

Convenor's Note

Welcome to the latest edition of the ISO 2022 RMG newsletter!



By James Whittle. Convenor of the ISO 2022 RMG, NPSO (UK).

In this edition, the underlying theme is the resilience of ISO 2022 to meet new business requirements in financial services.

Remaining relevant in a time of immense industry change is one of the facets of ISO 2022 that has accelerated its take-up. In the last newsletter the focus was on standards and regulation, which continue to drive adoption, however we now see the ISO 2022 community taking a more proactive approach to handling change, meeting new requirements, and supporting interoperability. I see no slowing down of ISO 2022 adoption in 2018!

I welcome the opportunity to share information and increase understanding about what is happening in the RMG and across the user community. It has always been my mantra to ensure that the ISO 2022 standard is evolving in a way that will make the most of the opportunities and challenges we are facing collectively. This is becoming increasingly more important as we see not only more change, but an accelerated change that is delving into new applications and business cases for our standard.

This past year, I have read with interest significant ISO 2022 commitments across new market infrastructures and reporting requirements from Brazil, to the European Union, and South East Asia. In 2017 we saw the US and Australia launch new retail real time payments system based on ISO 2022 and Singapore commit to the use of ISO 2022.

Not least, this year we have made tremendous progress in addressing these challenges with an approach full of optimism. To name an example, we had global buy-in to establish accelerated processes to meet adoption needs of new user communities, such as the cards industry. In addition, we made ground-breaking progress looking at the use of JSON and APIs (Application Programming Interfaces) with ISO 2022, providing the foundation for an illustrative Whitepaper and a new work stream in ISO to develop a Technical Specification looking at APIs.

I have been impressed at the progress of our standard to meet

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emerging requirements and continue to show resilience and superiority in the market. As we continue our work, the RMG must continue to not be complacent in addressing this pace of change and ensuring it is one step ahead.

Introduction

By Bob Blair, ASC X9, ISO 2022 Communications Group Convenor

Change is the only constant

These are dramatic times for the financial services industry and its standards. New technologies and the evolution of existing provide new opportunities...and challenges. A perfect storm of regulation, and technology developments drive change: Open Banking initiatives in key markets drive development and adoption of API's, promising increased automation and ease of integration. Technology developments in the retail space fueled by the broad distribution of handheld computers (for example smartphones and tablets) and global connectivity result in a need for new standards.

All this comes at a time when the ISO 2022 standard has reached full stride. A large body of schema now exist, and can be considered fully capable, mature with more along the way though always candidate for enhancement and new additions.

Introduction (continued)

Our standards methodologies have served us well, brought us to this point. Yet new process requirements require change and adjustment.

An increasing number of communities are in production or planning and development to make use of the ISO 2022 standards. Market practice groups such as the RMG's Real Time Payments Group and SWIFT's High Value Payments Plus Group work on international harmonization of their respective schema to establish a common baseline footprint for implementation of the schema...and, increasingly, to facilitate future interoperability between markets using the schema for a common purpose.

Articles In this issue

This issue includes a number of articles on subjects relevant to ISO 2022, as well as a variety of news items, all from RMG members and others interested and involved in ISO 2022. Thanks to our contributors and the RMG's Communications Group members for their efforts to make this issue a reality.

Articles in this issue of the newsletter include:

For Securities

From EFAMA: The importance of ISO 2022 to Funds Processing

We lead off with coverage of a securities related implementation addressing use of ISO 2022 in the European market. Prior to adoption of ISO 2022, cross-border funds processing "...was suffering from a high level of fragmentation". EFAMA (the European Fund and Asset Management Association) has been a leader in facilitating standardization in this area.

Bernard Delbecque discusses funds adoption of ISO 2022, [EFAMA acting as a catalyst for change](#).

From SWIFT: ISO 2022 Investment Funds Maintenance Update

Janice Chapman discusses recent developments related to Investment Funds schema: [ISO 2022 Investment Funds Maintenance Update](#)

For Payments

Switzerland: ISO 2022 Payments Harmonization

Istvan Teglas' article, [Swiss ISO 2022 Payments Harmonization Activities](#) gives insights on Swiss payments market efforts to promote ISO 2022 harmonization, domestically and internationally.

Switzerland is currently migrating all domestic payment systems to ISO 2022 for payment systems, banks, and end users. This market provides a variety of tools and documentation designed to facilitate migration to ISO 2022 for all participants including:

- From banks, a recommendation that end users migrate to the standard for payments operations with links to specifications of each bank.
- From Payment Standards.CH - For end users a public registry with links to technical documentation. Covers banks and financial applications (ERP, treasury management systems and others) supporting payment operations using ISO 2022. 78 Swiss banks, 160 software providers support the ISO 2022 schema.

[Go to the registry](#)

Also, from SIX, "A validation portal supports the consistent use of the ISO 2022 messages".

[Go to the validation portal](#)

From the Payment Market Practice Group (PMPG): Standardizing Purpose of Payment

The market practice groups, the PMPG, the Securities Market Practice Group, the Real Time Payments Group, and the Common Global Implementation-Market Practice group (to name a few) work to interpret, apply and, in some cases, harmonize use of the standard.

This article focuses on one area challenging the ISO 2022 payment standards, the requirements for some markets for inclusion in a payment of a reference to the business purpose of a payment (e.g. the payment covers rent, royalties, purchase of goods, etc.). This issue is not unique to ISO 2022. It originated with the SWIFT MT standards and cross border payments some years ago.

As the "next new thing" for high value payments, ISO 2022 has the opportunity, and the challenge, to standardize use and placement of purpose codes. Will this happen? The jury is still out. Read the article by Michael Knorr, [Peeking Behind the Curtain: The Meaning of Payments](#) to find out more.

Addressing ISO 2022 technology and process

From SWIFT Standards: Implementation Best Practices

Stephen Lindsay of SWIFT Standards offers [insights into the new SWIFT whitepaper with Recommendations for Implementation](#)

Articles in this issue (continued)

[of ISO 20022 Messages for Market Infrastructures. Implementation Best Practices.](#)

From the TSG: ISO TC68 Standards and JSON

An article by the ISO 20022 Technical Support Group (TSG) offers a preview of a recently published whitepaper on implementation best practices when using ISO 20022 with JSON.

TC68 SC9 has initiated a related project to develop an ISO API standard.

ISO Standards and JSON Syntax

From the ISO 20022 Registration Authority: Enhancements to ISO 20022 processes

Since its inception in 2004, the ISO 20022 standard has been subject to a series of improvements to make it more efficient, more responsive, and more open. Most recently, cards domain participants have requested enhancements to improve speed to market and other features. The RA, with the assistance of the RMG and Cards SEG members have partnered to identify the issues, and propose enhancements. The result will be process improvements of benefit to all.

The improvements include:

1. A fast track maintenance process option; and
2. The ability to support both major and (subject to further definition) minor versions.

For more details, read Jean-Marie Eloy article on the subject, Two new features to facilitate the update of ISO 20022 message definitions.

News

Global Adoption

Since the last issue of this newsletter a number of communities and countries have started or progressed implementations of ISO 20022 schema, a few of which are covered here:

Canada – Canada continues its efforts to implement ISO 20022 for all Canadian payment systems. Useful documentation including plans, approach, and business case are available from Payments Canada. From an online article in afponline.org, August 4, 2017 entitled [ISO 20022: Leveraging Data to Boost the Bottom Line](#):

“In late 2016, Payments Canada, which operates the core payment systems in Canada, announced the ISO 20022 message standard will be rolled out across all of its modernized systems as part of its mission to modernize the Canadian payments system.

