triers themselves, is detailed in 7 Wigmore §§ 1991-1994. In breaking away, the English Common Law Procedure Act of 1854, 17 and 18 Viet., c. 125, §27, cautiously allowed expert or trier to use exemplars "proved to the satisfaction of the judge to be genuine" for purposes of comparison. The language found its way into numerous statutes in this country, e.g., California Evidence Code §§ 1417, 1418. While explainable as a measure of prudence in the process of breaking with precedent in the handwriting situation, the reservation to the judge of the question of the genuineness of exemplars and the imposition of an unusually high standard of persuasion are at variance with the general treatment of relevancy which depends upon fulfillment of a condition of fact. Rule 104(b). No similar attitude is found in other comparison situations, e.g., ballistics comparison by jury, as in Evans v. Commonwealth, 230 Ky. 411, 19 S.W.2d 1091 (1929), or by experts, Annot. 26 A.L.R.2d 892, and no reason appears for its continued existence in handwriting cases. Consequently Example (3) sets no higher standard for handwriting specimens and treats all comparison situations alike, to be governed by Rule 104(b). This approach is consistent with 28 U.S.C. §1731: "The admitted or proved handwriting of any person shall be admissible, for purposes of comparison, to determine genuineness of other handwriting attributed to such

Precedent supports the acceptance of visual comparison as sufficiently satisfying preliminary authentication requirements for admission in evidence. Brandon v. Collins, 267 F.2d 731 (2d Cir. 1959); Wausau Sulphate Fibre Co. v. Commissioner of Internal Revenue, 61 F.2d 879 (7th Cir. 1932); Desimone v. United States, 227 F.2d 864 (9th Cir. 1955).

Example (4). The characteristics of the offered item itself, considered in the light of circumstances, afford authentication techniques in great variety. Thus a document or telephone conversation may be shown to have emanated from a particular person by virtue of its disclosing knowledge of facts known peculiarly to him; Globe Automatic Sprinkler Co. v. Braniff, 89 Okl. 105, 214 P. 127 (1923); California Evidence Code §1421; similarly, a letter may be authenticated by content and circumstances indicating it was in reply to a duly authenticated one. McCormick §192; California Evidence Code §1420. Language patterns may indicate authenticity or its opposite. Magnuson v. State, 187 Wis. 122, 203 N.W. 749 (1925); Arens and Meadow, Psycholinguistics and the Confession Dilemma, 56 Colum.L.Rev. 19 (1956).

Example (5). Since aural voice identification is not a subject of expert testimony, the requisite familiarity may be acquired either before or after the particular speaking which is the subject of the identification, in this respect resembling visual identification of a person rather than identification of handwriting. Cf. Example (2), supra, People v. Nichols, 378 III. 487, 38 N.E.2d 766 (1942); McGuire v. State, 200 Md. 601, 92 A.2d 582 (1952); State v. McGee, 336 Mo. 1082, 83 S.W.2d 98 (1935).

Example (6). The cases are in agreement that a mere

assertion of his identity by a person talking on the telephone is not sufficient evidence of the authenticity of the conversation and that additional evidence of his identity is required. The additional evidence need not fall in any set pattern. Thus the content of his statements or the reply technique, under Example (4), supra, or voice identification under Example (5), may furnish the necessary foundation. Outgoing calls made by the witness involve additional factors bearing upon authenticity. The calling of a number assigned by the telephone company reasonably supports the assumption that the listing is correct and that the number is the one reached. If the number is that of a place of business, the mass of authority allows an ensuing conversation if it relates to business reasonably transacted over the telephone, on the theory that the maintenance of the telephone connection is an invitation to do business without further identification. Matton v. Hoover Co., 350 Mo. 506, 166 S.W.2d 557 (1942); City of Pawhuska v. Crutchfield, 147 Okl. 4. 293 P. 1095 (1930); Zurich General Acc. & Liability Ins. Co. v. Baum, 159 Va. 404, 165 S.E.

518 (1932). Otherwise, some additional circumstance of identification of the speaker is required. The authorities divide on the question whether the self-identifying statement of the person answering suffices. Example (6) answers in the affirmative on the assumption that usual conduct respecting telephone calls furnish adequate assurances of regularity, bearing in mind that the entire matter is open to exploration before the trier of fact. In general, see McCormick §193; 7 Wigmore §2155; Annot., 71 A.L.R. 5, 105 id. 326.

