I/B/E/S QUANTITATIVE FILE SYSTEM (QFS)

PRODUCT USER GUIDE

I/B/E/S QFS USER GUIDE

A GUIDE TO THE I/B/E/S CURRENT EARNINGS ESTIMATES

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REFINITIV™

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1   OVERVIEW

This is a guide to understanding the terms, layouts, and use of the I/B/E/S Quantitative File System (QFS).

About the I/B/E/S Quantitative File System

The I/B/E/S Quantitative File System (QFS) is an intra-day, daily, and weekly file system designed for quantitative and analytical users of institutional estimate data. QFS provides concise representation of this data and allows you to maintain and manipulate a customized relational database of earnings and other estimates.

QFS is foremost a daily "change" system, capturing and reporting Estimate revisions, Recommendation, and Target Price as they are received by Refinitiv. In addition, QFS recalculates mean data, delivering valuable estimate momentum and other revision information every time intra-day, daily, and   weekly files are available.

The underlying data that make up the QFS files are gleaned from the world's most comprehensive database of forecast data. These files act in concert to give quantitative users complete information on estimates that have changed. QFS is the first file system to indicate the reason these estimates are changing, be it analyst revision, new estimator, error correction, or split or fiscal year shift.

QFS is not limited to earnings per share data. Recommendations, sales, cash flow, EBITDA, dividends per share and other forecast measures are also available. Data is also supplied on a Parent and Consolidated basis where available.

Daily change files include estimate data that have changed since close of previous business day (U.S. ET where mentioned). Weekly files represent a snapshot of the current data for ALL active companies in the Refinitiv universe as of the close of business of each Thursday at 8:30PM (U.S. ET where mentioned). Historical data is available as separate offerings of I/B/E/S Detail and Summary History files.   All files are delivered via the Internet (FTP).

Major advantages of QFS

Relational design allows for easy manipulation of the data by quantitative users and programmers.

- Status codes detailing whether the estimate has been changed due to analyst revision or error correction.

- Company data is reported on both Parent and Consolidated basis.

- Intra-day updates are available, including recalculated summary data.

- Data are available for all types of measures. A complete list is available in Appendix A.

- Data is only delivered via the FTP server (Internet).

- Up-to-date company information is reported the same day as input into the Refinitiv database.

- There is no need to wait for a refresh of identifier information.

- Global coverage broken up by regions.

Disclaimer regarding a historical database

I/B/E/S QFS is intended for the maintenance of a current database only. Therefore, it may not be advisable for clients to use data from their QFS files to create a historical database.

Based on the current QFS data inclusion criteria, data changes made beyond the current and previous values are not reflected in the QFS files—these changes would not be properly captured by clients using data from QFS to build a historical database.

We recommend that clients interested in maintaining a historical database subscribe separately to the I/B/E/S History product, which complements the current QFS data by providing a complete estimates history.

Entitlements

Through the years, Refinitiv has built and maintained a strong relationship with its contributors.   As part of this on-going relationship, Refinitiv ensures that its contributors have the right to determine, on a client-by-client basis, who may or may not view their estimates in a detail format. If a contributor denies permission to a specific client, the Estimator field will have a numeric code, while a   numeric field also represents the Analyst field, effectively meaning "Permission Denied."

2   FILE DELIVERY

QFS file naming conventions

Clients may find different zip packages when they log in to their accounts. Intuitive file naming conventions have been devised to allow you to understand the file content better. All   QFS file names adhere to the following convention (maximum total length of eight characters, without the REG field):

```
<D><NAME><M><CC>.<REG>

    <D> – a one-character mnemonic for the day of the week ("M," "T," "W," "R," "F," "Q"-
      weekly)

    <NAME> – a three or four-character mnemonic for the specific file type (summary, actuals,
      etc)

    <M> – a three-character mnemonic for the measure code as listed in the table below

    <CC> – a one or two-character mnemonic used for detail files only where
      permission/entitlement is applied
```

For example: Monday's QFS Expanded Actuals EPS File will have the filename MACTTEPS.US. You may notice that there is an element of redundancy in the file naming convention given that measure is a column in many of the QFS files. This was done to allow you to combine files and maintain proper measure identification. In addition, it allows Refinitiv to segregate files for users who do not need all   measures. A complete list and description of these mnemonics is available in the "QFS Measure Levels"   section. Also, a complete list of files listed per subscription type is provided in the additional spreadsheet   entitled QFS Files and Regions.

I/B/E/S QFS Intra-day File Names:

qf<D>_<Account>_<Cycle number>_<File timestamp>, where

<D> - day of the week

<Account> - 4 digit client account number

<Cycle number> - cycle order (please find more details below). There is no cycle number for End of day and Weekly files

<File timestamps> - MMDDYYHHMM.zip

Although the delivery of the End of Day and Weekly QFS files is not changing, the new naming convention is also adopted in order to be consistent across all QFS files and provide users with better clarity on the files posted.

Example:

Incremental cycle 2, delivered on a Tuesday: qft_9999_2_1029130230.zip
Incremental cycle 7, delivered on a Thursday: qfr_9999_7_1024131230.zip
End of day, delivered on a Monday: qfm_9999_1021132030.zip

Weekly: qfq_1111_1024132359.zip

The Key Performance Indicators Zip files can be found within the "qfs" FTP folder.

Note: * Companies with no subsidiaries are classified as Primary Consolidated, with no corresponding Secondary data measures.

For companies that are carry two-basis (Parent and Consolidated), both Primary and Secondary data measures are available. The basis is determined based on the majority contributor submission and populated under the Primary measure. The markets where two-basis measures are available are India, Japan, Korea, Taiwan, and Thailand. Parent measures are indicated by a 6-letter code which includes a "PAR" extension at the end of each 3-letter measure abbreviation listed in the table above. For instance, the Parent measure for EPS is EPSPAR.

- The per-share data measures of UK companies are covered in BPN (pence) and the values for non-per share data measures are displayed in GBP (pounds).

- As of April 2005, EBG data is no longer collected and supplied in the QFS files for the following markets: Austria, Belgium, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Russia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, and United Kingdom.

- As of September 2005, EBG is no longer available for Australia and New Zealand.

- Estimates under Estimator ID (outorg) COMPANY are filtered/excluded from the mean, with no detail   footnote associated to them.

- For consistency purposes and ensure comparability, Estimates', Recommendations', Price targets' and Actuals' Activation, Announce and Confirmation Dates in all files, regardless of region, are only available in ET.

Note: The status flags are blank in the weekly files, as those represent snapshots of the Refinitiv data on the close of business each Thursday night.

Schedule for file updates

Delivery deadlines and content cut off times:

The table below includes all QFS cycles that will be included with the increased frequency, with the respective content cut off times. The delivery times below are the deadline that the files are expected to be   available by in the clients' FTP accounts. Delivery times may vary and files may be posted prior to the deadline times included below.

File	QFS file time (U.S. ET)	Data entry cut-off time (U.S. ET)
1	4:00 A.M.	12:30 A.M.
2	5:00 A.M.	2:30 A.M.
3	7:00 A.M.	4:30 A.M.
4	9:00 A.M.	6:30 A.M.

File	QFS file time (U.S. ET)	Data entry cut-off time (U.S. ET)
5	11:00 A.M.	8:30 A.M.
6	1:00 P.M.	10:30 A.M.
7	3:00 P.M.	12:30 P.M.
8	5:00 P.M.	2:30 P.M.
9	7:00 P.M.	4:30 P.M.
10	9:00 P.M.	6:30 P.M.
End of Day	12 A.M. (NEXT DAY)	8:30 P.M.
Weekly	Weekly / Saturdays at 12:00 A.M.	Thursdays at 8:30 P.M.

- The intra-day files are cumulative and contain changes made to Estimate, Recommendation, or Target Price data since close of previous business day. This allows you to miss one intra-day update and still get current with the download of the next available file.

  PLEASE NOTE:
  On rare occasion, intra-day files may post out of order, in such instances we recommend that clients process the most recent file to capture the latest changes. We strongly encourage clients to also process the Weekly File to capture all changes that have occurred in that week.

- The end-of-day files include the latest pricing data as well as all actuals and surprise information recorded throughout the day and the early evening only for those companies that had activity to either actuals, estimates, recommendations, or price targets.

- The deadline for posting the daily QFS files is 12 A.M. (U.S. ET) each night. The deadline for posting the weekly QFS files is Saturdays at 12:00 A.M. of each week. Client e-mail notifications are provided   when files are not available by the times listed above. These notifications are sent to clients both   before the deadlines, as well as after the posting is done - advising clients that the files are available   on the ftp site.

- Please note that all files are usually posted prior to the deadlines mentioned above. However, it is not guaranteed that files are always posted at the same times. The file posting can vary due to the quantity of data processed and the duration of the file creation processes.

- I/B/E/S maintains a five business day archive of intra-day, daily and weekly files if you want to pick up   a missed file from a prior day.

- Delivery times are not affected by the Spring and Fall time adjustments.

- Please note that the timestamps of the files posted on the ftp sites are listed as GMT/UTC.

Note: Prior to posting a file, a previously posted corresponding file is deleted from the FTP site.

Daily and Intra-day files are deleted at 4:30 AM GMT on the day new files are to be delivered. For example, before posting Monday's end of day file, prior week's Monday file is deleted by this time. **Weekly** files are deleted at 4:35 AM GMT on Friday's.

Each file has as its first row a time stamp (U.S. ET) to inform users of when the file was created and ensure proper synchronization with the Refinitiv database. This header record takes the form: mm/dd/yy hh:mm:ss.

Schedule for retrieving QFS files

QFS files are generally ready before the stated times in the documentation. Previous week's files are deleted the day before the QFS files are due to be posted. You can set up an automated procedure to check if the expected file was posted earlier. If it has been posted, you can proceed with their processing. If it has not been posted, you can check again after a certain amount of time. Follow this procedure for delayed files as well.

Updating your detail database with QFS

To apply delete, stop, and detail records, use the following paradigm:

1. Process Split file (if a historical database is maintained)
    Adjust data in your database for corporate actions by applying split factors received in the Split file.

2. Process QFS detail file
    Insert all records for which a match based on the keys does not exist. Update all records that match the key fields. This applies to both current and previous estimates.

3. Process QFS delete file
    Delete all records from your tables that match the key fields (examples of key fields are: for recommendations I/B/E/S_tkr, estimator, activation_date, activation_time; for estimates I/B/E/S_tkr, measure, fiscal_period, prd_yr, prd_mon, estimator, activation_date, activation_time). Ignore all records that do not match all key fields.

4. Process QFS stop file
    Insert all stop records into your tables that do not match the keys. Ignore all other records.

5. Process QFS Delete stop file
    Delete all stop records from your tables that match the key fields (examples of key fields are: for recommendations I/B/E/S_tkr, estimator, activation_date, activation_time; for estimates I/B/E/S_tkr, measure, fiscal_period, prd_yr, prd_mon, estimator, activation_date, activation_time). Ignore all records that do not match all key fields.

Process daily files when you receive them. **We recommend that you use weekly files for comparison purposes or as a complete refresh of the current database.**

Note: Apply weekly updates prior to the Friday update.

When database reports are created, check if the activation date/time of the estimate or recommendation is greater than the activation date/time of the stop record.

For example:

Detail recommendation file

Ticker	Estimator	Activation Date	Activation Time	Value
IBM	Broker A	040720	00:00:18	BUY
IBM	Broker A	040915	00:00:18	HOLD
IBM	Broker A	050217	00:00:18	STRONG BUY

Stop recommendation file

Ticker	Estimator	Activation Date	Activation Time
IBM	Broker A	041105	00:00:18

- If the report is created as of 040830, the recommendation for IBM from Broker A is BUY.

- If the report is created as of 040930, the recommendation for IBM from Broker A is HOLD.

- If the report is created as of 041130, there is NO recommendation from IBM for Broker A since the latest available data for Broker A at the time was stopped.

- If the report is created as of 050228, the recommendation for IBM from Broker A is STRONG BUY.

- When a Stop is processed, all recommendations with activation dates prior to the stop date should be stopped.

Note: The same logic applies to estimates and Price Targets.

3   QFS SUBSCRIPTION LEVELS

Package	Level (Legacy)	File Location	Measure Type	MeasureAbbreviation	Description	Sector
CORE	LEVEL I	QFS	Company	EPS	Earnings per Share	Non-Industry Specific
CORE	LEVEL II	QFS	Company	CPS	Cash Flow per Share	Non-Industry Specific
CORE	LEVEL II	QFS	Company	DPS	Dividend per Share	Non-Industry Specific
CORE	LEVEL II	QFS	Company	EBG	Earnings per Share – Before Goodwill (**not avail for US region**)	Non-Industry Specific
CORE	LEVEL II	QFS	Company	PRE	Pre-tax Profit (Non per Share)	Non-Industry Specific
CORE	LEVEL II	QFS	Company	REC	Recommendation	Non-Industry Specific
CORE	LEVEL II	QFS	Company	SAL	Revenue (Non per Share)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	AFO	Adjusted Funds from Operations per Share	Real Estate
PREMIUM	LEVEL III	QFS	Company	BPS	Book Value per Share	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	CPX	Capital Expenditure (Non per Share)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	CSH	Cash Earnings Per Share	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	EBI	EBIT (Non per Share)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	EBS	EBITDA per share	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	EBT	EBITDA (Non per Share)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	ENT	Enterprise Value (Non per Share)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	EPX	Earnings per Share - Alternate (**not avail for INT region**)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	FCF	Free Cash Flow per share	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	FFO	Funds from Operations per Share	Real Estate
PREMIUM	LEVEL III	QFS	Company	GPS	GAAP / Earnings per Share – Fully Reported	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	GRM	Gross Margin (Percent)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	NAV	Net Asset Value (Non per Share)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	NDT	Net Debt	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	NER	Reported Net Profit	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	NET	Net income (Non per Share)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	OPR	Operating Profit (Non per Share)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	PRR	Reported Pretax Profit	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	PTG	Price Target	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	ROA	Return On Asset (Percent)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	ROE	Return On Equity (Percent)	Non-Industry Specific
PREMIUM	LEVEL III	QFS	Company	TBV	Tangible Book Valu per Share	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	ASK	Available Seat Kilometers	Airlines
PREMIUM	LEVEL III	KPI File	Company	ASM	Available Seat Miles	Airlines
PREMIUM	LEVEL III	KPI File	Company	CPA	Cost per Seat Miles	Airlines
PREMIUM	LEVEL III	KPI File	Company	OEA	Cost per Available Seat Kilometers	Airlines
PREMIUM	LEVEL III	KPI File	Company	PLF	Passenger Load Factor	Airlines
PREMIUM	LEVEL III	KPI File	Company	PRA	Revenue per Available Seat Kilometers	Airlines
PREMIUM	LEVEL III	KPI File	Company	PRK	Revenue per Available Seat Miles	Airlines
PREMIUM	LEVEL III	KPI File	Company	RPK	Revenue Passengers Kilometers	Airlines
PREMIUM	LEVEL III	KPI File	Company	RPM	Revenue Passengers Miles	Airlines

PREMIUM	LEVEL III	KPI File	Company	RPP	Revenue per RPM	Airlines
PREMIUM	LEVEL III	KPI File	Company	RTR	Revenue per RPK	Airlines
PREMIUM	LEVEL III	KPI File	Company	INE	Interest Expense (Non per Share)	All/Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	OPE	Operating Expense (Non per Share)	All/Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	SHE	Shareholders' Equity (Non per Share)	All/Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	TAS	Total Assets (Non per Share)	All/Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	EBR	EBITDAR	All/Real Estate
PREMIUM	LEVEL III	KPI File	Company	NPS	NAV per share	All/Real Estate
PREMIUM	LEVEL III	KPI File	Company	CRT	Compensation Ratio	All/Technology
PREMIUM	LEVEL III	KPI File	Company	RDE	R&D Expense	All/Technology
PREMIUM	LEVEL III	KPI File	Company	SBC	Stock Based Compensation	All/Technology
PREMIUM	LEVEL III	KPI File	Company	SGE	SG&A Expense	All/Technology
PREMIUM	LEVEL III	KPI File	Company	TCE	Total Compensation Expense	All/Technology
PREMIUM	LEVEL III	KPI File	Company	ASP	Average Selling Price	Automobiles
PREMIUM	LEVEL III	KPI File	Company	MOS	Motorcycle Shipments	Automobiles
PREMIUM	LEVEL III	KPI File	Company	AUM	Assets Under Management (Non-per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	BLB	Billed Business (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	CDT	Customer Deposits Under Total Deposits (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	CTO	Core Tier 1 Capital (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	DSF	Discount Fees (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	EFR	Efficiency Ratio (Percent)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	FCI	Fees & Commissions Income (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	IBV	Intangible Book Value (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	LLP	Loan Loss Provisions (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	LNS	Loans (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NAL	Net Charge-Offs to Average Loans (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NGL	Net Gains or Losses (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NIE	Non-Interest Expense (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NII	Net Interest Income (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NIM	Net Interest Margin (Percent)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NIR	Total Non-Interest Revenue (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NIS	Net Interest Spread (Percent)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NNM	Net New Money/Assets (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NPA	Non-Performing Assets (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NPL	Non-Performing Loans (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	NRI	Non-Recurring Items (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	ORE	Other Real Estate Owned Expenses(Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	RNA	Return on Net Operating Assets (Percent)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	RWA	Risk Weighted Assets (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	SID	Securities in Issue Under Total Deposits (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	TCO	Tier 1 Capital Ratio (Percent)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	TDI	Trading Income (Non per Share)	Banking and Finance

PREMIUM	LEVEL III	KPI File	Company	TDO	Total Deposits (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	TIN	Total Income (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	TNB	Tangible Book Value (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	TRI	Total Revenues Net of Interest Expense (Non per Share)	Banking and Finance
PREMIUM	LEVEL III	KPI File	Company	CNC	Chemicals Income (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	DFF	Distributable Cash Flow Aggregate	Energy
PREMIUM	LEVEL III	KPI File	Company	DWI	Downstream Income (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	EBX	EBITDAX (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	EXP	Exploration Expense (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	GCX	Growth Capex	Energy
PREMIUM	LEVEL III	KPI File	Company	GPD	Gas Production Per Day (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	LOE	Lease Operating Expense	Energy
PREMIUM	LEVEL III	KPI File	Company	MCX	Maintenance CapEx	Energy
PREMIUM	LEVEL III	KPI File	Company	MNC	Marketing Income (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	NPP	Natural Gas Liquids Production Per Day (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	OPD	Oil Production Per Day (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	OPU	OPEX Per Unit	Energy
PREMIUM	LEVEL III	KPI File	Company	PEX	Production Expense	Energy
PREMIUM	LEVEL III	KPI File	Company	PTX	Production Tax	Energy
PREMIUM	LEVEL III	KPI File	Company	PVR	1P Proved Reserves	Energy
PREMIUM	LEVEL III	KPI File	Company	RNC	Refining Income (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	RPG	Realized Price Gas	Energy
PREMIUM	LEVEL III	KPI File	Company	RPO	Realized Price Oil	Energy
PREMIUM	LEVEL III	KPI File	Company	RZP	Realized Price (BOE)	Energy
PREMIUM	LEVEL III	KPI File	Company	TPC	Total Production - Total	Energy
PREMIUM	LEVEL III	KPI File	Company	TPD	Total Production Per Day (in BOE) (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	TPG	Total Production – Natural Gas Bcf	Energy
PREMIUM	LEVEL III	KPI File	Company	TPI	Throughput Info (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	TPN	Total Production – NGL (mbbl)	Energy
PREMIUM	LEVEL III	KPI File	Company	TPO	Total Production – Oil/Condendate/NGL (mbbls)	Energy
PREMIUM	LEVEL III	KPI File	Company	TPP	Total Production Per Day (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	UPI	Upstream Income (Non per Share)	Energy
PREMIUM	LEVEL III	KPI File	Company	UNT	Unit Sales (Product Level Data)	Generic
PREMIUM	LEVEL III	KPI File	Company	GWN	Gross Win	Hotels & Entertainment
PREMIUM	LEVEL III	KPI File	Company	APE	Annual Premium Earned (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	BEV	Book Value on Enterprise Value Basis (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	BKV	Book Value on GAAP Basis (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	CLR	Catastrophic Loss Ratio (Percent)	Insurance
PREMIUM	LEVEL III	KPI File	Company	CMR	Claims Ratio (Percent)	Insurance
PREMIUM	LEVEL III	KPI File	Company	COR	Combined Ratio (Percent)	Insurance
PREMIUM	LEVEL III	KPI File	Company	CSL	Consolidated Loss Ratio (Percent)	Insurance
PREMIUM	LEVEL III	KPI File	Company	EBV	Embedded Value (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	EVO	Embedded Value Operating Profits (Ratio)	Insurance
PREMIUM	LEVEL III	KPI File	Company	EXR	Expense Ratio (Percent)	Insurance
PREMIUM	LEVEL III	KPI File	Company	GEP	Gross Earned Premiums (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	GPW	Gross Premiums Written (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	MLR	Medical Loss Ratio (Percent)	Insurance
PREMIUM	LEVEL III	KPI File	Company	NEV	Net Income on Embedded Value Basis (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	NPE	Net Premiums Earned (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	NPW	Net Premiums Written (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	RZG	Realized Gains or Losses (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	SLM	Solvency Margin	Insurance
PREMIUM	LEVEL III	KPI File	Company	VNB	Value of New Business (Non per Share)	Insurance
PREMIUM	LEVEL III	KPI File	Company	ATD	Attendance	Leisure
PREMIUM	LEVEL III	KPI File	Company	ABP	Average Booking Per User	Media
PREMIUM	LEVEL III	KPI File	Company	ARV	Advertisement Revenue	Media
PREMIUM	LEVEL III	KPI File	Company	CPK	Cost Per Click	Media
PREMIUM	LEVEL III	KPI File	Company	CPM	Cost Per Mille	Media

