

# Interfaces & Partners

## Analytics & Risk

ChartIQ  
Qontigo – fka Axioma  
FINCAD  
MSCI

Northfield  
OTAS  
The Yield Book Inc.

## Collateral Management

Acadia Soft

Cassini

## Data

Bloomberg B-Pipe  
Bloomberg Data License  
Bloomberg Desktop API  
Bloomberg Server API

Charles River Data Service – Reference  
Charles River Data Service – Real-Time  
Charles River Data Service – Benchmarks

## Equity Algo Trading

Abel/Noser  
Aqua Securities, L.P  
Auerbach Grayson  
Barclay's Capital  
BestEx  
BMO Capital Markets Corp  
BMO Nesbitt Burns  
BNP Paribas  
BTIG, LLC  
Canaccord Capital  
Cantor Fitzgerald & Co.  
China International Capital Corporation Hong Kong  
Securities Limited  
CIBC World Markets  
CIMB Securities (Singapore) Pte Ltd  
Citadel Securities  
Citigroup  
Clearpool, Group  
CLSA Limited  
Commonwealth Securities, Ltd  
ConvergEx Execution Solutions  
Cowen & Company, LLC.  
Credit Suisse

Daiwa Capital Securities Markets Co. Ltd  
Dash Financial  
Deutsche Bank  
DnB NOR Bank ASA  
Drexel  
DZ Bank  
Exane  
Execution Ltd  
Fidelity Capital Markets  
FOX River Execution  
Goldman Sachs  
Guggenheim Securities LLC  
Haitong International Information Systems Limited  
HSBC  
Ichiyoshi Securities Co, Ltd  
Instinet  
ISI Group  
ITG Inc.  
Jefferies & Company  
JP Morgan  
Keybanc  
Kepler Cheuvreux  
Knight Securities

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Leerink Swann & Co.  
 Lek Securities Corporation  
 Liquidnet  
 Macquarie Securities  
 Maybank KimEng Securities Pte Ltd  
 Marex Financial  
 Bank of America Merrill Lynch  
 Mizuho Securities  
 MKM Holdings  
 MND Partners Inc.  
 Morgan Stanley  
 Morgans Financial  
 National Bank Financial Inc.  
 Nomura Securities  
 Piper Jaffray  
 Potamus Trading LLC  
 Raymond James

Royal Bank of Canada  
 Royal Bank of Scotland  
 Redburn Partners LLP  
 R.W. Baird  
 Sanford Bernstein  
 Santander Investment Securities, Inc.  
 SMBC Nikko Securities  
 Societe Generale  
 Stifel Nicolaus  
 The Bank of Nova Scotia  
 Tokai Tokyo Securities Co, Ltd.  
 UBS  
 Virtu Financial Capital Markets LLC  
 Wall Street Access  
 Wallach Beth  
 Weeden & Co, Inc.  
 Wells Fargo

## Equity Crossing Networks

### Direct Integration:

AQUA ATS  
 BIDS Trading  
 BlockCross

ITG Posit  
 Liquidnet  
 Luminex

### Integration via Broker Algorithms:

Citibank Liquifi, CitiMatch (Citigroup)  
 Cross Finder, CrossFinder+ (Credit Suisse)  
 Instinet Chi-X (Instinet)  
 MS Pool (Morgan Stanley)

PIN (UBS)  
 Turquoise  
 SigmaX (Goldman Sachs)

## Foreign Exchange Trading

### FX Algo

BNP Paribas  
 Credit Suisse

JP Morgan

### Multi-Bank Portals

360T  
 FX All

FX Connect

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## Direct Bank Execution

Barclays PLC  
Citigroup  
Credit Suisse  
Deutsche Bank

Goldman Sachs  
Morgan Stanley  
Skandinaviska Enskilda Banken  
UBS

## Derivatives Trading

### Derivatives Algorithms - Futures

Barclays Capital Inc.  
Bank of America Merrill Lynch  
Credit Suisse  
Goldman Sachs  
JP Morgan Securities