Example (7). Public records are regularly authenti-

Example (7). Public records are regularly authenticated by proof of custody, without more. McCormick §191; 7 Wigmore §§ 2158, 2159. The example extends the principle to include data stored in computers and similar methods, of which increasing use in the public records area may be expected. See California Evidence Code §§ 1532. 1600.

Example (8). The familiar ancient document rule of the common law is extended to include data stored electronically or by other similar means. Since the importance of appearance diminishes in this situation, the importance of custody or place where found increases correspondingly. This expansion is necessary in view of the widespread use of methods of storing data in forms other than conventional written records.

Any time period selected is bound to be arbitrary. The common law period of 30 years is here reduced to 20 years, with some shift of emphasis from the probable unavailability of witnesses to the unlikeliness of a still viable fraud after the lapse of time. The shorter period is specified in the English Evidence Act of 1938, 1 & 2 Geo. 6, c. 28, and in Oregon R.S. 1963, §41.360(34). See also the numerous statutes prescribing periods of less than 30 years in the case of recorded documents. 7 Wigmore §2143.

The application of Example (8) is not subject to any limitation to title documents or to any requirement that possession, in the case of a title document, has been consistent with the document. See McCormick § 190.

Example (9). Example (9) is designed for situations in which the accuracy of a result is dependent upon a process or system which produces it. X-rays afford a familiar instance. Among more recent developments is the computer, as to which see Transport Indemnity Co. v. Seib, 178 Neb. 253, 132 N.W.2d 871 (1965); State v. Veres, 7 Ariz.App. 117, 436 P.2d 629 (1968); Merrick v. United States Rubber Co., 7 Ariz.App. 433, 440 P.2d 314 (1968); Freed, Computer Print-Outs as Evidence, 16 Am.Jur. Proof of Facts 273; Symposium, Law and Computers in the Mid-Sixties, ALI-ABA (1966); 37 Albany L.Rev. 61 (1967). Example (9) does not, of course, foreclose taking judicial notice of the accuracy of the process or system.

Example (10). The example makes clear that methods of authentication provided by Act of Congress and by the Rules of Civil and Criminal Procedure or by Bankruptcy Rules are not intended to be superseded. Illustrative are the provisions for authentication of official records in Civil Procedure Rule 44 and Criminal Procedure Rule 27, for authentication of records of proceedings by court reporters in 28 U.S.C. §753(b) and Civil Procedure Rule 80(c), and for authentication of depositions in Civil Procedure Rule 30(f).

### COMMITTEE NOTES ON RULES—2011 AMENDMENT

The language of Rule 901 has been amended as part of the restyling of the Evidence Rules to make them more easily understood and to make style and terminology consistent throughout the rules. These changes are intended to be stylistic only. There is no intent to change any result in any ruling on evidence admissibility.

### Rule 902. Evidence That Is Self-Authenticating

The following items of evidence are self-authenticating; they require no extrinsic evidence of authenticity in order to be admitted:

(1) Domestic Public Documents That Are Sealed and Signed. A document that bears:

- (A) a seal purporting to be that of the United States; any state, district, commonwealth, territory, or insular possession of the United States; the former Panama Canal Zone; the Trust Territory of the Pacific Islands; a political subdivision of any of these entities; or a department, agency, or officer of any entity named above; and
- (B) a signature purporting to be an execution or attestation.
- (2) Domestic Public Documents That Are Not Sealed but Are Signed and Certified. A document that bears no seal if:
  - (A) it bears the signature of an officer or employee of an entity named in Rule 902(1)(A); and
  - (B) another public officer who has a seal and official duties within that same entity certifies under seal—or its equivalent—that the signer has the official capacity and that the signature is genuine.
- (3) Foreign Public Documents. A document that purports to be signed or attested by a person who is authorized by a foreign country's law to do so. The document must be accompanied by a final certification that certifies the genuineness of the signature and official position of the signer or attester-or of any foreign official whose certificate of genuineness relates to the signature or attestation or is in a chain of certificates of genuineness relating to the signature or attestation. The certification may be made by a secretary of a United States embassy or legation; by a consul general, vice consul, or consular agent of the United States; or by a diplomatic or consular official of the foreign country assigned or accredited to the United States. If all parties have been given a reasonable opportunity to investigate the document's authenticity and accuracy, the court may, for good cause, ei-
  - (A) order that it be treated as presumptively authentic without final certification;
  - (B) allow it to be evidenced by an attested summary with or without final certification.
- (4) Certified Copies of Public Records. A copy of an official record—or a copy of a document that was recorded or filed in a public office as authorized by law—if the copy is certified as correct by:
  - (A) the custodian or another person authorized to make the certification; or
  - (B) a certificate that complies with Rule 902(1), (2), or (3), a federal statute, or a rule prescribed by the Supreme Court.
- (5) Official Publications. A book, pamphlet, or other publication purporting to be issued by a public authority.
- (6) Newspapers and Periodicals. Printed material purporting to be a newspaper or periodical.
- (7) Trade Inscriptions and the Like. An inscription, sign, tag, or label purporting to have been affixed in the course of business and indicating origin, ownership, or control.
- (8) Acknowledged Documents. A document accompanied by a certificate of acknowledgment