Treasury professionals will begin to have access to the standard through their Canadian financial institutions as early as 2019.”
And

“The standard is expected to have significant economic benefits for Canada—Payments Canada research indicates cost savings could be as high as \$4.5 billion over five years if we eliminated checks in favour of electronic payments. That number does not even begin to quantify the additional benefits that would come from enhanced integration, compliance, interoperability and fraud detection.”

China—As reported at a Meet the Market presentation series following the RMG’s November 2017 meeting in Shanghai, China’s payment systems are live using ISO 20022 schema.

See coverage in the section RMG Meetings on the next page for more.

Switzerland—Switzerland is migrating its wholesale payment systems to ISO 20022. Extensive tools have been made publicly available to facilitate implementation in a consistent, standard, manner. See further coverage elsewhere in this issue.

UK – The UK’s Open Banking industry group published version 1 API specifications July 5, 2017. ISO 20022 is an element of these specifications: [Open Banking Launches Account Information and Payment Initiation API Specifications](#)

“This represents the next step in the transformation and opening up of the UK banking industry to the benefit of consumers and businesses.”

[Go to the Open Banking’s website](#)

USA – US payment systems are adopting ISO 20022:

- RTP—Two new real time payment systems have gone live this year. The Clearing House Real Time Payment system went live 13 November.
- HVP—Migration to ISO 20022 is in planning for the US high value payment systems Fedwire and CHIPS (Clearing House Interbank Payment System). Migration is expected to commence 2022.

For more on these US payment systems initiatives, go to:

[The Clearing House Press Room—RTP article](#)

[FRB Services—ISO 20022 Implementation Center](#)

News (continued).

RMG Meetings - [China Foreign Exchange Trade Systems](#) hosted the November 2017 RMG meeting in Shanghai China. The April 2018 meeting site is Zurich Switzerland.

Shanghai RMG Meeting Notes—The RMG held its latest twice yearly meeting this past November, hosted in Shanghai by the China Foreign Exchange Trade System and the China financial services community. The meeting was held in China Foreign Exchange Trade System offices on the Shanghai river front. RMG members and attending observers enjoyed a productive meeting and stunning views of the Shanghai river and skyline.

A few photos are included here as evidence. China was recognized for very graciously hosting the meeting.

The RMG meeting addressed a variety of issues including:

- Focus was given to the RTPG and market practice groups – Progress on RTPG harmonization efforts was reported. Market practice (standards application) was recognized as the immediate partner to standards development. Outreach will be conducted to the PMPG and the SMPG to consider the value of more formal relations.
- Work on the Semantics model was revised – It was resolved to establish a subgroup to “explore how to evaluate and accept the submission of additional elements into the ISO 20022 Repository”.

- Enhancements to ISO 20022 processes to accommodate card industry requirements - A proof of concept is planned in 2018 to validate that proposed changes will address requirements.
- APIs, JSON, and ISO 20022 – Work by the TSG and the RA was reviewed. It was resolved to conclude this work and publish a whitepaper on the subject. An effort will be undertaken by TC68/SC9 to consider the impacts of these developing technologies to all TC68 standards.



*16 November 2017. RMG members in session.
Photo courtesy the China Foreign Exchange Trade System.*



*16 November 2017. RMG members convene on the roof of the China Exchange System for a view of the city.
Photo courtesy the China Foreign Exchange Trade System.*

» In other news

The UK's Payment Strategy Framework (PSF) – The PSF was established in October 2015 by the UK's Payment Systems Regulator (PSR) to create a strategy for payments in the UK. It represented the first time in the history of the UK payments industry that all sectors came together to deliver a strategy to 'close the needs gap, address the detriments, and unlock competition and innovation in payments.' Following consultation on a Final Report, the PSF published its Consultation Assessment Report in December 2017. In this report it confirmed the UK would commit to designing and implementing a New Payments Architecture (NPA), that 'will be underpinned by a single defined and simplified ISO20022 clearing and settlement capability that processes the payments messages for all payment types'.

[Go to the Payments Strategy Forum website](#)

Communications Group News – New alternative channels for communication have been added including:

- ◆ Social Media – We are making increasing use of LinkedIn as a means to circulate ISO 20022 related news.
- ◆ Public Documents webpage – The iso20022.org site has been enhanced to include a web page for "Public Documents". The webpage:
 - ◇ Is intended to include tools and information useful and relevant to ISO 20022 but which is not official material of the RA, the RMG and its subgroups.
 - ◇ Has representative, sample materials which have already been added to the new webpage. Items listed below in "Tools and Techniques" would also be candidate for inclusion.
 - ◇ Tools, documentation on ISO 20022 related subjects: Technical, Business, Educational, Regulation related etc. for any and all domains is wanted.

An editorial policy is available on the webpage which includes information on making submissions.

More material is needed. Please consider proposing material from your communities. Note: Click "Expand All" to see what is currently available on [this new webpage](#).

Tools and Techniques—An increasing number of tools and documentation have become available to support education, implementation, and use of the ISO 20022 schema. Frequently specific to one geography or domain, they give examples to all of the aids which will facilitate education and use of ISO 20022. Public and freely available tools would include (to list only a few):

- ◆ **Switzerland**— A certification tool to test specifications compliance for corporate to bank payment operations
Access it [here](#)
 - ◇ Two directories to inform corporate end users of the ISO 20022 readiness of their partner enablers (banks and financial application providers)
 - ◇ A list of financial applications used by corporations (e.g. ERP and treasury management systems, other) which support ISO 20022.
 - ◇ A list of Swiss banks supporting initiation of payment services using ISO 20022. Included are an extensive set of documentation, specifications and contact information to help guide end users through the process.[Go to Payments Standards.ch](#)
- ◆ **UK**—A tool developed by the UK to support cross reference of ISO 8583 with ISO 20022 in relation to the UK real time payments migration to that new standard.
- ◆ **USA** - Specifications and documentation published by NACHA with the recommended ISO 20022 version (CGI-MP based) for corporate use when originating US ACH transactions.
[Go to NACHA ISO 20022 mapping documentation](#)
- ◆ **SWIFT**— In addition to their many contributions to ISO 20022 through operation of the Registration Authority, SWIFT has published:
 - ◇ A recent [whitepaper on market infrastructure adoption of ISO 20022](#) (payment, securities, and FX) including case studies (July 24 2017).
 - ◇ For the benefit of corporate end users, SWIFT hosts a [listing of banks supplying services to corporations and supporting ISO 20022 for payment operations](#). Banks listed are SWIFT members supporting the SWIFT SCORE service.
- ◆ **XMLdataion**—An ISO 20022 wiki hosted by XMLdataion, a useful information resource. [Go to the XMLdataion wiki](#)

Securities and ISO 2022

ISO 2022 in Standardization and Automation of Cross-border Fund Orders

By Bernard Delbecq, Senior Director, Economics and Research, European Fund and Asset Management Association (EFAMA)

EFAMA acting as a catalyst of change

Against the background of a rapidly developing investment fund market, it became evident in the early 2000s that cross-border funds processing was suffering from a high level of fragmentation, reflecting the huge variety of communication standards, distribution channels and business practices. Given the high operating costs and considerable operational risks created by this situation, EFAMA (European Fund Asset Management Association)

decided to act as a catalyst for change. As the representative association for the European investment industry, EFAMA is indeed well placed to promote co-operation among market players to progress towards more efficient funds processing procedures.

It was in this context that the Funds Processing Standardization Group (FPSG) was created to identify obstacles to efficiency in back-office procedures and to define funds processing standards to get around those obstacles. The Group was comprised of expert practitioners representing fund management companies, custodians, transfer agents, fund processing hubs and standard providers.

EFAMA published in 2005 the first FPSG report to present recommendations to increase efficiency in the processing of fund orders. At the heart of these were recommendations to encourage the electronic input of fund orders, to use ISO standard identifiers, such as BICs and ISINs, and to promote ISO 2022 as the single European standard for funds messaging.