PREMIUM	LEVEL III	KPI File	Company	DAR	Daily Active Users	Media
PREMIUM	LEVEL III	KPI File	Company	GMV	Gross Merchandised Value	Media
PREMIUM	LEVEL III	KPI File	Company	MAU	Monthly Active Users	Media
PREMIUM	LEVEL III	KPI File	Company	MUP	Monthly Unique Payers	Media
PREMIUM	LEVEL III	KPI File	Company	MUU	Monthly Unique Users	Media
PREMIUM	LEVEL III	KPI File	Company	NMV	Net Merchandised Value	Media
PREMIUM	LEVEL III	KPI File	Company	ACG	All In production Cost (AISC) – Gold	Mining
PREMIUM	LEVEL III	KPI File	Company	ACS	All in production Cost (AISC) – Silver	Mining
PREMIUM	LEVEL III	KPI File	Company	APS	Average Price (Per Metric Tonne) - Steel	Mining
PREMIUM	LEVEL III	KPI File	Company	CCC	Mining Cash Cost Copper	Mining
PREMIUM	LEVEL III	KPI File	Company	LMP	Lead Metal Processing Production	Mining
PREMIUM	LEVEL III	KPI File	Company	MCC	Mining Cash Cost (oz) (Total)	Mining
PREMIUM	LEVEL III	KPI File	Company	MCG	Mining Cash Cost (oz) (Gold)	Mining
PREMIUM	LEVEL III	KPI File	Company	MCP	Mining Cash Cost (oz) (Platinum)	Mining
PREMIUM	LEVEL III	KPI File	Company	MCS	Mining Cash Cost (oz) (Silver)	Mining
PREMIUM	LEVEL III	KPI File	Company	MPG	Mining Production (oz) (Gold)	Mining
PREMIUM	LEVEL III	KPI File	Company	MPP	Mining Production (oz) (Platinum)	Mining
PREMIUM	LEVEL III	KPI File	Company	MPS	Mining Production (oz) (Silver)	Mining
PREMIUM	LEVEL III	KPI File	Company	RGO	Realized Price - Gold	Mining
PREMIUM	LEVEL III	KPI File	Company	RPC	Realized Price - Copper	Mining
PREMIUM	LEVEL III	KPI File	Company	RPS	Realized Price - Silver	Mining
PREMIUM	LEVEL III	KPI File	Company	TMP	Mining Production (oz) (Total)	Mining
PREMIUM	LEVEL III	KPI File	Company	TOC	Total Production - Copper (Weight)	Mining
PREMIUM	LEVEL III	KPI File	Company	TSE	Total Silver Equivalent Production (Weight)	Mining
PREMIUM	LEVEL III	KPI File	Company	USS	Unit Sales - Steel	Mining
PREMIUM	LEVEL III	KPI File	Company	AMT	Amortization	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	CCE	Cash & Cash Equivalents	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	CFF	Cash Flow from Financing	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	CFI	Cash Flow from Investing	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	CFO	Cash Flow from Opeartions	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	CGS	Cost of Goods Sold	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	CRA	Current Assets	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	CRL	Current Liabilities	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	DFR	Deferred Revenue	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	DPA	Depreciation and Amortization	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	DPR	Depreciation	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	EBA	Earnings before Interest, Tax and Amortization	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	EBP	Earnings before Interest, Tax and AmortizationReported (EBITDA Reported)	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	FCD	Franking Credits	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	FRC	Free Cash Flow	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	GAE	General & Admin Expense	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	GRI	Gross Income	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	GWL	Goodwill	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	INV	Inventories	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	ITX	Income Taxes Paid	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	LTG	Long Term Growth	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	LTR	Long-Term Deferred Revenue	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	NIT	Net Investment Income	Non-Industry Specific

PREMIUM	LEVEL III	KPI File	Company	NSO	Number of Shares Outstanding	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	NWC	Net Working Capital	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	OSG	Organic Sales Growth	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	PSR	Price/Sales Ratio	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	RIC	Return on Invested Capital	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	ROC	Return on Capital	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	SMK	Selling and Marketing Expenses	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	TDT	Total Debt	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	TDV	Total Dividends	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	TXP	Tax Provision	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	TXR	Tax rate	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	Company	MME	Membership Enrollment	Pharmaceutical and Healthcare
PREMIUM	LEVEL III	KPI File	Company	NOD	Number of Doctors	Pharmaceutical and Healthcare
PREMIUM	LEVEL III	KPI File	Company	AFF	Analyst Adjusted Funds From Operation (Non per Share)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	BAP	Backlog Average Price	Real Estate
PREMIUM	LEVEL III	KPI File	Company	BGV	Backlog Values	Real Estate
PREMIUM	LEVEL III	KPI File	Company	BKU	Backlog Units	Real Estate
PREMIUM	LEVEL III	KPI File	Company	CTS	Contracted Sales (Non per Share)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	DAP	Deliveries Average Price	Real Estate
PREMIUM	LEVEL III	KPI File	Company	DCF	Cash Available for Distribution Per Unit	Real Estate
PREMIUM	LEVEL III	KPI File	Company	DLU	Deliveries (Number of Units)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	DLV	Deliveries (Monetary Value)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	DVC	Development Costs (Non per Share)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	FOP	Company Defined Funds from Operations (Non per Share)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	FSV	Financial Services Sales	Real Estate
PREMIUM	LEVEL III	KPI File	Company	HSL	Home Sales	Real Estate
PREMIUM	LEVEL III	KPI File	Company	LCH	Launches	Real Estate
PREMIUM	LEVEL III	KPI File	Company	LLS	Land/Lot Sales	Real Estate
PREMIUM	LEVEL III	KPI File	Company	NCR	Net Operating Income Margin (Percent)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	NFO	NAREIT Funds From Operations per Share	Real Estate
PREMIUM	LEVEL III	KPI File	Company	NNV	Non-Periodic Net Asset Value (Non per Share)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	NOA	New Orders Average Price	Real Estate
PREMIUM	LEVEL III	KPI File	Company	NOI	Net Operating Income (Non per Share)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	NOU	New Orders Units	Real Estate
PREMIUM	LEVEL III	KPI File	Company	NOV	New Orders Value	Real Estate
PREMIUM	LEVEL III	KPI File	Company	NPN	Non-Periodic Net Asset Value per Share	Real Estate
PREMIUM	LEVEL III	KPI File	Company	OCR	Occupancy Rate (Percent)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	PMN	Premium to Net Asset Value (Ratio)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	PRN	Price to Net Asset Value (Ratio)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	RSM	Rent Per Square Foot (Non per Share)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	VCR	Vacancy Rate (Percent)	Real Estate
PREMIUM	LEVEL III	KPI File	Company	REE	Restaurant Expense	Restaurants
PREMIUM	LEVEL III	KPI File	Company	DOS	Department Store Sales	Retail
PREMIUM	LEVEL III	KPI File	Company	FLF	Franchise & Licensing Fees	Retail
PREMIUM	LEVEL III	KPI File	Company	FLS	Floor Space	Retail
PREMIUM	LEVEL III	KPI File	Company	NAS	Net Sales per Average Square Foot	Retail
PREMIUM	LEVEL III	KPI File	Company	NOO	Number of Stores Opened (by Total)	Retail
PREMIUM	LEVEL III	KPI File	Company	NOS	Number of Stores(by Total)	Retail
PREMIUM	LEVEL III	KPI File	Company	NSC	Number of Stores Closed/Relocated	Retail
PREMIUM	LEVEL III	KPI File	Company	POC	Pre-Opening Costs	Retail
PREMIUM	LEVEL III	KPI File	Company	RES	Retails Sales	Retail
PREMIUM	LEVEL III	KPI File	Company	REX	Rent Expense	Retail
PREMIUM	LEVEL III	KPI File	Company	BBR	Book To Bill Ratio	Technology
PREMIUM	LEVEL III	KPI File	Company	BIL	Billings	Technology

PREMIUM	LEVEL III	KPI File	Company	BKG	Bookings	Technology
PREMIUM	LEVEL III	KPI File	Company	GPV	Gross Payment Volume	Technology
PREMIUM	LEVEL III	KPI File	Company	NRV	Net Revenue	Technology
PREMIUM	LEVEL III	KPI File	Company	TAC	Traffic Acquisition Cost	Technology
PREMIUM	LEVEL III	KPI File	Company	TPV	Total Payment Volume	Technology
PREMIUM	LEVEL III	KPI File	Company	ACL	Access Lines	Telecom
PREMIUM	LEVEL III	KPI File	Company	ARP	Average Revenue per Unit	Telecom
PREMIUM	LEVEL III	KPI File	Company	CRN	CHURN (%)	Telecom
PREMIUM	LEVEL III	KPI File	Company	GSA	Gross Subscriber Additions	Telecom
PREMIUM	LEVEL III	KPI File	Company	NSA	Net Subscriber Additions	Telecom
PREMIUM	LEVEL III	KPI File	Company	SAC	Subscribers Acquisition Cost	Telecom
PREMIUM	LEVEL III	KPI File	Company	SUB	Subscribers	Telecom
PREMIUM	LEVEL III	KPI File	Company	CAK	Cargo Available Tonne Kilometers	Transportation
PREMIUM	LEVEL III	KPI File	Company	CFR	Average Container Freight Rate	Transportation
PREMIUM	LEVEL III	KPI File	Company	CRK	Cargo Revenue Yield Per Tonne Kilometers	Transportation
PREMIUM	LEVEL III	KPI File	Company	RCK	Revenue Cargo Tonne Kilometers	Transportation
PREMIUM	LEVEL III	KPI File	Company	TEU	TEUs Handled	Transportation
PREMIUM	LEVEL III	KPI File	Company	TRL	Total Railcar Loads	Transportation
PREMIUM	LEVEL III	KPI File	KPI	RAR	Revenue Per Available Room	Hotels
PREMIUM	LEVEL III	KPI File	KPI	BSA	Net Subscriber Addition (Business Segments)	Media
PREMIUM	LEVEL III	KPI File	KPI	GSA	Net Subscriber Addition (Geographic Segments)	Media
PREMIUM	LEVEL III	KPI File	KPI	BBI	EBIT (Business Segments)	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	BBP	EBITDA Reported (Business Segments)	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	BBT	EBITDA (Business Segments)	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	BPR	Operating Profit (Business Segments)	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	BSL	Business Segment Revenue	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	GBI	EBIT (Geographic Segments)	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	GBP	EBITDA Reported (Geographic Segments)	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	GBT	EBITDA (Geographic Segments)	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	GPR	Operating Profit (Geographic Segments)	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	GSL	Geographic Segment Revenue	Non-Industry Specific
PREMIUM	LEVEL III	KPI File	KPI	SAL	Pharmaceutical Sales	Pharmaceutical and Healthcare
PREMIUM	LEVEL III	KPI File	KPI	SSS	Same Store Sales	Retail

4   QFS FILE DESCRIPTIONS

This section contains a summary of each file available.

Clients may find different files within their subscription, depending upon the client package they subscribe to.

QF<D>_clientname_date.zip files include forecasts for company level measures.

KP<D>_<account>_Cycle_filenamestamp.zip files include forecasts for company level measures along with segment & product level data. For additional details on segment & product measure please refer to page 89, KPI Available Measures. Henceforth any new company level measure will only be added to the KP<D> … zip files.

File 1:   Expanded Actuals file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

The daily Expanded Actuals file contains the itemized list of all new reported actuals collected by Thomson

Reuters since close of previous business day. The file reports actuals on a quarterly or annual basis.

Actuals for a company that has no estimates for the respective measure, recommendations, or Price Targets, are included in intra-day and daily versions of the files, but do not appear in the weekly snapshot files.

The file also contains relevant surprise information (surprise mean, number of estimates, and standard deviation). The surprise mean represents the average of all current estimates recorded prior to the date/time the company reported the respective period's actuals. Announce Dates and Times are also included. Announce Dates represent the exact date the company has reported its earnings as opposed to when the reported actual has been recorded (Activation Date field). Announce times may not always represent the time of the company's official announcement.

The Actuals are recorded to be in line with the majority accouting basis of the period the actual is for; the actual is called "reported". In cases where the majority accounting basis of the next reporting period is different than that of the last period reported, the actual is updated to reflect the basis of the next reporting period. The actual is called "go forward". When the actual is to "go forward", the surprise mean remains unchanged.

For intra-day updates, this file contains a time stamp that indicates when the actual was entered into the Refinitiv database. Actuals are collected throughout the day.

The weekly Actual file contains the latest five annuals, eight quarterlies and 12M (sum of last four quarters) actuals for all current Refinitiv companies.

Delete records are not included in the Intra-day or End of Day Actuals files. However, clients should compare their database vs. the Weekly Actuals files to ensure that any deleted Actuals from the Refinitiv database are identified.

File 26: Restated Actuals file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

This file contains relevant information such as surprise mean, number of estimates, and standard

deviation as of the time the company initially reported, as well as Announce Dates and Times signifying the date/time the company has reported its restated earnings. The Activation date/time represent the time

the restatement was recorded in the database. The Restated Actuals file includes data for all companies that have restated actuals for a reported period in the past five years, where it applies.

The weekly Actual file contains up to five annuals, eight quarterlies and 12M (sum of last four quarters) actuals for all current Refinitiv companies, where available.

Delete records are not included in the Intra-day or End of Day Restated Actuals files. However, clients should compare their database vs. the Weekly Restated Actuals files to ensure that any deleted Restated Actuals from the Refinitiv database are identified.

File 2: Identification File

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

This file provides important cross-reference information which allows you to translate the I/B/E/S ticker into

a local ticker, home market code, CUSIP or SEDOL. This allows for ease of mapping into databases that are keyed by other identifiers. I/B/E/S tickers for international companies are preceded by an @. The CUSIP/SEDOL field contains an eight digit CUSIP for U.S. companies, and a six-digit SEDOL preceded by a two-character country exchange code for international companies. In conjunction with the exchange code (available in the Supplemental Information file and translated in the Exchange Code file), you can use the country exchange to determine the exchange attached to every company (I/B/E/S ticker).

I/B/E/S tickers with Instrument type "I" (indices) and "O" (commodities) do not have official Sedols/Cusips assigned. In order to populate this key field in the files, dummy Sedols/Cusips are being created for this type of companies.

Dummy CUSIPS are also created for companies that are dual listed in the U.S. and Canada. The CUSIP for the ibes_tkr having the "D" instrument type has the last character replaced with an "X". Here is an example for Enbridge.

ibes_tkr	offl_tkr	home_code	name	instrument_type	ibes_cusip	exch_country_id
IPL1	ENB	ENB	ENBRIDGE	S	29250N10	NC
IPL2	ENB	ENB	ENBRIDGE	D	29250N1X	NA

Issue-specific data, such as dilution information, pricing date, and price are also included in this file. Daily and the weekly files include the most recent end of day price available.

For any activity to estimates, recommendations, or Price Targets, a record is automatically created in the ID file. There is only one occurrence of an ID record for each I/B/E/S ticker that appears in any other QFS file regardless of the number of company instances. For example, if I/B/E/S ticker ABC appears in both the daily summary EPS file AND in the daily summary CPS file, there will be only one instance of I/B/E/S ticker ABC in the ID file.

Tickers for companies that do not have any current estimates, recommendations, or Price Targets do not appear in the weekly ID file.

Data Indicators (Columns K to P) are also included in the Identification file. When QFS was originally created, these columns were intended to list all measures available. As QFS expanded, these indicator fields are not necessary and are not in the process of being updated. Users who program for these specific fields can continue using them until an enhanced version of the file is available.

File 3: Summary Estimates file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

This file contains recalculated Mean information for all data contained in the Daily Estimates file. Standard summary calculations such as mean, median, standard deviation, and number of estimates raised/lowered are contained in this file.

The total number of estimates does not include filtered/excluded contributor estimates provided for the company. The number of up/down revisions includes both filtered/excluded and non-excluded estimates.

Please note the distinction between the way the "4 weeks ago" and "1 month ago" are defined.

The "4 weeks ago" upward and downward count is defined as the Current vs. Previous (most recent estimates) values provided by the broker, where the Activation date of the Previous estimate is greater than 4 weeks ago. If more than one revision was processed within the respective 4 week period, only the 2 most recent estimates are compared.

The "1 month ago" upward and downward count is defined as the Current (most recent estimate) value provided by the broker vs. the Current estimate as of the last I/B/E/S monthly run (this is not necessarily the most recent previous revision). If more than one revision was processed within the respective 1 month period, only the value as of the monthly run is used for comparison.

All "ago" data points are reset on Friday's. Depending on the cycle, the counts can run over 1 week, 1 month, 4 weeks and 3 months periods, getting reset at the end of each respective cycle.

The raised and lowered count for the "1 week ago" data points is reset every Friday as only estimates raised and lowered during the Friday – Thursday cycle are included in the calculation. The values included in the Weekly files are valid as of that respective Thursday and should be refreshed every Friday morning as follows: companies that are included in the intra-day and End of day QFS files will have an updated number of estimates raised and lowered,1 week. Any companies that do not have any activity on a Friday, should be manually reset by the user to number of estimates raised and lowered,1 week = 0.

File 27: Summary Estimates file (Second Mean)

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

This file contains minority "before and after" means relative to an accounting change. For International companies, the Second Means are relative to the IFRS ruling, and for U.S. companies to the FAS123(R) accounting change. While coverage is pre-IFRS or pre-FAS123(R), the Second Mean is calculated only for those estimates on an IFRS or FAS123(R) basis (footnote code "W" and "E", and "3", "4", "I", "Y" and "W" respectively) available in the Detail Estimates file. After the majority basis change, the minority means continue to be calculated on the pre-accounting change basis.

In the file layout, only those highlighted and bolded fields are populated. The remaining fields are populated with "N/A" or with blank fields.

The total number of estimates represents the total number of estimates that are included in the Second Mean. The number of up/down revisions is not included in this file.

Please note that this file is available for the following regions: .EUR, .ASP, .INT, and .U.S (EPS measure only).

There are no Second Mean files created for the following measures: CPX, CSH, EBS, ENT, GPS and GRM.

For details on IFRS and FAS123(R), please refer to the "Accounting regulations" section of this document.

File 28: Secondary Revision Momentum file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

This file contains an additional set of up/down revisions signals, aside from those available in the Summary Estimates file. The total number of estimates includes all contributor estimates provided for the company (including filtered/excluded estimates). The number of up/down revisions is calculated based only on non-excluded estimates (estimates without a filter).

File 29: Alert file

Subscription Level: Summary/Detail

Frequency: Daily

The Alert file includes the date a company has switched from pre-IFRS to IFRS majority.

There is no weekly snapshot available for this file. The company level footnote "W," available in the weekly version, should be used to identify all companies that switched to IFRS majority.

For details on IFRS, please refer to the "Accounting regulations" section of this document.

File 4:   Summary Recommendation file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

This file provides an average recommendation as well as the number of recommendations up and down for all recommendations that have changed or added since close of previous business day. Summary recommendation means are calculated by assigning to each contributing analyst's Recommendation. An integer based on a five standardized I/B/E/S Recommendation scale and calculating a real number average.

The scale is as follows:

1.   Strong Buy

2.   Buy

3.   Hold

4.   Underperform

5.   Sell

File 5:   Summary Price Target file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

This file contains the recalculated price target information for all records with a 12-month horizon contained in the daily Detail Price Target file. Standard summary calculations such as mean, median, standard deviation, number of estimates raised/lowered are contained in this file. The number of price targets raised and lowered includes only the 12-month horizon data.

File 6A: Split file with Timestamp

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

**NEW FILE AS OF NOVEMBER 22, 2019 Includes the addition of the Effective Timestamp field is to complement the Effective Date field within the files so that clients are now able to apply the correct time to regional splits and will avoid instances of applying a split factor when it is not applicable.

The Daily Split file contains information on all capitalization change data received by Refinitiv since close of previous business day for all companies that have current forecasts. The file contains both   an Activation date and time (the date the split record was entered into the database) and an Effective or   ex-Date (the date the split is effective), to allow you to apply backdated splits (split factors applied after the   ex-date).

The Daily Split file contains information on all capitalization change data received by Refinitiv since close of previous business day for all companies that have current forecasts. The file contains both   an Activation date and time (the date the split record was entered into the database) and an Effective or   ex-Date (the date the split is effective), to allow you to apply backdated splits (split factors applied after the   ex-date). The weekly Split file contains the history of all capitalization changes applied to the Refinitiv database as of the close of business of each Thursday at midnight, for companies that are active   or inactive.

The Daily Split file contains an Action Code (not in weekly files), which allows you to identify New splits, Revised splits and Deleted splits. This allows you to correct their database accurately by "readjusting" for errant split factors. New and deleted splits are indicated by either a **NEW** or **DEL** flag, while a revised split is represented by both a delete record and a new record.

Effective March 20,2018, Refinitiv will expand the cycle for updating splits.   Companies based in   a different region (outside of the North American market) will be split adjusted at different times throughout the day. This means Asia Pacific clients will receive split adjusted earnings before the trading hours on split effective data.

