Continuous Verification of **Encoding Quality** of Cheques ASSOCIATION CANADIENNE DES PAIEMENTS CANADIAN PAYMENTS ASSOCIATION Norme 006/Standard 006



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Introduction to the concept

The Canadian Payment Association (CPA) states that all cheques emitted after June 30, 2006, must be in conformity with *Standard 006*, which was published in early 2005.

The introduction of this *Standard* will allow, among other things, for financial institutions to make digital images of cheques and make those images available for visualization to the issuer via the internet.

Since the introduction of this *Standard*, we have had to revise the design of cheque base forms and of the laser cheque printing solutions that we provide to our clients to make sure they are compliant with the latest changes or precisions published by the CPA.

The following is an excerpt of Standard 006, Annex I:

Technical Specifications for E13-B Characters in MICR Band

1.2 Laser-Printed Documents

The use of laser-printing technology to produce MICR-encoded documents has become more prevalent for a variety of reasons. These include the ease with which appropriate equipment can be obtained and the requirement for certain clients to print their documents in-house.

A printer or business that implements a laser-printing solution should be aware of the following common quality assurance problems attributable to this printing method, and the fact these problems may result in high reject rates:

- · inadequate permanence/fusion of MICR toner to paper which may cause:
 - characters to flake off the paper and MICR ink to melt or smear as the document is read by a high-speed reader/sorter. This in turn may cause magnetic particles to transfer to other documents and lead to a build-up of magnetic toner on the read film of processing equipment.
 - E13-B character distortion.

It is important to note that every component in the printing solution must work well together in order to produce quality documents. Where strict attention is paid to quality laser-printed cheques can be of very high quality.

It is strongly recommended that the following principles be implemented at the printing/user site in order to ensure the production of quality documents:

- · a laser printer should be designated for all MICR-encoded documents (Note: Every printer is unique in terms of fusing properties and therefore some printers may not be well suited for MICR printing);
 - clients should use supplies that are compatible and recommended by the equipment manufacturer (Note: Each toner product is developed for a particular print engine);
- · printing equipment should be calibrated and maintained by qualified professionals on a regular basis;
- MICR-encoded document samples (such as cheques) should be forwarded to the client's financial institution's Quality Assurance department (refer to *Appendix V*) for testing on a regular basis, or every time a component in their end-to-end solution changes (alterations to any component in the printing solution may affect the MICR print quality); sample cheques (refer to subsection 1.4 and 1.4.1 of the *Supplement for quantities*) should be submitted in their final format (i.e., not just the MICR-line) (exact amount is at the discretion of each financial institution).
- · a variety of testing devices to measure the quality of MICR printing are available in the industry. The use of such devices is encouraged; and
- · special training on current MICR standards may be required for in-house printing of laser-produced documents.

Formplus's Proactive Approach

Our goal is to make sure that every component of the cheque printing solution we provide is in accordance with the *Standard* at the moment of conception and that it remains so as time goes by.

- Imaging of your cheque bases

We apply systematically the recommendations of the CPA so that the financial institutions will be able to digitize the cheques in accordance with the *Standard*.

If the need arises, while printing your cheques base forms, an imaging test can be performed with the same equipment as the one used by financial institutions.

- The cheque printing solution

By using our cheque printing solution, you are able to print high quality cheques in-house, in accordance with the *Standard* and encoded with magnetic ink.

To help you do so, Formplus has acquired the same magnetic encoding testing device that is used by the Quality Assurance departments of financial institutions.

Quality Control of Magnetic Encoding

During the initial installation, we are able to verify the laser-printing solution you have acquired and certify that it is in accordance with the *Standard*. Afterwards, we propose to do periodical quality control tests of the magnetic encoding so as to make sure that your financial institution doesn't reject your documents.

For every control intervention, you will receive a report and the results of the analysis, describing the state of your situation so that corrective measures can be applied now or in the future.

You must be aware that the following situations might diminish the magnetic encoding quality of the documents you print:

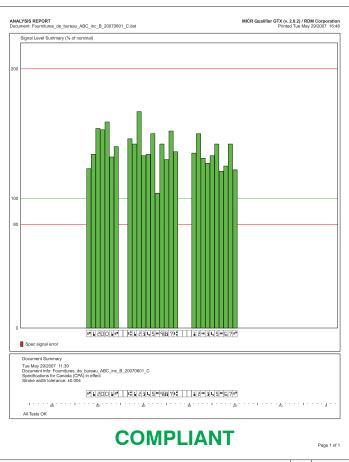
- the purchase of a new printer;
- the maintenance of the printer;
- the use of a new magnetic ink cartridge;
- the use of a new production of cheque base forms;
- the questionable quality of the documents used.