Morgan Stanley  
Quantitative Brokers  
Societe Generale  
UBS

### Derivatives Algorithms – Options

Bank of America Merrill Lynch  
Citigroup  
Credit Suisse  
DZ Bank

Goldman Sachs  
MKM Partners  
Morgan Stanley  
Susquehanna Financial Group LLLP

### Futures – Direct Execution

Agora Corretora de Titulos e Valores  
Banca IMI S.p.A  
Bank of America Merrill Lynch  
Barclays Capital Inc.  
Bayerische Hypo- und Vereinsbank AG  
Bell Potter Securities, Ltd.  
BGC Financial, L.P.  
Bloomberg Tradebook LLC  
BMO Capital Markets Corp  
BNP Paribas Arbitrage SNC  
CACEIS BANK FRANCE  
CITIC Securities International Co. Ltd.  
Citigroup Global Markets, Inc.  
Coex Partners LLP  
Credit Suisse Securities (USA) LLC  
Danske Bank  
Deutsche Bank AG  
ED&F Man Capital Markets Limited  
Edelweiss Securities Limited  
Exane SA  
Goldman Sachs  
GFI Brokers Limited  
HSBC Securities Inc.

ICAP Corporates LLC  
INTL FCStone Financial Inc.  
Itau BBA USA Securities, Inc.  
RFQ-hub  
JP Morgan Securities  
Macquarie Capital Securities Ltd  
Marex Financial Limited ("Marex Spectron")  
Mediobanca -Banca di Credito Finanziario SPA  
Morgan Stanley & Co. LLC  
Newedge Group S.A.  
Nomura International PLC  
Nordea Bank AB  
RBC Capital Markets, LLC  
The Royal Bank of Scotland plc  
Skandinaviska Enskilda Banken  
Societe Generale  
Spectron Services Ltd.  
Svenska Handelsbanken AB  
The Royal Bank of Scotland plc  
Tullett Prebon Financial Services, LLC  
UBS Securities LLC  
Wells Fargo Securities, LLC  
Wedbush Securities Inc.

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## Options – Direct Execution

Bank of America Merrill Lynch  
 Barclays Capital Inc.  
 Bay Crest Partners, LLC  
 Bayerische Hypo- und Vereinsbank AG  
 BGC Financial, L.P.  
 Bloomberg Tradebook LLC  
 BMO Capital Markets Corp  
 BMO Nesbitt Burns  
 BNP Paribas Securities Corp.  
 BTIG, LLC  
 Cantor Fitzgerald & Co.  
 Capital Institutional Svcs  
 Churchill Capital Ltd  
 CIBC World Markets Corp  
 Citigroup Global Markets, Inc.  
 Cowen & Company, LLC.  
 Credit Suisse Securities (USA) LLC  
 Deutsche Bank AG  
 Goldman Sachs  
 Goldman Sachs Australia Svcs Pty Ltd  
 Hapoalim Securities USA, Inc.  
 HSBC Securities (USA) Inc.  
 Instinet  
 Interactive Brokers LLC  
 ITG, Inc.  
 Itau BBA USA Securities, Inc  
 Jefferies & Company  
 Jones Trading Institutional Svcs LLC  
 JP Morgan Securities

Knight Trading  
 Leerink Swann & Company  
 Macquarie Capital Securities Ltd  
 Macro Risk Advisors LLC  
 Mediobanca -Banca di Credito Finanziario SPA  
 Merrill Lynch, Pierce, Fenner & Smith Inc.  
 MKM Partners  
 Morgan Stanley & Co. LLC  
 National Bank Financial Inc.  
 Newedge Group S.A.  
 Nomura International PLC  
 Nomura Securities International, Inc.  
 Nordea Bank AB  
 Oppenheimer & Co. Inc.  
 OTR Global Trading LLC  
 Patersons Securities Limited  
 Raymond James  
 RBC, The Royal Bank of Canada  
 Sanford C. Bernstein & Co., LLC  
 Sea Port Group Securities  
 Societe Generale  
 Stifel Financial Corp.  
 Susquehanna Financial Group LLLP  
 TD Securities Inc.  
 The Royal Bank of Scotland plc  
 UBS Securities LLC  
 Wells Fargo Securities  
 Wolverine Execution Services

## Fixed Income Trading

### Crossing

Market Axess  
 MTS - BondVision

Tradeweb  
 YieldBroker

### MultiDealer Platforms

Bloomberg  
 Market Axess

Tradeweb

### Inventory

BondCliQ  
 Neptune

Market Axess  
 Tradeweb

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## MiFID II

### Approved Reporting Mechanism (ARM)

TRAX

UnaVista

### Approved Publication Arrangement (APA)

TradeEcho

TRAX

## Post-Trade FIX Allocation Brokers

ABG Sundal Collier

ABN AMRO Bank N.V.