New Splits Cycle Entry Schedule (in EST) REGION	Splits Cycle
Asian Companies/Tickers	(DD-1)-MMM-YYYY 15:00
EMEA Companies/Tickers	(DD-1)-MMM-YYYY 21:00
NAM Companies/Tickers	(DD)-MMM-YYYY 00:00

Note: All Split files, intra-day and end-of-day, are cumulative. In cases where more than one split transaction is processed on a particular day, the files will display the end result of the records processed up to the point the files are cut. For instance, if a split is inserted and deleted the same day, neither the insert or delete record of the split will be included in the file cut right after the split was deleted. Delete records of splits entered on prior days do get included in the files. A separate version is available if you want intra-day Split files.

File 7: Supplemental Information file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

The Supplemental Information file contains ancillary data such as historical stability, historical growth, and market beta to augment other QFS files. The weekly supplemental file is a snapshot of all current ancillary data.

For any activity to estimates, recommendations, or Price Targets, a record automatically is created in the SIG file. Tickers for companies that do not have any current estimates, recommendations, or Price Targets   do not appear in the weekly file.

The Instrument types (field Q) included in the file are the following:

A = ADR

D = Dual listing

G = GDR security

I   = Index

M =   Multiple share

O = Commodities

S = Security

U = Mutual funds

File 8: Supplemental Information Additional file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

The Supplemental Information Additional file contains additional ancillary data to augment the other QFS files. The data items available in this file are total returns, dividend ex-dates, one-day ago prices, as well as other weekly data information.

For any activity to estimates, recommendations, or Price Targets, a record is automatically created in the SIGA file. Tickers for companies that do not have any current estimates, recommendations, or Price Targets do not appear in the weekly file.

The weekly supplemental file is a snapshot of all current ancillary data.

File 30 Exchange Code File

Subscription Level: Summary/Detail

Frequency: Weekly

The file contains translation to the country IDs and exchange codes available in the Supplemental

Information file. In conjunction with the country exchange code available in the Identification file, the exchange code can be used to determine the exchange attached to every company (I/B/E/S ticker).

File 9: Expected Report Date file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

The daily Expected Report Date file includes algorithm-calculated EPS expected report dates for the next two quarterly or semi annual periods for all current companies that show changes in actuals processed since close of previous business day. In the cases where quarterly or semi annual reported actuals do not exist and the estimated report dates cannot be derived, there is no expected report date output.

The weekly Expected Report Date file contains the next two expected report dates for all current Refinitiv companies, where available, as of the close of business of each Thursday at midnight.

File 10: Company Expected Report Date

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

The Company Expected Report Date file contains the next EPS expected report dates for two quarterly periods in the future as provided by the companies themselves or as computed by the Street Events data team. Generally, all company expected report dates get confirmed and are updated as the company's report date approaches. Only companies for which dates have been added as of the close of business on the most recent Thursday night are included in the weekly snapshot file. **Expected report dates are included only for companies that have active EPS forecast data at the time the files have been created.**

On rows H and I (Fiscal Qtr 1 Status Flag/ Fiscal Qtr 2 Status Flag) a blank means that an expected report date did not exist or was not modified for the respective period. Once an expected report date exists (and   it is sent with a blank in the status flag), as soon as that record is modified it gets either a "U" or an "R"   status flag.

File 10A: Company Expected Report Date with Timestamp

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

The Company Expected Report Date with Timestamp file contains 2 timestamp fields allow clients to capture additional granularity associated with Fiscal QTR1 and Fiscal QTR2 expected report dates. the next EPS expected report dates for two quarterly periods in the future as provided by the companies themselves or as computed by the Street Events data team. Generally, all company expected report dates get confirmed and are updated as the company's report date approaches. Only companies for which dates have been added as of the close of business on the most recent Thursday night are included in the weekly snapshot file. **Expected report dates are included only for companies that have active EPS forecast data at the time the files have been created.**

On rows J and K (Fiscal Qtr 1 Status Flag/ Fiscal Qtr 2 Status Flag) a blank means that an expected   report date did not exist or was not modified for the respective period. Once an expected report date exists (and it is sent with a blank in the status flag), as soon as that record is modified it gets either a "U" or an   "R" status flag.

File 31: Company Level Footnote file

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

This file includes footnotes that provide additional information on the coverage of the company as a whole. An Expiration date of an active footnote is by default ten years from the Activation date. There could be more than one active footnote valid at any point in time for the same company.

Footnotes that expire on a particular day are not included in that day's Company Level Footnote file. The respective footnote will no longer appear in subsequent files. A corresponding delete record is provided in the daily Delete Company Level Footnote file. The weekly Company Footnote file contains a snapshot of all non-expired footnotes as of the close of business of each Thursday at midnight.

A list of footnote types is available in Appendix A. The footnote text included is standard; however, it can be modified at the discretion of the Refinitiv Market Specialist.

File 32: Delete Company Level Footnote file

Subscription Level: Summary/Detail

Frequency: Daily

The file includes deleted records for corrections, as well as for those footnotes that no longer apply. The file includes an "Action flag" field at the end of the file that helps you determine whether a footnote has been deleted or if the Activation date and time were modified (Action flag = D) from the Refinitiv database, or whether the footnote no longer applies and has been end-dated (Action flag = E). For a modified footnote, an updated record is included in the Detail Footnote file.

File 11:   Country File

Subscription Level: Summary/Detail

Frequency: Weekly

The Country file contains country codes and country names.

File 12: Currency File

Subscription Level: Summary/Detail

Frequency: Weekly

The Currency file provides currency-specific information such as currency codes, currency names, and

data representation for non per-share measures.

File 13: Regions File

Subscription Level: Summary/Detail

Frequency: Weekly

The Regions file contains the listings of countries within regions, as well as country and region names.

File 14: Broker File

 Subscription Level: Summary/Detail

Frequency: Daily/Weekly

The Daily Broker file identifies estimators (contributors) that have been added to or deleted from the

Refintiv database since the close of previous business day. It also contains revised records with the name of the contributors if there has been a name change.

 The weekly Broker file is a snapshot of all current estimators (contributors) who contribute to Refinitiv. This file should be used to translate all eight-character estimator codes in all QFS detail files.

Please note that the contributor listed as COMPANY refers to a company's own estimate. These estimates are not included in the mean and are displayed only for reference purposes.

File 33: Currency Exchange Rate file

Subscription Level: Detail

Frequency: Daily/Weekly

The file includes exchange rates to the USD for all currencies estimates in a currency other than "the company-level currency" exist. The weekly snapshots contain five days worth of exchange rates, from the previous Thursday to the most recent Wednesday.

File 37: Currency Change File

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

This file includes companies that had a change in default currency on a specific day.

The purpose of the file is to alert of a currency change reflected in the current data and prepare clients that are subscribing to historical data for changes that will be reflected in the subsequent monthly updates.

File 15: Expanded Detail Estimates file

Subscription Level: Detail

Frequency: Daily/Weekly

The daily Detail Estimates file provides detail data for all companies that had estimate activity since the close of previous business day. Estimate activity usually means that an analyst either revised an estimate or added a new estimate to the database. It can also mean that an estimate was error-corrected, the company's shares split, or a newly reported actual was entered (the company was shifted). In those instances, the activation date of the estimate included in the detail file would be earlier than the date of the file. The daily Detail Estimates file identifies this "estimate activity" with a status flag allowing you to understand why an estimate changed from its prior value. The status flags are for reference use only and are blank in the weekly files.

The Detail Estimates file has the following Status flags:

- N = new estimate, no "previous"
- R = new revision, "previous" estimate exists
- E = updated estimate, resubmitted estimate
- A = analyst name change
- Space = corporate action, deleted stops or actuals entered.

In cases where more than one activity is performed on the same day, the Status flag is populated as follows:

- Existing estimate is updated and the analyst name is changed – E
- New estimate is entered and the analyst name changes – R or N
- Filter is end-dated and the estimate becomes part of majority – E
- Change in analyst coverage – A (only Detail records are included, no Summary data in those cases)

In addition, Announce Dates and Times are included; these represent the exact date the analyst's estimate was published, as opposed to when the estimate has been recorded (Activation Date field). Announce times may not always represent the time the estimate was officially announced.

Estimates for which the filter (exclude flag) is end-dated are present in a daily file without the "X" flag, indicating that the respective estimate is included in the mean starting on the respective day until it gets stopped or the actual for the period is recorded.

The file contains Contributor codes that are eight characters or less. Translation is provided in the weekly Broker file.

The previous detail estimate is also provided on the same record for informative comparison purposes.

Note: It is possible for contributing brokers to provide two revisions on the same day. In this case, the end-of-day file will include the first estimate received under the previous field while the latter estimate will be available in the current field.

Corrections are reflected only for the current and previous estimates, where the current estimate is not stopped. If a previous estimate is modified, the respective day's file will not display the change. The modification is reflected in the next weekly file after that.

The weekly Detail Estimates file reports a snapshot of the current and previous estimates for all ticker/contributor combinations in the Refinitiv database as of the close of business of each   Thursday at midnight. All periods for which current data exists are included in the weekly version files.

QFS Detail records are converted to the currency in which a company is followed according to the currency of the latest EPS actual recorded in the database. There is also a currency flag available indicating the currency in which the estimate was received in from the Contributor. To view which currency I/B/E/S follows please see the Currency Code at the Company Level (col.141-143). For more details on currency conversion, please refer to the "Currency conversion" section in this document.

Note: Logic for including I/B/E/S tickers in US or INT Regional Files

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I/B/E/S tickers are included in either the US or INT files based on the Exchange Country.

The Exchange Country represents the primary market the I/B/E/S ticker trades in. I/B/E/S tickers having the United States as the Exchange Country are in the US files.

I/B/E/S tickers not having the U.S. as the Exchange Country are in the INT files.

File 16: Delete Estimates file

Subscription Level: Detail

Frequency: Daily

The daily Delete Estimates file provides information on any estimates that have been removed from the I/B/E/S database since the close of previous business day. Delete records may be included for an estimate made at any point in time for a current period appearing in the QFS files, not just for current or previous estimates. Please refer to the "How to update your detail database" section for further instructions.

File 17: Stop Estimates file

Subscription Level: Detail

Frequency: Daily

The daily Stop Estimates file includes all estimates that have been stopped since the close of the previous business day. Estimates are stopped because an estimator may enter a "quiet" period for a particular security, or because an estimator is no longer following a stock. The activation date and time correspond   to those of the record(s) being stopped, with only the latest stop being included in the file. Stops are effective as of the date received. The Activation Date and Time included in the file represent the date and   time when estimate was stopped and it appears in the Delete Stop Estimates File.

File 34: Delete Stop Estimates file

Subscription Level: Detail

Frequency: Daily

The daily Delete Stop Estimates file includes deletes on estimate stops that were removed from the I/B/E/S database since the close of previous business day. In addition, the estimate that becomes current is redistributed in the Detail and Expanded Detail Estimates files. The Status flag is blank.

File 18: Detail Footnote file

Subscription Level: Detail

Frequency: Daily/Weekly

As a value-added service, QFS provides detailed footnote information for certain estimates that require additional explanation. Footnotes may be linked within QFS to the underlying estimate by joining on the key fields in the Daily Detail Estimates file (I/B/E/S_tkr, measure, periodicity, prd_yr, prd_mon, estimator and activation_date & time). A footnote should always accompany a filtered/excluded estimate but can also exist on an estimate with no filter/exclude flag. An Expiration date of an active footnote is by default ten years from the Activation date. There could be more than one active footnote valid at any point in time for the same estimate.

Footnotes that expire on a particular day are not included in that day's Detail Footnote file. The respective footnote will no longer appear in subsequent files. A corresponding delete record is provided in the daily Delete Detail Footnote file. The weekly Detail Footnote file contains a snapshot of all non-expired current and previous estimates' footnotes as of the close of business of each Thursday at midnight.

A list of footnote types is available in Appendix A. The footnote text included is standard; however, it can be modified at the discretion of the Refinitiv Market Specialist.

File 19: Delete Detail Footnote file

Subscription Level: Detail

Frequency: Daily

The file includes deleted records for corrections, as well as for those footnotes that no longer apply. The updated version will include an "Action flag" field at the end of the file that helps you determine whether a footnote has been deleted, if the Activation date and time were modified (Action flag = D) from the Refinitiv database, or whether the footnote no longer applies and has been end-dated (Action   flag = E). For a modified footnote, an updated record is included in the Detail Footnote file.

File 20: Expanded Detail Recommendation File

Subscription Level: Detail

Frequency: Daily/Weekly

The daily Detail Recommendation File contains all recommendation additions or changes since the close of previous business day. Among other fields, the file contains announce dates (when analyst made his/her projection), latest confirmed date (when analyst has last confirmed estimates when there are no revisions), and analysts' start dates (analyst picked up coverage of the stock).

As a value-added feature, this file not only presents the estimator's recommendation code and recommendation text, but the translation of this code and text into one of the five standard I/B/E/S codes. This allows you to compare recommendations across estimators for the same company.

The scale is as follows:

1. Strong Buy
2. Buy
3. Hold
4. Underperform
5. Sell

The weekly Detail Recommendation File contains a snapshot of all current recommendations in the I/B/E/S database as of the close of business of each Thursday at midnight.

File 21: Delete Recommendation File

Subscription Level: Detail

Frequency: Daily

Analogous to the daily Delete Detail Estimates File, except that these deletes are applied to the recommendation records.

File 22: Stop Recommendation File

Subscription Level: Detail

Frequency: Daily

Analogous to the daily Stop Detail Estimates File, except that these stops are applied to the recommendation records.

File 35: Delete Stop Recommendation File

Subscription Level: Detail

Frequency: Daily

The daily Delete Stop Recommendations File includes deletes on recommendation stops that have been removed from the I/B/E/S database since the close of previous business day.

File 23: Detail Price Target

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

The daily Detail Price Target File provides revisions for all companies that have occurred since the close

of previous business day. It is also an indicator of an error correction or a corporate action. The daily Detail Price Target File identifies the activity with a status flag allowing you to distinguish why a Price Target changed from its prior value.

The prior detail estimate is also provided on the same record for informative comparison purposes.

The weekly Detail Price Target File reports a snapshot of the current and previous records for all ticker/estimator combinations in the I/B/E/S database as of the close of business of each Thursday at midnight.

File 23A: Detail Price Target with Announce Date   NEW FILE ADDED OCTOBER 1 2020

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

The daily Detail Price Target File provides revisions for all companies that have occurred since the close

of previous business day. It is also an indicator of an error correction or a corporate action. The daily Detail Price Target File identifies the activity with a status flag allowing you to distinguish why a Price Target changed from its prior value.

The prior detail estimate is also provided on the same record for informative comparison purposes.

The weekly Detail Price Target File reports a snapshot of the current and previous records for all ticker/estimator combinations in the I/B/E/S database as of the close of business of each Thursday at midnight.

NEW FILE ADDED OCTOBER 1, 2020

This Detail Price Target File includes 4 new fields which denote when the data was made available in the market and announced by the contributor. This shall also allow clients the ability to sync up the data between I/B/E/S QFS and I/B/E/S History files.

J   Current Announce Date

K   Current Announce Date Time

P   Previous Announce Date

Q   Previous Announce Time

File 24: Delete Price Target File

Subscription Level: Detail

Frequency: Daily

Analogous to the daily Delete Detail Estimates File, except that these deletes are applied to the price target record.

File 25: Stop Price Target File

Subscription Level: Detail

Frequency: Daily

Analogous to the daily Stop Detail Estimates File, except that these stops are applied to the price target file.

File 36: Delete Stop Price Target File

Subscription Level: Detail

Frequency: Daily

The daily Delete Stop Price Target File includes deletes on price target stops that have been removed from the I/B/E/S database since the close of previous business day.

5   QFS FILE LAYOUTS

Note: Pound sign (#) followed by a numeral preceding each column denote the order of the combination primary keys for each table, for example, #1, #2…

Note: Non-available data are coded as N/A or a blank space except in the case of contributor or analyst names, which have a code number in the case of permission denial. Numerical character fields in which no data is available include alpha characters (N/A).

Note: In cases where all current estimates are stopped, deleted, or excluded/filtered, a mean for the respective period will no longer appear in the daily and weekly summary files.

File 1:   Expanded Actuals File

Name: \<D>ACTT\<MMM>.\<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Key	*Item*	Format*UU*	Length	Start	End	Comments*U*
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, QTR, 12M
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Activation Date	YYMMDD	6	27	32	
G	Activation Time	HH:MM:SS	8	34	41	
H	Actual Value	9999999.999	12	43	54	
I	Surprise Mean	9999999.999	12	56	67	
J	Surprise Number of Ests	9999	4	69	72	
K	Surprise Standard Deviation	9999.999	8	74	81	
L	Status Flag	C	1	83	83	S=Change in Fiscal Period (i.e. FY1 to FY0) E=Error Correction
M	Currency at a Company Level	CCC	3	85	87	
N	B/D Flag	C	1	89	89	space=Basic or D=Diluted
O	Dilution Factor	9.99	4	91	94	

Key	_U_Item_U_	Format_UU_	Length	Start	End	Comments_U_
P	Announce Date	YYYYMMDD	8	96	103	
Q	Announce Time	HH:MM:SS	8	105	112	
R	Primary/Secondary indicator	C	1	114	114	
S	Reserved	C…	29	116	144	

File 26:   Restated Actuals File

Name: <D>RACT<MMM>.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

_U_Key	_U_Item	Format_UU_	Length_U_	Start	End_U_	Comments_U_
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, QTR, 12M
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Activation Date	YYMMDD	6	27	32	
G	Activation Time	HH:MM:SS	8	34	41	
H	Actual Value	9999999.999	12	43	54	
I	Surprise Mean	9999999.999	12	56	67	
J	Surprise Number of Ests	9999	4	69	72	
K	Surprise Standard Deviation	9999.999	8	74	81	
L	Status Flag	C	1	83	83	S=Change in Fiscal Period (i.e. FY1 to FY0) R=Company restated earnings for a previously reported Fiscal Period
M	Currency at a Company Level	CCC	3	85	87	
N	B/D Flag	C	1	89	89	space=Basic or D=Diluted
O	Dilution Factor	9.99	4	91	94	
P	Announce Date	YYYYMMDD	8	96	103	
Q	Announce Time	HH:MM:SS	8	105	112	
R	Reserved	C…	31	114	144	

File 2:   Identification File

Name: <D>ID. <REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B	Official Ticker	CCCCCC	6	8	13	
C	Home Market Code	CCCCCCCC	8	15	22	
D	CUSIP/SEDOL	CCCCCCCC	8	24	31	Blank if client not licensed
E	Company Name	CCCCCCCC…	40	33	72	
F	Basic/Diluted Indicator	C	1	74	74	space=Basic or D=Diluted
G	Dilution Factor	9999.999	8	76	83	
H	Price	99999.999	9	85	93	
I	Price Date	YYMMDD	6	95	100	
J	Price Time	HH:MM:SS	8	102	109	
K	EPS Data Indicator	Y/N	1	111	111	
L	CPS Data Indicator	Y/N	1	113	113	
M	DPS Data Indicator	Y/N	1	115	115	
N	Pre-Tax Profit Data Indicator	Y/N	1	117	117	
O	Net Income Data Indicator	Y/N	1	119	119	
P	Rec Data Indicator	Y/N	1	121	121	
Q	No. of Shares Outstanding	999999.999	10	123	132	in millions

Note: *Official ticker field populated for U.S./Canadian companies only

*CUSIP for U.S./Canadian companies

*Exchange Country code/SEDOL combination for international companies

File 3: Summary Estimates File

Name: <D>SUM<MMM>.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

UKey	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, SAN, QTR,LTG
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Forecast Period Indicator	C	1	27	27	See Appendix A
G	No. of Ests Raised, 4 wks	9999	4	29	32	*2
H	No. of Ests Lowered, 4 wks	9999	4	34	37	*2
I	No. of Ests Raised, 1 Mth	9999	4	39	42	*3
J	No. of Ests Lowered, 1 Mth	9999	4	44	47	*3
K	Mean	99999999.999	12	49	60	
L	Number of Ests	9999	4	62	65	
M	Median	99999999.999	12	67	78	
N	Standard Deviation	99999999.999	12	80	91	
O	High Estimate	99999999.999	12	93	104	
P	Low Estimate	99999999.999	12	106	117	
Q	Mean, 4 Weeks Ago	99999999.999	12	119	130	*2
R	Number of Ests, 4 Wks Ago	9999	4	132	135	*2
S	Median. 4 Wks Ago	99999999.999	12	137	148	*2
T	Std Deviation, 4 Wks Ago	99999999.999	12	150	161	*2
U	High Estimate, 4 Weeks Ago	99999999.999	12	163	174	*2
V	Low Estimate, 4 Weeks Ago	99999999.999	12	176	187	*4
W	Mean, 3 Months Ago	99999999.999	12	189	200	*4
X	Number of Ests, 3 Mnths Ago	9999	4	202	205	*4
Y	Median, 3 Mnths Ago	99999999.999	12	207	218	*4
Z	Std Deviation, 3 Mnths Ago	99999999.999	12	220	231	*4

*U*Key	Item	Format	Length	Start	End	Comments
AA	High Est, 3 Mnths Ago	99999999.999	12	233	244	*4
AB	Low Est, 3 Mnths Ago	99999999.999	12	246	257	*4
AC	Flash Mean	99999999.999	12	259	270	*5
AD	Flash Number of Estimates	99999999.999	12	272	283	*5
AE	Flash Standard Deviation	99999999.999	12	285	296	*5
AF	Currency at Company Level	CCC	3	298	300	
AG	Number of Ests Raised 1 Wk	9999	4	302	305	*1
AH	Number of Ests Lowered 1 Wk	9999	4	307	310	*1
AI	Reserved	C	1	311	311	

Note: *1   1 week ago represents the period as of the last I/B/E/S weekly, which ends every Thursday night.

