ISO 20022 Newsletter

IN THIS EDITION

For more information on ISO 20022, consult the ISO 20022 website at www.iso20022.org and get access to:

- Two scripted Powerpoint presentations to understand the ISO 20022 value proposition, the role of the various registration bodies, and what has been developed so far
- How to become an ISO 20022 'submitting organization' and develop new ISO 20022 messages or how to submit updates to existing messages.
- Who is representing your country or organization in each of the ISO 20022 registration bodies: the Registration Management Group (RMG), the five Standards Evaluation Groups (SEGs) and the Technical Support Group (TSG).
- Which are the current development projects and their status
- The catalogue of ISO 20022 messages including the latest version of ISO 20022 messages and the archive of previous versions.

If you have questions, please send them to the ISO 20022 Registration Authority at iso20022ra@iso20022.org.

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From the RMG Convener

Dear Members of the ISO 20022 Community:

Since our Newsletter published in the fall of 2012, we acknowledge the substantial progress made with the development and implementation of the ISO 20022 standard. For the development our Registration Authority registered nearly 80submissions for the creation of 257 change requests to the ISO 20022 standard from a growing number of submitting organizations.We are aware that several new submissions are expected in the near future.

Our ISO 20022 standard is currently implemented among several programs with a large impact for the

J.P. Morgan
Case Study: ISO 20022 Implementation for Corporate Actions

J.P. Morgan's participation in the ISO 20022 pilot program supports the custodian's legacy system refresh and adoption of industry standard market practices, resulting in key data quality improvements.

"It has been a very valuable learning exercise for our team and all of those involved and I fully expect the same from further phases. It is hard to put a price tag on it because it has been beneficial in terms of business analysis rather than direct cost savings thus far, but that may change in later phases."

—Steven Sloan, Vice President
Custody Technology
J.P. Morgan Investor Services

J.P. Morgan is one of four financial institutions that agreed to participate in the ISO 20022 corporate actions messaging pilot program being run by the Depository Trust & Clearing Corporation (DTCC).

From the RMG Convenor
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participants of these programs. All businesses, public administrations and banks in the 17 nation Euro area where countries are driven by law to implement the standard for all their euro credit transfers and direct debit payments (domestic and cross-border in the European Union) at the latest, and before February 2014. The majority of the software companies have already upgraded their technology for making this mandatory migration possible. The Bank of Japan and the Reserve Bank of India made substantial progress with the preparation and implementation of ISO 20022 standards for their new RTGS systems for their respective currency. The European Central Bank started with the development of the Target 2 Securities program (see article in Special Edition supplement) with usage of ISO 20022 standards.

Public Authorities recognize in different roles see the added value of ISO identifier (LEI, IBAN, BIC, ISIN etc) and the messaging (ISO 20022) standards for transaction services. As System-Owner of RTGS systems some Central Banks started to use the standard for their new RTGS system. In Europe, the legislator made the IBAN and ISO 20022 mandatory by a regulation for euro payments for all market participants inclusive of public administrations. This authority has the legal right to request account information to carry out their duties which started in Finland. Here, ISO 20022 standars are used for their investigation messages with the banks.

Competition Authorities in Europe have started to become more interested in the creation of standards. Article 101 (1) of the Treaty of the Functioning of the European Union (TFEU),

DG Competition is empowered to review if horizontal co-operation agreements for creating standards are not anti-competitive by object or by effect. A set of guidelines , the Horizontal Guidelines, were published on 14 December 2010 . The creation of standards need to meet a set of criteria regarding inclusion of all stakeholders during the creation and consulation process and for the Intellectual Property Rights of a standard. These developments of the public sector have an impact on the work of standardisation bodies.

Since our last Registration Management Group meeting in Paris, there are some changes in the team of convenors of our SEG's. In 2013 Thomas Egner (Payments SEG), Ludy Limburg (FX SEG) and Chris Star (Cards SEG) retired as convenors of their SEGs. We thank each convenor for their work and sometimes challenging task to create an agreement on the content of the standard. We welcome the new Convenors including; Susan Colles (Payments SEG) and Ram Komarraju (FX SEG) and William Vanobberghen (Cards SEG)who were elected according to our ISO 20022 Governance Rules (Chapter 3.3). The Special Edition supplement in this edition relates to activities surrounding the new edition of the ISO 20022 standard. The supplement is a new feature to be used occasionally to highlight movements within ISO 20022 activity.

Sincerely,

Gerard Hartsink, RMG Convenor
ISO20022

J.P. Morgan Case Study

(continued from page 1)

The aim of the pilot has been to enable J.P. Morgan and other pilot firms to automatically receive standardized corporate actions announcements from DTCC in ISO 20022 messaging formats. Accordingly, J.P. Morgan was the first financial institution to go live with DTCC's new global ISO 20022 income announcement messages using DTCC's SMART network in August 2012. DTCC offers their participants the option of connecting via SWIFT or SMART (DTCC's own proprietary network).

The pilot program is part of DTCC's overall corporate actions reengineering initiative, which will see the depository replace its 60 legacy systems with a new single platform that will allow users to manage the full lifecycle of their corporate actions. The reengineering initiative was announced back in 2009 and is expected to be completed in 2015. It represents a move away from a reliance on DTCC's own proprietary formats for messaging communications with its participants to ISO 20022 standard messaging.

Initially, the pilot has focused on corporate actions announcements and their related cancellations, however, the remaining corporate actions lifecycle processes, such as entitlements, elections and payments will be tackled in upcoming future phases.

BUSINESS BENEFITS

- ISO 20022 pilot program is a means of assisting J.P. Morgan's adoption of market practices and SWIFT standard message types for corporate actions.
- The adoption of market practices has led to a data quality improvement process via a feedback loop with DTCC during the pilot.
- The ISO 20022 standard messaging is able to more closely follow the lifecycle processes of a corporate action, hence a greater number of data attributes are included in the messaging.
- The increased timeliness of the data has meant that J.P. Morgan's U.S. operations are better positioned to support clients in the Asian and European regions.
- Around 15% to 20% of data provided in the new ISO 20022 messaging would not have made the nightly cut-off process in the older batch messages from DTCC.
- Elimination of the manual processes required to pull information from DTCC to enrich corporate actions records: less cost, less risk and less latency involved.

MOTIVATION

J.P. Morgan felt strongly that involvement in the ISO 20022 pilot program could be a means of assisting its adoption of market practices and SWIFT standard message types for corporate actions. There was interest from the firm's key client base to adhere to these message types and improve the quality of the message data accordingly. The pilot project also fits into J.P. Morgan's overall operating system upgrade program that will see the firm replacing its legacy systems with new systems for corporate actions processing over the next couple of years.

The second rationale behind signing up was the benefit of providing direct feedback to DTCC during the initial requirements-setting phase. "Rather than waiting for the mandatory conversion date in the future, we wanted to help set the direction of the pilot program and feed directly into the requirements," says Steven Sloan, Vice President, Custody Technology, J.P. Morgan Investor Services.

J.P. Morgan has just finished phase two of the pilot program and was the first in the group to automate all of the income and event announcements involved during the first phase, which was solely related to the announcement process. The focus of the firm in deciding to participate in the initial phases was on improving data quality more than reducing cost, whereas it is expected that the latter phases, which are concerned with automating the corporate actions elections process, are more likely to result in direct cost savings.

BENEFITS EXPERIENCED DURING PHASE ONE

In order to assess the full data quality and timeliness benefits of the pilot, J.P. Morgan conducted a parallel assessment process where the team compared the DTCC data from the older feeds to the pilot data directly. The firm established a parallel process using the pilot data to compare with the live messages from DTCC (data in production) and the metrics being measured and compared were related to key corporate actions workflow and processes.

One of the metrics measured by the firm was the latency of the data involved. The move from batch processes for announcement data to real-time feeds as a result of the pilot program has therefore improved the timeliness of the data received by J.P. Morgan. DTCC was previously providing income data on an hourly delivery basis but it was not available in real time. J.P. Morgan indicates that this move to a real-time cycle has been especially beneficial for its European and Asian clients, who are not now being limited by U.S.-specific timeframes.

In terms of improved timeliness, Sloan explains that there was around 15% to 20% of data that would not have made

the nightly cut-off process in the older batch messages that was provided via the real-time pilot program messages. Due to this increased level of service, J.P. Morgan could be better enabled to meet service level agreements for clients in time zones other than the U.S. For example, clients in Asia that are processing U.S. events would have the capabilities to receive that data outside of U.S. operating hours.

The measurement of data quality and a comparison of the number of attributes between the live data and the pilot data allowed J.P. Morgan to check any inconsistencies and problems that could be fed back to DTCC for resolution. This resulted in overall data quality improvements and the inclusion of additional data sets that J.P. Morgan could potentially be able to take advantage of in future for operational improvement and client reporting purposes. Tax related data sets could be one such data item that the firm could benefit from using in a regulatory reporting context in future, according to Sloan.

The main measure of success of the pilot, however, was the ability of the firm to go live with the new messages in August 2012 with no detrimental impact to clients.

MILESTONES, CHALLENGES, COSTS

J.P. Morgan has a team of dedicated corporate actions professionals located both onshore and offshore that have been working on the pilot program. In terms of technology-focused individuals, six were involved directly in the project's early phases, supported by around six people from the operations and product teams, including four senior team members. This number will fluctuate over the course of subsequent phases of the overall program as different business units become involved in the feedback process.

Sloan indicates that there was a high level of engagement in the program from the business side due to J.P. Morgan's future automation needs; streamlining the announcement capture flow fit into the future strategy. The ISO 20022 pilot therefore slotted into the wider task of documenting existing processes underlying corporate actions and of mapping them against any new system requirements and capabilities.

On the pilot program side of things, this work involved taking in approximately 80 scenarios for data provided by DTCC and reverse engineering them to J.P. Morgan's current processes in order to identify required changes. As a beneficial side effect, J.P. Morgan and other pilot firms were able to build data quality metrics and check DTCC's adherence to them.

The team was also required to build into the process a series of additional steps in order to check and reconcile data before straight-through processing (STP) could be enabled,

including building an intermediate database to store messages before they could be uploaded to the system. This development work was factored into the cost of the overall project as it involved some technology and staffing spend on the part of the in-house team. J.P. Morgan opted not utilize a vendor solution because of concerns about future volume sensitivity and scalability of such a solution due to the incremental volume of corporate actions event data over time.

Sloan explains that DTCC had to closely examine the downstream impacts of any upstream selection processes to ensure that data was not being missed in exception reports, for example.

