

**General Format, Manner and Procedure for the Submission of
Electronic Information under Law by virtue of the
Electronic Transactions Ordinance**

Explanatory Note for Layman

This note aims to set out the format, manner and procedure we have stipulated under section 11(2) of the Electronic Transactions Ordinance (Cap. 553) for the submission of electronic information under law.

Language

- (a) Electronic records in English shall be encoded in the American Standard Code for Information Interchange (ASCII) promulgated by the American National Standards Institute (ANSI) and the International Organization for Standardisation (ISO), which is the prevalent coding standard in most English operating system environments such as Macintosh, Microsoft Windows 95/98, or Unix. For the avoidance of doubt, electronic records coded in Extended Binary-Coded Decimal Interchange Code (EBCDIC), which is a character encoding standard commonly used in IBM mainframe machines, will not be accepted;
- (b) Electronic records in Chinese shall be encoded in Big-5 (大五碼) or ISO10646 standards. Big-5, the coding standard used in traditional Chinese version of Microsoft Windows 95/98, is the commonly used Chinese character encoding standard in Hong Kong, while ISO10646 (more commonly known as Unicode), which is used by Windows NT, is the international standard of character coding in multi-language environment. For the avoidance of doubt, GB (Guo Biao) standard (國標碼), which is the prevalent Chinese character encoding standard used for simplified Chinese characters, will not be accepted;
- (c) When electronic records are encoded in Big-5 standard, the set of characters to be used is restricted to those coded in the Big-5 standard or included in the Hong Kong Supplementary Character Set (HKSCS) (香港增補字符集) published by the HKSAR Government. HKSCS is available for downloading at the Digital 21 web site of the HKSAR Government at <http://www.digital21.gov.hk/>; and
- (d) When electronic records are encoded in ISO10646 standard, the set of characters to be used is restricted to those Chinese-Japanese-Korean

(CJK) Unified Ideographs characters coded in ISO10646 standard. While the ISO10646 standard encompasses characters in many other languages (for instance, Greek, Russian or Arabic characters), the set of characters to be used in electronic records shall be restricted to the CJK Unified Ideographs character set.

Manner of Delivery of Electronic Records

Electronic records can be submitted in the following manner –

- (a) through electronic mail conforming to the Simple Mail Transfer Protocol (SMTP) and the Secure Multipurpose Internet Mail Extension (S/MIME) standards promulgated by the Internet Engineering Task Force (IETF) and with size not exceeding 5 MB. Electronic mail with size exceeding 5MB will not be accepted.

SMTP is the de facto standard for electronic mail exchange in the Internet. Most of the common software packages for handling electronic mail, such as Netscape Communicator, Microsoft Internet Explorer, Microsoft Outlook, Eudora or other Unix electronic mail, etc. comply with the SMTP standard.

If digital signature is not applied, compliance with SMTP standard will suffice. If digital signature is required, compliance with S/MIME standard is necessary;

- (b) in physical form of 1.44MB diskette with size of 3.5 inches in MS-DOS format for files not exceeding one diskette's storage capacity. In simple terms, floppy diskettes used in the Microsoft Windows operating system environment will be accepted. For the avoidance of doubt, when floppy diskettes are produced using Macintosh operating systems, they should be produced in a format that allows reading in Microsoft Windows environment; or
- (c) in physical form as CD-ROM in ISO 9660 format. In simple terms, the prevalent version of CD-ROM (including read-only, write-once-read-many, and write-many-read-many CD-ROMs) can be accepted.

For the avoidance of doubt, electronic records in the following physical form will not be accepted –

- (a) Floppy diskettes of size 5.25 inches or 8 inches;

- (b) DVD;
- (c) Iomega Zip Disk;
- (d) Iomega Jaz Disk;
- (e) Programmable Diskette (PD);
- (f) Magneto-Optical Diskette (MO);
- (g) 4mm DLT Tape;
- (h) 8mm Data Tape;
- (i) Data Cartridges and Tape Cartridges;
- (j) RAM cards in any form; or
- (k) any other physical storage media.