This work was completed in 2008 with the publication of an updated report, in which new recommendations were added covering reporting of positions and transactions and commission reporting. And in 2011, EFAMA published the third update of the report to include new sections on transfers of title and corporate actions.

In parallel with its adoption of ISO 2022 as the single messag-

ing standard, EFAMA acknowledged the key role of the Securities Market Practice Group (SMPG) in developing harmonized market practice concerning the use of the various messages.

EFAMA has taken a leading role in encouraging its member associations and corporate members to endorse and adopt the FPSG recommendations. Ultimately, all market participants were invited to examine their own policies and processes and move towards alignment with the FPSG recommendations and to make appropriate investment in the automation of fund processing and adoption of the associated ISO 2022 standard messages.

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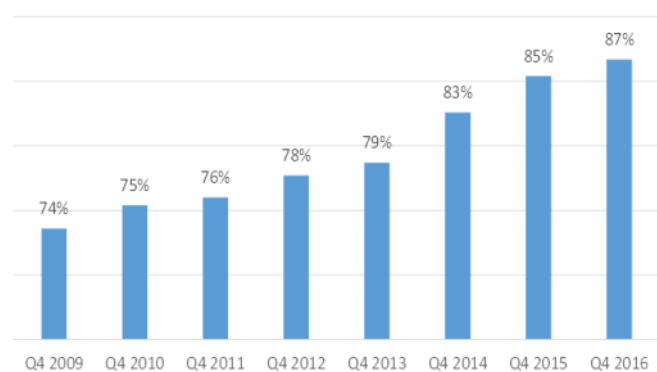
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In parallel with its adoption of ISO 2022 as the single messaging standard, EFAMA acknowledged the key role of the Securities Market Practice Group (SMPG) in developing harmonized

*The 2011 report can be downloaded from [here](#).
For more information on the SMPG, see www.smpg.info.
For more information on the EFAMA, see www.efama.org*



Chart 1: Total Automated Fund Orders



market practice concerning the use of the various messages.

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ISO 2022 messages for funds have been built by fund industry experts with SWIFT to fully meet the detailed requirements of investment funds. A major benefit of the ISO 2022 funds messages is their very wide scope. They have two additional advantages:

- ◆ ISO 2022 is an open market standard that capitalises on the ISO 15022 data field dictionary and covers financial information transferred between financial institutions across both the securities and payments industries.
- ◆ ISO 2022 messages use XML, which is the de facto standard towards which a majority of institutions, vendors and computer manufacturers is moving.

Monitoring implementation progress

Since May 2009, EFAMA and SWIFT have published twice a year reports on trends in standardisation and automation rates of fund orders received by transfer agents (TAs) in the two main cross-border distribution of UCITS, i.e. Luxembourg and Ireland. The report published in December 2016 also included information on fund standardisation in Italy and Germany. The latest report covers 2016.

This section will highlight the progress made since 2009 in the automation of fund order processing and the adoption of ISO standards in that space.

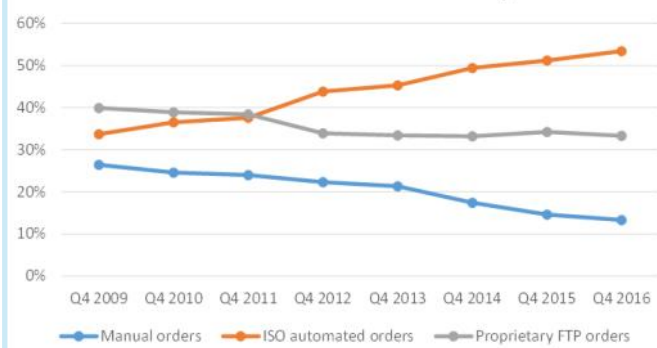
Chart 1 shows the growth in the total rate of automation of fund orders in Luxembourg and Ireland. We can see that the

automation rate has gradually and constantly increased since 2009, from 74% to 87% in 2016. This means that the proportion of fund orders carried out by faxes, telephones and other non-automatic means has been cut in half, from 26% in 2009 to 13% in 2016.

Chart 2 shows that the main driver behind the increased automation rate has been the growing reliance on ISO automated orders: their share in the order volumes has increased, from 34% in 2009 to 53% in 2016. The proportion of orders processed through proprietary FTP files has also increased, albeit much less.

For the sake of completeness, it should be made clear that the rate of ISO automated orders measures the use of both ISO

Chart 2: Total Fund Order Processing Rate



20022 and ISO 15022 fund template. To facilitate the migration to ISO 2022 messages, SWIFT put in place a migration programme. At present, the percentage of ISO 15022 migrated to ISO 2022 stands around 75%, with an additional 15% of funds messages ready to be migrated.

To better understand the trend in automation, SWIFT conducts regular surveys among the 29 TAs to assess how TAs are implementing new automated links. The 2016 survey shows that the TAs created in 2016 new ISO links with 252 counterparties,

Chart 5: Ireland Fund Order Processing Rates (Q4 2016)

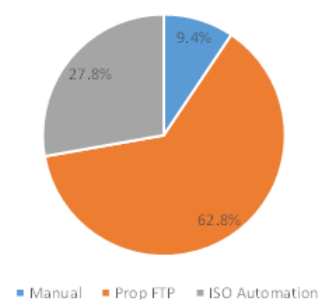
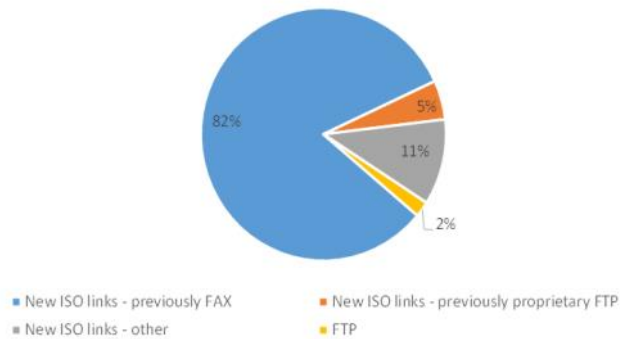
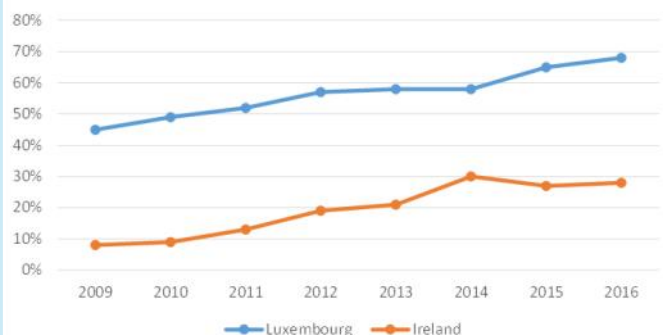


Chart 3: New Automated Links Launches in 2016



By way of illustration, the 2016 report covered 29 transfer agents: 20 TAs in Luxembourg with an estimated market coverage of 75% and 9 TAs in Ireland with an estimated coverage of 80%.

Chart 6: ISO Automatisisation Rate



compared to 6 new links using a proprietary FTP. Out of these new ISO links, 212 counterparties were previously using fax (representing 82% of all new links) and 13 used proprietary FTP files (5%). Brand new ISO links have been set up with the 27 remaining counterparties in 2016 (see Chart 3). These findings confirm that ISO standards are widely favoured in the market as the most efficient automation option.

The new ISO adopters on the distribution side are mainly located in the EMEA region in the United Kingdom, Luxembourg, Switzerland, Italy, Sweden, France and Belgium, but some were also set up in Spain, Ireland, Malta and Austria. In APAC, new connections came primarily from Taiwan, Hong Kong and Singapore.