FUTURE BENEFITS

J.P. Morgan's own legacy upgrade program is quite substantial, but it will not prevent the firm from continuing to participate in the testing future phases. Sloan explains that the firm will go ahead with the analysis and testing involved in the ISO 20022 implementation program's next phases but may not move over fully to go live with the messages until after its own legacy system refresh has been completed in 2014.

"It has been a very valuable learning exercise for our team and all of those involved and I fully expect the same from further phases," says Sloan. "It is hard to put a price tag on it because it has been beneficial in terms of business analysis rather than direct cost savings thus far, but that may change in later phases. However, there will likely be much more operational challenges to contend with in these phases, as the processes involved become more complex further in the corporate actions lifecycle."

In terms of risk hotspots in future, there is particular sensitivity about voluntary events and the capturing of election data; hence this is a process that must be closely monitored when any changes are required, especially given the non-STP nature of this area.

THE ROLES OF DTCC AND SWIFT

DTCC was relatively new to the world of SWIFT messaging, hence had a lot to learn during the initial phases about data flows and market practices underlying these messages, according to Sloan. "Overall, DTCC has been very helpful throughout the process and has supported some of the specific requirements we had."

SWIFT also supported the pilot firms in their messaging standards adoption efforts and acted as a central coordinator for reaching agreement across all parties in the pilot. "SWIFT was able to broker agreements across the pilot firms in difficult areas and therefore provided a key intermediary role in the program overall," says Sloan. ●

The Depository Trust & Clearing Corporation
Case Study: ISO 20022 Implementation for Corporate Actions

INTRODUCTION

First phases of The Depository Trust & Clearing Corporation's (DTCC) reengineering program and adoption of ISO 20022 enables risk reduction and greater efficiencies within corporate actions processing. "The same standard, the same browser, and unique corporate action identification numbers being used by the industry will help automate and streamline corporate actions processing, help reduce risk, and move the industry a step closer to straight-through-processing," says Robert Epstein, Vice President, Asset Services, DTCC.

DTCC is moving forward with its reengineering program, which will see the depository retire its legacy systems in favor of a new single integrated system, as well as adopting the ISO 20022 standard for corporate actions messaging. The decision to go with ISO 20022 goes back several years when the industry, DTCC, and various working groups were investigating ways to approach corporate actions reengineering. It was decided to implement a single standard for the entire industry so that DTCC, the custodians, the investment managers, the brokers — everyone in the corporate actions chain — could speak the same language and use the same standard. ISO 20022, with the DTCC extensions, was selected in order to realize that goal.

Accordingly, one of the main benefits of the industry using the same standard is that the risk of misinterpretation when transferring data from one broker to another or from one custodian to another is reduced significantly and efficiencies are boosted. Also, DTCC's corporate actions identification number, coupled with ISO 20022, will enable a corporate actions user to track an event from the announcement all the way through to the instruction and payment.

BUSINESS BENEFITS

- Improve identification and representation of events by allowing events to be presented under a single record (event-based as opposed to function or activity-based). This means that events such as mergers with elections and optional dividends will no longer require multiple announcements to support processing, thus resulting in cost reduction and efficiency benefits.
- Support delivery of corporate actions messaging over the DTCC SMART and SWIFT networks, thus providing greater client choice.
- Provide corporate actions data in a global context—both North American and global data, and in complete alignment with global standards.
- Support automated elections by giving firms the ability to send DTCC instructions for electable events via the ISO 20022 message format, hence less manual processing required.
- Support intraday announcements for real-time delivery of corporate actions information.
- Development of a new unified, browser-based client interface that allows clients to manage their entire corporate actions lifecycle, from announcements through instructions to payments.
- Provide a unique corporate action identifier to establish a clear and consistent way of identifying events throughout their lifecycle.
- Provide a standard messaging and data model that will assist in reducing miscommunications and manual errors throughout the corporate actions chain.

MILESTONES, CHALLENGES, COSTS

When the reengineering project began in 2009, DTCC, along with the industry, decided it should be a multi-year, phased-in project where different components would be delivered each year. So, in 2010 for example, DTCC drafted and posted a corporate actions roadmap and timeline on its website, along with a detailed list of technical documents and specifications covering legacy files, ISO 20022 messages, corporate action scenarios and related information. Working with SWIFT, it also released for public comment ISO 20022-compatible corporate actions announcement messages and later posted a revised draft of the announcement messages incorporating industry feedback.

In 2011, it launched the pilot program testing ISO 20022 corporate actions announcement messages using the new browser-based user interface with four pilot firms—Brown Brothers Harriman, BNY Mellon, J.P. Morgan and National Financial. The announcement messages went into production in November 2011, and, as of May 2012, DTCC had sent over 20 million ISO 20022 messages to these four pilot firms (see detailed project phases in Table A on page 6).

Epstein explains that one of the most important milestones reached last year was the deployment of a new data model. "Currently, clients see announcements as function codes communicated via envelopes and there can be two, three, four, five, or even more, different announcements for one event. Now, with the new data model, we use a single-event structure," he says. "For example, instead of identifying a tender and consent offer as two '52' function codes, it's now called what it is known as in the market—a tender offer with a consent – and all of the information is communicated within a single event, represented by a unique corporate action ID."

In terms of resources dedicated to the reengineering project, it has been quite large in scope for DTCC, involving teams from Product Management, Operations, Applications Development and Maintenance (ADM), Infrastructure, Service Activation and the Customer Help Center. On the pilot firms' side of things, they have dedicated operations and project management staff to ensure proper testing between the old and new data model. Network infrastructure and application teams have also been heavily involved in the effort to ensure that their networks are operating at peak efficiency in order to handle ISO 20022 messages and volumes.

These tests and preparation work have thrown up a range of different issues to tackle and, on the subject of hurdles faced and lessons learned thus far, Epstein says: "Perhaps one of the biggest challenges during the pilot was testing out of a non-production environment. Initially, it was very helpful in terms of testing the new standard because it was the first time anyone had sent out ISO 20022 messages. But as the test went on, our clients were anxious to see real workflows from a production environment. When we did go into production in November 2011, and customers were able to do tests in parallel systems, they could see the full production data and full workflows and understand how the new data model and new standard worked in practice."

The pilot program has been an evolutionary process for all involved; as well as learning about the workflows underlying the new data model, DTCC and the pilot firms also tailored speed of delivery options for different client groups. The reengineered system was initially conceived as a real-time messaging system, but some customers realized they didn't need everything in real-time; they needed the flexibility to subscribe or not subscribe to different event groups. This led DTCC to develop different subscription options allowing customers to receive data in real-time or at the end of the day.

BENEFITS FOR CLIENTS

DTCC sees an opportunity for risk mitigation as the new communication standard unfolds. Epstein explains: "The standard messaging and data model will go a long way in reducing miscommunications and errors throughout the corporate actions chain—from custodians, to investment managers, to the end investors. And then there's also the XBRL effort which will increase the timeliness and accuracy of corporate actions information. By aligning our technology with the same standards and taxonomies, we believe there are opportunities to further mitigate risk. In addition, as the initiative progresses to new phases, DTCC will be offering the ability to send inbound in-

TABLE A: PHASES OF DTCC REENGINEERING PROJECT

Phase	Description	Roadmap	Dates
Phase I	DTC data into WAVES	Additional DTC specific data elements added to the platform to support ISO 20022 messages.	October 2009
Phase IIa	Announcements ISO 20022	New browser for announcements and event-based ISO 20022 announcement messages available intraday to all DTC participants for DTC-eligible data and to all GCA VS clients.	November 2011
Phase IIb	Full XBRL interface	Full connectivity to issuer-based XBRL tools, and issuer authentication for Cash ADRs and Stock Dividends	July 2012
Phase III	Distribution events: announcements and processing	New customer user interface and ISO 20022 messaging is introduced for the entire lifecycle for distribution events, from announcements through elections and payments.	February 2013 – June 2014
Phase IV	Redemption events: announcements and processing	Same steps as in Phase III, but applied to redemption events.	December 2014
Phase V	Reorganization events: announcements and processing	Same steps as in Phase III, but applied to reorg events. DTC legacy reorg processors and Computer-to-Computer Facility (CCF) files are upgraded to handle new activity types and data elements.	By December 2015

Source: DTCC

TABLE B: ISO 20022 REAL-TIME PUBLICATION VS. CCF END OF DAY BATCH FILE

Event Type	Function Code/ Activity Code	ISO 20022 Real Time Publication			CCF File Batch Publication	
		Created (Option 1)	Incomplete Manual Update or Final Status (Option 3)	No. of Data Elements	Batch Schedule	No. of Data Values
Mandatory Put	FC-65G	IN - 3:31PM	AP - 6:46PM	35	8:30PM	31
Name Change	FC-91	IN - 1:32PM	CA-6:30PM	37	8:30PM	20
Put	FC-62	AP - 1:32PM	AP - 1:32PM	47	8:30PM	33

IN: Incomplete (Preliminary); CA: Conditionally Approved; AP: Approved.

structions and elections on elective dividends and other events. By automating what is now a manual process, DTCC will produce operational efficiencies for its member firms and reduce the risk associated with manual instruction errors."

Feedback thus far indicates that its pilot firms have been very pleased with the data provided in the ISO 20022 message. The extensions allow for the population of more data, enhancing accuracy, boosting efficiencies and moving the firms closer to STP. In general, however, the ISO 20022 standard has allowed DTCC to publish more 'fielded' data than its CCF formats, allowing firms greater automation on corporate actions.

The new browser has been a bigger success with clients than DTCC expected. "The browser had gotten rave reviews as far back as 2010 when we first started conducting browser webinars with clients to obtain feedback," Epstein continues. "The feedback we've gotten from the pilot firms has also been extremely positive. They've cited the flexibility of the browser and the ability to customize it. They're very pleased that going forward they will have a single platform where they will have the ability to track all processing from the inception of an announcement, to entitlements, all the way through to instructing or electing on their positions and, ultimately, the allocation and payment of the proceeds."

FUTURE BENEFITS
This year, DTCC has begun onboarding additional clients for ISO 20022 announcement messages, as well as offering new

> FEEDBACK THUS FAR INDICATES THAT ITS PILOT FIRMS HAVE BEEN VERY PLEASED WITH THE DATA PROVIDED IN THE ISO 20022 MESSAGE.

message protocols for greater flexibility in handling large volumes. One of the pivotal events for 2012 will be the launch of ISO 20022 pilot testing for distribution events covering the entire lifecycle, including entitlement and settlements messages. DTCC will also be adding related functionality to its new browser-based user interface.