Auerbach Grayson

Banca Generali SpA

Bank of America Merrill Lynch

Barclays Capital Inc.

Bayerische Hypo- und Vereinsbank AG

BMO Capital Markets Corp

BNP Paribas Securities (Asia) Limited

Canaccord Adams, Inc.

Canaccord Financial Ltd.

Cantor Fitzgerald & Company

CGS - CIMB Securities (Singapore) Pte Ltd

Charles Schwab & Company

Citigroup Global Markets, Inc.

CLSA Limited

Cowen & Company, LLC.

Credit Suisse Securities (USA) LLC

Daiwa Securities Co. Ltd.

Deutsche Bank AG

Exane SA

Fidelity Capital Markets

Goldman Sachs

HSBC Securities (USA) Inc.

Ichiyoshi Securities Co Ltd

ING Group

Instinet Group, LLC

Investec Bank (UK), Ltd.

ISI Group

ITG, Inc.

Jefferies International Limited

Jefferies & Company

Jones Trading Institutional Svcs LLC

JP Morgan Securities

Keefe, Bruyette & Woods, Inc.

Kepler Capital Markets

Liquidnet Inc

Loop Capital

Macquarie Capital Securities Ltd

Mizuho Securities

Morgan Stanley & Co. LLC

Nomura International PLC

Nomura Securities International, Inc.

Northern Trust Securities Incorporated

Okasan Securities Co., Ltd.

Oppenheimer & Co. Inc.

Pavilion Global Markets Ltd

Penserra Securities LLC

Pershing LLC

Peters and Co.

Pictet Overseas Inc

Piper Jaffray & Co (US)

Pollitt & Co

Raymond James Ltd

RBC Capital Markets

Robert W Baird & Co.

Sanford C. Bernstein & Co., LLC

SBI SECURITIES Co., Ltd.

SMBC Nikko Securities Inc.

Societe Generale

Stifel, Nicolaus & Company, Inc.

Strategas Securities LLC

TD Ameritrade

TD Securities Inc.

TFS Derivatives

Tokai Tokyo Securities Japan

UBS Securities LLC

Weeden & Co. LP

Wells Fargo Securities, LLC

William Blair & Company

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## Post-Trade Systems

Charles River supplies standard file formats (flat files or XML) as well as a library of exports formats and these additional interfaces:

DTCC Deriv/SERV

FICC/Fixed Income Clearing Corporation (MBS Electronic Pool Notification)

FIX 4.2/4.4 allocations (TradeWeb, MarketAxess, FX venues, equity brokers)

ISO 15022

MarkitSERV

SWIFT – via Broadridge

## Prime Brokers

Goldman Sachs

Morgan Stanley

UBS

## Transaction Cost Analysis

Barclays

BestX

ITG

IHS Markit

Morgan Stanley Analytics

Trade Informatics

UBS

## Value Based Trading

### Calastone Transaction Services – 34 countries

Transfer Agents (Fund Providers)

DST (55)

Northern Trust (52)

Capita (46)

RBC (37)

State Street (34)

BNY Mellon (32)

HSBC (31)

Self TA (26)

BBH (21)

Maitland (18)

Citibank (15)

DZ Private Bank (15)

BNP Paribas (13)

Fund Partner Solutions (12)

T Bailey (11)

JPM (10)

SEI (8)

European Fund Administration (6)

Maples (4)

Allianz Lux (3)

Valu-Trac (3)

FNZ (3)

Others (19)



# Interfaces & Partners

## About Charles River

Investment firms, asset owners, wealth managers, hedge funds and insurers in more than 30 countries rely on Charles River's front and middle office investment management platform to manage more than US\$30 Trillion in assets. Together with State Street's middle and back office capabilities, Charles River's cloud-deployed software technology forms the foundation of State Street Alpha<sup>SM</sup>. The Charles River Investment Management Solution (Charles River IMS) is designed to automate and simplify the institutional investment process across asset classes, from portfolio management and risk analytics through trading and post-trade settlement, with integrated compliance and managed data throughout. Charles River's growing partner ecosystem enables clients to seamlessly access external data and analytics, applications and liquidity venues that support the demands of their product and asset class mix. Headquartered in Burlington, Massachusetts, we serve clients globally with more than 1,000 employees in 11 regional offices.

*(As of February 2021)*

While the information in this document is presented as planned or projected, Charles River Development reserves the right to change plans, priorities and future enhancements at any time without notice.  
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