*2   4 weeks ago represents the period starting on Friday right after the 4th Thursday, counted from the upcoming Thursday back 4 weeks.

*3   1 month ago represents the period starting on Friday after the last I/B/E/S monthly run, which is the Thursday before the third Friday of the month.

*4   3 months ago represents the period starting as of the I/B/E/S monthly run three months ago.

*5   Flash mean calculated for estimates where the activation date is within the last 28 days, on a rolling basis.

File 27:   Summary Estimates File (Second Mean)

Name: <D>SUM2<MMM>.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Only the highlighted fields are populated. The rest of the fields will be N/A.

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, SAN, QTR, LTG
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Forecast Period Indicator	C	1	27	27	See Appendix A
G	No. of Ests Raised, 4 wks	9999	4	29	32	*2
H	No. of Ests Lowered, 4 wks	9999	4	34	37	*2
I	No. of Ests Raised, 1 Mth	9999	4	39	42	*3
J	No. of Ests Lowered, 1 Mth	9999	4	44	47	*3
K	Mean	99999999.999	12	49	60	
L	Number of Ests	9999	4	62	65	
M	Median	9999999.999	12	67	78	
N	Standard Deviation	99999999.999	12	80	91	
O	High Estimate	99999999.999	12	93	104	
P	Low Estimate	99999999.999	12	106	117	
Q	Mean, 4 Weeks Ago	9999999.999	12	119	130	*2
R	Number of Ests, 4 Wks Ago	9999	4	132	135	*2
S	Median, 4 Wks Ago	9999999.999	12	137	148	*2
T	Std Deviation, 4 Wks Ago	9999999.999	12	150	161	*2

Key	Item	Format	Length	Start	End	Comments
U	High Estimate, 4 Weeks Ago	9999999.999	12	163	174	*2
V	Low Estimate, 4 Weeks Ago	9999999.999	12	176	187	*4
W	Mean, 3 Months Ago	9999999.999	12	189	200	*4
X	Number of Ests, 3 Mnths Ago	9999	4	202	205	*4
Y	Median, 3 Mnths Ago	9999999.999	12	207	218	*4
Z	Std Deviation, 3 Mnths Ago	9999999.999	12	220	231	*4
AA	High Est, 3 Mnths Ago	9999999.999	12	233	244	*4
AB	Low Est, 3 Mnths Ago	9999999.999	12	246	257	*4
AC	Flash Mean	9999999.999	12	259	270	mean of past 4 week revs
AD	Flash Number of Estimates	9999999.999	12	272	283	
AE	Flash Standard Deviation	9999999.999	12	285	296	
AF	Currency at Company Level	CCC	3	298	300	
AG	Number of Ests Raised 1 Wk	9999	4	302	305	*1
AH	Number of Ests Lowered 1 Wk	9999	4	307	310	*1
AI	Reserved	C	1	311	311	

File 28: Secondary Revision Momentum File

Name: <D>SRM<MMM>.<REG

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	
C#3	Fiscal Period	CCC	3	15	17	ANN, SAN, QTR, LTG
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Forecast Period Indicator	C	1	27	27	

Key	Item	Format	Length	Start	End	Comments
G	No. of Ests Raised, 4 wks	9999	4	29	32	*2
H	No. of Ests Lowered, 4 wks	9999	4	34	37	*2
I	No. of Ests Raised, 1 Mth	999	4	39	42	*3
J	No. of Ests Lowered, 1 Mth	9999	4	44	47	*3
K	Number of Ests	9999	4	49	52	
L	Number of Ests, 4 Wks Ago	9999	4	54	57	*2
M	Number of Ests, 3 Mnths Ago	9999	4	59	62	*4
N	Number of Ests Raised 1 Wk	9999	4	64	67	*1
O	Number of Ests Lowered 1 Wk	9999	4	69	72	*1
P	Reserved	C…	20	74	93	

Note: *1   1 week ago is measured since the last I/B/E/S weekly, which is every Thursday.

*2   4 weeks ago is measured since 4 Thursdays ago.

*3   1 month ago is measured since the last I/B/E/S monthly run—the Thursday before the third Friday of the month.

*4   3 months ago is measured since the I/B/E/S monthly run from three months ago.

File 29: Alert File

Name: <D>ALT<MMM>.<REG>

Subscription Level: Summary/Detail

Frequency: Daily

Key*U*	Item*U*	*U*Format	Length	Start	End	Comments*U*
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Pre-IFRS Mean	9999999.999	12	27	38	
G	Number of Ests	9999	4	40	43	
H	High Estimate	9999999.999	12	45	56	
I	Low Estimate	9999999.999	12	58	69	
J	Switch Date	YYMMDD	6	71	76	

File 4:   Summary Recommendation File

Name: <D>RSUM.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

*U*Key	*U*Item	*U*Format	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B	Number of Rec	999	3	8	10
C	No. of Rec Raised, 4 Wks	999	3	12	14
D	No. of Rec Lowered, 4 Wks	999	3	16	18
E	Rec Mean	999.999	7	20	26
F	Reserved	CCCCCCCCCC	10	28	37

File 40: Summary Recommendation File

Name: \<D\>RECSUM.\<REG\>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

UKey	UItem	UFormat	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B	Number of Rec	999	3	8	10
C	No. of Rec Raised, 4 Wks	999	3	12	14
D	No. of Rec Lowered, 4 Wks	999	3	16	18
E	Rec Mean	999.999	7	20	26
F	Strong Buy	999	3	28	30
G	BUY	999	3	32	34
H	HOLD	999	3	36	38
I	UNDERPERFORM	999	3	40	42
J	SELL	999	3	44	46

Note:

***Effective March 16, 2017 a new Summary Recommendation File was introduced to the I/B/E/S QFS offering which includes 5 new fields that were previously only available to clients in a custom file format.

File 5: **Summary Price Target File**

Name: <D>PSUM.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Key	Item	UFormat	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B	Number of Price Targets Raised, 4 weeks	999	3	8	10
C	Number of Price Targets Lowered, 4 weeks	999	3	12	14
D	Price Targets Mean	99999.999	9	16	24
E	Number of Price Targets	999	3	26	28
F	Price Targets Median	99999.999	9	30	38
G	Price Target Standard Deviation	99999.999	9	40	48
H	Price Target High	99999.999	9	50	58
I	Price Target Low	99999.999	9	60	68
J	Currency at the Company level	CCC	3	70	72
K	Reserved	C…	35	74	108

*The number of decimals included for the Price target mean can vary depending on the currency of the mean. There are up to 3 decimals included.

File 6A: Split File with Timestamp Added to product offering November 2019

Name: <D>SPLTS.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Effective Date	YYMMDD	6	8	13	
C	Effective Time	CCCCCCCC	8	15	22	
D	Split Factor	99999.99999	13	24	36	
E	Status	CCC	3	38	40	NEW, DEL
F#3	Activation Date	YYMMDD	6	42	47	
G#4	Activation Time	CCCCCCCC	8	49	56	

H	Reserved	CCCCCCCCCC	10	58	67	

File 7:   Supplemental Information File

Name: <D>SIG.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B	Indicated Annual Dividend	999999.999	10	8	17	4timesmostrecentpaidquarters
C	HistoricalStability5year	999999.999	10	19	28	
D	HistoricalGrowth5year	999999.999	10	30	39	
E	Exchange Code	C	1	41	41	*1
F	ActualEPSLast4Quarters	999999.999	10	43	52	
G	S&P500Indicator	C	1	54	54	0, 1(Yes)
H	Market Beta	999999.999	10	56	65	
I	Country Id	CC	2	67	68	*1
J	No. of Shares Outstanding	999999.999	10	70	79	in millions
K	Sector Number					
L	Industry Number					
M	Group Number					
N	Sector Name					
O	Industry Name					
P	Group Name					

Q	Instrument Type	C	1	165	165	*2

Note: *1   Exchange code and Country ID translation available in the <Q>EXCH file.

*2   Instrument types list in the description section of the file.

**Effective July 15, 2016 the following fields will appear 'blank' due to the introduction of a new set   of strategic TRBC codes, enhancing the content available to clients using premium market   oriented schema. The SIG codes will be removed from these files without affecting the structure of   the files effective October 14, 2016.

Thomson Reuters Business Classification

Refinitiv also introduced a new set of Sector, Industry and Group identifier know as   Thomson Reuters Business Classification (TRBC).

TRBC is an industry classification system that is owned and operated by Refinitiv. The Market- oriented system tracks the primary business of a corporation and reflects global industry practices by   grouping together correlated companies that offer products and services into similar end markets.

It is used by the investment community for navigation, aggregation and benchmarking. It provides a global standard for intelligently identifying peers, tagging research, aggregation financial content and transforming the torrent of Refinitiv news and information into insightful trends. It delivers a solid foundation for aggregating financial ratios, portfolio benchmarking and attribution analysis.

This balances the needs of index construction and information navigation. TRBC has set its granularity level to meet both navigation and benchmarking requirements. The schema is detailed enough to allow the accurate pinpointing of peers while delivering a stable and useful grouping of constituents to allow benchmarking and index construction across the globe and between multiple periods.

Refinitiv added the following TRBC mapping of its data.

- TRBC Economic Sector
- TRBC Business Sector
- TRBC Industry Group
- TRBC Industry
- TRBC Activity

TRBC Activity is an additional level of analysis to monitor niche industries and themes such as Luxury, Cleantech and Infrastructure.

File 38:   Supplemental Information File

Name: <D>TRBCDATA.<reg>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Key	Item	Format	Length
A	I/B/E/S Ticker	CCCCCC	6
B	TRBCPermID		10
C	Start date		8
D	Start time		8
E	End date		8
F	End time		8
G	Update date		8
H	Update time		8

File 39: Supplemental Information File

Name:<D>TRBCDESC

Subscription   Level: Summary/Detail

Frequency: Daily/Wee

Key	Item	Format	Length
A	TRBCPermID		10
B	TRBC short description		255
C	TRBC long name description		1024

File 8: Supplemental Information Additional File

Name: `<D>SIGA.<REG>`

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B	Total Return,1 day ago	999999.999	10	8	17	
C	Dividend Ex Date	YYYYMMDD	8	19	26	
D	Price1DayAgo	999999.999	10	28	37	
E	1/10thCompanyflag	C	1	39	39	(No longer used)
F	Change in Weekly Price (last month)	999999.999	11	41	51	*1
G	Weekly52weekPriceHigh	999999.999	11	53	63	*2
H	Weekly52weekPriceLow	999999.999	11	65	75	*3
I	Weekly26weekPrice	999999.999	11	77	87	*4
J	Weekly10weekMedianVolume	999999.999	11	89	99	in mil./bil.
K	Reserved	C…	200	101	300	

Note: *1   The net difference between the weekly price today and that as of 4 weeks ago.

                 *2   The highest price over the past 52 weeks.

                 *3   The lowest price over the past 52 weeks.

                 *4   The weekly price as of 26 weeks ago.

"Weekly prices" represent Tuesday's price for INT companies and Wednesday's price for U.S. companies.

File 30: Exchange Code File

Name: QEXCH

Subscription Level: Summary/Detail

Frequency: Weekly

Key	Item	Format	Length	Start	End
A	Exchange Code	C	1	1	1
B	Exchange Name	CCCCCCCC…	24	3	26
C	Country Id	CC	2	28	29
D	Country Name	CCCCCCCC…	24	31	54
E	Reserved	CCCCCCCC…	45	56	100

File 9: Expected Report Date File

Name: <D>EXDTE.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	
C#3	Fiscal Period	CCC	3	15	17	QTR and SAN
D	Fiscal Period 1 EndDate	YYMM	4	19	22	
E	Fiscal Period 1 ExpectedReportDate	YYMMDD	6	24	29	
F	Fiscal Period 2EndDate	YYMM	4	31	34	
G	FiscalPeriod2ExpectedReportDate	YYMMDD	6	36	41	
H	Reserved	CCCCCCCCCC	10	43	52	

File 10:   Company Expected Report Date

Name: <D>CXDTE.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

UKey	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	
C#3	Fiscal Period	CCC	3	15	17	QTR or SAN
D	FiscalQtr1EndDate	YYMM	4	19	22	
E	FiscalQtr1ExpectedReportDate	YYMMDD	6	24	29	
F	FiscalQtr2EndDate	YYMM	4	31	34	
G	FiscalQtr2ExpectedReportDate	YYMMDD	6	36	41	
H	FiscalQtr1StatusFlag	C	1	43	43	*
I	FiscalQtr2StatusFlag	C	1	45	45	*
J	Reserved	CCCCCCCC	8	47	52	

Note: *For Daily file only

" " - New report date

"U"- Unchanged

"R"- Revised

File 10A: Company Expected Report Date with Timestamp

Name: <D>CXDTETIME.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

UKe	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	

*U*Ke	Item	Format	Length	Start	End	Comments
C#3	Fiscal Period	CCC	3	15	17	QTR or SAN
D	FiscalQtr1EndDate	YYMM	4	19	22	
E	FiscalQtr1ExpectedReportDate	YYMMDD	6	24	29	
F	FiscalQtr1ExpectedReportDateTime	HH:MM:SS	8	31	38	
G	FiscalQtr2EndDate	YYMM	4	40	43	
H	FiscalQtr2ExpectedReportDate	YYMMDD	6	45	50	
I	FiscalQtr2ExpectedReportDateTime	HH:MM:SS	8	52	59	
J	FiscalQtr1StatusFlag	C	1	61	61	*
K	FiscalQtr2StatusFlag	C	1	63	63	*

Note: *For Daily file only

" " - New report date

"U"- Unchanged

"R"- Revised

File 31:   Company Level Footnote File

Name: <D>FCO.<REG>

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

*U*Key	Item	Format	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B#2	Footnote Type	CCCC	4	8	11
C#3	Activation Date	YYMMDD	6	13	18
D#4	Activation Time	HH:MM:SS	8	20	27
E	Expiration Date	YYMMDD	6	29	34
F	Footnote Text	CCCCCCC…	120	36	155
G	Reserved	CCCCCCC…	44	157	200

File 32:   Delete Company Level Footnote File

Name: <D>FCOD.<REG>

Subscription Level: Summary/Detail

Frequency: Daily

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Footnote Type	CCCC	4	8	11	
C#3	Activation Date	YYMMDD	6	13	18	
D#4	Activation Time	HH:MM:SS	8	20	27	
E	Action flag	C	1	29	29	D=delete; E=end-dated
F	Reserved	CCCCCC…	10	31	40	

File 11:   Country

Name: QCTY

Subscription Level: Summary/Detail

Frequency: Weekly

Key	Item	Format	Length	Start	End
A#1	Country Code	CC	2	1	2
B	Country Long Name	CCCCC…	32	4	35
C	Reserved	CCCCCCC…	64	37	100

File 12   Currency File

Name: QCUR

Subscription Level: Summary/Detail

Frequency: Week

Key	Item	Format	Length	Start	End	Comments
A#1	Currency Code	CCC	3	1	3	
B	Currency Long Name	CCCCC…	25	5	29	
C	Representation (non per share measure)	C	1	31	31	M=millions, B=billions
D	Reserved	CCCCCCCC…	68	35	100	

File 13: Regions File

Name: QREG

Subscription Level: Summary/Detail

Frequency: Weekly

UKey	Item	Format	Length	Start	End
A#1	Country Code	CC	2	1	2
B	Country Long Name	CCCCCC…	32	4	35
C	Region	CCCCCCCCCC	10	37	46
D	Region Name	CCCCCC…	40	48	87
E	Reserved	CCCCCCCC…	62	89	150

File 14: Broker File

Name: <D>BKR

Subscription Level: Summary/Detail

Frequency: Daily/Weekly

UKey	Item	Format	Length	Start	End	Comments
A#1	Estimator Code	CCCCCCCC	8	1	8	
B	Estimator Name	CCCCCCCCC…	40	10	49	
C#2	Estimator Status	CCC	3	51	53	ADD, DEL, or REV
D#3	Activation Date	YYMMDD	6	55	60	Space in weekly file
E#4	Activation Time	HH:MM:SS	8	62	69	Space in weekly file
F	Reserved	CCCCCCCCCC	10	71	80	

File 33: Currency Exchange Rate File

Name: <D>XRAT

Subscription Level: Detail

Frequency: Daily/Weekly

UKey	Item	Format	Length	Start	End
A	Date	YYYYMMDD	8	1	8
B	Currency	CCC	3	10	12
C	Exchange Rate	99999999.999999	15	14	28
D	Reserved	CCCCCCCC…	72	30	101

File 37:   Currency Change File

Name:	<D>XCUR.<REG>	
Subscription Level:	Summary/Detail	
Frequency:	Daily	

*U*Key	Item	Format	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B	Old Currency Code	CCC	3	8	10
C	New Currency Code	CCC	3	12	14
D	Entry Date	YYYYMMDD	8	16	23
E	Entry Time	HH:MM:SS	8	25	32

File 15:   Expanded Detail Estimates File

Name:	<D>XDET<MMM><CC>.<REG>	
Subscription Level:	Detail	
Frequency:	Daily/Weekly	

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, SAN, QTR, LTG
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Forecast Period Indicator	C	1	27	27	See Appendix A
G#6	Estimator	CCCCCCCC	8	29	36	
H	Analyst Name	CCCCCCCCC…	17	38	54	
I	Current Est Value	9999999.999	12	56	67	
J#7a	Current Est Activation Date	YYMMDD	6	69	74	
K#7b	Current Est Activation Time	HH:MM:SS	8	76	83	
L	Current Est B/D Flag	C	1	85	85	space=Basic or D=Diluted

Key	Item	Format	Length	Start	End	Comments
M	Current Est Exclude Flag	C	1	87	87	space (not excluded); X=estimate excluded from mean
N	Current Estimate Currency	CCC	3	89	91	As received from Estimator
O	Current Estimate Status	C	1	93	93	N=new; R=revision; E=updated estimate; A=analyst name change; space= corporate action, deleted stops, or actuals entered/ updated
P	Previous Est Value	9999999.999	12	95	106	
Q#8a	Previous Est Activation Date	YYMMDD	6	108	113	
R#8b	Previous Est Activation Time	HH:MM:SS	8	115	122	
S	Previous Est B/D Flag	C	1	124	124	space=Basic or D=Diluted
T	Previous Est Exclude Flag	C	1	126	126	X=estimate excluded from mean
U	Previous Est Currency	CCC	3	128	130	See Appendix A (as received from Estimator)
V	Previous Est Status	C	1	132	132	E=error correction; A=analyst name change; space= previous
W	Analyst Mask Code	999999	6	134	139	Numeric code corresponding to analyst name for linking to detail history identifiers
X	Currency at Company Level	CCC	3	141	143	
Y	Announce Date	YYMMDD	6	145	150	
Z	Announce Time	HH:MM:SS	8	152	159	
AA	Latest Confirmed Date	YYMMDD	6	161	166	
AB	Latest Confirmed Time	HH:MM:SS	8	168	175	
AC	Analyst Start Date	YYMMDD	6	177	182	
AD	Analyst Start Time	HH:MM:SS	8	184	191	
AE	Reserved	CCCCCCCC…	31	193	223	

File 16:   Delete Estimates File

Name: <D>DEL<MMM><CC>.<REG>

Subscription Level: Detail

Frequency: Daily

Key	Item	Format	Length	Start	End	Comments.
A#1	I/B/E/S Ticker	CCCCCC	6	6		
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, SAN, QTR, LTG
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Forecast Period Indicator	C	1	27	27	See Appendix A
G#6	Estimator	CCCCCCCC	8	29	36	
H	Analyst Name	CCCCCCCCC…	17	38	54	
I#7a	Activbation Date	YYMMDD	6	56	61	
J#7b	Activation Time	HH:MM:SS	8	63	70	
K	Value	9999999.999	12	72	83	
L	Estimate B/D Flag	C	1	85	85	space=Basic or D=Diluted
M	Estimate Currency	CCC	3	87	89	As received from Estimator
N	Analyst Mask Code	999999	6	91	96	Numeric code corresponding to analyst name for linking to detail history identifiers
O	Reserved	CCC	3	98	100	

File 17:   Stop Estimates File

Name: <D>STP<MMM><CC>.<REG>

Subscription Level: Detail

Frequency: Daily

υKey	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, SAN, QTR, LTG
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Forecast Period Indicator	C	1	27	27	See Appendix A
υG#	Estimator	CCCCCCCC	8	29	36	
H	Analyst Name	CCCCCCCCC…	17	38	54	
I#7a	Activation Date	YYMMDD	6	56	61	
J#7b	Activation Time	HH:MM:SS	8	63	70	
K	Analyst Mask Code	999999	6	72	77	Numeric code corresponding to analyst name for linking to detail history identifiers
L	Reserved	CCC	3	79	81	

File 34: Delete Stop Estimates File

Name:	<D>DES<MMM><CC>.<REG>
Subscription Level:	Detail
Frequency:	Daily

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, SAN, QTR, LTG
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Forecast Period Indicator	C	1	27	27	See Appendix A
G#6	Estimator	CCCCCCCC	8	29	36	