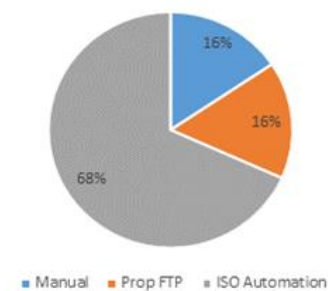
The automation rate of fund orders has increased in both Luxembourg and Ireland in recent years, however in a different national environment. Whereas the use of ISO standards is very widespread in Luxembourg, overall the automation process in Ireland continues to be driven by proprietary FTP files (see

Charts 4 and 5). However, Chart 6 shows that the use of ISO standards has increased proportionately more significantly in Ireland since 2009.

Looking forward

The European fund industry has made good progress in recent years to replace faxes and telephones by electronic messages to handle orders of cross-border funds. The goal of ensuring that at least 90 percent of cross-border fund orders be automated is now within reach. This progress is synonymous of greater efficiency, reduced operational risks and enhanced service through

Chart 4: Luxembourg Fund Order Processing Rate (Q4 2016)



improved response times and standardized interfaces.

Notable progress has also been observed in the adoption of ISO messages as the basis for electronic communications to place fund orders. Further and more decisive progress can be achieved in this area. The available data for Luxembourg and Ireland shows indeed that the use of ISO messages to support fund orders coming from countries outside Europe is very limited. Given the well-established success of UCITS as a global brand and the successful launch of Alternative Investment Funds, the economic rationale for promoting further the use of ISO 20022 messages as the standard for cross-border distribution of both UCITS and AIFs is strong. Priority should be given to this objective.



**The EFAMA reports are
available [here](#)**

ISO 2022 Investment Funds

Maintenance Update



By Janice Chapman, Manager, SWIFT Standards Investment Funds

The 2016-2017 maintenance cycle for the investment funds messages was a very significant cycle indeed. Over the years, the funds transfer (sese) messages, the funds account management (acmt) messages have been regularly maintained, but this was the first time in ten years that the funds order (setr) messages were updated. This 'freeze' on the ISO 2022 funds order (setr) maintenance was agreed by the funds community to provide a stable target for those funds users of the ISO 15022 Trade Initiation & Confirmation (TIC) messages to adopt the ISO 2022

One of the main drivers for the funds order (setr) message maintenance was the addition of functionality to support hedge/alternative funds, says Janice Chapman

funds messages.

One of the main drivers for the funds order (setr) message maintenance was the addition of functionality to support hedge/alternative funds. In the past, [SWIFT](#) had developed ISO 2022 messages for hedge/alternative funds, but it was agreed that, rather than submit these messages to the ISO Registration Authority for the approval process, it would be better to have a single set of funds messages that covered both investment funds and alternative funds. A second driver for the maintenance was the need for business improvements for the specification of charges and commission, which will eliminate user ambiguity and foster transparency.

On a slightly different subject, the SMPG ([Securities Market Practice Group](#)) investment funds working group is proud to state that by May of 2017, the market practice for the new versions of the funds order (setr) messages was published on [MyStandards](#), thus being available in good time to support the community's implementation of the messages. The new versions messages go live in November 2017 and replace the old

versions. Funds has a policy of only supporting one live version of the standard.

Another very exciting development over the last two years has been the enhancement of the funds account management messages. These messages are used for the opening of an investment account and the establishment of an investment plan. These messages can now also be used to open a securities account. The functional scope of the messages has also been extended so that the messages can be used to close an account or reactivate an account.

Because the funds ISO 2022 messages are provisioned on [SWIFT](#) in the SWIFTNet funds solution, the volumes on the SWIFT network tends to be the measure of how widely the ISO 2022 funds messages are used. In addition to messages for orders (setr), account management (acmt) and transfers (sese), there are also messages for price reporting (reda), funds cash forecast (camt) and statements (semt). All of the different funds messages are now sent on SWIFT, although the biggest volumes are as a result of the funds order process. Feedback from the very productive SMPG investment funds working group indicates that some of the messages are also widely used outside of the SWIFT environment, albeit without the rigorous validation that is implicit in using SWIFT for messaging.

Coming up for the 2018 maintenance cycle is the enhancement of the funds transfer (sese) messages for the support of a single leg process for transfers.

(...) second driver for the maintenance was the need for business improvements for the specification of charges and commission, which will eliminate user ambiguity and foster transparency (...)



Payments and ISO 2022

Swiss ISO 2022 Payments Harmonization Activities

By Istvan Teglas, SIX Interbank Clearing, Member of the ISO 2022 RMG's RPTG (Real Time Payments Group)

How Switzerland is proceeding with the introduction of ISO 2022 is followed with great interest from abroad. Among other things, this is because in Switzerland the complete domestic and foreign payment traffic is being converted, both in the customer-bank and interbank sectors.

The Swiss approach is therefore being observed from as far away as Africa, because it extends far beyond a purely "technical" migration. The financial center is using the migration to ISO 2022 for extensive harmonization activities. It is therefore far more than a depiction of the current Swiss credit transfer standards in the international ISO 2022 standard. With the use of a uniform standard for electronic payment traffic and cash management reporting, major usage potential is opening for all participants, including:

- Consistent customer references (with more characters than are currently possible). This facilitates automation among debtors and creditors.
- Fewer processing errors (returns) as a result of uniform message standards.
- Use of common terminology among market participants.
- Standardized validation, for example the same instruction quality is applicable for financial institutions.
- Uniform status and error codes (simpler communication with support points, independent of software producer or financial institution).

(...) in Switzerland the complete domestic and foreign payment traffic is being converted, both in the customer-bank and interbank sectors.

Swiss participation in the HVPS+ Project

Switzerland is represented by SIX Interbank Clearing in the "High-Value Payments Systems" (HVPS+) working group (Originated by SWIFT as part of the ISO 2022 Harmonisation initiative for payment market infrastructures, launched in April 2016 – sponsored by PMPG—Payments Market Practice Group) – including representatives of the Federal Reserve Bank of New York, Bank of England, South African Reserve Bank and Payments Canada. Participants are divided into so-called "core participants" (USA, Canada, Germany, England, Italy, France, Holland and South Africa) and "advisor participants", whereby the

latter includes just two countries: Switzerland and Japan (due to the implementation of pacs.008/pacs.009 for cross-border transactions within the framework of the RTGS - *Real-Time Gross Settlement*—system BOJ-Net).

A two-day meeting in La Hulpe, Belgium, in the middle of last December offered the opportunity to explain the Swiss adaptation of ISO 2022. The messages used in the BOJ-Net and the Swiss RTGS systems – *SIC* and *euroSIC* – were discussed bilaterally with the Japanese representative. The Swiss Implementation Guidelines received a thoroughly positive assessment by all participants. The presentation of the Swiss procedure evoked further questions from the Americans and South Africans, which were clarified in subsequent telephone conferences.

Training of African central banks

[SIX Interbank Clearing](#) received a further inquiry about the Swiss path from the German consulting firm, UNIFITS, which – on behalf East African Community (EAC) – conducts training sessions for the EAC members in the field of payment traffic. Swiss knowhow was requested for such a training session at the beginning of November last year in Mwanza, Tanzania. This involved basic information about ISO 2022 and the implementation

thereof. The training session was attended by representatives of the central banks of Tanzania, Uganda, Burundi, Kenya and Rwanda. The Swiss "philosophy" was conveyed by SIX Interbank Clearing and discussed via Skype. Volker Heinze, UNIFITS course instructor, was impressed and summarized his impressions and those of the participants as follows: "ISO 2022 as the lingua franca for the reorientation of payment traffic is being accepted internationally not only theoretically, but also practically. In

addition to the ISO 2022 basics, the participants also attentively grasped how important the comprehensive involvement of all stakeholders, as well as the active support with specifications, conferences and validation portals, is for a successful migration – which is successfully demonstrated by the harmonization of Swiss payment traffic."