File format

Textual information can be submitted in the form of an electronic record. However, there exists many word processing software, shareware and freeware in the market for different operating systems. While textual documents can be prepared using different types of word processing software, the document shall be saved for submission in one of the following formats –

- (a) Plain text (TXT), which is a document format in which a sequence of characters and the words they form are encoded into computer-readable format using various types of language coding schemes. Most of the word processing software in the market allow users to save their document as plain text. Please note that when a document is saved as plain text, special effects such as font size, boldface, italics, underline, etc. will be lost.
- (b) Microsoft Rich Text Format, which is promulgated by Microsoft Corporation. It is supported by the majority of word processing software in the market and can be used to submit files with formatting retained.

To do so, choose “Save As” function and choose “Rich Text Format (RTF)” as the document type. Many word processing software not developed by the Microsoft Corporation also allow the saving of documents in RTF format. For the avoidance of doubt, documents in Microsoft Word format (with extension .doc) are not acceptable.

- (c) Hypertext Mark Up Language Format (HTML, version 3.2 or 4). HTML is a document format promulgated by the World Wide Web Consortium for the content on web pages. Many word processing

software in the market allow users to save their documents in HTML format. For the avoidance of doubt, documents with embedded Visual Basic code, Flash, Java scripts, or other embedded programming codes are not acceptable; or

- (d) Adobe Portable Document Format (Acrobat version 3 or 4) promulgated by the Adobe Systems Incorporated. Tools can be used to convert textual documents into PDF format.

Graphic File format

Graphics in electronic records shall follow the following graphic file formats –

- (a) Encapsulated PostScript Files (EPSF) promulgated by Adobe Systems Incorporated;
- (b) Tag Image File Format (TIFF) promulgated by Adobe Systems Incorporated;
- (c) Windows BitMaps (BMP) promulgated by Microsoft Corporation;
- (d) Graphic Interchange File Format (GIF) promulgated by CompuServe Incorporated; or
- (e) Joint Photographic Experts Group (JPEG) promulgated by the International Organization for Standardisation (ISO) and the International Telecommunication Union (ITU).

For EPSF, a document can be printed to a PostScript File for submission.

For TIFF, BMP, GIF and JPEG, they are supported by the majority of image processing, graphics design, photo processing and scanner accessory software in the market. When these formats are used, the adoption of the following guideline is suggested –

- (a) for textual document, scan the document into TIFF format;
- (b) for photos and drawings where lower resolution is acceptable, submit the image in JPEG format. JPEG has a relatively higher image compression ratio but the compression is lossy (original image cannot be perfectly reproduced). JPEG files are generally of smaller size and are suitable for transmission in the form of electronic mail and for long term storage;

- (c) for photos and drawings where higher resolution is required, submit the image in GIF format. GIF has a medium compression ratio and can retain more information than JPEG. GIF files are generally of larger size; and
- (d) for special types of drawings where resolution and quality are of major concern, submit the image in BMP format. BMP files represent the image bit by bit without any compression. However, BMP files can be of very large size and may be difficult to transmit or store.

In respect of Computer Aided Design (CAD) drawings, an open standard – Autodesk Drawing Exchange Format (DXF) promulgated by Autodesk, Inc. is acceptable in most cases. However, some of the planning, lands and works departments in the HKSAR Government have installed special internal software systems for the related work, and therefore may also accept under specified circumstances other file formats for the submission of engineering graphics or spatial data, such as –

- (a) Arc/Info Export Format (E00) developed by the Environmental Systems Research Institute, Inc.;
- (b) Arc/Info Native Format (COV) developed by the Environmental Systems Research Institute, Inc.;
- (c) AutoCAD Format developed by Autodesk, Inc.;
- (d) Digital Print Room (DPR) developed by Intergraph Corporation;
- (e) MicroStation Drawing (DGN) developed by Bentley Systems; and
- (f) Initial Graphic Exchange Specification (IGES) promulgated by the American National Standards Institute (ANSI).