Key	Item	Format	Length	Start	End	Comments
H	Analyst Name	CCCCCCCCC…	17	38	54	
I#7a	Activation Date	YYMMDD	6	56	61	
J#7b	Activation Time	HH:MM:SS	8	63	70	
K	Analyst Mask Code	999999	6	72	77	Numeric code corresponding to analyst name for linking to detail history identifiers
L	Reserved	CCC	3	79	81	

File 18: Detail Footnote File

Name:	<D>FDET<MMM><CC>.<REG>
Subscription Level:	Detail
Frequency:	Daily/Weekly

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, SAN, QTR, LTG
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F	Forecast Period Indicator	C	1	27	27	See Appendix A
G#6	Estimator	CCCCCCCC	8	29	36	
H	Analyst Name	CCCCCCCCC…	17	38	54	
I#7	Estimate Activation Date	YYMMDD	6	56	61	
J#8	Estimate Activation Time	HH:MM:SS	8	63	7	
K	Current/Previous Est Flag	C/P	1	72	72	C=current; P=previous
L#9	Footnote Type	C	1	74	74	See Appendix A
M#10	Activation Date	YYMMDD	6	76	81	
N#11	Activation Time	HH:MM:SS	8	83	90	

Key	Item	Format	Length	Start	End	Comments
O	Expiration Date	YYMMDD	6	92	97	
P	Footnote Text	CCCCCCCC…	120	99	218	
Q	Analyst Mask Code	999999	6	220	225	
R	Reserved	CCC	3	227	229	

File 19: Delete Detail Footnote File

Name: <D>FDEL<MMM><CC>.<REG>

Subscription Level: Detail

Frequency: Daily

UKey	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Measure	CCCCCC	6	8	13	See Appendix A
C#3	Fiscal Period	CCC	3	15	17	ANN, SAN, QTR, LTG
D#4	Fiscal Period Year	CCCC	4	19	22	
E#5	Fiscal Period Month	CC	2	24	25	
F#6	Estimator	CCCCCCCC	8	27	34	
G	Analyst Name	CCCCCCCCC...	17	36	52	
H#7	Footnote Type	C	1	54	54	See Appendix A
I#8	Activation Date	YYMMDD	6	56	61	
J#9	Activation Time	HH:MM:SS	8	63	70	
K	Analyst Mask Code	999999	6	72	77	
L	Action flag	C	1	79	79	D=delete; E=end-dated
M	Reserved	CCC	1	81	81	

File 20: Expanded Detail Recommendation File

Name: <D>XRDT<CC>.<REG>

Subscription Level: Detail

Frequency: Daily/Weekly

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Estimator	CCCCCCCC	8	8	15	
C	Analyst Name	CCCCCCCCC...	17	17	33	
D#3a	Current Activation Date	YYMMDD	6	35	40	
E#3b	Current Activation Time	HH:MM:SS	8	42	49	
F	Current Estimator Code	CCCCC	5	51	55	
G	Current Estimator Text	CCCCCCCCC...	20	57	76	
H	Current I/B/E/S Code	CC	2	78	79	
I	Current I/B/E/S Text	CCCCCCCCC...	20	81	100	
J#4a	Previous Activation Date	YYMMDD	6	102	107	
K#4b	Previous Activation Time	HH:MM:SS	8	109	116	
L	Previous Estimator Code	CCCCC	5	118	122	
M	Previous Estimator Text	CCCCCCCCC...	20	124	143	
N	Previous I/B/E/S Code	CC	2	145	146	
O	Previous I/B/E/S Text	CCCCCCCCC…	20	148	167	
P	Analyst Mask Code	999999	6	169	174	
Q	Current Rec Status	C	1	176	176	N=new; R=revision; E=error correction; A=analyst name change
R	Previous Rec Status	C	1	178	178	E=error correction; A=analyst name change; space= previous
S	Announce date	YYMMDD	6	180	185	
T	Announce_time	HH:MM:SS	8	187	194	
U	Latest_confirmed_date	YYMMDD	6	196	201	
V	Latest_confirmed_time	HH:MM:SS	8	203	210	
W	Analyst_start_date	YYMMDD	6	212	217	
X	Analyst_start_time	HH:MM:SS	8	219	226	

File 21:   Delete Recommendation File

Name: <D>RDEL<CC>.<REG>

Subscription Level: Detail

Frequency: Daily

Key	Item	Format	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B#2	Estimator	CCCCCCCC	8	8	15
C	Analyst Name	CCCCCCCC…	17	17	33
D#3a	Activation Date	YYMMDD	6	35	40
E#3b	Activation Time	HH:MM:SS	8	42	49
F	Analyst Mask Code	999999	6	51	56
G	Reserved	CCC	3	58	60

File 22:   Stop Recommendation File

Name: <D>RSTP<CC>.<REG>

Subscription Level: Detail

Frequency: Daily

Key	Item	Format	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B#2	Estimator	CCCCCCCC	8	8	15
C	Analyst Name	CCCCCCCC…	17	17	33
D#3a	Activation Date	YYMMDD	6	35	40
E#3b	Activation Time	HH:MM:SS	8	42	49
F	Analyst Mask Code	999999	6	51	56
G	Reserved	CCC	3	58	60

File 35: Delete Stop Recommendation File

Name: <D>RDES<CC>.<REG>

Subscription Level: Detail

Frequency: Daily

Key	Item	Format	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B#2	Estimator	CCCCCCCC	8	8	15
C	Analyst Name	CCCCCCCC…	17	17	33
D#3a	Activation Date	YYMMDD	6	35	40
E#3b	Activation Time	HH:MM:SS	8	42	49
F	Analyst Mask Code	999999	6	51	56
G	Reserved	CCC	3	58	60

File 23: Detail Price Target File

Name: <D>PDET<CC>.<REG>

Subscription Level: Detail

Frequency: Daily/Weekly

υKey	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Estimator	CCCCCCCC	8	8	15	
C	Analyst Name	CCCCCC…	17	17	33	
D	Current Horizon	999	3	35	37	
E	Current Value	99999.999	9	39	47	
F	Current Estimate Currency	CCC	3	49	51	
G#3a	Current Activation Date	YYMMDD	6	53	58	
H#3b	Current Activation Time	HH:MM:SS	8	60	67	
I	Current Target Status	C	1	69	69	N=new; R=revision; E=error correction; A=analyst name change; space= corporate action
J	Previous Horizon	999	3	71	73	
K	Previous Value	99999.999	9	75	83	
L	Previous Estimate Currency	CCC	3	85	87	
M#4a	Previous Activation Date	YYMMDD	6	89	94	

N#4b	Previous Activation Time	HH:MM:SS	8	96	103	
O	Previous Target Status	C	1	105	105	E=error correction; A=analyst name change; space= previous
P	Analyst Mask Code	999999	6	107	112	
Q	Currency at Company Level	CCC	3	114	116	
R	Reserved	CCCCCCC…	40	117	156	

File 23A: Detail Price Target File with Announce Date- NEW FILE ADDED OCTOBER 29, 2020

Name: <D>PDETA<CC>.<REG>

Subscription Level: Detail

Frequency: Daily/Weekly

υKey	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B#2	Estimator	CCCCCCCC	8	8	15	
C	Analyst Name	CCCCCC…	17	17	33	
D	Current Horizon	999	3	35	37	
E	Current Value	99999.999	9	39	47	
F	Current Estimate Currency	CCC	3	49	51	
G#3a	Current Activation Date	YYMMDD	6	53	58	
H#3b	Current Activation Time	HH:MM:SS	8	60	67	

						N=new; R=revision; E=error correction; A=analyst name change; space= corporate action
I	Current Target Status	C	1	69	69	
J	Current Announce Date	YYMMDD	6	71	76	
K	Current Announce Date Time	HH:MM:SS	8	78	85	
L	Previous Horizon	999	3	87	89	
M	Previous Value	99999.999	9	91	99	
N	Previous Estimate Currency	CCC	3	101	103	
M#4a	Previous Activation Date	YYMMDD	6	105	110	
N#4b	Previous Activation Time	HH:MM:SS	8	112	119	
O	Previous Target Status	C	1	121	121	E=error correction; A=analyst name change; space= previous
P	Previous Announce Date	YYMMDD	6	123	128	
Q	Previous Announce Time	HH:MM:SS	8	130	137	

R	Analyst Mask	999999	6	139	144
S	Currency at Company Level	CCC	3	146	148
T	Reserved	CCCCCCCC...	40	150	189

File 24:   Delete Price Target File

Name: <D>PDEL<CC>.<REG>

Subscription Level: Detail

Frequency: Daily

Key	Item	Format	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B#2	Estimator	CCCCCCCC	8	8	15
C	Analyst Name	CCCCCC…	17	17	33
D	Horizon	999	3	35	37
E	Value	99999.999	9	39	47
F#3a	Activation Date	YYMMDD	6	49	54
G#3b	Activation Time	HH:MM:SS	8	56	63
H	Analyst Mask Code	999999	6	65	70
I	Reserved	CCCCCCCC…	40	71	110

File 25:   Stop Price Target File

Name: <D>PSTP<CC>.<REG>

Subscription Level: Detail

Frequency: Daily

Key	Item	Format	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B#2	Estimator	CCCCCCCC	8	8	15
C	Analyst Name	CCCCCC…	17	17	33
D	Horizon	999	3	35	37
E	Value	99999.999	9	39	47
F#3a	Activation Date	YYMMDD	6	49	54
G#3b	Activation Time	HH:MM:SS	8	56	63
H	Analyst Mask Code	999999	6	65	70
I	Reserved	CCCCCCCC…	40	71	110

File 36:   Delete Stop Price Target File

Name: <D>PDES<CC>.<REG>

Subscription Level: Detail

Frequency: Daily

Key	Item	Format	Length	Start	End
A#1	I/B/E/S Ticker	CCCCCC	6	1	6
B#2	Estimator	CCCCCCCC	8	8	15
C	Analyst Name	CCCCCC…	17	17	33
D	Horizon	999	3	35	37
E	Value	99999.999	9	39	47
F#3a	Activation Date	YYMMDD	6	49	54
G#3b	Activation Time	HH:MM:SS	8	56	63
H	Analyst Mask Code	999999	6	65	70
I	Reserved	CCCCCCC…	40	71	110

OPTIONAL FILE- ISIN FILE FORMAT

**Please note this file is optional and not included in client subscriptions. To request this file be added to your I/B/E/S QFS subscription, please reach out to your Refinitiv sales contact.

Name: <D>ISIN.<REG>

Level: Summary/Detail

Frequency: Daily/Weekly

Key	Item	Format	Length	Start	End	Comments
A#1	I/B/E/S Ticker	CCCCCC	6	1	6	
B	Official Ticker	CCCCCC	8	8	15	
C	ISIN	CCCCCCCC,,,	12	17	28	
D	IBES CUSIP	CCCCCCCC	8	30	37	
E	SEDOL7	CCCCCCC	7	39	45	
F	Company Name	CCCCCCCCC…	32	47	78	

Key	Item	Format	Length	Start	End	Comments
G	Reserved	CCC	52	79	130	

6 ACCOUNTING REGULATIONS

International Financial Reporting Standards (IFRS) – 2005

The European Union has passed a regulation that requires listed European companies to comply with International Financial Reporting Standards (IFRS) in 2005 for their consolidated financial statements. There is a limited exception for certain companies to delay implementation until 2007. Generally, the regulation applies to consolidated financial statements for accounting periods starting on or after January   1, 2005. Thus for those companies with 12-month accounting periods covering the calendar year, IFRS applies to periods ending on December 31, 2005. As a result, companies will first publish IFRS financial information as of 31 March 2005 (if they report quarterly) or as of June 30, 2005 (if they report semi-annually).

Estimates collected by Refinitiv will reflect the adoption of this ruling on a majority basis.

In addition to countries in Europe, IFRS will be adopted by parts of Asia, including Australia and New Zealand. The transition period to IFRS is visible for companies in Australia and New Zealand effective September 12, 2005.

FAS123(R) Stock Option Expensing Changes – 2005

On December 16, 2004, The Financial Accounting Standards Board (FASB) issued FAS123(R). These rulings require companies to calculate the fair value of stock options granted to employees, and amortize that amount over the vesting period as an expense through the income statement. FAS123(R) is effective for fiscal years beginning after June 15, 2005, with company transition choices of: modified prospective, modified retrospective, or early adoption. The effective date of the ruling was recently extended from quarterly to annual periods beginning after June 15, 2005.

Estimates collected by Refinitiv will reflect the adoption of this ruling on a majority basis.

7 CURRENCY CONVERSION
Estimate level

<div style="background:gray">Daily QFS files:</div>

Daily QFS files include all new estimate revisions with forecasts in the default currency of the company, as well as those submitted in a currency other than the default. All non-default currency estimates (current and previous) are converted based on the previous day's exchange rate. Non-default currency detail estimates with an earlier activation date are not present in the daily QFS files.

Summary mean for the revised measure will be recalculated in the daily QFS file; all non-default detail estimates included in the mean calculation are converted based on the previous day's exchange rate. The mean for other measures with no revisions for that day will not be re-sent.

For example, if a CPS revision is received in a non-default currency on August 17, 2005, the new estimate is sent converted in the daily file of August 17, 2005. No other CPS estimates with an activation date prior to August 17, 2005, are included in the daily Detail file of August 17, 2005. Consequently, only the CPS mean is recalculated on August 17, 2005, and all CPS non-default currency estimates included in the calculation are converted with the exchange rate of August 16, 2005.

Note: * A discrepancy might be noticed between the Detail and Summary.

<div style="background:gray">Weekly QFS files:</div>

<div style="background:gray">If no revisions are processed between weekly runs:</div>

Each week (Thursday), Detail and Summary data is recalculated for every measure. The previous Thursday's exchange rate is used to convert non-default currency estimates. For example, for the August 11, 2005, weekly file, recalculation was done using exchange rates as of August 4, 2005.

<div style="background:gray">If revisions are processed between weekly runs:</div>

Estimate revisions made between weekly cycles and all non-default estimates of the same measure are recalculated using Wednesday's exchange rate unless the exchange rate has not changed by more than 10% from the day the non-default estimate was converted. As a result, the summary mean is also recalculated with the converted estimates. Any other measure with estimates in non-default currency that had no revisions will be converted based on previous Thursday's exchange rate.

For example, if a CPS estimate is revised on August 09, 2005, in the August 11, 2005, weekly file, all CPS non-default estimates will be reconverted using the exchange rate of August 10, 2005. All other measures with non-default currency estimates where no revisions were processed since the previous weekly cycle will be recalculated using August 04, 2005 exchange rate.

In the case that the exchange rate difference between Tue, Aug 9, 2005 and Wed, Aug 10, 2005 was less than 10%, the non-default CPS estimates included in the weekly file of August 11, 2005 are converted with the Tue, Aug 9, 2005 exchange rate.

Note: * In the weekly file, Detail and Summary always match.

BROKER A revised the FY 2005 estimate on August 15, 2005, (86.86 BPN) and on August 17, 2005, (96.43 BPN). The August 15, 2005, estimate was converted with the exchange rate of August 12, 2005, of

55.78 BPN/USD. The conversion exchange rate used for the August 17, 2005, revision is as of August 16, 2005, of 55.002 BPN/USD.

The currency of BROKER A's original estimate is indicated for reference purposes only. In this case, it is BPN currency. A difference in the currency at the company level and the estimate's currency means that the estimate value displayed has been converted to the company level currency. The Company level currency is also indicated.

Detail record for FY2005 from Daily August 15, 2005, file:

@QAA EPS ANN 2005 12 1 BROKER A ANALYST A   P   1.557 050815 06:25:36   BPN R   1.574

050714 10:48:59   BPN 078409 USD

Detail record for FY2005 from Daily August 17, 2005, file:

@QAA EPS ANN 2005 12 1 BROKER A ANALYST A   P   1.753 050817 11:07:28   BPN R   1.579

040815 06:25:36   BPN 078409 USD

Note how the previous estimate made on August 15, 2005, (86.86 BPN) was also reconverted in the August 17, 2005, file, with an exchange rate as of August 16, 2005, of 55.002 BPN/USD.

Detail record for FY2005 from Weekly August 18, 2005, file:

@QAA EPS ANN 2005 12 1 BROKER A ANALYST A   P   1.746 050817 11:07:28   BPN   1.573

050815 06:25:36   BPN 078409 USD

Both current and previous were converted with the exchange rate as of August 17, 2005, of 55.223 BPN/USD.

Note:

If the exchange rate on Wed, August 17, 2005 and Tue, Aug 16, 2005 have not changed by more than 10%, the estimate from Broker A would have not been reconverted with the exchange rate of Wed, August 17, 2005. The record included in the weekly file would have been the same one included in Wed's Daily file:

Detail record for FY2005 from Weekly August 18, 2005, file:

@QAA EPS ANN 2005 12 1 BROKER A ANALYST A   P   1.753 050817 11:07:28   BPN R   1.579

040815 06:25:36   BPN 078409 USD

In daily and weekly summary QFS files:

Mean in Daily file, August 17, 2005, after BROKER A's revision took place:

@QAA EPS ANN 2005 12 1 5 2 5 2   1.701 9   1.734   0.160   1.960   1.419   1.537 9   1.560
0.214   1.800   1.111   1.409 8   1.429   0.164   1.595   1.143   1.785   5.000   0.113 USD 3 1

Mean in Weekly file, August 18, 2005:

@QAA EPS ANN 2005 12 1 6 2 6 2   1.716 9   1.734   0.134   1.960   1.503   1.537 9   1.560
0.214   1.800   1.111   1.409 8   1.429   0.164   1.595   1.143   1.748   6.000   0.135 USD 4 1

The mean for FY12/05 was recalculated in the weekly file as a result of revisions entered on August 15, 2005, and August 17, 2005. All non-default estimates were converted with the exchange rate of August 17, 2005.

Note: If the exchange rate on Wed, August 17, 2005 and Tue, Aug 16, 2005 have not changed by more than 10%, the estimate from Broker A would have not been reconverted with the exchange rate of August 17, 2005. The summary included for this measure and period in the Weekly file would have been the same one included in Wed's Daily file:

Mean in Weekly file, August 18, 2005:

@QAA EPS ANN 2005 12 1 5 2 5 2   1.701 9   1.734   0.160   1.960   1.419   1.537 9   1.560

0.214   1.800   1.111   1.409 8   1.429   0.164   1.595   1.143   1.785   5.000   0.113 USD 3 1

Company level

In the event of a company-level currency change, all detail and summary data for the affected company are resubmitted on the day of the currency change, converted to the new currency using the previous day's exchange rate.

The currency at the company level can be found in File #1, Actuals file, File #3, and the Summary Estimates file, and the currency at the company level is available in the last column of the Detail Estimates file #15. The Company level currency in the following example is USD.

Latest annual record from the Actuals file:

@QAA EPS ANN 2004 12 040228 07:46:50   1.120   1.226 10 0.171 USD 1.00

Summary record for FY2005:

@QAA EPS ANN 2005 12 1 4 2 7 1   1.559 9   1.581   0.197   1.800   1.164   1.449 9   1.476

0.190   1.730   1.143   1.459 8   1.458   0.172   1.772   1.189   1.605   5.000   0.256 USD 2 1

Detail record from Detail Estimate file:

@QAA EPS ANN 2005 12 1 BROKER A ANALYST A   P   1.164 050211 12:21:17 BPN   1.225

050202 07:24:27 BPN 078409 USD

Actuals

Although not all fiscal years actuals were recorded in USD, they are converted and displayed in USD. The actuals for fiscal years 1999, 2000, and 2001 were originally recorded in BPN. The conversion rates used for each of the fiscal years 1999, 2000 and 2001 are as of the last day of each fiscal year. The exchange   rates used are 62.04 BPN/USD (December 31, 1999), 66.95 BPN/USD (December 29, 2000), and 68.71 BPN/USD (December 31, 2001), respectively. Please note that @QAA had a split of four on May 8, 2001.