More information on the SIC franc payment system is available [here](#)

More information on the euroSIC payment system is available [here](#)

(Source: SIX Interbank Clearing)



Peeking Behind the Curtain:

The Meaning of Payments

By Michael Knorr, Wells Fargo Bank N.A, Head of Global Payments & Liquidity Risk Management and member of the PMPG (Payment Market Practice Group)

Processing a payment for banks used to be all about getting the instruction to the next party in the payment chain. Straight Through Processing (STP) was synonymous with not touching the payment in your own shop regardless if the payment is causing issue downstream at other banks. Over the years this model is changing due to increased regulation and compliance requirements and just knowing debit and credit parties and amounts are not sufficient. Anti-Money Laundering (AML) analysis requires banks to understand transactions and country flows and look for unusual patterns. Data Quality in all fields of the payment order becomes paramount.

Two segments of a payment order have been subject to increased scrutiny: Ordering Party and Beneficiary (debtor and creditor in ISO 20022 terminology) and the purpose of the payment. However while party details are subject of specific international regularity recommendation such as FATF 16 the purpose of payments discussion has been mainly a concern for local regulators without much international compatibility discussion.

This paper primarily focuses on the current state of purpose of payment codes and their challenges in then international payments environment. In particular we will look at then challenges in the current MT messages and the efforts of the industry to standardize them. Special consideration will be given to the upcoming ISO 20002 migration and the impact on interoperability.

Purpose of Payment Codes

While payment purpose codes are nothing new and have been in existence since the last century to support central bank reporting requirements their use has initially been declining. However, they are getting a new life as some markets like China and India have introduced new requirements for their use. As their definition and use are driven by various local regulators no standard exists. For example: South Africa uses a 5 digit numeric code while China has implemented a 5 character alphanumeric one. Definitions vary and are overlapping in some cases. Jordan has a purpose code 0801 for Telecommunication Services, 0803 for Information Technology Services and 0807 for Marketing and Media Services. Selecting the right code for storing videos in a cloud based service becomes a real challenge in this case. The examples above illustrate how difficult it is for a payment systems user to select the right code and for the regulators to have assurance that the codes being reported have high data quality.

Let's look at key aspects of data quality

Aspects of data quality

Completeness: Data is missing or unusable

Conformity: Data is stored/transported in non-standard format

Consistency: Data values giving conflicting information

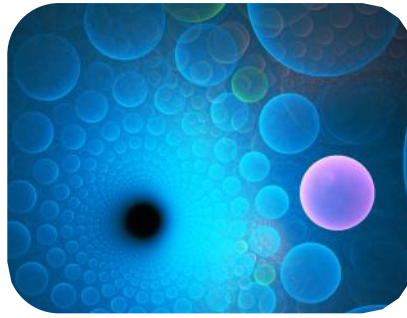
Accuracy: Data is incorrect or out of date

...And apply it to the purpose of payment (POP) codes: So who owns the correctness of the purpose of payment code? The debtor initiates the payment and should know what class of services is being paid for, however the lack of standards makes it difficult for the debtor to comply and would need to rely on the creditor to advise of the correct code but from an accuracy perspective that might be problematic if the wrong code is communicated. For financial transactions the debtor is probably best suited to determine the right code.

Data Quality Attribute	Relevance to POP Codes	Current Issue
Completeness	Is the user in possession of the various codes	As PO codes are very local the debtor will in most cases struggle with obtaining the relevant code list
Conformity	Can the code be transported consistency in different payment message types	As we will see in the next section this is really the biggest issue between message types
Consistency	Can codes be used across countries in a consistent manner	As code lists are local conflicts can arise if regulators from the debt and credit country have different code requirements.
Accuracy	Do all parties have access to the most recent code list and is the right code being used?	The debtor will have difficulty to know if the codes being used are correct and the most recent version.

Fit for purpose and existing standards

As highlighted in the table above a challenge is to decide. Which field to use for payment purpose codes in cross-border transactions? Should the code be populated in field 26T, 77B, 70 or even field 72. The answer to this question varies and depends on the geography of the payment parties. In some markets 26T is not supported by local banks and hence a generic field such as field 72 is recommended which runs counter to efforts in other markets that would like to restrict the use of this free format fields.



Field 26T MT103

The definition of this field stipulates that it should be used to identify “the nature of, purpose of, and/or reason for the individual transaction, for example, salaries, pensions, dividends” and a three character code can be used. While the field definition is describing the purpose of the payment it is interesting to note is that most of the codes that local regulatory agencies have defined are longer than three characters (UAE has three). In some cases the purpose of payment is a free text description. Also the current 3 characters do not allow referring to a specific issue of a code list. In summary the existing field 26T is not adequate to house the payment purpose codes in use. Most markets have hence selected a free format field 70 or 72 to include the purpose of payments code.

Field 77B MT103

The regulatory reporting field provides more options as it is more general and allows for “regulatory information required by the authorities in the country of Receiver or Sender.” However, restricting the use to the sender and receiver is misleading as in most cases the purpose of payment needs to be advised to authorities in the country of the beneficiary or ordering customer (or bank). The field size at least of 3*35 characters makes this field more suitable for purpose of payment codes as it can capture multiple codes and country codes.

In some markets 77B is not supported by local banks and hence a generic field such as field 72 is recommended which runs counter to efforts in other markets that would like to restrict the use of this free format fields.

MT202

The MT202 does not offer field 26T or 77B and hence users need to place payment purpose related information in field 72.

ISO 2022 external code set

In Payments Initiation (pain) and Payments Clearing and Settle-

ment (pacs) messages a field purpose (<Purp><Cd>) in the CreditTransferTransactionInformation <CdtTrfTxInf> segment and references an external code set (*ExternalPurpose1Code*) which contains 162 purpose of payment codes covering various aspects of payment transactions. As this is an external codes sets maintenance can be done quarterly if codes need to be added. The codes contain a definition but do not follow a consistent taxonomy. More work will need to be done to ensure the industry has a more consistent framework in assigning these codes.

Agreeing on standard list of codes and definitions will make it easier for users to pick the right code and manage against a complete list. The standard list would also enable local regulators to map against the global list and identify gaps then can be added to the external code set.

Reality in the field

Lack of guidance by the global community and absence of standardization has led local regulators come up with their own recommendations and requirements where codes are to be placed. The current unstructured approach leads to an increase in inquiries and payment delays.

More countries are adding requirements around purpose of payment information. Recently Cambodia announced the requirement to include the purpose of a payment.

Search for the missing payment purpose codes: Semantic Model

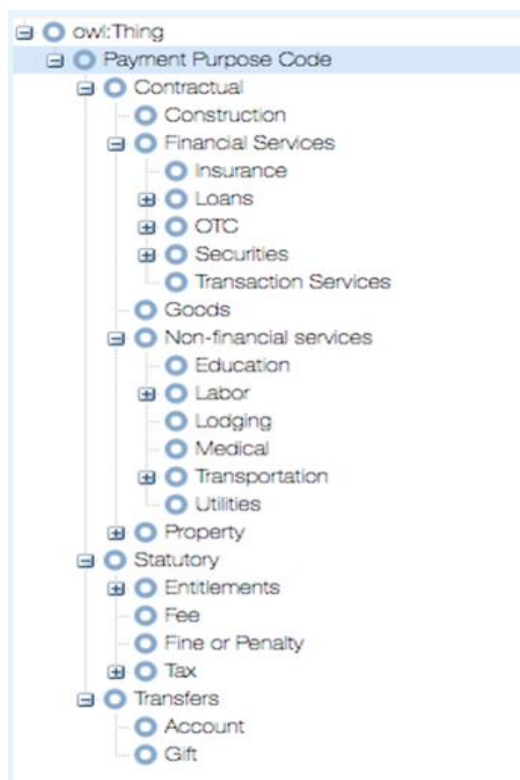
Having a standard code list is a start but gaps exist. For example codes are in place to advise that a payment relates to transportation by air, railway, bus or ferry but no code exist for truck or vessel. Some codes are very granular like differentiating between an E-Purse Top Up and a Mobile Top Up while others are broad like Costs.