In the longer term and as the industry moves to ISO 20022 over the next few years, DTCC expects to see a much higher level of STP. "The same standard, the same browser, and unique corporate action identification numbers being used by the industry will help automate and streamline corporate actions processing, help reduce risk, and move the industry a step closer to STP," says Epstein.

KEY PARTNERSHIP WITH SWIFT
SWIFT has supported all of the pilot program efforts and DTCC has worked closely with SWIFT in developing the necessary ISO 20022 extensions. As a result of these efforts, DTCC clients can now choose either DTCC's SMART network or SWIFT to connect to DTCC. Accordingly, DTCC has, for the first time, started to send corporate actions data over the SWIFT network.

Epstein elaborates: "The pilot firms like the network flexibility and our partnership with SWIFT has been a close one during the past few years. We believe it will continue to be as we automate and bring greater accuracy to corporate actions and to the industry as a whole."

ISO 20022 REAL-TIME PUBLICATION VS. CCF END OF DAY BATCH FILE
One of the key benefits of DTCC's shift away from dated legacy file formats that are delivered in end of day batch files is the ability to send real-time ISO 20022 data as it is available in the market. In Table B, there are three examples of events that were published to customers significantly faster via real-time ISO 20022 messaging compared to the current CCF batch files. In the Mandatory Put example, the initial ISO 20022 publication was sent at 3:31 p.m. and an updated, fully validated event was sent at 6:46 p.m., a full 5 hours prior to the end of day file that is available in the CCF formats. In the Name Change and Put examples, the initial ISO 20022 messages were sent at 1:32 p.m.,

Brown Brothers Harriman & Co
Case Study: ISO 20022 Implementation for Corporate Actions

INTRODUCTION

Brown Brothers Harriman & Co (BBH) has realized improved turnaround times, enhanced data quality and reduced risk as part of its completion of the first phase of the ISO 20022 pilot for corporate action and reorganization announcements. "The adoption of the ISO 20022 standard represents the first step toward streamlining corporate action messaging, which will lead overall improvements in data quality throughout the life cycle of an event, as well as comply with global market practices," says Sonda Pimental, Vice President, Brown Brothers Harriman & Co.

In October 2010, BBH announced its participation in the ISO 20022 corporate actions messaging pilot program, run by the Depository Trust & Clearing Corporation (DTCC). The aim of the pilot is to enable BBH and other pilot firms to automatically receive standardized real-time corporate action announcements from DTCC in ISO 20022 messaging formats.

The pilot program is part of DTCC's overall corporate actions reengineering initiative, which will see the depository replace its 60 legacy systems with a new single platform, allowing users to manage the full lifecycle of their corporate actions. The reengineering initiative was announced back in 2009 and is expected to be completed in 2015, when DTCC will retire all corporate action legacy files. DTCC's transition from communicating information in proprietary formats and adopting the universal standard of ISO 20022 messaging is a great step on the journey toward universal standards and automation. Initially, the pilot has focused on corporate actions announcements and their related cancellations, however, the remaining corporate actions life cycle processes, such as entitlements, elections and payments will be tackled in upcoming future phases.

BUSINESS BENEFITS

- Announcement phase is the foundation for increased automation of corporate action processing.
- Provides universal identification of an event with the adoption of the Official Corporate Action Event Reference ID for DTCC eligible securities.
- Improved data quality from the source.
- Adoption of industry-standard messaging allows for more streamlined and timely communication with DTCC.
- Improved turnaround processing times.

- Increase in the amount of data communicated in standard format.
- Reduce risk related to misinterpretation of events.
- A single announcement message replaces multiple proprietary file feeds for an event.
- Core foundation for future improvements to downstream processing; entitlements, elections, payments.

MOTIVATION

BBH was the first firm to join the ISO 20022 corporate actions pilot program and the first to go live with reorganization announcements in May 2012. "Over the years, BBH has worked closely with SWIFT and DTCC in order to address challenges around corporate action processing. We chose to pilot with DTCC because we were looking for solutions in the ISO regime that would solve corporate actions pain points in the U.S. market. ISO 20022 provides solutions to improve transparency and granularity when communicating corporate events," explains Sonda Pimental, Vice President, Brown Brothers Harriman & Co.

The U.S. market is more sophisticated than most with regard to corporate actions due to the high number of complex events and the ever-changing regulatory environment. This results in a large manual processing effort based on proprietary communication methods. The move by DTCC to adopt more standard messaging has been welcomed by custodians such as BBH as an opportunity to standardize global market practice. "A lot of work has been done in the ISO standards space to leverage the opportunity to implement new messaging and enhance system infrastructure as part of our long term strategy," says Sonda Pimental.

To put the challenges of the U.S. market into context, previously, all of the data received by BBH from DTCC was in a non-standardized, proprietary format and sent in batch files. There was therefore a time lag for the receipt of data and a high degree of manual intervention was required to convert the data into internally consistent formats.

BENEFITS EXPERIENCED DURING PHASE ONE

The move to ISO 20022 represents an opportunity for BBH to leave behind some of the issues related to dealing with proprietary formats. Throughout 2010 and 2011, BBH led many workshops with DTCC, SWIFT and other pilot firms to discuss the design of the messages as well as the overall impact this initiative

will have on the U.S. community. BBH committed a significant amount of time and resources to analyze DTCC's documentation, message specifications, data element mapping, and sample messages. Once the pilot began, BBH's focus turned to testing the announcement messages in a production-parallel environment. This allowed BBH to compare and contrast information and data received in the new messages to that of the legacy files to measure the timeliness of information and the quality of data benefits. In addition, BBH also reviewed processing workflows and downstream system impacts to its internal applications. In addition, because of these efforts, BBH was able to provide recommendations on improved workflows, status updates, data element mapping, and timing of the messages.

BBH sampled approximately 300 reorganization events in the test environment to compare the timeliness of data received from DTCC via the new ISO 20022 (real-time messages) versus batch proprietary files. The result was that more than half of the test data (real-time messaging) was received in a more timely manner than the data in production (batch files), including improvements in communication intra-day:

- A minimum of 24-hour improvement was realized on 60 percent of the data one business day earlier than the batch files.
- The remaining 40 percent of event updates were received intra-day, which allows more time for clients to make investment decisions.

"The ISO 20022 message formats are more aligned with the business process than the ISO 15022 messages that are available to us today," says Pimental of the other key consideration for joining the pilot.

The DTCC proprietary files provide limited, unstructured data, which means that BBH is forced to reach outside of its systems, manually pull data from DTCC's legacy systems, and scrub that data in order to enrich the corporate actions records.

The elimination of manual processes related to pulling data from DTCC also has an impact on levels of risk, as well as turnaround times. The improved workflow from DTCC to BBH minimizes risk for everyone involved because the required data is provided from the source in the structured fields of the ISO 20022 messages. Less rekeying of static data means that there is also less opportunity for operational risk.

The ISO 20022 messages, therefore, allow for more supplementary data to be included than the previous DTCC proprietary formats. Pimental elaborates: "Cost basis information required for asset managers to review and assess impacts is one such example, where the gap in the legacy data is passed on from the issuer through the central securities depository (CSD) and intermediaries, such as BBH. There are fields available within the ISO 20022 messaging to report such information, should information agents begin to send the details. DTCC's proprietary files do not support that information." "We will now have the infrastructure in place to consume the data, when the issuer is ready to send it, and pass the information to the end investor."

The hope is that the adoption of the standard will enable the industry to address regulatory requirements in a consistent, cost-effective manner. Data will be structured in such a way that it can be utilized downstream for tax reporting, rather than converting proprietary formatted data into a required reporting format manually, thereby reducing the number of announcement updates to an event.

To measure the enhanced quality of structure data, BBH sampled nine specific reorganization events in the test environment via the ISO 20022 message versus the proprietary files. The result was that in each case, an increased amount of information was received in a structured format from the outset. Table A highlights the number of data attributes that were

TABLE A

NOTIFICATIONS		CCF File		SWIFT 20022		
Event	CUSIP	Attributes Received and Percentage of Attributes Required		Attributes Received and Percentage of Attributes Required		Percentage Increase
Stock Merger	67071M104	7	41.18%	14	82.35%	41.18%
Cash Merger	86323M100	6	50.00%	8	66.67%	16.67%
Cash Merger	670823103	3	25.00%	8	66.67%	41.67%
Reverse Split	74347X690	9	56.25%	12	75.00%	18.75%
Reverse Split	74347X682	9	56.25%	12	75.00%	18.75%
Reverse Split	563118405	11	68.75%	12	75.00%	6.25%
Manexc	512807AH1	3	20.00%	9	60.00%	40.00%
Manexc	512807AK4	3	20.00%	9	60.00%	40.00%
Manexc	226373AA6	3	20.00%	9	60.00%	40.00%

included in the pilot (test region data) versus the DTCC production data for different mandatory corporate action event notifications used in the sample.

- In the case of the cash merger with the CUSIP 86323M100, only 50 percent of the attributes required are being provided by the proprietary file, whereas 67 percent are being provided by ISO 20022 messages.
- In the case of the stock merger CUSIP 67071M104, only 40 percent of the attributes required are being provided by the proprietary file, whereas 80 percent are being provided by the ISO 20022 pilot messages.
- Overall, an average of 25 percent more data is being received via the structured message.

MILESTONES, CHALLENGES, COSTS

This is the first time that BBH has received ISO 20022 messaging for corporate actions. The first milestone achieved by BBH was to adapt its systems to be able to receive these messages. The second milestone, achieved in 2011, was the testing and the mapping of the messages, and the verification of the quality of the data that DTCC was sending in the new formats. BBH is currently working through how that information is implemented within its systems and how it impacts downstream processes. "We want to make sure that we have no gaps from what we have internally today, so we are continuing to analyze the process," explains Pimental.

One of the challenges of moving to ISO 20022 is that the naming conventions between the DTCC proprietary standard and the ISO standard are different. The proprietary format conventions are very specific to DTCC. BBH had to interpret what those events mean from a standards perspective – whether it is a tender or an exchange, for example. Therefore, BBH is keen to make sure that the data it receives from DTCC is aligned with the naming conventions and existing market practice standards. The main risk is that if this is not checked, BBH may end up cancelling events in error. Hence BBH is using its test data in parallel to identify any issues.

> BBH IS CONFIDENT THAT THERE WILL BE FURTHER EFFICIENCY GAINS REALIZED IN THE FUTURE BY NOT HAVING TO MANUALLY REKEY DATA.

Since the standard is new, and it is the first time that BBH is using the messages in the corporate action space, investments were made in order to adopt ISO 20022. This includes the requirement to:

- Conduct analytics on the new messaging formats.
- Assess effect of adopting ISO 20022 on BBH's systems.
- Assess effect on downstream workflow implications.
- Implement the necessary system enhancements and infrastructure improvements in order to handle the messages.

