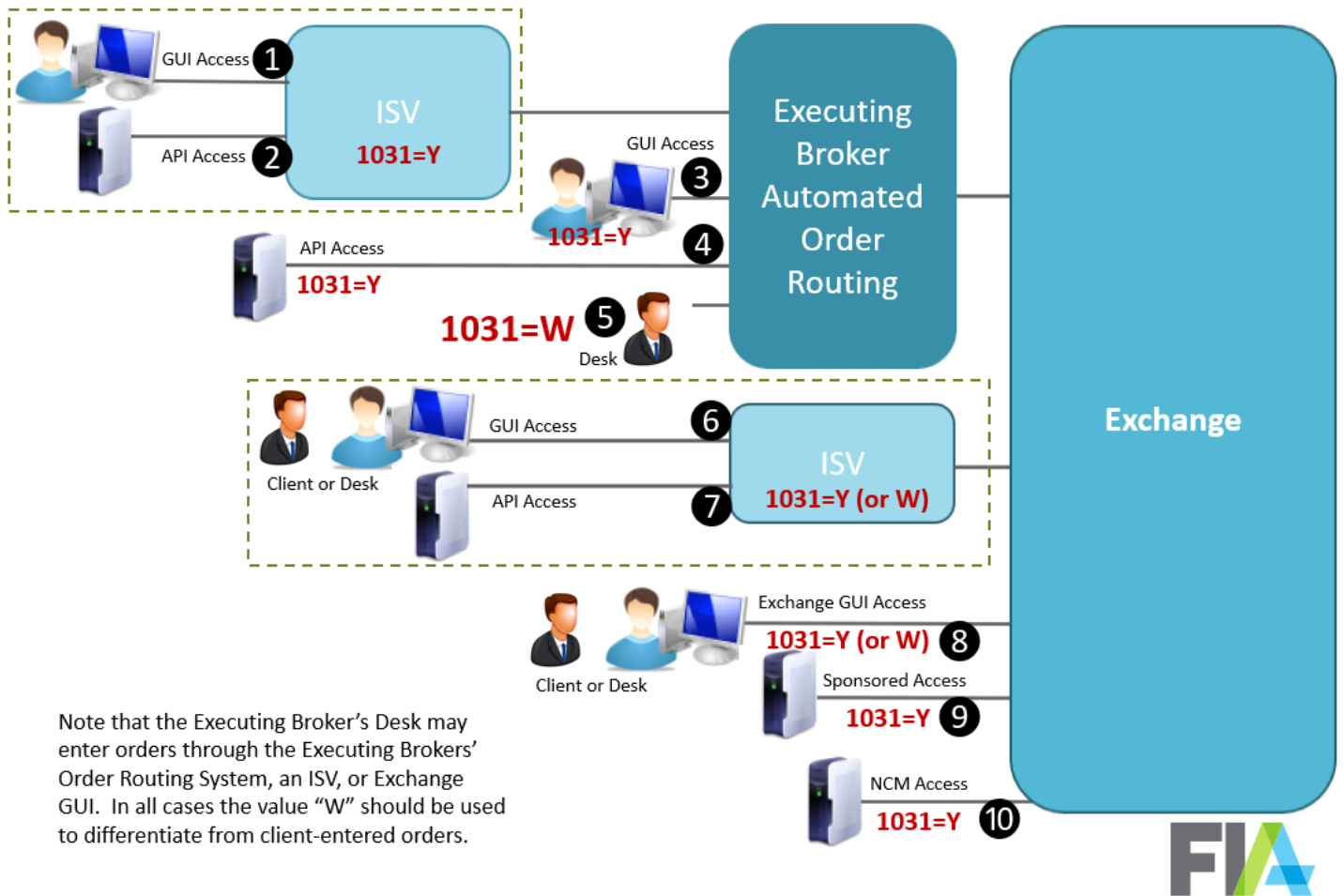


FIGURE 2. SIMPLE MODEL - DESK VS. ELECTRONIC

In the Simple Model, all orders are considered “low touch” and order are sent to the venue with the value **1031=Y**, except for those intermediated (“high touch”) by the FCM desk (**5**) [or possibly (**6**) and (**8**)], which are sent to the venue with the value **1031=W**.

Note that where exchanges offer their own graphical user interfaces that do not rely on any message protocols for information to be sent to the exchange, FIA suggests that they implement the Execution Source Code within a user profile so that the appropriate value can be set on all orders executed by the client.