While these cases have been developed with the input from different communities it would be good to look at this from an overall standardization perspective that keeps these codes at the same level of granularity or introduces a hierarchy to them (like the service codes in the Bank Services Billing Statement, camt.086 schema).



ISO 2022 external code sets are available [here](#)
ISO 2022 Payments message are available [here](#)

From a standards perspective this is desirable but also a significant task.



Sample Semantic Ontology for Payment Purpose

The chart provides an illustration of this approach by establishing categories and a hierarchy. Well defined categories with adequate descriptions and code descriptions should make it easier for communities to map local codes and decide if the global codes are sufficient for their needs or identify gaps that then be closed through the regular quarterly maintenance process of external code set.

How do we map from ISO 2022 to legacy standards?

More RTGS systems are adopting the ISO 2022 standard for payments. Once USD and EUR payment systems have migrated a large part of value and volume of international wires will be conducted in the ISO 2022 format. However, cross border the existing MT messages will still dominate and hence intermediary banks will be faced with the problem to map incoming ISO 2022 messages into the existing MT standard messages. One challenge will be where to map the purpose code field which exists in Customer Credit Transfer and FI-to-FI credit Transfer to the correct field in MT103 and MT202 messages. Absence any standard change in the MT messages a market practice will need to be agreed upon how to accomplish this.

Standards development can only provide us with fields, codes and descriptions but the actual usage will require agreement on market practice. One such practice could be to use the global code list and require that the mapping to the right local code should be responsibility of creditor agent or creditor.

Of course the payment details as well as the global codes need to be granular enough to enable the mapping. (Example differentiation between resident and non-resident creditor is better done by the creditor agent)

Conclusion

Purpose of Payment Codes need to serve multiple masters in the future. While initially the focus has been on the creditor bank country compliance requirements in the interbank chain to have more insights into what the gets paid will require a more globally consistent approach. So far requirements and standard have been driven locally but the myriads of codes make it difficult for the originator of the payment to make the right decision what to use when. Resulting data quality issues should also be a concern for the authorities requesting the usage of the codes. If the ultimate users of these codes want to be able to aggregate payment data domestically and cross border and use the data for policy decisions with some level of quality assurance then a more standardized approach should be promoted.

(...) challenge will be where to map the purpose code field which exists in Customer Credit Transfer and FI-to-FI credit Transfer to the correct field in MT103 and MT202 messages, says Michael Knorr.



Process and Technology of ISO 2022

» Recommendations for Implementation of ISO 2022 Messages



New Whitepaper from SWIFT Standards for Financial Market Infrastructures

Stephen Lindsay, Head of Standards, SWIFT

Financial Market Infrastructures (FMIs) are the unsung heroes of the financial industry, ensuring that payments and securities transactions are cleared and settled reliably and with finality around the world and around the clock.

Operators of market Infrastructures – often central banks – are conservative by nature. Their services are vital to the stability of the financial system, and this places top priority on reliability and resilience. Nevertheless, a quiet revolution is underway in the market Infrastructure world.

As the impact of the 2008 financial crisis receded, FMIs began to take stock of evolving industry and societal expectations, and to consider the possibilities offered by the latest technology. Many have now embarked on ambitious renewal programmes, combining improved efficiency and resilience with new services and access models – longer opening hours, new functionality and more open participation to encourage competition and innovation.

Central to this movement is ISO 2022, an open industry standard that provides common definitions and structures for transaction data, and can replace the limited, proprietary formats that were often specified in the past. There are many advantages to widespread adoption of a common standard. It provides **efficiencies for global banks** that participate in multiple FMIs; it enables **robust end-to-end business processes** without loss or misinterpretation of data; and it promotes a level playing field for participants, **reducing switching costs and implementation effort**.

Whatever the benefits, however, moving a community to a new standard is never easy, so [SWIFT Standards](#) – one of the principal contributors to ISO 2022 – has released an information paper to help market Infrastructures manage the transition. The paper combines SWIFT's experience as advisers to several successful implementation projects with case studies from a num-

ber of major FMIs in different stages of their ISO 2022 journey, to illustrate a variety of implementation strategies, including pros and cons and lessons learned.

SWIFT Standards whitepaper is available [here](#).



» An ISO standard for web-based APIs in Financial Services

ISO 2022 Technical Support Group, published December 19, 2017 on www.iso2022.org

An ISO standard for web-based APIs in Financial Services

In November 2017, 23 countries under the governance of ISO TC68 Financial Services agreed to work together with China, Singapore and the United Kingdom to pool resources and to focus effort on defining the first ISO standard for APIs in financial services. This new project has already changed the landscape considerably for web-based API (WAPI) standardisation

by providing a single place, with the legitimacy of the tried and trusted ISO process, to focus expert resources from around the globe to deliver such a universal standard.

ISO 2022 will continue to play a big part in shaping the standard adding tremendous

value as an authoritative source of business data and semantics. Formative work under the Registration Management Group on the potential use of ISO 2022 in the context of APIs and JSON syntax has been reflected in a whitepaper (published 29 January 2018) which is expected to also contribute to this new ISO effort.

What is ISO 2022?

ISO 2022 is an international messaging standard developed to facilitate electronic data interchange between financial institutions, and with their customers, users, suppliers, market infrastructures and regulatory authorities. It is a single, common 'language' for all financial communications supporting interoperability between all parties – no matter where the business is based. It allows participants and systems in different markets to 'talk' to each other using consistent terminology and formatting.

ISO 2022: Built for the future

ISO 2022 has been created by the International Organization for Standardization (ISO) as a new way to develop message

(...) a quiet revolution is underway in the market Infrastructure world, says Stephen Lindsay

standards within the financial industry – a standard to develop standards, so to speak. Financial institutions exchange massive amounts of information with their customers and amongst themselves in the course of delivering the services we all use every day.

Uniquely, ISO 20022 is adaptable to emerging requirements. ISO 20022 is chosen by many projects, communities, and experts as their messaging standard for financial business transactions. This may include emerging regulatory reporting requirements, market infrastructure developments, or legislative mandates to adopt new channels of data exchange between transacting parties. ISO 20022 offers an efficient and secure way of developing and implementing messaging standards that will serve as a basis for long-term requirements and solutions.

The development and changes to ISO 20022 applications varies in relation to what is aiming to be achieved and the need to address emerging business services.

At one end of the scale, the ISO 20022 development process permits the introduction of new data components and message formats into the standard. This means that organisations that wish to use the standard, are able to implement it to suit their purpose – achieving compliance and promoting interoperability. This process is achieved when an organisation puts forward a change request and business justification to the ISO 20022 Registration Authority, for approval by the ISO 20022 Registration Management Group. The governance of this process sits alongside ISO, is open and transparent, and allows for any organisation to submit requests for changes to existing messages or business justifications for development of new messages.

As the needs of the user community evolve the ISO 20022 Re-



The ISO 20022 RA is working on defining a process that will enable API developers to easily re-use the ISO 20022 business concepts that have been created for use in ISO 20022 messages.

