CPA Standard 006, Part A:
Standards and Specifications for Imageable MICR-Encoded Cheques
Overview of Changes

Updated May 2006

I. Introduction

The Canadian Payments Association (CPA) and its member financial institutions are planning an industry-wide transition to use images of cheques in the Canadian clearing system.   In the current clearing process, approximately five million cheques are transported between financial institutions each business day. The shift to image-based clearing will result in faster and more efficient processing, as well as enabling financial institutions to introduce new services that can provide customers with greater convenience and faster access to information about their cheques. Implementation of image-based clearing is targeted to begin in early 2008.

In the image-based environment, it will be essential that all cheques follow a standard format to ensure that images of high quality can be captured consistently from the source items and to maximize efficiency. In this context, the CPA proposed a number of revisions to the current provisions of Standard 006 relating to cheques, and comments were invited from interested parties in the spring of 2004. Input received during this consultation process was taken into account prior to finalizing the new specifications for imageable cheques.

All cheques used by customers of financial institutions operating in Canada will require some changes. Most organizations that participated in the consultation process indicated they could make the transition to the new cheque specifications within one year. However, with a view to minimizing impact on stakeholders, the CPA and its member financial institutions have established a two-year transition period to ensure cheque printers, software providers and businesses that produce their own cheques have ample time to make the necessary changes. **Thus, all Canadian business cheques should conform with the new specifications as outlined in CPA Standard 006, Part A by June 30, 2007.** This timeline will facilitate the transition process for both industry stakeholders and cheque issuers.

Since most consumers order their cheques through their financial institutions, these already follow a more standard format than business cheques. Consequently, in most cases it will likely be possible to continue to process "old format" personal cheques on an interim basis until consumers have used up their current supply, as long as satisfactory images can be captured from them. As of April 2005, all cheque orders made through financial institutions or their supplier are being fulfilled with "new format" cheques.

A range of factors were considered in developing the new cheque specifications:

o   The CPA reviewed ANSI standard X9.7, the U.S. standard for "Bank Check Background and Convenience Amount Field Specifications," which is designed to ensure that cheques
o   are "image friendly". The testing equipment available on the market has been calibrated according to the ANSI standard.   Provisions of this standard have been adopted where applicable

o   Various Intelligent Character Recognition (ICR) solution vendors were consulted regarding the capabilities of ICR engines to read key fields, such as the date and the amount in figures (i.e. the convenience amount).

o   Canadian financial institutions that are already capturing cheque images provided insight into factors that can inhibit high-quality image capture or reduce processing efficiency.

o   Consideration was given to the impact of background information, colours and fonts on the capture of key information during imaging.

o   The new specifications accommodate practices that are commonly accepted in English and French Canada (e.g. the placement of the dollar symbol)

II. Amendments to Cheque Specifications

Notes:
Standard 006 now includes two parts. The specifications for imageable MICR-encoded items in Part A will initially apply only to cheques; therefore, other MICR encoded payment items are now addressed in Part B of the Standard. A review of other payment items is in progress to assess changes that would be required to their specifications to facilitate image-based processing of them.

In addition to the points highlighted below, Standard 006, Part A has been reorganized into sections dealing with paper specifications, MICR-encoding, image-friendly document design and quality assurance.

Two illustrations of sample cheques reflecting the new specifications, one for personal use and one for business use, are provided in Section 5.4.1 of Standard 006, Part A.

1. Items Affecting Cheque Layout and Printing

1.1   The minimum length for cheques is increased from 6" to 6 ¼", or 15.88 cm.
Reference: Section 3.3
The current minimum length of 6" does not provide enough space to print a serial number (minimum 3 digits) in the MICR line, which is now a required element. It is estimated that this amendment will affect less than 2% of Canadian cheques, as industry sources have indicated most already satisfy the proposed new minimum length.

1.2   The maximum depth of a cheque is increased from 3 ⅔" to 3 ¾ ", or 9.53 cm.
Reference: Section 3.3
This change will give cheque issuers the option of increasing the available space on their cheques slightly, without having an impact on envelope manufacturers.

1.3   There are new specifications for cheque backgrounds (as per ANSI X9.7).
Reference: Sections 5.4.4 and 5.4.5
New requirements are defined for Reflectance, Print Contrast Signal (PCS) and Paxel Count so that high-quality images can be captured consistently and the information is readable. In addition to the ANSI specifications, a maximum PCS has been defined for the back of the cheque.

1.4   The Serial Number Field (formerly called the Auxiliary On-Us Field) is now a mandatory field that must be MICR encoded on all cheques.
Reference: Section 4.13.4
This field will allow for a unique identifier for each cheque to facilitate tracing and image retrieval.   The field length will be variable, with a maximum of 14 characters – 12 digits and 2 on-us symbols.   Normally a sequential cheque number will appear in this field; however, the specific format of the data in this field will be proprietary to each financial institution.

1.5   A standardized location will apply to the Date Field.
Reference: Section 5.4.1, Item #6
For the ICR engine to recognize the date, it must have a standardized location (i.e. upper right end of the cheque, above the convenience amount rectangle). Financial institutions in the U.S. do not use ICR to read this field, so ANSI X9.7 does not contain specifications in this regard.