BBH's strategy is to align with DTCC's phases, which will allow BBH to plan and spread out development and implementation over future phases of the project.

FUTURE BENEFITS

BBH is confident that there will be further efficiency gains realized in the future by not having to manually rekey data. However, it is difficult to tangibly measure these benefits ahead of the migration of other message types to ISO 20022. BBH believes that future phases will have much more of an impact, particularly the phase related to elections. "The improvements realized throughout the life cycle of an event will allow for more accurate projections, cash/share availability, and reduced deadlines, which affords more time for making investment decisions," says Pimental.

At the moment the communication of elections between BBH and DTCC is 100 percent manual – via the rekeying of data into a DTCC terminal. In the future, BBH will have the opportunity to automate that process.

THE ROLES OF DTCC AND SWIFT

DTCC and SWIFT have supported the pilot group and are both committed to the long term goal of moving away from the DTCC's proprietary files. Pimental explains, "We had several workshops before the pilot actually started in 2011. Our discussions focused on the business process of corporate actions., DTCC partnered with SWIFT to allow firms to look at the messages and understand what they were going to do."

Once the pilot started, BBH had regular calls with the pilot group in order to share experiences and particular issues. In addition, during the last six to seven months, BBH has started discussing migration strategy with the other individual pilot firms.

"SWIFT has been a huge contributor to the process by ensuring that DTCC and the pilot firms understood what was required from a messaging standpoint," says Pimental. "None of the firms were previously using ISO 20022 messages for corporate actions, so we all had to analyze the impact to our system platforms as well as require input on standards, mapping, and message formats. SWIFT was instrumental in setting up workshops to support the pilot firms' efforts." ●

ISO 20022 Business Model: What is it used for?

By Françoise Massin, ISO 20022 RA

One of the key elements of the ISO 20022 value proposition is the possibility to use an agreed vocabulary across the financial industry. The ISO 20022 Business Model aims at providing industry-agreed definitions of all financial concepts (the ISO 20022 Business Concepts), such as account, securities settlement or direct debit mandate. It offers a lot of potential for several applications.

1. Describing the ISO 20022 Business Concepts

The original goal of the ISO 20022 Business Model was to ensure that the financial Business Concepts be defined once and re-used wherever applicable in all ISO 20022 messages. Therefore, the Business Model is used to derive the data elements used in ISO 20022 message definitions (the ISO 20022 Message Concepts), thereby ensuring a common understanding across all messages supporting the various business domains. To ensure overall coherence and easy understanding of the ISO 20022 Dictionary, the Message Concepts are 'traced' to their parent Business Concepts.

2. Internal enterprise business model

Business concepts specified in the ISO 20022 Business Model can be re-used to identify the pieces of information used and communicated inside an institution. It is not rare that an enterprise uses a specific vocabulary for each internal application, which may lead to confusion for the users and translation requirements between applications. Using the ISO 20022 vocabulary as the common base to align the internal vocabularies, or replacing the internal vocabularies by the ISO 20022 vocabulary offers the advantage of aligning the understanding of the information data used for internal and external communication, thereby streamlining the flow of information from within and outside the enterprise.

3. Communication between industry players

Beside business transactions messaging, information data may have to be exchanged between two or more parties in other formats, such as database contents, master files or regulatory reporting files. This information, if mapped to the same common business concepts, will also be easier to integrate into different internal systems.

4. Mapping with other standards

Message standards other than ISO 20022 can be mapped to the ISO 20022 Business Model concepts (through a process similar to the traces assigned to the ISO 20022 Message Concepts). This allows the easy mapping of data used in different message standards and an easier translation from one to the other standard.

ENRICHING THE ISO 20022 BUSINESS MODEL

The current Business Model has been developed at the occasion of the development of ISO 20022 messages or their subsequent maintenance. It thus includes the business concepts that are used in the current ISO 20022 messages, which is fine for addressing the first application described above.

To address the other types of applications described above, the Business Model would need to be enriched and cover a wider spectrum of the financial business concepts. Therefore, the possibility to update and complement the ISO 20022 Business Model independently of the ISO 20022 message development has recently been made available. The new procedure to update the ISO 20022 Business Model is described on the ISO 20022 website (business model page).

This new process is targeted to other standards organisations involved in defining financial dictionaries and data models as well as to any other parties that are willing to contribute to the improvement of the Business Model or its enrichment for business domains or financial instruments that are not yet covered by the existing Business Model.

Example of updates:
- Addition of a new sub-domain in a business area (for instance Interest Rate Swaps in Treasury)
- Renaming of a business component/element
- Addition of a new business component/element or business association (for instance add an association between InvestmentAccountService and Commission)
- Improve a definition.

For more information, please contact the ISO 20022 Registration Authority at iso20022ra@ISO20022.org ●

The PaySEG is Kept Busy—a Status Update

By Bob Blair, *PaySEG Vice Convenor*

INTRODUCTION

The last 6 months have been a busy time for the Payment SEG. Our only constant is change.

New technologies play a part:
- The PaySEG is engaged with the effort to migrate to the 2013 edition of the ISO20022 8 part standard.
- The PaySEG has used web conferencing to facilitate review of schema changes in relation to the annual maintenance cycle.

New requirements play a part: New Business Justifications; New Change Requests

New projects play a part: Adoption reporting

Efforts such as the recently constructed dashboard, the improvements to the 2013 edition of the ISO20022 standard, and other improvements to ISO20022 help keep in view the future direction and implications of our standards efforts.

MIGRATION TO THE 2013 EDITION OF THE ISO20022 STANDARD

The RMG, the RA, the TSG, WG4 and many other members of the ISO20022 community have spent a lot of time and effort since the inception of ISO20022 in developing an enhanced version of the standard. Their efforts are soon to bear fruit. Sometime referred to as "Version 1.5", the 2013 edition of the standard will soon be available and will offer a variety of advantages, most immediately obvious to submitters and other standards technicians. But ultimately offering value to all members of the ISO20022 community.

The PaySEG has contributed to this effort and eagerly awaits the results:
- For the many improvements and their related benefits.
- And, also because the publication of the messages in the current maintenance cycle is dependent on the completion of these migration efforts.

Migration to the 2013 edition receives extensive coverage elsewhere in this edition of the newsletter.

ANNUAL MAINTENANCE

The 2012-2013 maintenance cycle has seen a large number of maintenance requests. A total of 31 change requests were received, of which 26 were incorporated in revised versions of the messages at the conclusion of the current maintenance cycle. The additional five have been deferred or rejected. This maintenance cycle will be completed in May and will include migration to the new version of the 8 part ISO20022 standard, the 2013 edition.

Bank Account Management (eBAM), first published in April 2010 as a part of the 2009-2010 maintenance cycle, will soon see a new edition of that standard. eBAM was the subject of many of the change requests received. eBAM is a great example of the radical transformation of a business process through the use of standards and automation. And the latest enhancements to that standard represent corrections as well as enhancement to extend the capabilities of the eBAM standard beyond account and signatory management to address initial levels of bank services setups and maintenance.

Beyond eBAM, additional change requests were received and evaluated for camt, pain, and cpar.

CHANGE REQUESTS AND NEW BUSINESS JUSTIFICATIONS

The PaySEG has evaluated and now seen the publication of new standards including Bank Services Billing (BSB) and Authorities Financial Investigations.

The Bank Services Billing Standard (BSB, camt.086.001.01) is a joint submission of SWIFT and TWIST and is the second version of this standard, the first being published by TWIST. BSB is designed to provide a periodic reporting of bank fees and related services rendered to wholesale users. It is supported by a message usage guide (MUG), unique among the ISO20022 Payment SEG messages.

Authorities Financial Investigations auth.001.001.01, auth.002.001.01, and auth.003.001.01 is a submission of the Federation of Finnish Financial Services. This message set is designed to support correspondence between government bodies and the banks from whom they request information.

OTHER - ADOPTION REPORTING

The PaySEG has invested significant effort to compile an adoption report. Incorporating entries from 16 different communities using or planning to use the ISO20022 payment messages, the report is intended to be a guide to future implementers learning's from prior implementations. Current entries include Canada ACH, Common Global Implementation (CGI), France SEPA, Germany SEPA, Japan Zengin, SADF, SEPA and others. More entries are hoped for to all community implementations of the payment standards planned, in implementation or live.

Adoption reporting was taken up at the last RMG meeting, and was the subject of a resolution. Adoption reporting is also on the agenda of the next RMG meeting. ●

Business Application Header: Frequently Asked Questions

There has been a lot of discussion about the Business Application Header within the ISO 20022 community in recent years. The ISO 20022 Registration Management Group has put together some Frequently Asked Questions, together with their answers, to shed a little light on this subject.

What is the Business Application Header?

The Business Application Header is a header that has been defined by the ISO 20022 community, that can form part of an ISO 20022 business message. Specifically, the BAH is an ISO20022 message definition (head.001.001.01) which can be combined with any other ISO20022 message definition to form a business message.

It gathers together, in one place, data about the message, such as which organisation has sent the business message, which organisation should be receiving it, the identity of the message itself, a reference for the message and so on.

What is the purpose of the BAH?

The purpose of the BAH is to provide a consistent and predictable way for this data to be conveyed with the message, regardless of implementation factors such as the choice of network. This does not prevent such data being conveyed either within the ISO 20022 message definition itself, or as part of a network header.

What's in the BAH?

Full details can be found on the ISO 20022 website www.iso20022.org, but the key data is:
- From: the organisation that sent the message (with a wide choice of formats);
- To: the organisation that should receive the message;
- Business Message Identifier: a unique identifier for this particular message instance, as defined by the sending application or system;
- Message Definition Identifier: the identity of the message definition, as published on the ISO 20022 website;
- Creation Date: the creation date (and time) for the data in the BAH;
- Copy Duplicate and Possible Duplicate: fields to aid the identification of duplicate messages;
- Priority: the priority of the data within the message;
- Signature: the digital signature of the sending organisation;
- Related: information about another, related message.

Why was the BAH introduced?

The first implementations of ISO 20022 messages were designed with the anticipation that this data would be provided by the network over which the ISO 20022 messages were carried. Later implementations found that they did not want to use this same network, and wanted to use a network where such data was not added as part of the transportation of the message. Rather than come up with an independent solution, these later implementers engaged the ISO 20022 community to establish a common means of conveying the data.

Is use of the BAH optional?