This API submission process meets the requirements that are needed for an agile API development environment

Application Programming Interfaces and introduction of JSON encoding

Emerging applications of standardised open API's require standardised data. An API is a set of functions and procedures that allows access to data or a service in order to provide greater functionality to the app or websites' user. Data accessed via an API may be closed, shared or open data. However in order to expose a consistent view of data to an API requires the data to be uniformly presented. When APIs are im-

plemented in a cross industry setting between many institutions with differing data sets ISO 20022 can add value by providing the common business data semantics in a standardised and uniform structure.

An informative guide will be made available by the ISO 20022 RMG which presents informative guidance on using the ISO 20022 common business data semantics in an API exchange. Today in fact the ISO 20022 standard includes formal support for XML and ASN.1 syntaxes, the RMG has recently discussed

the concept that JSON could be used as an additional alternative syntax encoding so long as it adheres to the ISO 20022 standard for alternative syntaxes. This is demand driven so the RMG anticipates that it may receive a formal request from

industry to approve the development of JSON as an alternative syntax in the near future.

With a clear demand for an ISO API standard the RMG has invited all experts, the RA and other interested parties to contribute to and help to expedite the development of the global API standard under ISO. This development is supported by ISO TC 68/SC 9 Information exchange for financial services. Our objective is simple – use ISO 20022 to support the definitions of common business data semantics within the ISO web-based API standard.

The ISO 20022 & JSON best practice whitepaper is available [here](#).



► Accelerating ISO 20022 Maintenance: A work in progress

1. Fast track maintenance process

2. Major and minor versions



By Jean-Marie Eloy,
ISO 20022 Registration Authority

Introduction

In 2009, ISO decided to “reverse engineer” ISO 8583 into ISO 20022 compliant messages. ISO 8583 specifies the structure and format of card originated messages to be interchanged between Acquirers and Card issuers. ISO 8583 is used by international card schemes. The reverse engineering project - called ATICA (Acquirer To Issuer Card messages) - delivered an initial set of 13 message definitions published as a “proof of concept” in February 2016, while the ISO working group in charge is finalising a second more comprehensive version expected in 2017.

The perspective of a migration from ISO 8583 to ISO 20022 triggered the attention of the card schemes, which benefit from a more flexible environment in ISO 8583 than what ISO 20022 can currently offer in terms of maintenance of the message definitions.

To accommodate the future needs of the card industry when adopting ATICA messages, two new concepts are proposed to improve the ISO 20022 maintenance process:

- A **fast track maintenance process** to speed up the update of ISO 20022 message definitions
- A concept of intermediary **minor versions of ISO 20022 message definitions** to minimize the impact of a new message version on the existing user base, while further reducing the maintenance process timeline.

These two concepts would benefit the ISO 20022 community at large, not only the ATICA users.

Fast track maintenance process

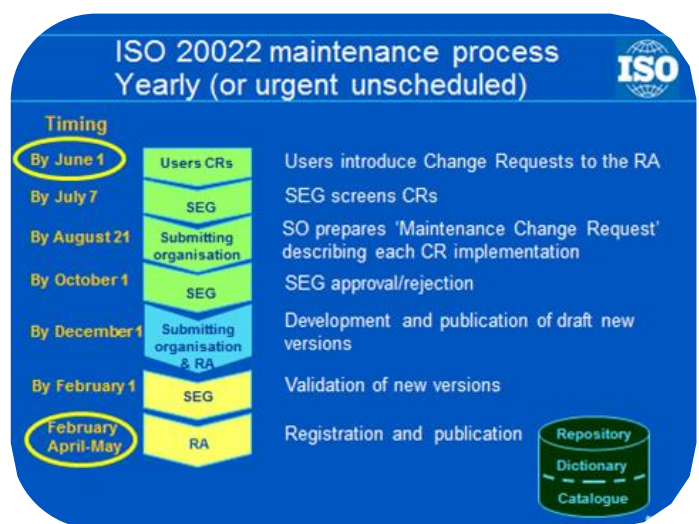
The current ISO 20022 maintenance process is illustrated below. It is usually initiated on a yearly basis, but can also be initiated in a more urgent, unscheduled manner. The yearly process starts in June and usually spans three quarters of a year. When used in an urgent unscheduled manner, the process can be initiated any time and may be reduced to as little as 3 months.

It is the submitter of the change request who proposes to use the urgent unscheduled process and the [Standards Evaluation](#)

[Group \(SEG\)](#) in charge of the message definition that authorizes the use of this urgent unscheduled process.

The new fast track maintenance process skips the first two steps of the current maintenance process (that is, the submission of the change request (CR) and its initial review by the SEG in charge of the message definition). The fast track process starts directly with the submission of a Maintenance Change Request (MCR) prepared by the (submitting) organisation that intends to develop the new version of the message definition. The MCR includes all the changes requested by the submitting organisation and the detailed proposed implementation.

The fast track maintenance process can thus be initiated only by the submitting organisation that owns the message defini-

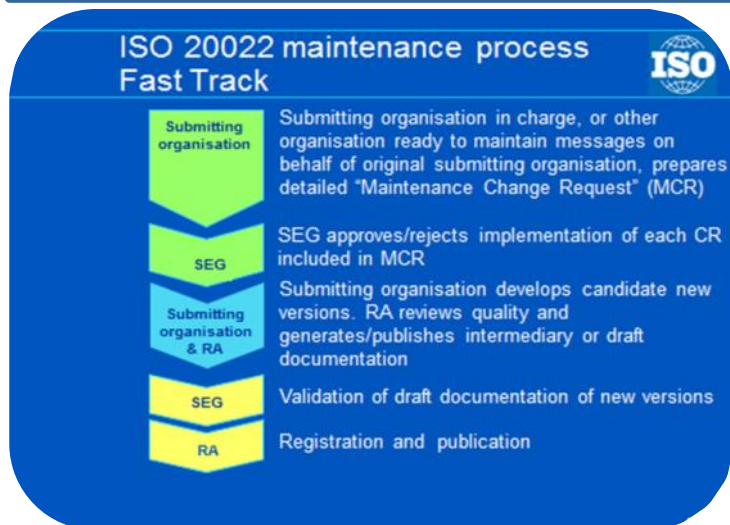


tions (that is, the original submitting organisation) or another organisation that is capable of developing the new message version and has been authorized to do so by the original submitting organisation.

The duration of the fast track maintenance process depends on the diligence of the (submitting) organisation. If this organisation is really in an urgent need for a new message version, it is expected that the MCR will be extremely clear about the implementation of the requested changes, thereby allowing the SEG to take a rapid decision. Similarly, the development of the new version by the submitting organisation is expected to be fast.

The Reverse Engineering is a method that helps transforming existing message standards into their equivalent ISO 20022 message definitions.

The method is described in [Part 5 of the ISO 20022 standard](#).



The new concept of minor version allows a submitting organisation to propose the update of a message definition without changing its version number:

- ◆ If the update doesn't impact the existing users who are not interested by the change (for example, addition of an optional element for a specific portion of the community of users), the resulting new version can be considered as a candidate for a minor version. However, it will become a minor version only if proposed by the submitting organisation and approved by the SEG. The message version number will then not be incremented to avoid impacting the existing users not interested by the change.
- ◆ If the submitting organisation is not interested by a minor version or the SEG doesn't authorise it, the new version will be considered a new major version and the message version number will be increased.

To further speed up the process, the validation of the draft documentation by the SEG will be performed in two stages:

- ◆ Approval of the new message description, that is, the Message Definition Report (MDR) - Part 2 and the schemas
- ◆ Approval of the auxiliary documentation (MDR Part 1 and 3)

As soon as stage 1 is completed, the new versions will be considered as approved and the MDR Part 2 and schemas will be officially published on the ISO 20022 website by the [Registration Authority \(RA\)](#). This documentation will be complemented by the updated MDR Part 1 and 3 when stage 2 is completed.