Actuals in Weekly 3/18/2004 file:

@QAA EPS	ANN 1999 12 000322 13:13:14	1.036	N/A	N/A	N/A	USD	1.00
@QAA EPS	ANN 2000 12 010314 08:38:21	1.170	81.772	N/A	5.950	USD	1.00
@QAA EPS	ANN 2001 12 020313 04:26:39	1.095	73.601	N/A	3.169	USD	1.00
@QAA EPS	ANN 2002 12 030228 07:46:50	1.120	73.074	N/A	4.642	USD	1.00
@QAA EPS	ANN 2003 12 040225 08:39:34	1.060	1.136	9	0.113	USD	1.00

8 APPENDIX A: FOOTNOTE TYPES, INDICATORS & MEASURES

Estimate level footnote types

Code	Description	Code	Description
1	Estimates were copied over from XXX (primary stock from where estimates were copied over as part of the dual listing copy over)	J	Accounting differences exist: Includes gain(s)
2	Display-only estimate: Source does not meet mean inclusion criteria	K	Accounting differences exist. Estimate on a non-default period due to FYE change
3	Earnings on a fully adjusted basis	L	Accounting differences exist: Estimate reflecting corporate action
4	Accounting differences exist: Estimate on a Fully-Reported/GAAP basis	M	Accounting differences exist: Estimate on a non-GAAP basis
5	Estimate includes stock option expenses	N	Contributor update pending: Estimate not reflecting recent company guidance
6	Estimate excludes stock option expenses	O	Contributor update pending: Estimate failed freshness policy
7	Accounting differences exist: Estimate reflectingrights issue prior to ex-date	P	Contributor update pending: Estimate not reflecting recent reported actual
8	Estimate reflects FASB APB 14-1	Q	Restricted
9	Estimate does not reflect FASB APB 14-1	R	Contributor update pending: Estimate not revised since company filed for bankruptcy
A	Accounting differences exist	S	Estimate received/confirmed from analyst
B	Accounting differences exist: Estimate on a basic share count basis	T	Accounting basis unknown – contributor contacted
C	Estimate received directly from analyst	U	Contributor update pending
D	Estimate received in currency other than default	V	Contributor update pending: Estimate not reflecting corporate action
E	Accounting differences exist: Estimate on a diluted share count basis	W	Estimates based on IFRS
F	Estimates confirmed in the report. LTG conforms to I/B/E/S definition of 3-5 years.	X	Accounting differences exist: Estimate on a Cash EPS basis

Code	Description	Code	Description
G	Accounting differences exist: Excludes charge(s)	Y	Contributor update pending: Estimate not revised after large interim/annual revision within same fiscal year
H	Accounting differences exist: Includes charge(s)	Z	Accounting differences exist: Annual estimate based upon minority basis actual(s)
I	Accounting differences exist: Excludes gain(s)		

Company level footnote types

Code	Description	Code	Description
3	Earnings on a fully adjusted basis (IFRS)	G	Accounting alert, Company earnings before goodwill amortization
4	Earnings on a fully reported basis (IFRS)	I	MMMYY Estimates have always reflected adoption of FAS123(R)
8	MMMYY Estimate reflects FASB APB 14-1	K	Company has filed for bankruptcy on [month, day, year]
9	MMMYY Estimate does not reflect FASB APB 14-1	M	Majority Basis includes/excludes…(freeform criteria utilized to define specific accounting scenario of the mean calculation)
A	Accounting alert, Free form	N	MMMYY No known impact from FAS123(R) on estimates
C	Accounting alert, Company followed on a cash earnings basis	Q	FYE Changes from MMYY to MMYY announced DD-MM-YYYY – Estimates do not reflect new FYE
E	MMMYY Estimates reflect adoption of FAS123(R)	W	Estimates based on IFRS
F	MMMYY Estimates does not reflect adoption of FAS123(R)		

Forecast period indicator

Code	Description	Code	Description
0	Long Term Growth	P	Quarter 7
1	Fiscal Year 1	Q	Quarter 8
2	Fiscal Year 2	R	Quarter 9
3	Fiscal Year 3	S	Quarter 10
4	Fiscal Year 4	T	Quarter 11
5	Fiscal Year 5	L	Quarter 12
6	Quarter 1	A	SAN1 (Semi Annual Quarter 1)
7	Quarter 2	B	SAN2 (Semi Annual Quarter 2)
8	Quarter 3	C	SAN3 (Semi Annual Quarter 3)
9	Quarter 4	D	SAN4 (Semi Annual Quarter 4)
N	Quarter 5	J	SAN5 (Semi Annual Quarter 5)
O	Quarter 6	K	SAN6 (Semi Annual Quarter 6)

9 SAMPLE DATA ACCOUNT & ADDITIONAL INFORMATION

FTP login information:

FTP ADDRESS: ftp-ibes.refinitiv.com

User ID: samples

Password: luk$tou

Note: There are separate directories for each I/B/E/S product: change to the directory of the product you are looking for.

A copy of this I/B/E/S QFS User Guide, as well as the I/B/E/S Glossary, which includes methodology for I/B/E/S data calculations, is available on the FTP account.

An FTP account is created for every new client, a user name and password being provided at the time the account is set up.

Data Sets

US data set consists of 77 US companies. 22 are DOW components. INTL data set consists of 77 INTL companies. There are 2 large cap companies from each country.

QFS Sample Files

Daily files for Monday – Friday:

```
qfmsmpli.zip
qftsmpli.zip
qfwsmpli.zip
qfrsmpli.zip

qffsmpli.zip <-- Daily file for Friday; last character i= INTL data set, u= US data set.
```

SFTP Access Details

ftp-ibes.refinitiv.com 159.220.50.93

ftp-ibes.refinitiv.com hostkeys
"ssh-rsa 2048 7f:d8:ec:46:0c:65:a5:bd:e8:4a:70:32:75:4a:38:1a"

ssh-rsa
AAAAB3NzaC1yc2EAAAABEQAAAQEAvNtwByqgOIX2ZY7tHs7zKgMK1pFUzvzQgCIMFndQcCz6oGlhp
Ak+kVPPKFWV1g4XZXbnsbTBzQvKj8u1gaWpP/mgzxMCAFmJBICwjGm/gYcWNwkF7NFdqZlxKe6ckb
c3nOzFwH9g7pcbToveh6ihkfF1LOYeSDkDQmo1YV8/EUEKilT03q12e9rTAtJviHm3Hzb1G95upW0bmR
9fg9BYpPXybGl+Avcxn6o3SUZ2K0QHYjgmlXPfRphpf5e0Z1jH+F/xLnkYlOxNwUlg4uvcrhFBGSze7alXQ
m8i/k5Dp5Rgz9DxmBxcYYv9uNCzNdrqvEurnfjf6iIEyIGO2KCg+Q==

"ssh-rsa 2048 6b:1d:10:1c:97:2b:7f:33:d6:4c:0b:89:f1:be:b9:96"

ssh-rsa

AAAAB3NzaC1yc2EAAAABEQAAAQEA459o+qII7LmepWn9lPH1V+qfT8c+g1JBntN5W/gmm4/hpVoi10
Up+/KUW+CJIecfIGpreMc7Vo7PP4yDbXAKelmjWfrvncFlXnPBVHEyxNq/RlaVK/oLmLCbc7jrf/po1ZboLO
jruWbIVe0jllnyzyg4UPdUdVkamkxlRgY+2c/22+aYjZXgkTLUcGkLIoolNWNFO+OTjVsxilrF7lXy+H1vyKJS
CJ5jXpOHs7O6JRlHsriVAfHFLjjNz+W8IiTVAQ7C00ku90WCMr7p9CEat12UPG0n0UZy0u2pvV/RPfnU9f
dw+HIgq2w8vjLp2dF+By5n7110K9uPslSXcyEfLQ==

10 GLOSSARY

Term	Definition
Actual flag	The actual flag allows for the inclusion of different types of actuals (primary and secondary) for the same company.
Company Name	Full or abbreviated name of the company.
Country ID	The country ID is the Refinitiv abbreviation for the company's country of domicile.
Cumulative Adjustment Factor	Cumulative factor that has been applied to historical data to adjust for splits and capitalization changes (Adjustment factors multiplied together).
Currency	A three-digit abbreviation indicating denomination of estimate data.
CUSIP/SEDOL	CUSIP and SEDOL are unique alphanumerical identifiers for individual securities. Refinitiv uses the first 8 digits for CUSIP, and two character Country Code followed by the first 6 digits of SEDOL in its database.
Dilution Factor	A measure of the difference between primary and fully diluted earnings per share.
Exchange Code	This code indicates the exchange in which the stock is listed on.
Estimate Flag	The estimate flag allows for the inclusion of different types of estimates (primary and secondary) for the same company.
Exchange Rate	Exchange rate as of the Refinitiv Publication Date.
Five-year EPS Growth	A measure of the average annualized EPS growth over the past 5 years.
Five-year EPS Stability	A gauge of EPS growth consistency over the past 5 years.
Forecast Period Indicator	Each fiscal period (FY1, FY2, Q1, etc.) is given a numerical value. This allows company comparison regardless of FY end. FY year-end can be cross-referenced through the Forecast period end date. See Appendix.
Group Abbreviation	Coded abbreviation of Group Name.
Group Name	Tertiary division based on business activity.
High Estimate	The greatest value in a set of estimates for a company, for the specified fiscal period.
I/B/E/S CUSIP	The I/B/E/S CUSIP is a Refinitiv convention that helps differentiate CUSIPs for US companies from SEDOLs for non-US companies. The I/B/E/S CUSIP for US is the company's 8-character CUSIP. The I/B/E/S CUSIP for non-US companies is the 6-character SEDOL, preceded by a two-digit country code. I/B/E/S CUSIPs do not include the check sum digit.
I/B/E/S Ticker	Unique identifier supplied by Refinitiv. This variable should be used to link data across files and time periods as it will not change and will remain unique.
Indicated Annual Dividend	The dividend data provided is the indicated annual dividend as of the Refinitiv statistical period. It represents the last 12 months of total dividend data. Our pricing vendor supplies this data.
Industry Abbreviation	Is the abbreviation for Industry Name.
Industry Name	Secondary division based on business activity.
Instrument Flag	This indicates the security's type of instrument, i.e. ADR, stock, dual listing.

Low Estimate	The smallest value in a set of estimates for a company, for the specified fiscal period.
Mean Estimate	The consensus estimate; the arithmetic average of all outstanding estimates for a
Measure	Data type indicator (i.e. EPS, CPS, DPS etc.)
Median	Estimate which falls in the middle of the defined range of Estimates when arranged in
Number of Estimates	The total number of estimators covering the company for the fiscal period.
Number of Estimates Up	
Number of Estimates	The number of downward revisions for a given period of time
Official Ticker	Official trading ticker of company (limited to first four characters).
Parent / Consolidated	
Periodicity	Indicates whether a record is for a quarter, semi-annual or year end. (Please refer to
Price	Please note that Refinitiv's pricing information is issue-specific. The price will be the last closing price available to Refinitiv before the statistics were calculated.
Pricing Date	The date of the last available price. Please note the following for pricing date: Non-US pricing is as of the Tuesday of the week of the monthly cut and US pricing is as of the Wednesday of the week of the monthly cut.
Primary / Diluted	The flag that indicates the basis in which the company reports.
Reported Period End	
Review Date(YYMMDD)	Most recent date that an estimate was confirmed as accurate.
Sector Abbreviation	Coded abbreviation for Sector Name.
Sector Name	Primary division based upon business activity.
Shares Outstanding	The total number of shares outstanding. This data item is also issue-specific.
SIG Code	The SIG code is the Refinitiv-assigned sector/industry/group code.
Split Date	The date of the individual splits. Currently this field is not populated in the file.
Split Factor	This field lists the cumulative split factors. The cumulative split factor is derived by multiplying individual splits up to a specific time to allow for simple unadjustment of data.
Standard Deviation	The statistical measure of dispersion of estimates for the fiscal period indicated.

Start Date	Date when variable first appeared in the I/B/E/S Database
Value	Estimate

11 KPI PRODUCT OVERVIEW

Refinitiv Key Performance Indicators (KPI) Datafeed is a collection of current detail and summary level estimates as well as actuals information. This feed is available in a flat, fixed format file. Users can   easily process these files into a database for easy data management.

Refinitiv offers Key Performance Indicators (KPI) to quickly identify and retrieve analyst forecast information for industry product-level measures Same Store Sales and Pharmaceutical Sales, key drivers   within the retail, restaurant and pharmaceutical industries. (For details and formats of the files for all other   company-level KPI measures, please refer to the I/B/E/S QFS and I/B/E/S History User Guides.) These   key performance indicators are industry-specific measures that facilitate comparisons among similar peer groups. Consensus and detail forecasts are available for Same Store Sales and Pharmaceutical Sales,   including business segment and product breakdowns, enabling efficient comparisons between analysts' expectations on these indicators and your own

The KPI Data feed (data files for Same Store Sales and Pharmaceutical Sales product-level measures) is delivered with all Level 3 I/B/E/S QFS or History packages.

PRODUCT & SEGMENT LEVEL MEASURES

Key Performance Indicator Description	Relevant Industries	Measure Code
Pharmaceutical Sales	Drug Manufacturers	SAL
Same Store Sales	Retailers, Restaurants	SSS
Segment Revenue	All	BSL / GSL
Segment EBITDA	All	BBT / GBT
Segment Reported EBITDA	All	BBP / GBP
Segment EBIT	All	BBI / GBI
Segment Operating Profit	All	BPR / GPR
Segment Net Subscriber Addition	All	BSA / GSA
Revenue Per Available Room	Hotels	RAR
Unit Measure	All	UNT

PHARMACEUTICAL SALES

Pharmaceutical Sales represents the revenue associated with individual pharmaceutical drug unit products (as opposed to total sales per company).

- Coverage spans across pharmaceutical companies and many unique drugs worldwide.
- Reported company results and forecasted sales estimates are collected on a quarterly and annual basis for global pharmaceutical companies from hundreds of sell-side analysts on a real-time basis.
- Estimates data is offered on a detail (individual analyst) and a summary (mean) level.

- Benefits:
  - Identify trends within the retail and drug industries.
  - Make informed portfolio allocation changes
  - Target investment opportunities.
  - View a firm's store or drug expectations at a detail or summary level

SAME STORE SALES

Same Store Sales represents a percentage sales growth for retail stores and restaurants that have been open for more than one year. Same Store Sales allows investors to decipher what portion of sales growth is due to true retail growth and what portion is due to new store openings.

- Coverage spans across global retail stores and restaurants
- Reported company results and sales growth forecasts are collected on a quarterly and annual basis for global companies from hundreds of sell-side analysts on a real-time basis.
- Companies followed include discount retailers, department stores, specialty retailers, casual dining, quick serve restaurants and more.
- Estimates data is available on a detail (individual analyst) and summary (mean) level.
- Estimates data is accessible on a consolidated company basis and for individual store segments within the same company, where available.

SEGMENT FORECASTS

A segment is a component of a business that is or will generate revenues and costs related to operations. Financial information should be available for a segment's activities and performance and must also be periodically reviewed by the company's management before a decision can be made regarding the amount of capital that will be given to the segment for a particular operating period. Companies usually provide this by any combination of products, services or by geographical locations. Refinitiv provides data for both types and is labeled as Business and Geographic segment respectively.

I/B/E/S Segment forecasts represent the Business and Geographical segment data. These are provided in addition to Pharmaceutical Drug Unit and Same Store Sales data offering of I/B/E/S.

Refinitiv provides both reported and forecasted Business and Geographical segment data on an interim and annual basis, globally. The segment data is available for both detail (analyst) & summary (mean) level. The segment data is available for following measures

- Revenue   –   BSL / GSL
- EBITDA   –   BBT / GBT
- EBITDA Reported –   BBP / GBP
- EBIT   –   BBI / GBI
- Operating Profit   –   BPR / GPR
- Net Subscriber Addition – BSA / GSA
- ***Geographical Segment data*** shall be available for the top level (e.g. Regional) only; Deeper geographical data (e.g. country / region) is not yet available.
- ***Business Segment data*** are available for both the major segment and the sub segment.

**Product and Segment Level Data are only available to Level 3 Users.

UNIT SALES

Refinitiv is pleased to announce the addition of unit sales data to its feed offering. These forecasts represent the numbers of units sold and are available on a product level. As the volume differs by industries the forecasts are made available in different scales and should be read accordingly.

For example for an automobile stock (like Tesla) number of Model X or 3 sold will be in thousands whereas for a technology stock (like Apple) number of Iphones sold will be in millions. Clients should use the Product Identification File 2 (PKID2) to identify the kind of product sold and use appropriate scaling.

ProductType = VEHICLES – is in thousands

ProductType = DEVICES – is in millions

120860 120860 GLB VEHICLES	Total Vehicle Deliveries
120861 120860 GLB VEHICLES	Model S
120862 120860 GLB VEHICLES	Model X
120863 120860 GLB VEHICLES	Model S & X
120864 120860 GLB VEHICLES	Model 3 / III
120865 120860 GLB VEHICLES	Model Y
120867 120860 GLB VEHICLES	Semi
120868 120860 GLB VEHICLES	Roadster
120869 120860 GLB VEHICLES	Model Y, Roadster G. II, Pick-up, Semi
3149 3149 WWW DEVICES	IPHONE

Revenue Per Available Room

RevPar is predominantly used in the hotel industry and is calculated by multiplying a hotel's average daily room rate (ADR) by its occupancy rate. It represents the percentage sales growth for hotel chains that have been open for more than one year.

- Coverage spans across Hotels and resorts in all regions.
- Reported company results and sales growth forecasts are collected on a quarterly and annual basis for global companies from hundreds of sell-side analysts on a real-time basis.
- Companies followed include luxury hotels, service lodging, all inclusive hotels and more
- Estimates data is available on a detail (individual analyst) and summary (mean) level.
- Estimates data is accessible on a consolidated company basis and for individual hotels within the same company, where available.

12   File Delivery Schedule

Current files' cut off time and delivery schedules are listed below:

File	QFS file time (U.S. ET)	Data entry cut-off time (U.S. ET)
1	4:00 A.M.	12:30 A.M.
2	5:00 A.M.	2:30 A.M.
3	7:00 A.M.	4:30 A.M.
4	9:00 A.M.	6:30 A.M.
5	11:00 A.M.	8:30 A.M.
6	1:00 P.M.	10:30 A.M.
7	3:00 P.M.	12:30 P.M.
8	5:00 P.M.	2:30 P.M.
9	7:00 P.M.	4:30 P.M.
10	9:00 P.M.	6:30 P.M.
End of Day	12 A.M. (NEXT DAY)	8:30 P.M.
Weekly	Weekly / Saturdays at 12:00 A.M.	Thursdays at 8:30 P.M.

Historical files are delivered during the IBES monthly history production, the data cut off being as of every Thursday before the 3rd Friday of the month. The file delivery deadline is Wednesday's after the 3rd Friday of the month at 6 AM ET.

Please note that the timestamps of the files posted on the ftp sites are listed as GMT.

- The intra-day files are cumulative and contain changes made since the close of the previous business day. This allows users who miss one intra-day update to get current with the download of the next available file.
- The deadline for posting the daily KPI files is 3 AM (US ET) each night. The deadline for posting the weekly KPI files is Saturdays at 12 PM of each week. Client e-mail notifications are provided when files are not available by the times listed above. These notifications would be sent to clients both before the deadlines, as well as after the posting is done - advising clients that the files are available on the ftp site.

- Please note that all files are usually posted prior to the deadlines mentioned above. However, it is not guaranteed that files are always posted at the same times. The file posting can vary due to the quantity of data processed and the duration of the file creation processes.
- Refinitiv maintains a 5 Daily files archive of daily files should a user wish to pick up a missed file from a prior day. Please note that prior to posting a file, a previously posted corresponding file is deleted from the FTP site. For example, before posting Monday's end of day file, prior week's Monday file is deleted.
- Similarly, Weekly files are available until the night before a new set of Weekly files are being posted. The set of old Weekly files are deleted and are no longer available after that.
- Each file has as its first row a time stamp (US ET) to inform users of when the file was created and ensure proper synchronization with the Refinitiv database. This header record takes the   form: mm/dd/yy hh:mm:ss.
- All dates and timestamps included in the files are represented in US ET.

Retrieving KPI Files

KPI files are generally ready before the stated times in the documentation. Previous week's files are deleted the day before the KPI files are due to be posted. A user can thus set up an automated procedure to check if their expected file has been posted at an earlier time. If it has been posted, they can proceed with their processing. If it has not been posted, they can check again after a certain time interval (for   example, every half-hour or hour). This procedure will also handle the situation if the files are delayed.

13   KPI PACKAGES- ZIP FILE NAMING CONVENTION

Clients may find different files within their subscription, depending upon the client package they subscribe to.

QF<D>_clientname_date.zip files include forecasts for company level measures.

KP<D>_<account>_Cycle_filenamestamp.zip files include forecasts for company level measures along with segment & product level data. For additional details on segment & product measure please refer to page 89, KPI Available Measures. Henceforth any new company level measure will only be added to the KP<D> … zip files.

The Current type KPI package zip file name is:

kp<D>_<Client Account Number>_<Cycle number>_<File timestamp>.<EXT>

<D> — day of the week ('m', 't', 'w', 'r', 'f', 'q'-weekly)

<Client Account Number>— 4 digit clients' account number

<Cycle number> — cycle order 1 – 10 as listed above. There is no cycle number for End of Day and Weekly files

<File timestamp> — MMDDYYHHMM

<EXT> — file extension based on type of compression

> 'zip'   pkzipped

Example:

Incremental cycle 2, delivered on a Tuesday: kpt_9999_2_1029130230.zip
Incremental cycle 7, delivered on a Thursday: kpr_9999_7_1024131230.zip
End of day, delivered on a Monday: kpm_9999_1021132030.zip

Weekly: kpq_1111_1024132359.zip

Historical files are grouped and zipped by subscription level.

The History type KPI package zip file name is:

<TYPE>HIST_<CURTYPE>_<ADJOPT>_LEVEL<LVL>_<REG>.ZIP

<TYPE>   **DET** for Detail History and **SUM** for Summary History

<CURTYPE>   **STANDARD** (Standard history) or **NORMALIZED** (Normalized history)

<ADJOPT>   **ADJ** (adjusted for splits) or **UNADJ** (unadjusted for splits)

<LVL>   3K

<REG>   Two or three-character mnemonic for the region

Example: SUMHIST_STANDARD_ADJ_LEVEL3K_INT.ZIP: includes Adjusted Standard Summary data files for KPI measures Same Store Sales and Pharmaceutical Sales for the INT region.