Yes. When a community decides to implement a set of ISO 20022 messages, they must agree between themselves whether to use the BAH to provide this data. This could be at the level of the entire implementation, or of message sets, or even at the level of individual messages. However, the benefit of the BAH is to provide data in a uniform way, so too many variations would reduce its usefulness.

Why is it a separate header?

At the time that the BAH was introduced, in order to minimise the impact on existing implementations, the data ele-

ments were gathered together in an independent header, for optional use. The published ISO 20022 message definitions were not affected. However, note that some ISO 20022 messages have subsequently been adapted so that fields duplicated in the BAH were removed from the ISO 20022 message definition.

Does that mean that the header should be 'stripped away' from the rest of the ISO 20022 message by the receiving organisation's systems?

Not at all. In communities that have chosen to implement it, the BAH forms part of the business message itself and remains with it all the way to the target business application. It contains business information, such as the time that the message was prepared, who sent it, and more. This data can affect the business decisions required at the target application.

What if my community does not want to use the BAH?

A community may choose not to use the BAH when exchanging ISO 20022 messages. Any ISO 20022 message that is defined on the ISO 20022 website can in principle be sent without the BAH.

Implementers then have a range of possibilities. They can use another header, such as one they have designed themselves or that is provided by their network provider. Or there may be sufficient information already within the ISO 20022 message definition itself. In some cases, this approach may require a change to the ISO 20022 message format: if the message had been defined (or had been amended) with the expectation that it would be sent alongside a BAH, then a change request may be necessary. This case is dealt with specifically in a later question.

What if I participate in multiple communities, some of whom use the BAH and some who do not?

In this case, you will need to build some intelligence into your application software to allow some business messages to include the BAH, and others to be processed without it. It may be the case that certain communities will always use the BAH, or it may be the case that certain functions or domains will use it, while others will not. The complexity depends on the implementation choices of the communities concerned. For example, the Target2Securities (T2S) community has decided to use the BAH, whereas the payments community was already implementing their messages when the BAH was proposed, and so do not use it. A member of both communities will need to be able to process business messages that contain the BAH and those that do not.

What happens if a field in the BAH is also in the body of the ISO 20022 message?

This can happen where a particular ISO 20022 message definition is shared between communities that differ in their approach to the BAH, or where an existing ISO 20022 message was designed to include fields that were later included in the BAH definition. In these cases, the implementing communities need to agree (just as for any other field where flexibility is allowed by the ISO 20022 standard) how to carry the information (for example, a community could agree to only populate the field in the BAH, or to populate both fields with the same value).

Which fields might be duplicated in the BAH and in the body of the ISO 20022 message?

The most common fields are Business Message Identifier and the Creation Date. The Business Message Identifier is a critical field in many message flows, where a subsequent message needs to refer to a message that preceded it in the flow.

If I want to submit an ISO 20022 message for registration, what do I need to do to cater for the BAH?

The BAH does not really change the process you will go through. Every field in your proposed ISO 20022 message definition will need to be agreed within your community. The message definition will also be validated by the relevant global body (the Standards Evaluation Group, or SEG).

You will be required to indicate in the Business Justification document whether the ISO 20022 message is intended for use with or without a BAH. Even if it is your intention to use the ISO 20022 message alongside a BAH, other communities (that have not built use of the BAH into their systems) may wish to adopt the new message, and, as such, may request that some fields are present in the new message, even if those fields are duplicates of fields in the BAH.

If there are existing ISO 20022 messages that contain fields that are also contained in the BAH, will they be removed?

Not necessarily. As has been explained above, there are communities that have implemented ISO 20022 messages without the use of the BAH, and where the presence of key fields (such as the Business Message Identifier) within the ISO 20022 message definition is mandatory. In these communities, the removal of these fields from the message definition would result in a significant impact.

Like any other change to a message definition, this would require a change request to be approved by the global community (again, by the mechanism of validation by the relevant SEG). If the data fields were still required in some implementations of the message, then this approval will not be given.

If my community needs to add fields to the body of an existing ISO 20022 message that are the same as, or similar to, fields in the BAH, is that allowed?

It is possible to add fields to the ISO 20022 message definition, even if they are already present in the BAH. For example, a message that was originally designed to be used exclusively in communities that had implemented the BAH might then be adopted by a community that does not use the BAH. This latter community may find it to be a lesser impact to add the necessary fields to the message (as optional fields) rather than change their implementation to be able to process the BAH.

Again, this would require a change request, which would be analysed by the relevant SEG. If the SEG were to accept that adding the fields to the message would represent an appropriate change for the message, and the business case were strong enough, then the SEG would approve the change.

Has the BAH been implemented?

In the US, DTCC have implemented ISO 20022 for corporate actions, using the BAH. Also, some securities market infrastructures are planning to implement it. For example, the Target2 Securities programme (T2S) currently being developed by the Eurosystem will make use of the BAH. The T2S user community is preparing for user testing to start early in 2014.

Are there implementations of ISO 20022 messages without the BAH?

Yes. For example, the Single Euro Payments Area (SEPA) implementation is carried by the SWIFT network, and the data about the ISO 20022 message is contained in the SWIFT network header.

Similarly, the Consortium Customer to Business Interaction (CBI) has defined its own header which was delivered as part of the launch of the CBI network in 2007.

I've also heard of a Batch Header. Is that the same thing?

No, it is entirely separate. A batch is a way of grouping several business messages together. Each batch would need a header to indicate the properties of the batch as a whole. Each business message within the batch could additionally include a Business Application Header, or not, depending on the agreed implementation. Again, this is something that may be part of the transport protocol.

Where can I find out more about the BAH?

The ISO 20022 community has written a Message Usage Guide (MUG) for the BAH. This can be found on the ISO 20022 website (www.iso20022.org) in the Catalogue of Messages. As for all ISO 20022 messages, there is also a Message Definition Guide (MDR) which provides details of the structure and definition of the BAH.

DTCC Case Study

almost 7 hours before they were available via CCF. In the example of the Put, the 1:32 p.m. ISO 20022 publication was the final, approved record.

Additionally, Table B displays the enriched, added data elements that are published via ISO 20022 – the Name Change published 17 more data elements (46% more), the Put published 14 more data elements (30% more), and the Mandatory Put published 4 more data elements (11% more).

ADHERENCE TO U.S. MARKET PRACTICE AND THE ISO GLOBAL STANDARD

In defining a new model for U.S. and global corporate actions, DTCC worked closely with SWIFT, ISO 20022's registration authority. DTCC then worked with the International Securities Association for Institutional Trade Communication (ISITC), in its capacity as the US National Market Practice Group, to develop proposals for changes to the ISO 20022 standard as it related to corporate actions. These changes were then reviewed and approved by the ISO 20022 Securities Standards Evaluation Group as well as the SWIFT Securities Maintenance Working Group. DTCC is now an active member of these 'standards maintenance bodies'.

The yearly ISO standards maintenance process requires DTCC to constantly review, scrutinize and update its message formats to ensure compliance with market practice. This in turn will lead to less ad hoc maintenance and instead institute a systematic approach to the business rules driving the file formats, not the other way around.

DTCC'S COMMITMENT TO MESSAGING STANDARDS AND MARKET PRACTICE

Throughout the life of DTCC's Corporate Actions initiative, it has demonstrated a commitment to standardizing corporate actions communications through the use of ISO standards. DTCC recognizes the benefits its member firms can derive from such standardization and continues to work within the industry's various organizations – ISITC, SIFMA, and others – to provide transparency to the process. The pilot program that took place from 2011 through 2012 demonstrated this commitment, and DTCC will continue to engage its participants as it moves towards testing the lifecycle phases of ISO 20022 messaging into 2013, 2014 and through 2015. ●

ISO 20022 Registration Authority is Kept Busy!

By Jean-Marie Eloy, ISO 20022 RA

Since the last Registration Management Group (RMG) meeting on 8-9 November 2012 and up until end February 2013, the Registration Authority (RA) has taken care of the submissions described below, making sure that the registration process is timely followed by the various actors and that the ISO 20022 website is kept up to date accordingly.

325 APPROVED ISO 20022 MESSAGES
Since the last meeting of the RMG, 101 new versions of existing message definitions were approved for publication:
- 16 Securities Settlement and Reconciliation messages
- 18 Investment Funds messages
- 12 Corporate Actions messages
- 1 Post-trade Matching message
- 19 Payments messages
- 15 Bank Account Management messages
- 2 Creditor Payment Activation Request messages
- 18 Card Payments Exchanges (CAPE) messages

These new versions will be published at the end of May 2013.

24 new message definitions were also approved:
- **1 additional CAPE message** (from EPASOrg), to be published at the end of May
- **3 Authorities Financial Investigations messages** (from FFI), published on 8 January 2013
- **20 Demand Guarantees and Standby Letters of Credit messages** (from SWIFT), to be published in March 2013

There are 325 approved ISO 20022 message definitions.

CANDIDATE ISO 20022 MESSAGES
On top of the above mentioned message sets, the RA has received and processed the following submissions of candidate ISO 20022 messages:

- **CCP Clearing (SWIFT, FPL – 10 messages)** The RA received finalized message models from SWIFT and generated the SEG evaluation documentation that was submitted to the Securities SEG on 19 February 2013.
- **Collateral Management (SWIFT, FPL, FpML, ISITC – 14 messages)** The RA received finalized message models from SWIFT and generated the SEG evaluation documentation that was submitted to the Securities SEG on 20 February 2013.

NEW BUSINESS JUSTIFICATIONS AND CHANGE REQUESTS
As per ISO 20022 procedures, the RA receives new Business Justifications (BJ), Change Requests (CR) and Maintenance Change Requests (MCR) and checks them for compliance with the approved 'templates' before submitting them to the RMG or SEGs. It also organises RMG conference calls with the submitting organisations to give an opportunity to RMG members to get further clarifications on BJs before casting their votes.