To make it easier, here are two work methods to be used depending on the source of the problem:

INTERVENER	FREQUENCY	ACTION	INTERVENTION	COST
CLIENT			Analysis of samples	\$84.00
 Purchase of a new printer Printer maintenance Magnetic ink purchase Cheque base forms purchase Poor printing quality 	When needed	The shipping of 3 cheque samples to Formplus	Corrective intervention, if necessary Conformity report	+ our usual hourly rate
*FORMPLUS Proactive analysis before cashing of your cheques When needed	Payment interception	Analysis of samples	\$84.00	
		Corrective intervention, if necessary Conformity report	+ our usual hourly rate	

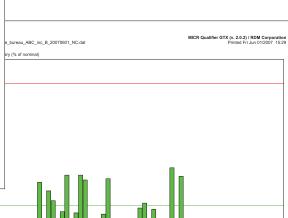
^{*} Intervention billed only once a year if the cheques are in accordance with the Standard.

Quality Control of Magnetic Encoding (continued)



A positive analysis report

The intensity of the magnetic signal is in accordance to the *Standard*, which is between 80 and 200.



A <u>negative</u> analysis report

The intensity of the magnetic signal for some characters is below the limit permitted by the *Standard*.

One of the possible causes for this problem might be that the ink cartridge is almost empty or that it is expired.

In such case, Formplus will contact you to discuss the necessary corrective measures to be taken.



Quality Control of Magnetic Encoding (continued)

Cheque Encoding Analysis Report

The imaging report is sent to you, as well as our cheque encoding analysis report. This report includes:

- 1. the conformity of the recent interventions;
- 2. a list of the last four interventions related to the present situation;
- 3. additional notes, if needed;
- 4. the next interventions needed to resolve the current situation:

for example, after intervention 193, two more interventions would be needed:

- i. client: purchase of a new ink cartridge;
- ii. client: the forwarding of three cheque samples for verification printed using the new ink cartridge.



Important Information Concerning Magnetic Ink

Product quality

There is a magnetic ink formula for every printer model (printer engine).

Our experience has shown without any doubt that the poor quality of the magnetic ink is the most frequent cause of non-compliant documents.

We recommend the use of <u>original</u> ink cartridges, not refurbished or compatible.

Lifespan of a ink cartridge

The lifespan of an ink cartridge is between one and two years, depending on the printer model. An expiration date is usually indicated on the cartridge.

The ink cartridge is new...

- The best way to proceed consists of printing twenty copies of any documents before using the new ink cartridge to print cheques. This operation will stabilize the quality of reproduction. Toner should be normalized at printing temperature for a minimum of 24 hours prior to use.
- Write down the name of the supplier as well as the date of purchase.
- Send us three cheque samples for analysis at the following address:

Formplus inc. 571 Curé-Boivin Blvd, Boisbriand QC J7G 2A8

The ink cartridge has reached its expiry date

- Order a new ink cartridge and follow the instructions above.
- You may use the remainder of the expired ink for all other printing purposes that require ordinary ink while making sure that the cartridge is labelled as an ordinary one.

Your printer displays the message: "Low ink"

- Order a new ink cartridge.
- It is not recommended to shake the cartridge to extend its lifespan.
- You can finish the current printing job.

Storage

The ink cartridge should be stored in its black plastic bag, in a dust-free environment.

Security

For maximum security, the magnetic ink cartridge and the cheque base forms should be locked up.

Also, you should use a *Cheque Base Form Use Record* that we provide at no extra charge.

You may request one at: service@formplus.ca

Where should I purchase magnetic ink (MICR)?

Some suppliers are better than others. We do not sell ink, but we are able to recommend a supplier whose product results are compliant with the *Standard*.

By using the following supplier, you can be assured that:

- the product is compliant and efficient;
- the quick service;
- the prices are competitive.

Gestion d'achats Ram inc.

918 Jean-Neveu, Longueuil QC J4G 2M1 Telephone: 1 800 556-7886 www.gestionram.com

Ouestions?

Contact us! It will be our pleasure to answer any question you might have.





571 Cure-Boivin Blvd Boisbriand QC J7G 2V8

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