Regional files included in the package are:

KPI Measure	Regional Packages	File Extensions
Pharmaceutical Sales	United States, Canada or International	.US, .INT, .ASP, .CAN, .EUR, .IFJ, .INT, .LAT, .SMI, .SMU
Same Store Sales	United States, Canada or International	.US, .INT
Segment Revenue	United States, Canada or International	.US, .INT
Segment EBITDA	United States, Canada or International	.US, .INT
Segment EBITDA Reported	United States, Canada or International	.US, .INT
Segment EBIT	United States, Canada or International	.US, .INT
Segment Operating Profit	United States, Canada or International	.US, .INT
Segment Net Subscriber Addition	United States, Canada or International	.US, .INT
Revenue Per Available Room	United States, Canada or International	.US, .INT
Unit Sales	United States, Canada or International	.US, .INT

14   KPI MEASURES AVAILABLE

<D><NAME><MMM>.<REG>

<D>	Represents a 1-character mnemonic for the day of the week ('M', 'T', 'W', 'R', 'F', 'Q'-weekly)
<NAME>	Represents a 3 or 4-character mnemonic for the specific file type (summary, actuals, etc)
<MMM>	Represents a 3-character mnemonic for the measures listed right below
<CC> applied	A 1 or 2-character mnemonic used for detail files only where permission/entitlement is applied
<REG>	Represents a 2 or 3-character mnemonic for the region

Example: Monday's Same Store Sales US Actuals File will have a filename of "MACTTKSAL.US" or "MACTTKSSS.US"

Key Performance Indicator Description	Relevant Industries	Measure Code
Pharmaceutical Sales	Drug Manufacturers	SAL
Same Store Sales	Retailers, Restaurants	SSS
Segment Revenue	All	BSL / GSL
Segment EBITDA	All	BBT / GBT
Segment Reported EBITDA	All	BBP / GBP
Segment EBIT	All	BBI / GBI
Segment Operating Profit	All	BPR / GPR
Segment Net Subscriber Addition	All	BSA / GSA
Revenue Per Available Room	Hotels	RAR
Unit Measure	All	UNT

15 HOW TO UPDATE YOUR DETAIL DATABASE USING KPI FILES

To properly apply deletes, stops and detail records, use the following paradigm:

1. Process KPI detail file
Insert all records for which a match based on the keys does not exist. Update all records that match the key fields. This applies to both current and previous estimates.

2. Process KPI delete file.
Delete all records from your tables that match the key fields (examples of key fields are: for recommendations I/B/E/S_tkr, estimator, activation_date, activation_time; for estimates I/B/E/S_tkr, measure, fiscal_period, prd_yr, prd_mon, estimator, activation_date, activation_time). Ignore all records that don't match all key fields.

3. Process KPI stop file.
Insert all stop records into your tables that don't match the keys. Ignore all other records.

4. Process KPI Delete stop file
Delete all stop records from your tables that match the key fields (examples of key fields are: for recommendations I/B/E/S_tkr, estimator, activation_date, activation_time; for estimates I/B/E/S_tkr, measure, fiscal_period, prd_yr, prd_mon, estimator, activation_date, activation_time). Ignore all records that don't match all key fields.

Daily files should be processed as received. It is also advised that weekly files be used for comparison purposes or as a complete refresh of the current database. Weekly updates should be applied prior to the Friday update.

When database reports are created, it should be checked if the activation date/time of the estimate or recommendation is greater than the activation date/time of the stop record at the time slice for which the report is created.

16 KPI FILE NAMES

Clients may find different files within their subscription, depending upon the client package they subscribe to.

QF<D>_clientname_date.zip files include forecasts for company level measures.

KP<D>_<account>_Cycle_filenamestamp.zip files include forecasts for company level measures along with segment & product level data. For additional details on segment & product measure please refer to page 89, KPI Available Measures. Henceforth any new company level measure will only be added to the KP<D> … zip files.

Category	File Name	Description
Detail	<D>DETK<MMM><CC>.<REG>	Detail File
	<D>DELK<MMM><CC>.<REG>	Delete Detail File
	<D>STPK<MMM><CC>.<REG>	Stop Estimates File
	<D>DESK<MMM><CC>.<REG>	Delete Stop Estimates File
	<D>FDTK<MMM><CC>.<REG>	Detail Footnote File
	<D>FDLK<MMM><CC>.<REG>	Delete Detail Footnote File
Actual	<D>ACTTK<MMM>.<REG>	Actuals File
	<D>DACTK<MMM>.<REG>	Delete Actuals File
	<D>RACTK<MMM>.<REG>	Restated Actuals File
Summary	<D>SUMK<MMM>.<REG>	KPI Summary Estimates File
ID	<D>PKID1.<REG>	Product Identification #1 File
	<D>PKID2	Product Identification #2 File
	<D>IDK.<REG>	KPI Identification File
Lookup	<D>prodk	Lookup Product
	<D>meask	Lookup Product Type Measure
	<D>statk	Lookup Product Status
	<D>pregk	Lookup Product Region
	<D>fntpk	Lookup Product Footnote Type

Please note that the following 5 lookup files are no longer created. The respective content can be found in corresponding QFS files. A description of the QFS files can be found in the I/B/E/S QFS User Guide – March 2013.

Lookup	<D>bkrk	Lookup Broker
	<D>xrtk	Lookup Currency Exchange Rate
	Qxchk	Lookup Exchange Code
	Qctyk	Lookup Country
	Qcurk	Lookup Currency

There are a total of 16 **historical type files** available: 13 regular files and 3 lookup files.

Category	File Name	Description
Detail	DETK<MMM>AT.<REG>	Adjusted, Standard
	NDETK<MMM>AT.<REG>	Adjusted, Normalized
Stop	STPK<MMM>AT.<REG>	Stop Estimates File
Excluded	EXLK<MMM>AT.<REG>	Adjusted, Standard
	NEXLK<MMM>AT.<REG>	Adjusted, Normalized
Actual	ACTK<MMM>.<REG>	Adjusted, Standard
	NACTK<MMM>.<REG>	Adjusted, Normalized
Restated Actual	HK<MMM>RACTK.<REG>	Adjusted, Standard
	HK<MMM>NRACTK.<REG>	Adjusted, Normalized
Summary	HSK<MMM>SUM.<REG>	Adjusted, Standard
	HSK<MMM>NSUM.<REG>	Adjusted, Normalized
ID	PKID1.<REG>	Product Identification #1 File
	PKID2.<REG>	Product Identification #2 File
Lookup	MEAS	Lookup Product Type Measure
	STAT	Lookup Product Status
	PREG	Lookup Product Region

KPI DETAIL FILE FORMATS

The following files provide detail data for all companies that had activity since the close of previous business day. They provide transparency and clarity for each company. The 6 Detail files are:

- Detail Estimates (current & historical)
- Delete Estimate (current only)
- Stop Estimates (current & historical)
- Delete Stop Estimates (current only)
- Detail Footnote (current only)
- Delete Detail Footnote (current only)
- Excluded Estimate (historical only)

Detail Estimates File Format

Subscription Level: Detail

Frequency: Daily/Weekly/Historical

File Name: DETK<MMM>AT.<REG> ; NDETK<MMM>AT.<REG>

The daily Detail Estimates File provides detail data for all companies that had estimate activity since the close of previous business day. "Estimate activity" means that an analyst revised an estimate or a new estimate was added to the database. It can also mean that an estimate was error corrected or a newly reported actual was entered (the company was shifted). In those instances, the activation date of the estimate included in the detail file would be earlier than the date of the file. The daily Detail Estimates File identifies this "estimate activity" with a status flag allowing users to distinguish why an estimate changed from its prior value. The status flags are provided for referential use only and are blank in the weekly files. The Detail Estimates file has the following Status flags:

N = new estimate, no "previous"; R = new revision, "previous" estimate exists; E = updated estimate, resubmitted estimate; A = analyst name change; space = deleted stops or actuals entered. In cases where more than one activity is performed, the Status flag is populated as follows:

1. existing estimate is updated and the analyst name is changed – E
2. new estimate is entered and the analyst name changes – R or N
3. filter is end-dated and the estimate becomes part of majority - E

Estimates for which the filter (exclude flag) is end-dated are resent in a daily file without the "X" flag, indicating that the respective estimate is included in the mean starting on the respective day until it gets stopped or the actual for the period is recorded.

The file contains Contributor codes which are 8 characters or less. Long name translation is provided in the weekly Broker File.

The previous detail estimate is also provided on the same record for informative comparison purposes. Please note that it is possible that contributing brokers provide 2 revisions on the same day. In this case, the end of day file will include the first estimate received under the "previous" field while the latter estimate will be available in the "current" field.

Corrections are reflected only for the "current" and "previous" estimates, where the "current" estimate is not stopped. If a "previous" estimate is modified and no changes are made that affect the "current" estimate, the respective day's file will not display the change. The modification will be reflected in the next weekly file after that.

The weekly Detail Estimates File reports a snapshot of the current and previous estimates for all ticker/contributor combinations in the Refinitiv database as of the close of business each Thursday at midnight. All periods for which current data exists are included in the weekly version files.

KPI Detail records are converted to the currency in which a company is followed, according to the currency of the latest EPS actual recorded in the database. To see which currency I/B/E/S follows please see the Currency Code at the Company Level. There is also a currency flag available indicating the currency in which the estimate was received in from the Contributor.

Key	Data Field	Data Type	Data Length	Comments
✓	IbesTicker	varchar(6)	6	
✓	ProductId	int	6	
✓	RegionId	char	3	See Region Appendix
✓	Measure	varchar	6	
✓	FiscalPeriod	char	3	
✓	FiscalPeriodYear	smallint	4	
✓	FiscalPeriodMonth	tinyint	2	
	ForecastPeriodIndicator	char	2	
✓	BrokerCodeoutorg	varchar	8/5(Hist)	Numeric codes in IBES history files
	AnalystName	varchar	17/6(Hist)	Full last name, first name initial; Numeric codes in IBES history files
	CurrentEstimateValue	int	14	Maxdecimal 5
✓	CurrentEstimateActivationDate	date (yyyymmdd)	8/6(Hist)	yymmdd format in IBES history files
✓	CurrentEstimateActivationTime	time (hh:mm:ss)	8	
	CurrentEstimateAnnounceDate	date (yyyymmdd)	8/6(Hist)	yymmdd format in IBES history files
	CurrentEstimateAnnounceTime	time (hh:mm:ss)	8	
	CurrentEstimateExcludeFlag	char	1	This field is not included in the Historical files
	CurrentEstimateCurrency	char	3	
	CurrentEstimateStatus	char	1	N = new estimate, no "previous"; R = new revision, "previous" estimate exists; E = updated estimate; A=analyst name change;

Key	Data Field	Data Type	Data Length	Comments
				Space=deleted stops or actuals entered * Does not apply to weekly files and it is blank when not applicable This field is not included in the Historical files.
	PreviousEstimateValue	int	14	Maxdecimal 5 This field is not included in the Historical files.
✓	PreviousEstimateActivationDate	date (yyyymmdd)	8	This field is not included in the Historical files.
✓	PreviousEstimateActivationTime	time (hh:mm:ss)	8	This field is not included in the Historical files.
	PreviousEstimateAnnounceDate	date (yyyymmdd)	8	This field is not included in the Historical files.
	PreviousEstimateAnnounceTime	time (hh:mm:ss)	8	This field is not included in the Historical files.
	PreviousEstimateExcludeFlag	char	1	This field is not included in the Historical files.
	PreviousEstimateCurrency	char	3	This field is not included in the Historical files.
	PreviousEstimateStatus	char	1	N = new estimate, no "previous"; R = new revision, "previous" estimate exists; E = updated estimate; A=analyst name change; Space=deleted stops or actuals entered * Does not apply to weekly files and it is blank when not applicable This field is not included in the Historical files.
	LatestConfirmationDate	date (yyyymmdd)	8/6(Hist)	yymmdd format in IBES history files
	LatestConfirmationTime	time (hh:mm:ss)	8	
	AnalystMaskCode	varchar(6)	6	This field is not included in the Historical files.
	AnalystStartDate	date (yyyymmdd)	8	This field is not included in the Historical files.
	AnalystStartTime	time (hh:mm:ss)	8	This field is not included in the Historical files.
	CurrencyAtCompanyLevel	char	3	

KPI Delete Detail Estimates File Format

Subscription Level: Detail

File Name: <D>DELK<MMM><CC>.<REG>

Frequency: Daily

This file does not exist in the weekly and historical version.

The daily Delete Detail Estimates File provides information on any estimates that have been removed from the Refinitiv database since the close of previous business day. Delete records could be included for an estimate made at any point in time for a current period appearing in the KPI files, not just the "current" or "previous" estimates. Please refer to the "How To Update Your Database" section for instructions on how to apply deletes.

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
✓	Region Id	char	3	See Region Appendix
✓	Measure	char	6	
✓	Fiscal Period (MON, ANN, QTR)	char	3	
✓	Fiscal Period Year	smallint	4	
✓	Fiscal Period Month	tinyint	2	
	Forecast Period Indicator	char	1	
✓	Broker Code/Outorg	char	8	
	Analyst Name	varchar	17	Full last name, first name initial
	Estimate Value	int	14	Maxdecimal 5
✓	Estimate Activation Date	date(yyyymmdd)	8	
✓	Estimate Activation Time	time(HH:MM:SS)	8	
	Estimate Currency	char	3	
	Analyst Mask Code	char	6	

KPI Stop Estimates File Format

Subscription Level: Detail

File Name: <D>STPK<MMM><CC>.<REG>

Frequency: Daily/Historical

This file does not exist in the weekly version.

The daily Stop Estimates File includes all estimates that have been stopped since the close of previous business day. Estimates are stopped because an estimator may enter a "quiet" period for a particular security or because an estimator is no longer following a stock. The activation date and time correspond to those of the record(s) being stopped, only the latest stop being included in the file. Stops are effective as of the date received.

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
✓	Region ID	char	3	See Region Appendix
✓	Measure	char	6	
✓	Fiscal Period (MON, ANN, QTR)	char	3	
✓	Fiscal Period Year	smallint	4	
✓	Fiscal Period Month	tinyint	2	
	Forecast Period Indicator	char	2	This field is not included in the Historical files
✓	Broker Code/Outorg	char	8/5(Hist)	Numeric codes in IBES history files
	Analyst Name	varchar	17	Full last name, first name initial This field is not included in the Historical files
✓	Stop Activation Date	date(yyyymmdd)	8/6(Hist)	yymmdd format in IBES history files
✓	Stop Activation Time	time(HH:MM:SS)	8	
	Analyst Mask Code	char	6	This field is not included in the Historical files

KPI Delete Stop Estimates File Format

Subscription Level: Detail

File Name: <D>DESK<MMM><CC>.<REG>

Frequency: Daily

This file does not exist in the weekly and historical version.

The daily Delete Stop Estimates File includes deletes on estimate stops that have been removed from the Refinitiv database since the close of previous business day.

In addition, the estimate that becomes "current" is redistributed in the Detail KPI Estimates files, the Status flag being blank.

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
✓	Region ID	char	3	See Region Appendix
✓	Measure	char	6	
✓	Fiscal Period (MON, ANN, QTR)	char	3	
✓	Fiscal Period Year	smallint	4	
✓	Fiscal Period Month	tinyint	2	
	Forecast Period Indicator	char	1	
✓	Broker Code/Outorg	char	8	
	Analyst Name	varchar	20	Full last name, first name initial
✓	Stop Activation Date	date(yyyymmdd)	8	
✓	Stop Activation Time	time(HH:MM:SS)	8	
	Analyst Mask Code	char	6	

KPI Detail Footnote File Format

Subscription Level: Detail

File Name: <D>FDTK<MMM><CC>.<REG>

Frequency: Daily/Weekly

This file does not exist in the historical version.

As a value-added service, Refinitiv provides detailed footnote information for certain estimates   that require additional explanation. Footnotes may be linked within the KPI feed to the underlying estimate by joining on the key fields in the Daily Detail Estimates File (*ibes_tkr, measure, periodicity, prd_yr, prd_mon, estimator and activation_date & time*). A footnote should always accompany a filtered/excluded estimate but can also exist on an estimate with no filter/exclude flag. An Expiration date of an active footnote is by default   10 years from the Entry date. There could be more than one active footnote valid at any point in time for   the same estimate.

Footnotes that expire on a particular day are not included in that day's Detail Footnote file. The respective footnote will no longer appear in subsequent files. A corresponding delete record is provided in the daily Delete Detail Footnote file. The weekly Detail Footnote File contains a snapshot of all non-expired current and previous estimates' footnotes as of the close of business of each Thursday at midnight.

A list of footnote types is available at the end of the document. The footnote text included is standard; however it can be modified at the discretion of the Refinitiv Market Specialist.

Key	Data Field	Data Type	Data Length	Comments
✓	IBESTicker	varchar	6	
✓	ProductId	int	6	
✓	RegionId	char	3	See Region Appendix
✓	Measure	varchar	6	
✓	FiscalPeriod	char	3	
✓	FiscalPeriodYear	smallint	4	
✓	FiscalPeriodMonth	tinyint	2	
	ForecastPeriodIndicator	char	2	
✓	BrokerCodeoutorg	varchar	8	
	AnalystName	varchar	17	Full last name, first name initial
✓	EstimateActivationDate	date(yyyymmdd)	8	
✓	EstimateActivationTime	time(hh:mm:ss)	8	
	CurrentpreviousFlag	char	1	
✓	FootnoteType	char	1	
	FootnoteText	varchar	120	
✓	FootnoteActivationDate	date(yyyymmdd)	8	
✓	FootnoteActivationTime	time(hh:mm:ss)	8	
	FootnoteExpirationDate	date(yyyymmdd)	8	
	FootnoteExpirationTime	time(hh:mm:ss)	8	
	AnalystMaskCode	varchar	6	

KPI Delete Detail Footnote File Format

Subscription Level: Detail

File Name:

<D>FDLK<MMM><CC>.<REG>

Frequency: Daily

This file does not exist in the weekly and historical version.

The file includes deleted records for corrections, as well as for those footnotes that no longer apply. In addition, the updated version will include an "Action flag" field at the end of the file that helps users determine whether a footnote has been deleted or had the Entry date and time modified (Action flag = D) from the Refinitiv database or whether the footnote no longer applies and has been end-dated (Action flag = E). For a modified footnote, an updated record is included in the Detail Footnote file.

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
✓	Region ID	char	3	See Region Appendix
✓	Measure	char	6	
✓	Fiscal Period (MON, ANN, QTR)	char	3	
✓	Fiscal Period Year	smallint	4	
✓	Fiscal Period Month	tinyint	2	
	Forecast Period Indicator	char	2	
✓	Broker Code/Outorg	char	8	
	Analyst Name	varchar	17	Full last name, first name initial
✓	Estimate Activation Date	date(yyyymmdd)	8	
✓	Estimate Activation Time	time(HH:MM:SS)	8	
✓	Footnote Type	char	1	
✓	Footnote Activation Date	date(yyyymmdd)	8	
✓	Footnote Activation Time	time(HH:MM:SS)	8	
	Status Flag	char	1	(D = delete, E = end-dated)
	Analyst Mask Code	char	6	

KPI Excluded Estimates File Format

Subscription Level: Detail

File Name: EXLK<MMM>AT.<REG>

NEXLK<MMM>AT.<REG>

Frequency: Historical

This file does not exist in the daily and weekly version.

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
✓	Region ID	char	3	See Region Appendix
✓	Measure	char	6	
✓	Fiscal Period (MON, ANN, QTR)	char	3	
✓	Fiscal Period Year	smallint	4	
✓	Fiscal Period Month	tinyint	2	
	Forecast Period Indicator	char	2	
✓	Broker Code	char	5	Numeric codes
	Analyst Mask Code	varchar	6	Numeric codes
	Estimate Value	int	14	
	Estimate's Activation Date	date(yymmdd)	6	
	Estimate's Activation Time	time(HH:MM:SS)	8	
	Estimate Currency (as received)	char	3	
✓	Exclude Activation Date	date(yymmdd)	6	
✓	Exclude Activation Time	time(HH:MM:SS)	8	
	Exclude End Date	date(yymmdd)	6	
	Exclude End Time	time(HH:MM:SS)	8	
	Currency at Company level	char	3	

17   KPI ACTUAL FILE FORMATS

There are 3 Actuals Files:

- Actual File (current & historical)
- Delete Actual File (current only)
- Restated Actuals File (current & historical)

KPI Actuals File Format

Subscription Level: Summary

File Name: <D>ACTTK<MMM>.<REG>

Frequency: Daily/Weekly/Historical

The daily Actuals File contains the itemized list of all new reported actuals collected by Refinitiv since close of previous business day. The file reports actuals on a monthly, quarterly, annual basis.

Actuals for a company that has no estimates for the respective measure are included in intra-day, daily and weekly versions of the files.

The file also contains relevant surprise information (surprise mean, number of estimates and standard deviation) for the latest period for which an actual exists. The surprise mean represents the average of all current estimates recorded prior to the date/time the company reported the respective period's actuals.

The weekly Actual File contains the latest 5 annuals, 8 quarterlies and 4 monthly actuals for all current Refintiv companies with KPI data.

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
✓	Region ID	char	3	See Region Appendix
✓	Measure	char	6	
✓	Fiscal Period (MON, ANN, QTR)	char	3	
✓	Fiscal Period Year	smallint	4	
✓	Fiscal Period Month	tinyint	2	
	Actual Value	999999.999	14	Maxdecimal 5
	Actual Activation Date	date(yyyymmdd)	8	
	Actual Activation Time	time(HH:MM:SS)	8	
	Actual Announce Date	date(yyyymmdd)	8	
	Actual Announce Time	time(HH:MM:SS)	8	
	* Status Flag	char	1	S=Change in Fiscal Period (i.e. FY1 to FY0, E=Error Correction * Does not apply to weekly files

				and it is blank when not applicable Field does not exist in the historical files
	Surprise Mean	int	14	Maxdecimal 5
	Surprise Number of Estimates	smallint	4	
	Surprise Standard Deviation	int	10	Maxdecimal 5
	Currency at Company Level	char	3	

KPI Delete Actuals File Format

Subscription Level:　　　Summary

File Name:

<D>DACTK<MMM>.<REG>

Frequency:　　　　　　　Daily

This file does not exist in the weekly and historical version.