Between 9 November 2012 and 28 February, the RA has received one new Business Justification (BJ), 4 Change Requests (CR):
- **BJ – Dispute Resolution in Cards Fee Collection (China UnionPay)** Received on 30 January 2013. Returned to China UnionPay with RA comments on 31 January 2013.
- Change requests are shown in the Catalogue of Change Requests

The status of all submissions is kept up-to-date on www.iso20022.org: Status of Submissions. The table on the following pages illustrates the situation on 28 February 2013. Changes since November 2012 are highlighted. ●

325 ISO 20022 APPROVED MESSAGES (30 BJS)

RA I.D.	Submitting Organisation	Submission Name	Status	Date
1	SWIFT, IFX, TWIST, OAGi	Customer to Bank Credit Transfer Initiation	3 new versions of message definitions published	13 Jun 12
2	SWIFT	Investment Funds Distribution (1)	16 out of the 67 message definitions have been revised and published	10 Aug 12
13	SWIFT	Investment Funds Distribution (2)		
3	SWIFT	Exceptions and Investigations	17 new versions of message definitions published	13 Jun 12
4	SWIFT, IFX, TWIST, OAGi, ISITC	Bank-to-Customer Cash Management	3 new version of message definitions published	13 Jun 12
5	SWIFT	Direct Debits	2 new version of message definitions published	13 Jun 12
6	SWIFT	(Single) Credit Transfers	5 new version of message definitions published	13 Jun 12
8	SWIFT	(Bulk) Credit Transfers		
7	SWIFT	Trade Services Management	50 message definitions registered and published	7 Jul 08
12	SWIFT	Proxy Voting	8 new versions of message definitions registered and published	10 Mar 10
14	CBI Consortium	Invoice Financing Request	3 message definitions registered and published	16 May 08
15	CLS	Forex Notifications	15 message definitions registered and published	9 May 07
16	Euroclear	Issuers' Agents Communication for CA	22 message definitions registered and published	23 Dec 08
24	SWIFT	Securities Transaction Regulatory Reporting	4 message definitions registered and published	27 Apr 12
27	SWIFT	Securities Settlement & Reconciliation	29 new versions of message definitions published	10 Aug 12
28	SWIFT	Securities Corporate Actions	13 new versions of message definitions published	23 Apr 12
31	French SWIFT Users Group	Change/Verify Account Identification	3 new versions of message definitions published	13 Jun 12
32	SWIFT	Fund Processing Passport Report	2 message definitions registered and published	27 Nov 09
34	SWIFT	Payments Mandates	4 new versions of message definitions published	13 Jun 12
36	SWIFT	Bank Account Management	15 message definitions registered and published	27 Apr 10
35	CBI Consortium	Creditor Payment Activation Request	2 new versions of message definitions published	13 Jun 12
22	UN/CEFACT TBG5	Financial Invoice	1 message definition registered and published	1 Dec 10
45	SWIFT	Cash Account Reporting Request and Notification	4 new versions of message definitions published	13 Jun 12

RA I.D.	Submitting Organisation	Submission Name	Status	Date
20	EPAS Consortium	Cape – Acceptor to Acquirer Card Transactions and POI Terminal Management	**19th message definition approved**	**30 Jan 13**
21	Omgeo and SWIFT	Securities Post-trade	first set of 5 message definitions registered and published	28 Oct 11
11	ISITC	Total Portfolio Valuation Report	1 message definition registered and published	28 Oct 11
41	SWIFT	Securities Settlement Modification/ Replace and Allegement Response, T2S Audit trail	4 new versions of message definitions published	10 Aug 12
56	TWIST and SWIFT	Bank Services Billing	1 message definition registered and published	13 Jul 12
64	Federation of Finnish Financial Services (FFI)	Authorities Financial Investigations	**3 message definitions registered and published**	**8 Jan 13**
53	SWIFT	Demand Guarantees and Standby Letters of Credit	**20 message definitions approved**	**14 Dec 12**

24 CANDIDATE ISO 20022 MESSAGES UNDER EVALUATION (2 BJs)

RA I.D.	Submitting Organisation	Submission Name	Status	Date
43	SWIFT and FPL	CCP Clearing	**10 candidate message definitions submitted to SEG for evaluation**	**19 Feb 13**
49	FPL, FpML, ISITC, SWIFT	Collateral Management	**14 candidate message definitions submitted to SEG for evaluation**	**20 Feb 13**

OTHER CANDIDATE ISO 20022 MESSAGES (14 BJS APPROVED BY RMG)

RA I.D.	Submitting Organisation	Submission Name	Status	Date
42	Deutsche Bundesbank (on behalf of 4CB) and SWIFT	TARGET2-Securities	82 candidate message definitions reviewed by RA before pilot testing	2010-2012
9	SWIFT	Cash Management	BJ approved by RMG	4 Nov 05
19	IFX Forum, **EPASOrg**	ATM Interface for Transaction Processing and ATM Management	BJ approved by RMG and endorsed by SEG	24 Nov 08
37	SWIFT	Alternative Funds	8 candidate message definitions reviewed by RA before pilot testing	3 Oct 08
44	ISO/TC68/SC7/WG9	Acquirer to Issuer Card Messages (ATICA)	first set of 10 candidate message definitions reviewed by RA	Feb 2012
47	National Bank of BE (on behalf of FI, LU, NL, IE, CY, LV central banks)	Cash Lodgement and Withdrawal	BJ approved by RMG	15 Mar 10
50	Payments Council Ltd - UK	Real Time Payments	18 candidate message definitions reviewed by RA	Jul 2012
52	ANBIMA	Investment Fund Prospectus	BJ approved by RMG	15 Jul 10
58	ISITC, Omgeo, FPL	SSI for Securities, Payments and FX	BJ approved by RMG	30 Sep 11
61	ASF	Factoring Services	BJ approved by RMG	31 Oct 11
65	UK Payments Council	Account Switching	11 candidate message definitions reviewed by RA before pilot testing	27 Mar 12

RA I.D.	Submitting Organisation	Submission Name	Status	Date
46	IFX, OAGi	Extended Remittance Advice Messages	BJ approved by RMG	30 Jun 12
66	FFI & Tieto	Invoice Tax Report	BJ approved by RMG	15 Oct 12

BUSINESS JUSTIFICATIONS SUBMITTED FOR APPROVAL

RA I.D.	Submitting Organisation	Submission Name	Status	Date
74	**China UnionPay**	**Dispute Resolution in Cards Fee Collection**	**BJ returned to submitter with RA comments**	**31 Jan 13**

BUSINESS JUSTIFICATIONS REJECTED, ON HOLD OR WITHDRAWN

RA I.D.	Submitting Organisation	Submission Name	Status	Date
18	ISITC	Securities Cash Statement	withdrawn	16 Aug 06
25	SWIFT	Payments Mandates	withdrawn	29 Oct 07
33	SWIFT	Triparty Collateral Management	withdrawn	30 Apr 11
23	Euroclear	Securities Registration and Holder Identification	withdrawn	1 Aug 11
26	Euroclear	Market Claims and Automatic Transformation	withdrawn	1 Aug 11
30	Euroclear	Securities Issuance	withdrawn	1 Aug 11
57	ISITC	Securities Management Accounting Book-Entry Instruction	on hold	4 May 11
10	FPL & SWIFT	Securities Pre-trade and Trade	evaluation of 29 candidate message definitions on hold	27 Oct 11
51	Berlin Group	Card Clearing Payment (CCPAY)	on hold	27 Oct 11

MESSAGE EXTENSIONS

RA I.D.	Submitting Organisation	Submission Name	Status	Date
CR146	Berlin Group	Card Clearing Payment (CCPAY)	1 extension registered and published	19 Sep 12
CR147	ISITC	Fund Accounting Information	1 candidate extension reviewed by RA	Jun 2012
CR254	**ANBIMA**	**Brazilian requirements for funds reporting**	**Creation of 1 candidate extension approved by SEG**	**21 Feb 13**

ISO 20022 Newsletter

IN THIS SUPPLEMENT

Launch of the 2013 Edition of ISO 20022

The new edition of the ISO 20022 standard has been published by ISO and will be supported by the ISO 20022 Registration Authority as of May 31st. For this Special Report, we have included articles that explain the impact and benefits of the 2013 edition of the ISO 20022 standard. The perspectives originate with the different community participants – submitters, implementers, tool providers, as well as the Registration Authority and the Standards Evaluation Groups (SEGs).

What's new in the 2013 edition of the ISO 20022 standard?

- Formalization of business modeling from inception (the BusinessProcess) to end (the MessageDefinition)
- Capturing message transport characteristics
- Embracing other syntaxes
- A wider choice of modeling tools
- Additional data types
- Improved and consistent way to express business rules
- Streamlined ChoiceComponents

The ISO 20022 Registration Authority has prepared a document outlining an overview of the new features in the 2013 edition of ISO 20022.

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Chair, TC68

ISO 20022 New Edition

Prepared by the ISO20022 Registration Authority

INTRODUCTION

This document provides an overview of the new features the ISO 20022-2013 new edition (also called "v1.5") brings for users. The new edition will be launched on 31 May 2013.

The impact on existing messages will be limited and gradual, as the new features and benefits will only be made available starting 31 May 2013, for new messages and whenever existing messages need to be maintained for other (business) reasons.

Users will therefore at the earliest be affected when they start using new versions of existing messages or new messages published as from 31 May 2013. More details on this in chapter "What's next?"

FEATURES

The new edition offers a wide range of new features and enhancements. The most noticeable are:

Formalization of business modeling from inception (the BusinessProcess) to end (the MessageDefinition)

What is it?
ISO 20022 is more than just messages! In fact, messages are only one of the deliverables. Each Message Definition belongs to a Business Transaction which, in its turn, is part of a broader Business Process. The new edition of ISO 20022 will allow to better support this 'business analysis' that leads to actual Message Definitions and, when the way to formalize it will be defined, the catalogue of messages will be able to leverage this new functionality by providing new search capabilities.

Why should you care?
Fully integrated business process modeling is expected to offer a wide range of new features for users:

- Improved message management: search based on the context in which messages are used: which Business Process, which Business Transaction, etc…

  Example: an institution has a new business service[1] and it would like to know if ISO 20022 supports this new service and if so, which messages does ISO 20022 have to support this service.

- Improved business model: Business Components could be grouped within the Business Processes in which they are used.

  Example: it would be possible to search for business components and message components based on the business process in which they are used.

The formalization of the business modelling is expected to be investigated by the ISO 20022 Technical Support Group (TSG) starting with a specific business area, such as payments. There is no timeline yet for this implementation.

Capturing message transport characteristics

What is it?
When they develop a set of ISO 20022 messages to support a Business Transaction, so-called "submitting organisations" are usually assuming a minimum set of requirements on the way these messages should be transported on a network. These requirements will now be formally

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1. Service is simplified here as an implementation of a business process by a service provider.

captured and published on the ISO 20022 website. The message transport characteristics of existing message sets will be published as soon as communicated by the submitting organisations in charge.

Why should you care?
This information will help you defining or choosing the network service (provider) within which your messages are exchanged.

Examples:
- *What is the maximum duration of time within which a message is expected to be delivered (after which the message expires).*
- *To what extent should messages arrive in the same order as they were sent.*

Embracing other syntaxes such as FpML and FIX

What is it?
Additional effort has been made to bridge the technical differences between FpML/FIX syntaxes and the XML syntax described in the current edition of ISO 20022.