The timeframe between the submission of the MCR and the publication of the new schemas is expected not to exceed 2 months.

Minor Versions—A work in progress

The concept of minor/major versions

Currently, ISO 20022 only uses a concept of major version. Each time a message definition is updated, it receives a new version number, whichever the type of update. The version number is indicated at the end of the message name or schema ID:

Example: CustomerCreditTransferInitiationV08 – pain.001.001.08 is the 8th version of this message definition.

The increase of the version number of the schema impacts all the existing users who will have to migrate to the new message schema, even if the updates to the message definition are not relevant to them.

Note however that, if the update doesn't impact the schema of the message definition (for example, the re-wording of a component definition), the version number is generally kept unchanged.

Similarly, if the update has a mandatory impact on all existing users (for example, the addition of a mandatory element), it will be considered a major change that will trigger the development of a new major version of the message definition. The message version number will be incremented.

In other words, a 'minor version' is a new version of a message definition that remains backward compatible with the latest (minor or major) version of this message definition. Minor versions will permit to evolve a message definition between the registrations of two official (major) versions of a message definition without impacting the current user base.

Example: abcd.023.001.02 is the latest (second) major version of global message definition abcd.023.

Before moving to an official third major version of this message definition (abcd.023.001.03), it will be possible to evolve version 02 of the message definition in one or several subsequent minor versions of version 02, provided that each subsequent minor version of version 02 remains backward compatible with version 02 and its already existing minor versions.



The first minor version of version 02 will be called 'MINOR1abcd.023.001.02' for pure identification purposes, but the actual message ID which appears in the namespace of the XML document will remain abcd.023.001.02 in order to avoid impacting current users.

In this context, backward compatibility means that the message instances generated by users of the major version 02 and any of its minor versions can still be validated by the schema of the latest minor version. In other words, new minor versions can be deployed without impacting the users of the previous major version and the previous minor versions of this major version.

To achieve this backward compatibility, the type of changes accepted for a new minor version is limited to the following:

Adding optional elements

- ◆ Changing the cardinality of an element from mandatory to optional or increasing the possible occurrences of an element
- ◆ Adding codes to an existing internal code set
- ◆ Extending the value space of a Data Type, e.g., the size of a text element, removing a constraint, widening the character set, replacing a code set by a text representation of min 4 characters, etc.

Use of the SupplementaryData extension or the external code sets is not considered here, since it doesn't require a new version of the message definition.

In order to ensure that users of the current major version (abcd.001.001.02) and/or users of an existing minor version of this current major version (for example, MINOR1abcd.001.001.02) will not be impacted when receiving an instance based on a new minor version (for example, MINOR2abcd.001.001.02), a convention would need to be established within the specific community of users that unexpected message items (corresponding, for example, to optional elements that have been added in MINOR2abcd.001.001.02) are ignored by the users of the current major version (abcd.001.001.02) and its previous minor versions (MINOR1abcd.001.001.02).

Publication of minor versions—How will it look like?

Minor versions are published on iso20022.org by the Registration Authority, but are not registered in the ISO 20022 Repository. Only major versions are registered in the ISO 20022 Repository. Minor versions are published on distinct pages in the related Business Domain Catalogue of Messages ([Payments](#), [Securi-](#)

Publication of minor versions—Example

Acquirer to Issuer Card Messages (ATICA) [Related minor versions](#)

cain - Acquirer to Issuer Card Transactions—Last updated on: 03 February 2016

Message Name	Msg ID (Schema)	Submitting Organisation	Msg Def Report
AcquirerAuthorisationInitiationV01	cain.001.001.01	ISO TC68/SC7/TG1	MDR
AcquirerAuthorisationResponseV01	cain.002.001.01	ISO TC68/SC7/TG1	
AcquirerFinancialInitiationV01	cain.003.001.01	ISO TC68/SC7/TG1	
AcquirerFinancialResponseV01	cain.004.001.01	ISO TC68/SC7/TG1	
AcquirerReversalInitiationV01	cain.005.001.01	ISO TC68/SC7/TG1	
AcquirerReversalResponseV01	cain.006.001.01	ISO TC68/SC7/TG1	

Minor versions of Acquirer to Issuer Card Messages (ATICA) [Related major versions](#)

cain - Acquirer to Issuer Card Transactions—Last updated on: 06 April 2017

Message Name	Msg ID (Schema)	Submitting Organisation	MDR -Part2
AcquirerAuthorisationInitiationV01	MINOR1cain.001.001.01	VISA	MDR
AcquirerAuthorisationInitiationV01	MINOR2cain.001.001.01	MasterCard	MDR
AcquirerAuthorisationResponseV01	MINOR1cain.002.001.01	VISA	MDR
AcquirerAuthorisationResponseV01	MINOR2cain.002.001.01	MasterCard	MDR
AcquirerAuthorisationResponseV01	MINOR3cain.002.001.01	VISA	MDR
AcquirerReversalInitiationV01	MINOR1cain.005.001.01	MasterCard	MDR

[ties](#), [Trade Services](#), [Cards](#), [FX](#)). Their documentation consists only of an MDR Part2 and a message schema.

See the example shown on previous page:

- ◆ ISO 2022 Cards and Related Retail Financial Services messages
- ◆ List of ISO 2022 cards and related retail financial services message definitions per message set

Development of minor versions—Process proposal

The development of a minor version can be undertaken either by the submitting organisation that owns the message definition (original submitting organisation) or by another submitting organisation that has been authorized to develop such minor version by the original submitting organisation. Each subsequent minor version can be developed by a different submitting organisation.

The development of a minor version - rather than a major version - is proposed by the submitting organisation within the Maintenance Change Request (MCR) and is approved by the SEG in charge of the related message definitions. The decision to develop a minor version rather than a major version can be taken whichever the type of maintenance process, but will generally be taken at the occasion of a fast track maintenance, as illustrated below.

Prior to the submission to the SEG, the MCR is verified by the RA that will check that the proposed changes don't break the backward compatibility with the latest (minor) version of the message definition.

It is also the responsibility of the RA to verify that the new minor version developed by the submitting organisation corresponds to the MCR that has been approved by the SEG. The minor version documentation (MDR Part 2 and schema) generated by the RA is published directly without further validation by the SEG. This allows reducing substantially the lead time between the submission of the MCR and the publication of a new minor version.

Whenever there is a need to update a message definition in a way that will no longer preserve the backward compatibility with the latest minor version, a new major version of the message definition will be developed. This new major version is registered and becomes the official current version of the message definition. The previous major version and all its minor versions are transferred to the [Message Archive](#).

Whenever a new major version is proposed, the message documentation will be submitted to the SEG for validation before registration and publication in the Catalogue of Messages.

Conclusion

These proposed process enhancements are expected to address the needs of the Cards industry. But are positioned to be available and relevant to others with similar need for accelerated maintenance.

More to come when the RMG has agreed on the minor version proposal !



ISO 20022 RMG Newsletter



Questions and Contacts

Willing to contribute to the ISO 20022 newsletter?

The ISO 20022 newsletter is a great way to share information about your projects and achievements related to ISO 20022. If you have developed products, services and/or tools you can discuss your experiences with ISO 20022 here as well and share the benefits of your ISO 20022 knowledge.

To publish an article in the ISO 20022 newsletter, please contact the ISO 20022 Communications Group (iso20022ra@iso20022.org) and we will be happy to assist you.

Questions or comments?

Please send your questions, comments or requests for additional information to iso20022ra@iso20022.org.

This newsletter has been developed by the ISO 20022 RMG Communications Group. Thanks to all authors and Communications Group members.

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