This file contains actuals that have been completely deleted from the Refinitiv database.

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
✓	Region ID	char	3	See Region Appendix
✓	Measure	char	6	
✓	Fiscal Period (MON, ANN, QTR)	char	3	
✓	Fiscal Period Year	smallint	4	
✓	Fiscal Period Month	tinyint	2	
	Actual Value	int	14	Maxdecimal 5
	Actual Activation Date	date(yyyymmdd)	8	
	Actual Activation Time	time(HH:MM:SS)	8	
	Currency at Company Level	char	3	

KPI Restated Actuals File Format

Subscription Level: Summary

File Name: <D>RACTK<MMM>.<REG>; HK<MMM>NRACT.<REG>

Frequency: Daily/Weekly

This file contains restated actuals for all companies that have restated actuals for a reported period in the past.

The surprise mean, surprise number of estimates and surprise standard deviation fields are being populated for the latest period for which an actual exists and represents the surprise data calculated at the time the original actual was captured. The Announce Dates and Times signify the date/time the company has reported its restated earnings. The Activation date/time represents the time the restatement was recorded in the database.

The weekly Actual File contains up to 5 annuals, 8 quarterlies and 4 monthly actuals for all current Refinitiv companies, where available.

Actuals could be available simultaneously for the same period in both Actuals and Restated Actuals files where applicable.

Key	Data Field	Data Type	Data Length	Comments
✓	IbesTicker	varchar(6)	6	
✓	ProductId	int	6	
✓	RegionId	char(3)	3	See Region Appendix
✓	Measure	varchar(6)	6	
✓	FiscalPeriod	char(3)	3	
✓	FiscalPeriodYear	smallint	4	
✓	FiscalPeriodMonth	tinyint	2	
	ActualValue	9999999.999	14	Maxdecimal 5
	RestatedActualActivationDate	date(yyyymmdd)	8	
	RestatedActualActivationTime	time(hh:mm:ss)	8	
	RestatedActualAnnounceDate	date(yyyymmdd)	8	
	RestatedActualAnnounceTime	time(hh:mm:ss)	8	
	StatusFlag	char(1)	1	S=Change in Fiscal Period (i.e. FY1 to FY0) E=Error

Key	Data Field	Data Type	Data Length	Comments
				Correction * Does not apply to weekly files and it is blank when not applicable Field does not exist in the historical files
	SurpriseMean	int	14	Maxdecimal 5
	SurpriseNumberOfEstimates	smallint	4	
	SurpriseStandardDeviation	int	12	Maxdecimal 5
	CurrencyAtCompanyLevel	char(3)	3	

Please note that though the fields below are no longer included in the new current files, the space they occupied is still in the file format.

Key	Data Field	Data Type
	Surprise Mean	
	Surprise Number of Estimates	smallint
	Surprise Standard Deviation	

18 KPI SUMMARY ESTIMATE FILE FORMATS

Subscription Level: Summary

File Name: <D>SUMK<MMM>.<REG>

Frequency: Daily/Weekly/Historical

This file contains Mean information which represents averages for all data contained in the Daily Estimates File. Standard summary calculations such as mean, median, standard deviation, number of estimates raised/lowered are contained in this file.

If a mean no longer exists because the last active estimate was either deleted, stopped or filtered, the mean is represented by a "blank" in the Mean field. All summary data fields, indicated in italics, are blank in these instances.

The total number of estimates does not include filtered/excluded contributor estimates provided for the company. The number of up/down revisions includes both filtered/excluded and non-excluded estimates.

Current file layout

Key	Data Field	Data Type	Data Length	Comments
✓	IbesTicker	varchar	6	
✓	ProductId	int	6	
✓	RegionId	char	3	See Region Appendix
✓	Measure	varchar	6	
✓	FiscalPeriod	char	3	
✓	FiscalPeriodYear	smallint	4	
✓	FiscalPeriodMonth	tinyint	2	
	ForecastPeriodIndicator	char	2	
	NumberOfEstsRaised1Wk	int	4	
	NumberOfEstsLowered1Wk	int	4	
	NumberOfEstsRaised4Wks	int	4	
	NumberOfEstsLowered4Wks	int	4	
	NumberOfEstsRaised1Month	int	4	
	NumberOfEstsLowered1Month	int	4	
	Mean	int	14	
	NumberOfEstimates	int	4	
	Median	int	14	
	StandardDeviation	int	10	
	HighEstimate	int	14	
	LowEstimate	int	14	
	PreviousMean	int	14	

Key	Data Field	Data Type	Data Length	Comments
	PreviousNumberOfEstimates	int	4	
	PreviousMedian	int	14	
	PreviousStandardDeviation	int	10	
	PreviousHighEstimate	int	14	
	PreviousLowEstimate	int	14	
	Mean1WkAgo	int	14	
	NumberOfEstimates1wkAgo	int	4	
	Median1wkAgo	int	14	
	StandardDeviation1wkAgo	int	10	
	HighEstimate1WkAgo	int	14	
	LowEstimate1WkAgo	int	14	
	Mean4WksAgo	int	14	
	NoEstimates4WksAgo	int	4	
	Median4WksAgo	int	14	
	StandardDeviation4WksAgo	int	10	
	HighEstimate4WksAgo	int	14	
	LowEstimate4WksAgo	int	14	
	Mean1MonthAgo	int	14	
	NumberOfEstimates1MonthAgo	int	4	
	Median1MonthAgo	int	14	
	StandardDeviation1MonthAgo	int	10	
	HighEstimate1MonthAgo	int	14	
	LowEstimate1MonthAgo	int	14	
	Mean3MonthAgo	int	14	
	NumberOfEstimates3MonthAgo	int	4	
	Median3Month	int	14	
	StandardDeviation3MonthAgo	int	10	
	HighEstimate3MonthAgo	int	14	
	LowEstimate3MonthAgo	int	14	
	FlashMean	int	14	
	FlashNumberOfEstimates	int	4	
	FlashStandardDeviation	int	10	
	CurrencyAtCompanyLevel	char	3	

Historical file layout

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
✓	Region ID	char	3	See Region Appendix
✓	IBES Stat Period	YYYYMMDD	8	
✓	Measure	char	6	
✓	Fiscal Period (MON, ANN, QTR,)	char	3	
✓	Fiscal Period Year	smallint	4	
✓	Fiscal Period Month	tinyint	2	
	Forecast Period Indicator	char	2	
	Number of Estimates	int	4	
	Number Up	int	4	
	Number Down	int	4	
	Median	int	14	
	Mean	int	14	
	Standard Deviation	int	10	
	High Estimate	int	14	
	Low Estimate	int	14	
	Currency at company level	char	3	

19 KPI PRODUCT IDENTIFICATION FILES

These files contain company and product relationships, parent and product relationships, thus allowing users to cross-reference I/B/E/S Tickers with Product ID's. They also provide important metadata. Any I/B/E/S ticker that appears in the KPI Detail Estimates or Actuals files should be populated in the Identification Files. Any Product ID appearing in the Estimates or Actuals files will be present in the Product Identification files as well. Industry ID's represent the generic drug names for Pharmaceutical sales.

There are 2 KPI Product Identification files for QFS

- Product Identification #1 PKID1
- Product Identification #2 PKID2

There are 2 KPI Product Identification files for History
- Product Identification #1 PID1
- Product Identification #2 PID2

Product Identification #1 File Format

File Name: <D>PKID1.<REG>

Subscription Level: Summary

Frequency: Daily/Weekly/Historical

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
	Region ID	char	3	See Region Appendix
	Measure	char	6	

Product Identification #2 File Format

File Name: <D>PKID2.<REG>

Subscription Level: Summary

Frequency: Daily

Key	Data Field	Data Type	Data Length	Comments
✓	ProductId	int	6	
✓	ParentProductId	int	6	
✓	RegionId	char	3	See Region Appendix
✓	ProductType	varchar	30	
	BrandLongName	varchar	80	
	GenericLongName	varchar	80	
	IndustryId	varchar	80	

	ProductStatus	varchar	20	Blank where not applicable
	ProductPurpose	varchar	100	
	IndustrySector	varchar	30	
	Measure	varchar	6	
	MeasureUnit	varchar	12	
	ProductIdCreateDate	date(yyyymmdd)	8	
	ProductIdCreateTime	time(hh:mm:ss)	8	
	ProductIdModifiedDate	date(yyyymmdd)	8	
	ProductIdModifiedTime	time(hh:mm:ss)	8	
	ProductIdEndDate	date(yyyymmdd)	8	
	ProductIdEndTime	time(hh:mm:ss)	8	
	PatentExpirationDate	date(yyyymmdd)	8	
	PatentExpirationTime	time(hh:mm:ss)	8	

Product Identification #1 File Format History

File Name: <D>PID1.<REG>

Subscription Level: Summary

Frequency: Historical

Key	Data Field	Data Type	Data Length	Comments
✓	I/B/E/S ticker	char	6	
✓	Product ID	int	6	
	Region ID	char	3	See Region Appendix
	Measure	char	6	

Product Identification #2 File Format History

File Name: <D>PIDI2.<REG>

Subscription Level: Summary

Frequency: Historical

Key	Data Field	Data Type	Data Length	Comments
✓	ProductId	int	6	
✓	ParentProductId	int	6	
✓	RegionId	char	3	See Region Appendix
✓	ProductType	varchar	30	
	BrandLongName	varchar	80	
	GenericLongName	varchar	80	
	IndustryId	varchar	80	
	ProductStatus	varchar	20	Blank where not applicable
	ProductPurpose	varchar	100	
	IndustrySector	varchar	30	
	Measure	varchar	6	
	MeasureUnit	varchar	12	
	ProductIdCreateDate	date(yyyymmdd)	8	
	ProductIdCreateTime	time(hh:mm:ss)	8	
	ProductIdModifiedDate	date(yyyymmdd)	8	
	ProductIdModifiedTime	time(hh:mm:ss)	8	
	ProductIdEndDate	date(yyyymmdd)	8	
	ProductIdEndTime	time(hh:mm:ss)	8	
	PatentExpirationDate	date(yyyymmdd)	8	
	PatentExpirationTime	time(hh:mm:ss)	8	

Key	Data Field	Data Type	Data Length	Comments
	IndustryId	varchar	80	
	ProductStatus	varchar	20	Blank where not applicable
	ProductPurpose	varchar	100	
	IndustrySector	varchar	30	
✓	Measure	varchar	6	
	MeasureUnit	varchar	12	
	ProductIdCreateDate	date(yyyymmdd)	8	
	ProductIdCreateTime	time(hh:mm:ss)	8	
	ProductIdModifiedDate	date(yyyymmdd)	8	Field not included in the historical files
	ProductIdModifiedTime	time(hh:mm:ss)	8	Field not included in the historical files
	ProductIdEndDate	date(yyyymmdd)	8	
	ProductIdEndTime	time(hh:mm:ss)	8	
	PatentExpirationDate	date(yyyymmdd)	8	
	PatentExpirationTime	time(hh:mm:ss)	8	

KPI Identification File Format

File: <D>IDK.<REG>

Subscription Level: Summary

Frequency: Daily/Weekly

This file does not exist in the historical version.

This file allows user to cross-reference I/B/E/S Ticker with non-TR identifiers. Any I/B/E/S ticker that appears in the KPI Detail Estimates or Actuals files should be populated in the Identification Files.

Key	Data Field	Data Type	Data Length	Comments
✓	IbesTicker	varchar	6	
	OfficialTicker	varchar	6	
	HomeMarketCode	varchar	6	
	Cusipsedol	varchar	10	8 characters for Cusips, 6 for Sedols
	LongCompanyName	varchar	40	
	InstrumentType	char	1	
	ExchangeCode	char	1	

Key	Data Field	Data Type	Data Length	Comments
	CountryId	char	2	
	ExchangeCountryId	char	2	
	SectorindustrygroupCode	varchar	6	
	ISIN	varchar	12	
	IbesTickerEndDate	date	8	This field will be blank at the current time This field is not present in the weekly files

20 KPI LOOKUP TABLES

The Lookup Tables are used for referential mappings.

LU Product

File Name: <D>PRODK

Subscription Level: Standard

Frequency: Daily/Weekly

This file does not exist in the historical version.

Data Field	Data Type	Data Length	Comments
Product ID	int	6	
Product Type	char	30	
Product Brand Long Name	varchar	80	
Product Brand Short Name	char	80	
Product Generic Long Name	varchar	80	
Product Generic Short Name	char	80	
Industry ID	varchar	80	
Measure	char	6	
Periodicity	char	3	
Status	char	20	
Purpose	varchar	100	
Industry Sector	char	30	
Industry Subsector	char	30	
Create Date	yyyymmdd	8	
Create Time	hh:mm:ss	8	
Modified Date	yyyymmdd	8	
Modified Time	hh:mm:ss	8	
End Date	yyyymmdd	8	
End Time	hh:mm:ss	8	
Parent Product ID	int	6	
Patent Expire Date	yyyymmdd	8	

Data Field	Data Type	Data Length	Comments
Patent Expire Time	hh:mm:ss	8	

LU Product Type Measure

File Name: <D>MEASK

Subscription Level: Standard

Frequency: Daily/Weekly

Data Field	Data Type	Data Length	Comments
Product Type	char	30	
Product Description	char	60	
Measure	char	6	
Measure Unit	char	50	

LU Product Type Measure

File Name: <D>MEAS

Subscription Level: Standard

Frequency: Historical

Data Field	Data Type	Data Length	Comments
Product Type	char	30	
Product Description	char	60	
Measure	char	6	
Measure Unit	char	50	

LU Product Status

File Name: <D>STATK

Subscription Level: Standard

Frequency: Daily/Weekly

Data Field	Data Type	Data Length	Comments
Product Status	Char	20	
Product Status Description	Char	60	

LU Product Status

File Name: <D>STAT

Subscription Level: Standard

Frequency: Historical

Data Field	Data Type	Data Length	Comments
Product Status	Char	20	
Product Status Description	Char	60	

LU Product Region

File Name: <D>PREGK

Subscription Level: Standard

Frequency: Daily/Weekly

Data Field	Data Type	Data Length	Comments
Region ID	Char	3	
Region Short Name	Char	20	
Region Long Name	Char	40	

LU Product Region

File Name: <D>PREG

Subscription Level: Standard

Frequency: Historical

Data Field	Data Type	Data Length	Comments
Region ID	Char	3	
Region Short Name	Char	20	
Region Long Name	Char	40	

LU Product Footnote Type

File Name: <D>FNTPK

Subscription Level: Standard

Frequency: Daily/Weekly

This file does not exist in the historical version.

Data Field	Data Type	Data Length	Comments
Footnote Type	Char	1	
Footnote Text	Char	80	

21 KPI SAMPLE DATA ACCOUNT INFORMATION

- The Sample files available are available in a Thursday Daily and a Weekly version. The Daily and Weekly files will contain data as of every Thursday night. One set only of Daily files are available a week.
- The Sample files contain data for at least 5 IBES tickers that have activity on the day the files are run.

   Please Note:

- There are separate directories for each I/B/E/S product: change to the directory of the product you are looking for.
- A copy of this I/B/E/S KPI User Guide, as well as the I/B/E/S Glossary, which includes methodology for I/B/E/S data calculations, is available on the FTP account.
- An FTP account is created for every new client, a user name and password being provided at the time the account is set up.

KPI Folder

Daily Thursday file: kprsmpl.zip

Weekly file:　　　　kpqsmpl.zip

Sample files are available in one of the following locations:

FTP Account Address:　　　　ftp://ftp-ibes.refinitiv.com/

User ID:　　　　samples

Password　　　　luk$tou

The following URL can be 'cut and pasted' to log into the FTP site:

ftp://samples:luk$tou@ftp-ibes.refinitiv.com/qfs

22 APPENDIX

Things to Note

- Non-available data appears as a blank space except in the case of contributor or analyst names, which have a code number in the case of permission denial.
- In cases where all current estimates are stopped, deleted or excluded/filtered, the mean included for the respective period in the daily files will be blank as well as all other summary fields for the respective record to indicate that a mean no longer exists and the previous one is not applicable. Subsequent Weekly files will no longer include detail and summary level information for the respective period unless new data has been recorded for that period.

Note:

The status flags are blank in the weekly files, as those files represent snapshots of the Refinitiv data on the close of business each Thursday night.

Entitlements

Through the years, Refinitiv has built and maintained a strong relationship with its contributors.   As part of this on-going relationship, Refinitiv ensures that its contributors have the right to determine, on a client-by-client basis, which may or may not view their estimates in a detail format. If a contributor denies permission to a specific client, the Estimator field will have a numeric code, while a numeric field also represents the Analyst field, effectively meaning

"Permission Denied".

Appendix A - Regions

Region ID Code	Country	Description
US	United States	Only represents sales generated in the United States
EUR	Europe	Only represents sales generated in Europe
ASI	Asia	Only represents sales generated in Asia
WUS	Except US	Represents all worldwide sales generated outside the United States
JP	Japan	Only represents sales generated in Japan
WJP	Except Japan	Represents all worldwide sales generated outside Japan
WWW	Worldwide	Represents all worldwide sales

Appendix B – Forecast Period Indicators

Forecast Period Indicator	Description
1	Fiscal Year 1
2	Fiscal Year 2
3	Fiscal Year 3
4	Fiscal Year 4
5	Fiscal Year 5
E	Fiscal Year 6
F	Fiscal Year 7
G	Fiscal Year 8
H	Fiscal Year 9
6	Quarter 1
7	Quarter 2
8	Quarter 3
9	Quarter 4
N	Quarter 5
O	Quarter 6
P	Quarter 5
Q	Quarter 8
R	Quarter 9
S	Quarter 10
T	Quarter 11
L	Quarter 12
A	Semi Ann 1
B	Semi Ann 2
C	Semi Ann 3
D	Semi Ann 4
J	Semi Ann 5
K	Semi Ann 6
0	Long Term Growth
MA	Month 1
MB	Month 2

MC	Month 3
MD	Month 4
ME	Month 5
MF	Month 6
MG	Month 7
MH	Month 8
MI	Month 9
MJ	Month 10
MK	Month 11
ML	Month 12

Please note that Forecast Period Indicators for Month 1 – 6 have changed.

Appendix C – Estimate Level Footnote Types

Footnote Code	Description
3	Earnings on a fully adjusted basis (IFRS)
4	Earnings on a fully reported basis (IFRS)
5	Estimate includes stock option expenses (FAS123R)
6	Estimate excludes stock option expenses (FAS123R)
A	Accounting differences exist
C	Estimate received directly from analyst
D	Estimate received in currency other than default
E	Estimate adjusted due to error correction
I	Dividend includes foreign earnings
J	DPS in standard other than local default
K	Forecast estimate not a 12-month figure
L	Estimates based on real earnings
M	Estimate reflects Full Monetary Correction
P	Accounting differences - estimate on parent basis
Q	Restricted
R	Revision prompted by phone contact
S	Estimate received/confirmed from analyst

T		Accounting basis unknown - contributor contacted
U		Contributor update pending
V		Estimate received in Euro
W		Estimates based on IFRS
X		Estimate on a cash earnings basis
Y		Estimate received in legacy currency
Z		Zero published in lieu of negative data

Appendix D – Important Nomenclature

This document uses important abbreviations and terms that are universally applied within KPI.
These terms are key in understanding the Refinitiv data model and how it relates to KPI:

Data Field	Description
I/B/E/S ticker	A unique Thomson Reuters identifier that allows the user to link companies over time regardless of ownership changes.
Measure	The type or kind of estimate being represented. Examples of measure are PS, SS
Periodicity	The frequency by which a measure is recorded. Examples of periodicity are quarterly, annually, or monthly
Fiscal period year	The period year, or fiscal year, for which the measure/periodicity applies.
Fiscal period month	The period month, or fiscal month, for which the measure/periodicity applies.
Broker Code	The sell-side institution or contributor making the forecast.
Analyst Name	The person at the sell-side institution or contributing analyst making the forecast.
Value	The value of the forecast.
Activation date/time	The day/time the forecast/actual was recorded by Refinitiv.
Announce date/time	The day/time the contributing analyst has released the forecast or actual were reported by the company.

Appendix E – ISIN FILE LAYOUT

Service and Support

The [Refinitiv](#) [Statement of Service](#) is available on MyRefinitiv.

My Refinitv is a single online entry point to Refinitiv support and service functions. Content includes:

- **Support -Contact Us**: Use Search, view FAQs and raise and track support queries online.[-](#) [https://my.refinitiv.com/content/mytr/en/policies/help-and-support.html](#)
- **Notifications**: View product change notifications, service alerts and product information including user guides. - [https://my.refinitiv.com/content/mytr/en/policies/notifications-and-alerts.html](#)

- For more information on how to subscribe to **Notifications, Alerts or Raising a query** can be found in the respective documents listed below:
  - [A Guide to Viewing & Subscribing to Data Notifications](#)
  - [How to Subscribe to Product Change Notifications](#)
  - [The Service Alerts Subscriptions Guide](#)

[How to raise a client query](#) (Direct Link- [https://thesource.refinitiv.com/TheSource/asset?id=20581](#)

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