Why should you care?
As a submitting organization, developing ISO 20022 messages, you will be able to use a new modeling feature (and thus a new XML Schema feature) and reference MessageComponents instead of including them several times in a message. This feature will make it easier to model FpML messages.

When authorized by the RMG, the RA will be able to generate messages in an ISO 20022 ASN.1 syntax in addition to or instead of the ISO 20022 XML syntax. The ASN.1 syntax should make it easier to encode[2] ISO 20022 messages in, for example, the FIX FAST protocol.

A wider choice of modeling tools

What is it?
The new edition embraces open standards. As a consequence, UML is no longer required to model ISO 20022 compliant messages. Of course, using UML remains a possibility and, should it be used, the UML profile to be used is described in the new edition of ISO 20022.

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2. Encoding is the process of putting an ISO 20022 message (which is after all just a sequence of characters) into a specialized format for efficient transmission (and storage). Decoding is the opposite process. A well-known encoding is ZIP.

Why should you care?
As a so-called "submitting organisation" which develops ISO 20022 messages, you will no longer be required to use a UML modeling tool to create ISO 20022 MessageDefinitions.

A specific open source Eclipse Modeling Framework (EMF) based modeling tool, called the "Editor" has already been made freely available by SWIFT to submitting organisations. However, UML types of Business Process Diagram (activity diagram) and Message Flow Diagram (sequence diagram) will still be required and the RA will continue to maintain a UML-based ISO 20022 Business Model.

A new version of the SWIFT Editor, compliant with the new edition of the standard, will be available after the launch. Additionally, to ensure openness of the submission process to the RA, the RA will publish and maintain on the ISO 20022 website appropriate technical details (i.e., the implementation meta model) to allow submitting organisations to use software tools that would produce message models compliant with the new edition of ISO 20022 as implemented by the RA.

Additional data types

What is it?
If you are a submitting organisation that develop ISO 20022 messages, you will now have the complete set of built-in XML Schema data types at your disposal.

Why should you care?
Message developers will have new ways to represent information (such as amounts or periods). ISO schemas will make better use of the built-in XML Schema technology. For example, it will be possible to use a specific data type to express a time duration instead of having to indicate a start date and time and an end date and time.

It may also become easier for users and implementers to map ISO 20022 messages to other protocols using the XML syntax (such as FpML) where some of these data types are already used and currently require transformations from one to another.

These new features will be available starting after the launch, for new message development or at the occasion of message maintenance. They will be part of the new Editor.

Improved and consistent way to express business rules

What is it?
A formalized language to express business rules (such as when an optional message item should be used or not) will be made available to replace the current "textual" rule that have to be taken care of manually.

FIGURE 1: Removing <xs:sequence>
in ChoiceComponents

```xml
<xs:complexType name="BalanceSubType1Choice">
   <xs:sequence>
      <xs:choice>
         <xs:element name="Cd" type="ExternalBalanceSubType1Code"/>
         <xs:element name="Prtry" type="Max35Text"/>
      </xs:choice>
   </xs:sequence>
</xs:complexType>
```

Why should you care?

As an implementer, you will not have to recreate the rule yourself anymore, nor interpret or convert it into your own business rule language. Instead, you will be able to automate this process, thus removing ambiguity and lowering your implementation cost.

As a developer, the absence of formalism around business rule creation leaves it up to you to decide how a rule is expressed resulting in rules being expressed in different ways.

How this new feature will be implemented is subject to a proof of concept (see further in What's Next).

Streamlined ChoiceComponents

What is it?

Currently, choices in ISO 20022 XML schemas are expressed as a sequence of elements that contains a choice of elements. This is not straightforward. Best practice is to describe the content either as a sequence OR a choice of elements, not both (see figure 1).

Why should you care?

Simpler and predictable XML schemas! The confusing instruction in choice components will be removed in all schemas on 31 May 2013. To limit the impact of this change, it will be made at the same time as the publication of the 101 new message versions resulting from the 2012/2013 maintenance cycle. The 101 existing messages that have been updated for a business reason will bear a new version number, while all the other existing message schemas, which will be updated simply to remove the <xs:sequence>, will be "patched" and keep the same version number. As the message instances generated by the patched schemas and the equivalent unpatched schemas are exactly the same, people that have implemented the current unpatched schemas will continue to be able to communicate with the implementers of the new patched schemas in a fully transparent way.

WHAT'S NEXT

The migration to the new edition of ISO 20022 is planned for 31 May 2013.

Most of the changes that will be required will affect the models and the repository/dictionary, and the single change required to existing XML schemas will be implemented across the board for all existing message schemas at the same time as the publication of the new message versions resulting from the 2012/2013 maintenance cycle. This publication will take place on 31 May. Existing messages that have been updated for a business reason will bear a new version number, while existing message schemas that will be updated simply to remove the <xs:sequence> in the schema will keep the same version number. Users and implementers will have the choice to keep using the existing v1.0 message schemas or the 2013 version compliant schemas.

Before implementing some of the new features of the new edition, the ISO 20022 Technical Support Group (TSG) advised that they should first be subject to further investigation after which point it will be decided how these new features will be implemented:
- Formalization of business modeling
- Formalism to be used for defining Business Rules

Changes specific to the user community

The users/implementers of the ISO 20022 messages are impacted whenever a change has an impact on the XML message instance (that is, the actual message sent/received on the wire). Depending on the kind of ISO 20022 artefacts they use to build the applications that generate/process message instances, users can also be impacted by:
- Changes that affect the XML schemas (for those who use the XML schema to issue or receive XML message instances)
- Changes at the level of the message models (for those using the models of the messages for their sending/receiving applications)
- Changes at the level of the Dictionary (for those that make use of the electronic copies of the Dictionary).

The TSG assumes current implementers usually use the XML schemas but do not use the UML models. Under this assumption, the impact on the users and implementers will be extremely limited (see 'Streamlined Choice Components' above). The update of all existing XML schemas will happen on 31 May 2013. Implementers using the XML schemas will be impacted in two ways:
- 101 new versions of messages will be published. They will bear a new version number, as usual, and the <xs:sequence> will be removed from their XML schemas

for compliance with the 2013 edition (v1.5).
- the XML schemas of all the other existing messages will keep the same version number, but will be 'patched' to remove the <xs:sequence> from their 'choice' components for compliance with the 2013 edition (v1.5).

In the first case, messages constructed using a previous version of a schema are not compatible with those constructed using the new version.

In the second case, it is important to stress that messages created using the previous unpatched form of the schema can be interpreted using the new patched schema and vice versa This is illustrated in Table A.

After 31 May 2013, users may also expect to see new features appearing in the XML schemas (such as 'Additional datatypes' above) that submitting organizations will start using for new candidate messages or at the occasion of the future maintenance of existing messages.

Changes specific to Submitting Organizations

Submitting organizations that are developing or maintaining ISO 20022 messages are impacted whenever a change impacts the modeling guidelines, the models or the repository/dictionary. As all these artifacts will be impacted by the new edition, submitting organizations will need to adapt whenever they need to maintain their existing messages or develop new ones.

New outputs will need to be delivered such as the Business Transactions addressed by candidate messages and the message transport characteristics of each message set.

For all current submitting organizations using the Editor software provided by SWIFT, the adaptation will mainly consist in getting used to the new version of the Editor that will be made available after the launch. With the new Editor, submitting organizations will also receive a new, migrated Repository and the RA will migrate their candidate message models where applicable.

The RA will also publish on the ISO 20022 website the ISO 20022 implementation meta model to allow submitting organisations that do not want to use the Editor to use software tools of their choice that would produce message models compliant with the new edition of ISO 20022 as implemented by the RA. ●

TABLE A

Sender	Recipient	Result
MESSAGE "PATCHED" WITH SAME VERSION NUMBER		
Unpatched schema (v1.0)	Unpatched schema (v1.0)	Success
Unpatched schema (v1.0)	Patched schema (v1.5)	Success
Patched schema (v1.5)	Unpatched schema (v1.0)	Success
Patched schema (v1.5)	Patched schema (v1.5)	Success
NEW MESSAGE VERSION		
Previous version (v1.0)	Previous version (v1.0)	Success
Previous version (v1.0)	New version (v1.5)	Fail
New version (v1.5)	Previous version (v1.0)	Fail
New version (v1.5)	New version (v1.5)	Success

Launch of ISO 20022 2013 edition: the way forward for the T2S Programme

Submitted by the T2S Programme office

T2S or TARGET2-Securities is a large infrastructure project developed by the Eurosystem which will go live in June 2015.

It will provide the European post-trading industry with a single pan-European platform for securities settlement in central bank money. It will settle securities transactions in euro and Danish krone and is open for settlements in other currencies. With T2S, cross-border settlement will be identical to domestic settlement in terms of cost, risk and technical processing. By providing a single IT platform T2S will accommodate market participants' dedicated central bank cash accounts and securities accounts in the same settlement facility. Furthermore, the single T2S process will facilitate the streamlining of back offices procedures and foster further harmonisation of post-trade activities.

For more information please see www.t2s.eu.

T2S DATA EXCHANGE BASED ON ISO 20022 MESSAGES

The services T2S provides are wide-ranging, extending from settlement and reconciliation to cash management for interaction with real-time gross settlement (RTGS) systems, the management of securities transactions for reporting purposes, account management and reference data.

Since the very beginning it became apparent that the T2S project and the ISO 20022 standard would be an excellent coalition, thanks to the large scope of T2S information flow on the one hand and the flexibility of ISO 20022 messages on the other

Namely, given its broad reach, T2S provides a business case for ISO 20022 and could therefore be considered a driver of standardisation in the European market. At the same time, ISO 20022 is the perfect solution for T2S, as the standard applies to all business areas falling within the scope of T2S, as well as end-to-end transactions, thus enhancing straight-through processing.

On this basis and more concretely, during the first phases of the T2S programme, the Eurosystem and the T2S actors described the necessary exchange flow between T2S and the markets. In cycles of workshops and document validation they identified the requisite ISO 20022 messages to cover these exchanges, they agreed on the necessary additional message contents and specified the message usage rules.

The description of 130 different ISO 20022 compliant messages of which 2/3 to be developed byT2S was recorded in the T2S catalogue of messages published as a part of the User Detailed Functional Specifications (UDFS) for T2S.

The UDFS is the basis for the T2S application development and is essential for the T2S actors i.e. CSDs, National Central Banks and other parties directly connected to T2S to design the interface between their information systems and T2S.