Appendix A.2. Suggested Population of Execution Source Code – Complex Model

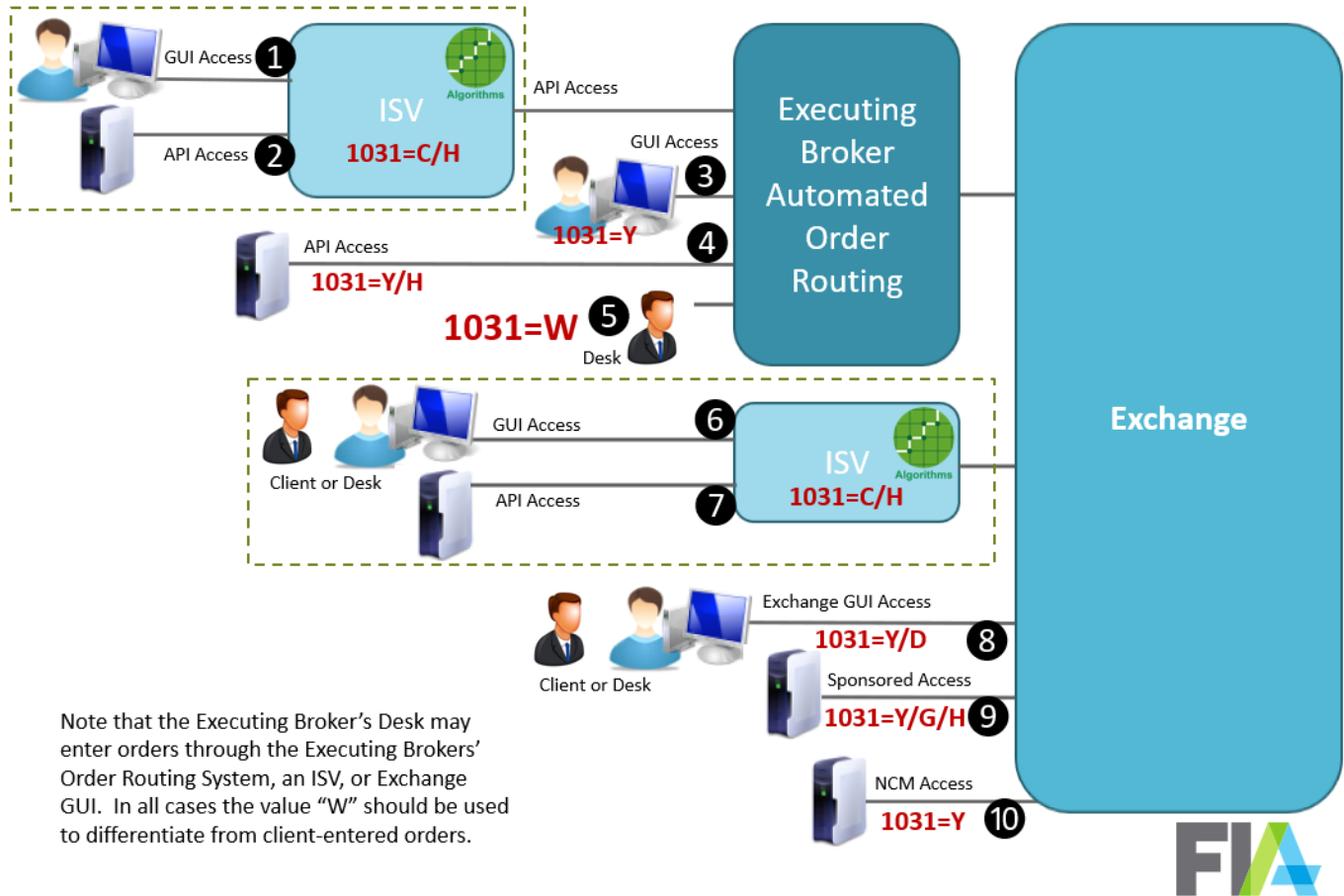


FIGURE 3. COMPLEX MODEL - DESK VS. MULTIPLE ELECTRONIC FLOWS

In the complex model, "low touch" orders are divided into different types.

Orders intermediated ("high touch") by the Executing Broker desk (5) [or possibly (6) and (8)], are sent to the venue with **1031=W**.

All orders placed electronically by the client ("low touch") are sent to the venue with **1031=Y**, unless:

- Where the Executing Broker chooses to differentiate brokerage between direct market access and orders placed via an Executing Broker provided ISV (1), (2), (6) & (7), these orders are sent to the venue with **1031=C**.
- Where the Executing Broker chooses to differentiate brokerage between direct market access and sponsored access, orders placed via sponsored access (9) are sent to the venue with **1031=G**.

Where the Executing Broker chooses to differentiate brokerage between direct market access and orders placed via a "premium algo provider", these orders are sent to the venue with **1031=H**.