Digital signature

An electronic record submitted under a statutory provision must be digitally signed if –

- (a) the provision expressly requires the signature of a person; or
- (b) the provision requires the submission to be made in a specified form and the specified form has a signature requirement.

Only a digital signature supported by a recognized certificate issued by a certification authority recognized by the Director of Information Technology Services under the Electronic Transactions Ordinance is acceptable. A digital signature shall be attached to an electronic record in accordance with the Secure Multipurpose Internet Mail Extension (S/MIME) standard and the Public-Key Cryptography Standards (PKCS). Most upgraded versions of existing browsers in the market can support the use of public key cryptography.

For an electronic record which comprises multiple electronic files and which has to be signed, each individual file shall be separately signed digitally.

Others

Electronic records submitted shall not contain computer instructions. This is a precautionary measure to avoid the submission of electronic records containing computer instructions, such as computer viruses, macros and scripts (which generate different values every time when the electronic file is opened) or fields (the value of which may change depending on the time when the electronic files are opened).

根據《電子交易條例》 提交電子資訊的一般規格、方式及程序

供一般人士參考的說明資料

本文的目的在于說明根據《電子交易條例》(第 553 章)第 11(2)條規定提交電子資訊的規格、方式及程序。

語言

- (a) 英文電子紀錄須利用美國信息交換標準碼 (American Standard Code for Information Interchange (ASCII))進行編碼。該套標準碼是由美國國家標準學會 (American National Standards Institute (ANSI))和國際標準化組織 (International Organization for Standardisation (ISO))公布，在大多數英文操作系統環境下均通用，例如 Macintosh、微軟視窗 95/98 或 Unix。為免生疑問，利用擴充的二十進制交換碼 (Extended Binary-Coded Decimal Interchange Code (EBCDIC))(萬國商業機器 (IBM)主機電腦常用的字符編碼標準)編制的電子紀錄，將不予接納；
- (b) 中文電子紀錄須采用大五碼 (Big-5)或 ISO 10646 標準。大五碼 (微軟視窗 95/98 (繁體中文版)所用的編碼標準)是本港常用的漢字編碼標準，而 ISO 10646 (通常稱為 Unicode) (用于 Windows NT)則是支援多語言環境的國際字符編碼標準。為免生疑問，國標碼 (通行的中文簡體字編碼標準)將不予接納；
- (c) 利用大五碼標準編制的電子紀錄，只限采用已編入大五碼標準，或香港特別行政區政府所公布的「香港增補字符集」的字符。「香港增補字符集」可從香港特別行政區政府的「數碼 21 新紀元」網站 (網址：<http://www.digital21.gov.hk/>) 下載；及
- (d) 利用 ISO 10646 標準編制的電子紀錄，只限采用已編入 ISO 10646 標準的中日韓文統一表意字符集 (Chinese-Japanese-Korean (CJK) Unified Ideographs characters)的字符。雖然 ISO 10646 標準包羅許多其他語言的字符 (例如希臘文、俄羅斯文或阿拉伯文的字符)，但電子紀錄只限采用中日韓文統一表意字符集內的字符。

傳送電子紀錄的方式

電子紀錄可利用下列方式提交 -

- (a) 依照互聯網工程專責組(Internet Engineering Task Force (IETF))所公布的簡單郵遞傳送規約(Simple Mail Transfer Protocol (SMTP))及保密/多功能互聯網郵遞伸延(Secure Multipurpose Internet Mail Extension (S/MIME))標準，及利用容量不多于5MB(百萬字節)的電子郵件提交。容量多于5MB的電子郵件將不予接納。