In order to facilitate the smooth adaptation of the markets

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to a stable T2S application, it has been decided that:

- The first T2S release will be developed on the User Detailed Functional Specifications (UDFSv1.2.1) published in summer 2012.
- The set of messages to be used at the go-live of T2S will be based on the ISO 20022 Standard Release 2012.
- Any possible change on these specifications and message description should be thoroughly assessed through the T2S change management procedure involving T2S and its actors.

CONSEQUENCES OF ISO 20022 2013 EDITION FOR T2S MESSAGE SUBMISSION

The changes introduced by 2013 edition of ISO 20022 v1.5 will have an impact on the T2S programme at the time it submits to ISO 20022 registration the T2S newly developed messages.

The 4CB, as submitting organisation for the T2S Programme, will have to adapt to the ISO 20022 2013 new requirements. They will update the modelling guidelines, the models and the repository for maintaining messages.

To perform these changes the 4CB will migrate to the 2013 version v1.5 compliant "Editor" for messages in due time.

Although the instance of message will not change, as a consequence of ISO 20022 v1.5, the XML message schemas will have to be revised before the message registration in the ISO 20022 catalogue.

It has been agreed to start the ISO 20022 registration of the new messages after the T2S User Testing phase (starting in 2014). This will enable T2S to make a practical use of the T2S messages already at an early stage and to possibly fine tune the T2S messages before registration.

Furthermore for stability reasons, in order not to jeopardise the T2S planning and not to put at risk the adaptation capability of the future T2S users, T2S will update its messages with Standard Releases from version 2013 onwards after the last wave of T2S user migration. It will take place in the context of a regular T2S release.

Consequently the earliest point of time for the T2S Programme to take on board ISO 20022 v1.5 will be the second release of T2S. ●

ISO 20022 Version 1.5: Impact on Zengin System

THERE ARE NO SPECIFIC IMPACTS ON THE HOST COMPUTER SOFTWARE OF THE ZENGIN SYSTEM.

Zengin System – Tadaski Otsubo, Secretary General, Zengin Net and Bob Blair, ISO 20022 Vice Convenor

The following is the transcript of an interview between Tadaski Otsubo, Secretary General, Zengin Net and Bob Blair, ISO 20022 RMG Vice Convenor

Bob: What is ISO 20022 2013 EDITION?
Otsubo-san: The new edition of the ISO 20022 standard is a new version of the 8-part ISO 20022 standard. This new edition has been in development since the introduction of the first edition of the standard and includes a variety of improvements, some quite technical, all of which are intended to promote interoperability, offer other advantages.

Bob: What is the Zengin system?
Otsubo-san: The Zengin system is Japan's domestic payment system. Analogous systems found in other countries would include UK BACS, Euro zone SEPA, and US ACH. Changes are introduced to this system to a 8 year maintenance cycle. The next maintenance cycle is 2019.

Bob: What is the impact of migration to the new edition of the ISO 20022 standard on the Zengin system?
Otsubo-san: The new edition of the ISO 20022 standard will result in issuance of new versions of the schema currently implemented by the Zengin system. There is no impact to versions of the schema already published and in use however. The migration will therefore have no impact on the Zengin system and its participants until new versions of the ISO20022 schema are implemented at a future date. At a future maintenance cycle or according to its business needs, Zengin will possibly implement newer versions of the ISO20022 messaging standards. Any migration related changes to the schema used in Zengin would be addressed at that time as a part of the larger business case for the maintenance cycle.

Bob: Thank you Otsubo-san! ●

What impact will the 2013 edition of ISO 20022 have on the SEGs?

Submitted by ISO 20022 SEG Convenors Kevin Wooldridge and Susan Colles on behalf of the ISO 20022 SEGs

The short answer is that there is very little direct impact.

The function of the Standards Evaluation Groups (SEGs) is to validate that ISO 20022 messages are fit for purpose, and are consistent with the approved scope of Business Justifications. They are formed of business experts, who need to have an understanding of the business actors, business processes, and business flows down to the component level. Crucially, the SEG membership is drawn from current or future users of the ISO 20022 messages.

We often like to compare ISO 20022 to a recipe. By following the recipe, submitters can design messages that are consistent with the ISO 20022 tenets. It is like baking cookies: follow the recipe correctly, and your cookies will turn out just fine.

In this analogy, the SEG is like a focus group that needs to taste test the cookies before trying to sell them to the general public. Is the mix right? Are the chocolate chips too large? And so on.

To continue the analogy, the introduction of the 2013 edition of ISO 20022 really just changes the recipe, not the cookies themselves. Those that have already been baked are not affected and any new batches will use the new recipe The focus group needs to ask itself the same questions, and needs to test the finished product against the recipe criteria as before.

> WE OFTEN LIKE TO COMPARE ISO 20022 TO A RECIPE. BY FOLLOWING THE RECIPE, SUBMITTERS CAN DESIGN MESSAGES THAT ARE CONSISTENT WITH THE ISO 20022 TENETS.

The same is true of the ISO 20022 standard and ISO 20022 messages. The changes to the standard that are introduced with the 2013 edition affect the submitters and the Registration Authority. But the messages that are produced remain essentially the same. Existing versions of the messages are not affected (with one minor exception), and any new messages will need to be analysed using exactly the same process, questions, and knowledge as before: is the candidate message consistent with the approved Business Justification? Are the message components consistent with the purpose of the message, and with other messages of similar scope or function? Are the business definitions of the fields understandable, clear, concise, and unambiguous? Do they avoid local specifics and jargon wherever possible?

The one minor immediate impact to messages is the streamlining of choice components within schemas. However, as the new schemas are fully compatible with the existing ones, there is no validation for the SEG to perform. The migration has been structured in a way that the impacts to the schema have been minimized and incremental evaluations are not required.

SEG members will need to be aware of other wider impacts of the move to the 2013 edition of ISO 20022. The new recipe introduces some new ingredients, pecan nuts in our analogy for example, that can be used by submitters to create cookies that would not have been possible before. It is important that the SEG members familiarise themselves with these new ingredients or components within ISO 20022 when there is a new set of messages for evaluation, so that if the submitters choose to use them, the SEGs can judge if these components have been used correctly. For the most part, these are technical in nature, affecting data types, for example, rather than field names or business definitions. For example, one of the changes is to refer to a list of codes as a 'CodeSet', whereas previously it was referred to as a 'Code'. For the SEG, the focus is more likely to be on the range of values for the codes within the list, and their definitions.

So while the rules and processes of message design may have changed, the activities of the SEG, in validating logical message definitions from a business perspective, remain largely unaffected. ●

The Impact of the New ISO20022: 2013 from a Software Provider Perspective

By: Messers. Frank Dreisch, GEFEG & Steve Miller, C24 Technologies

INTRODUCTION

The ISO20022 standard is about to be updated to the 2013 edition, realizing a variety of improvements to the standard which will benefit all involved. Benefits include expanded access to data dictionary and meta-model and others. These improvements translate to efficiency, speed, accuracy and automation for submitters, adopters, and others in the ISO20022 community.

In this article two software providers, GEFEG and C24, discuss the impact of the new release from their perspective.

GEFEG is a design-time solution provider offering desktop editors as well as portal solutions to the market.

C24-Integrated Objects is a data modeling, meta-data management, transformation, and messaging integration toolkit based on Java data binding technology with comprehensive support for industry standards including SWIFT, ISO 20022, FpML, FIX.

In contrast to the effect the new edition will have for end users whose XML instances will not change at all, the new ISO 20022:2013 edition has remarkable impact on our work. We see three key improvements in the immediate term, and a number of other longer term benefits for the future.

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1) The complete ISO 20022 data model will be downloadable as XMI

Today, it is a recurring manual process to get the ISO 20022 model data from the ISO 20022 Registration Authority. In the ISO 20022:2013 release, the complete model will be available for download; this process will be considerably easier. We anticipate that vendor solutions incorporating the ISO 20022 data model will become widely available. These tools will enable the use of the ISO 20022 methodology for the creation of internal, proprietary messages and as the base for the generation of ISO 20022:2013-4 compliant schemas from the model. Very often and we think very positively for ISO 20022, we have noted that the ISO 20022 method is also used for internal EAI (Enterprise Application Integration) purposes.

2) The meta-model will be published by the SWIFT/ISO 20022 Registration Authority

Having the meta-model published by the ISO 20022 Registration Authority paves the way for users to contribute back to the ISO 20022 repository, in the true spirit of open software development methods.

3) New edition of ISO 20022:2013 Part 4, Schema generation

As a software vendor it is important to implement the new schema generation rules as well. We appreciate the removal of the xsd: sequence which until now has wrapped the xsd: choice. This change is very easy to implement. However, since the XML tags are not part of the UML model anymore, the challenge will be to implement the XML tag generation algorithm exactly in the same way as it is implemented by the RA, and to combine it additionally with the still existing legacy XML tags created according to the former procedure.

Future enhancements: In future we expect to see the following additiontional enhancements.

1) The textual rules will be formalized

Presently, textual ISO 20022 cross-field rules must be manually encoded using technologies such as XSLT, Java, Schematron, Scala, etc. In the future, these rules will be

represented electronically as part of the standard. The new approach will save time and eliminate risk related to such an error-prone manual exercise. It is a very good contribution in order to increase the overall data quality. Somewhat ironically, vendors who do provide rules in their solutions today very much view this feature as a key value-add for their product. When the rules are encoded electronically this is very likely to change the way vendors position their products.

2) Improved business modeling capabilities

In future the standard will incorporate better ways to manage the exercise of business process modeling. Tools do exist in this space today, but we think it's fair to say that they're not exactly mainstream.

3) Capturing message transportation characteristics

Closely related to (2) above, it future the standard will provide ways to define choreography, to show how messages relate to each other in a broader process flow. We expect vendors to incorporate these technologies into their tools.

4) Alternate syntaxes

The concept of alternate syntaxes for 20022 is not new, but technologies to map between two 20022 compliant syntaxes via the underlying data model are not yet widely available. This will change in the future, and it will significantly reduce the syntax angst and confusion that exists today. If these maps can be represented electronically then it is very likely that vendors will incorporate these technologies into their products.

SUMMARY

Though the resulting XML instances will not change for end-users for the time being, it can be expected that the increasingly common use of the syntax-neutral data modeling will grow further on account of the new edition of ISO 20022:2013. Due to the openness of the standard a greater number of tools will now spread the ISO 20022 message. We believe the 20022:2013 edition will be a watershed event that will trigger a mainstream adoption of 20022 in the broader EAI sense, which in turn will positively impact and accelerate the adoption of 20022 in the traditional B2B messaging space. We further believe that a strong and healthy vendor community is a pre-requisite to provide the conditions for this broader adoption.

The future enhancements noted above represent significant opportunities for vendors to drive the industry forward. ●