1.6   The format of the Date Field must be numeric in one of the following three options: YYYYMMDD, MMDDYYYY or DDMMYYYY (in French AAAAMMJJ, JJMMAAAA or MMJJAAAA). Field indicators must be printed below the date field on the cheque as illustrated.   Guidance boxes and guidance characters inside them are also required on cheques where the date field will be filled manually.
Reference: Section 5.4.1, Item #6, illustrated in Figures E and E1
Adopting a numeric format for the Date Field will enable this information to be read by an ICR engine so the information can be used in processing (e.g. to identify post-dated items) and potentially in retrieving images. The field indicators will avoid potential ambiguity around the date. Bilingual date field indicators are accommodated for cheques using the international date format (i.e. YYYYMMDD).

1.7   The pre-printed dollar symbol ($) may be placed either to the left or the right of the Convenience Amount Rectangle (i.e. the amount in figures).
Reference: Sections 5.4.2 and 5.4.3
The placement of the dollar symbol generally varies between English and French Canada. ICR engines can be programmed to recognize either one.

1.8   Printed borders are not permitted in the MICR band, including at the bottom of the cheque. In addition, it is strongly recommended that the MICR band remain clear of background screening.
Reference: Section 4.11
A border printed within the MICR band may interfere with read rates for the MICR line and is therefore not permitted.

1.9   Any security features that are to be applied to the front or the back of an imageable MICR encoded document must not interfere with the 5/8" MICR clear band or any other areas of interest. In particular, if pantographs are used, they must not be visible on images captured from <u>original</u> cheques.
Reference: Section 5.2
The Standard will accommodate the use of a range of security features, as long as they do not interfere, either before or after imaging, with the MICR band or other key data on the cheque.

1.10   The line for the payee endorsement on the back of the cheque shall have a standardized location, and the phrase "Endorsement – Signature or Stamp" (in French: Endossement – Signature ou Timbre) shall be printed below it (font, ink and print contrast signal (PCS) as specified).
Reference: Section 5.4.5 Item 3
A maximum PCS has been defined to ensure printing or backgrounds do not interfere with image capture.

1.11   The placement of informational printing on the back shall not interfere with the legibility of endorsements or FI identifiers on cheque images.
Reference: Section 5.4.5
Testing shows that the informational printing now found on the back of some personal cheques impedes the legibility of FI identifiers on images. The areas reserved for endorsements are identified, and a maximum Print Contrast Signal for informational printing has been defined.

1.12 The phrase "Back/Endos" will be printed 2.54 cm (1") from the aligning edge.
Reference: Section 5.4.5 Item 4
This phrase will be used as a reference point for verifying usability of the image of the back of the cheque.

1.13 Black carbon strips are not permitted on the back of imageable MICR-encoded documents.
Reference: Section 3.2
Carbon strips interfere with image capture.

2. Items Affecting "Payor Filled" Information on Cheques

2.1 If asterisks are used in the Convenience Amount Field or the Legal Amount Field, they must be positioned as shown in the following examples:
Convenience Amount Field: $*45.00**
Legal Amount Field: *********Forty-five dollars

Reference: Section 5.3
The use of asterisks in non-standard ways could negatively impact the ability of the ICR engine to recognize the amount. The asterisks must be used only as shown in the Convenience Amount Field (i.e. after a leading dollar sign on the left and prior to the amount in numerals), or in the Legal Amount Field (i.e. to the left of the amount in words).

2.2 Only one "numeric" Amount Field on the right side of the cheque is permitted.
Reference: Sections 5.4.2 and 5.4.3, see "Convenience Amount"
A small percentage of cheques currently include multiple amounts (e.g. amounts for specific items that are included in the total). If multiple amount fields are present, the ICR engine cannot identify which is the final or total amount.

2.3 Requirements for font sizes and types, inverse printing and ink colours.
Reference: Section 5.3
For machine generated fields (via a software application and printer):
- o Use font sizes that are no less than 10 point for payment information.
- o Do not use the prohibited font types that are identified in the Standard (e.g. slanted or italicized fonts).
- o Allow at least 2 pixels space at the boundary of each character.
- o Do not use inverse printing (i.e. the background is black and the character is not printed so it will appear white)
- o Ensure high print quality and use image friendly inks (black, dark purple, blue).

For hand-printed or written fields:
- o The use of black or blue point or roller ball pens is encouraged.

III. Current Provisions of Standard 006, Part A

Many current provisions of Standard 006 remain unchanged. However, adherence to them has become more important to facilitate automated processing, particularly in an imaging environment. Of particular note are the two following provisions.

3.1   The Convenience Amount Rectangle must be positioned in accordance with the specifications in the standard.
Reference: Sections 5.4.2 and 5.4.3
For the ICR engine to consistently recognize and capture the Convenience Amount Rectangle, it must have a standardized location and design.

3.2   Any detachable statements should be placed at the top or left of the cheque.

Reference: Section 3.6

Detachable statements on the bottom or right increase the incidence of damaged MICR lines or Convenience Amount Fields on cheques due to irregular tears when they are removed. Therefore, it is strongly recommended that they be placed at the top or left of the cheque.