簡單郵遞傳送規約是為在互聯網上交換電子郵件而制訂的實際標準。大部分用以處理電子郵件的常用軟件套裝，如網景通訊家族(Netscape Communicator)、Microsoft Internet Explorer、Microsoft Outlook、Eudora 或其他 Unix 電郵軟件等，均符合簡單郵遞傳送規約的標準。

如非采用數碼簽署，只要符合簡單郵遞傳送規約所訂標準便可予接納。如須采用數碼簽署，則必須符合保密/多功能互聯網郵遞伸延標準。

- (b) 以實物形式使用容量為 1.44MB 及采用 MS-DOS 格式的 3.5 吋磁碟，以存放容量不多于一張磁碟儲存量的檔案。簡而言之，用于微軟視窗操作系統的軟磁碟可予接納。為免生疑問，利用 Macintosh 操作系統製作的軟磁碟，應采用可在微軟視窗環境閱讀的格式；或
- (c) 以實物形式使用 ISO 9660 格式的唯一讀光碟(CD-ROM)。簡而言之，通行的唯一讀光碟版本(包括唯一讀(Read-only)、單寫多讀(Write-once-read-many)及多寫多讀(Write-many-read-many)形式的唯一讀光碟)可予接納。

為免生疑問，以下實物形式的電子紀錄將不予接納 -

- (a) 5.25 吋或 8 吋軟磁碟；
- (b) 數碼影像光碟(DVD)；
- (c) Iomega Zip Disk；
- (d) Iomega Jaz Disk；
- (e) 可編程磁碟(PD)；

- (f) 磁光碟(MO)；
- (g) 4 毫米數碼綫性磁帶(DLT)；
- (h) 8 毫米數據磁帶(Data Tape)；
- (i) 數據磁帶盒(Data Cartridges)及磁帶盒(Tape Cartridges)；
- (j) 任何形式的隨機接達記憶體(RAM)卡；或
- (k) 任何其他實物儲存媒體。

檔案格式

文字資料可用電子紀錄形式提交。不過，市面上有許多供不同操作系統使用的文字處理軟件、共用軟件及免費軟件。文本形式的文件雖然可以利用不同種類的文字處理軟件擬備，但提交的文件必須以下列其中一種格式儲存：-

- (a) 純文字(TXT) - 這種文件格式是利用不同語文編碼方案，把所載的一連串字元及其組成的字詞編成電腦可讀格式。市面上大部分文字處理軟件均容許使用者以純文字格式儲存文件。有一點必須注意，當文件以純文字格式儲存時，字體大小、粗體、斜體、加底綫等特別效果便會消失。
- (b) 微軟的豐富文本格式(Rich Text Format) - 這種由微軟公司公布的格式可獲市面上大部分文字處理軟件支援，並可用以提交格式編排保持不變的檔案。儲存時，只須選擇「另存新檔」功能及選擇「Rich Text Format (RTF)」作為文件種類。許多並非由微軟公司開發的文字處理軟件，亦容許以 RTF 格式儲存文件。為免生疑問，以微軟 Word 格式儲存的文件(文件名稱以.doc 結尾)將不予接納。
- (c) 超文本標示語言格式(HTML 第 3.2 或 4 版本) - HTML 是 World Wide Web Consortium 所公布的一種文件格式，適用於網頁的內容。市面上許多文字處理軟件均容許使用者以 HTML 格式儲存文件。為免生疑問，包含 Visual Basic 程序、Flash、Java 程式或其他程式編制代碼的文件將不予接納；或
- (d) Adobe Portable Document Format (Acrobat 第 3 或 4 版本) - 由 Adobe Systems Incorporated 公布。使用者可利用工具把文本形式的文件轉換為 PDF 格式。

圖形檔案格式

電子紀錄內的圖形必須採用下列其中一種圖形檔案格式： -

- (a) Adobe Systems Incorporated 所公布的 Encapsulated PostScript Files (EPSF)；
- (b) Adobe Systems Incorporated 所公布的標志圖形檔案格式(Tag Image File Format (TIFF))；
- (c) 微軟公司所公布的視窗點陣圖(Windows BitMaps (BMP))；
- (d) CompuServe Incorporated 所公布的圖形互換檔案格式(Graphic Interchange File Format (GIF))；或
- (e) 國際標準化組織 (International Organization for Standardisation (ISO)) 及國際電信聯盟 (International Telecommunication Union (ITU))所公布的聯合圖像專家小組規範(Joint Photographic Experts Group (JPEG))。

就 EPSF 而言，文件可印于 PostScript File 內提交。

至于 TIFF、BMP、GIF 及 JPEG，這些格式獲市面上大部分圖像處理、圖形設計、照片處理及掃描器配件軟件支援。在采用這些格式時，宜遵照下列指引： -

- (a) 就文本形式的文件而言，可掃描有關文件使成爲 TIFF 格式；
- (b) 若接受解像度較低的照片及繪圖，可用 JPEG 格式提交有關影像。JPEG 的影像壓縮比率較高，但壓縮後會失真(不能完美無暇地複製原本影像)。JPEG 檔案所占空間通常較少，故適合以電子郵件形式傳送及作長期儲存；
- (c) 若照片及繪圖需要具有較高的解像度，可用 GIF 格式提交有關影像。GIF 的影像壓縮比率屬一般，而可保留的精確度較 JPEG 爲高。GIF 檔案所占空間通常較多；及
- (d) 若某些特別種類的繪圖需要具有極高的解像度和質素，可用 BMP 格式提交有關影像。BMP 檔案并不采用壓縮方法，而是以逐位方式顯示影像。不過，BMP 檔案所占空間可能非常多，故可能難以傳送或儲存。

至于電腦輔助設計繪圖(CAD)，Autodesk, Inc.所公布的開放標準 Autodesk Drawing Exchange Format (DXF)在大部分情況下均可予接納。不過，香港特別行政區政府有部分規劃、地政及工務部

門均已安裝特別的內部軟件系統以進行有關工作，因此在指定情況下提交工程圖形或空間數據時，亦可採用其他檔案格式，例如： -

- (a) Environmental Systems Research Institute, Inc. 所開發的 Arc/Info Export Format (E00)；
- (b) Environmental Systems Research Institute, Inc. 所開發的 Arc/Info Native Format (COV)；
- (c) Autodesk, Inc. 所開發的 AutoCAD Format；
- (d) Intergraph Corporation 所開發的數碼印刷室(Digital Print Room (DPR))；
- (e) Bentley Systems 所開發的 MicroStation Drawing (DGN)；及
- (f) 美國國家標準學會(ANSI)所公布的初始圖形交換規格 (Initial Graphic Exchange Specification (IGES))。

數碼簽署

在下述情況下，根據法定條文提交的電子紀錄必須附有數碼簽署 —

- (a) 條文明確規定須作簽署；或
- (b) 條文規定所提交的文件須採用特定表格及必須在該特定表格上簽署。

只有資訊科技署署長根據《電子交易條例》認可的核證機關發出的認可證書所證明的數碼簽署，才可獲接納。數碼簽署須按照保密/多功能互聯網郵遞伸延標準(Secure Multipurpose Internet Mail Extension (S/MIME))及公開密碼匙加密標準(Public-Key Cryptography Standards (PKCS))隨附于電子紀錄。市面上現有瀏覽器的大部分升級版都可以支援利用公開密碼匙加密。

就包括多個電子檔案及必須加以簽署的電子紀錄而言，每一個別檔案須分開加以數碼簽署。

其他

提交的電子紀錄內不得載有電腦指令。這項預防措施是為避免提交的電子紀錄載有電腦指令，如電腦病毒、巨集指令及簡短程式(每次開啓電子檔案時都產生不同數值)或字段(數值可能視乎開啓電子紀錄的時間而變動)。