- that is lawfully executed by a notary public or another officer who is authorized to take acknowledgments.
- (9) Commercial Paper and Related Documents. Commercial paper, a signature on it, and related documents, to the extent allowed by general commercial law.
- (10) Presumptions Under a Federal Statute. A signature, document, or anything else that a federal statute declares to be presumptively or prima facie genuine or authentic.
- (11) Certified Domestic Records of a Regularly Conducted Activity. The original or a copy of a domestic record that meets the requirements of Rule 803(6)(A)–(C), as shown by a certification of the custodian or another qualified person that complies with a federal statute or a rule prescribed by the Supreme Court. Before the trial or hearing, the proponent must give an adverse party reasonable written notice of the intent to offer the record—and must make the record and certification available for inspection—so that the party has a fair opportunity to challenge them.
- (12) Certified Foreign Records of a Regularly Conducted Activity. In a civil case, the original or a copy of a foreign record that meets the requirements of Rule 902(11), modified as follows: the certification, rather than complying with a federal statute or Supreme Court rule, must be signed in a manner that, if falsely made, would subject the maker to a criminal penalty in the country where the certification is signed. The proponent must also meet the notice requirements of Rule 902(11).
- (13) Čertified Records Generated by an Electronic Process or System. A record generated by an electronic process or system that produces an accurate result, as shown by a certification of a qualified person that complies with the certification requirements of Rule 902(11) or (12). The proponent must also meet the notice requirements of Rule 902(11).
- (14) Certified Data Copied from an Electronic Device, Storage Medium, or File. Data copied from an electronic device, storage medium, or file, if authenticated by a process of digital identification, as shown by a certification of a qualified person that complies with the certification requirements of Rule 902(11) or (12). The proponent also must meet the notice requirements of Rule 902(11).
- (Pub. L. 93-595, §1, Jan. 2, 1975, 88 Stat. 1944; Mar. 2, 1987, eff. Oct. 1, 1987; Apr. 25, 1988, eff. Nov. 1, 1988; Apr. 17, 2000, eff. Dec. 1, 2000; Apr. 26, 2011, eff. Dec. 1, 2011; Apr. 27, 2017, eff. Dec. 1, 2017)

NOTES OF ADVISORY COMMITTEE ON PROPOSED RULES

Case law and statutes have, over the years, developed a substantial body of instances in which authenticity is taken as sufficiently established for purposes of admissibility without extrinsic evidence to that effect, sometimes for reasons of policy but perhaps more often because practical considerations reduce the possibility of unauthenticity to a very small dimension. The present rule collects and incorporates these situations, in some instances expanding them to occupy a larger area which their underlying considerations justify. In no instance is the opposite party foreclosed from disputing authenticity.

 $Paragraph\ (1)$ . The acceptance of documents bearing a public seal and signature, most often encountered in

practice in the form of acknowledgments or certificates authenticating copies of public records, is actually of broad application. Whether theoretically based in whole or in part upon judicial notice, the practical underlying considerations are that forgery is a crime and detection is fairly easy and certain. 7 Wigmore §2161, p. 638; California Evidence Code §1452. More than 50 provisions for judicial notice of official seals are contained in the United States Code.

Paragraph (2). While statutes are found which raise a presumption of genuineness of purported official signatures in the absence of an official seal, 7 Wigmore §2167; California Evidence Code §1453, the greater ease of effecting a forgery under these circumstances is apparent. Hence this paragraph of the rule calls for authentication by an officer who has a seal. Notarial acts by members of the armed forces and other special situations are covered in paragraph (10).

Paragraph (3) provides a method for extending the presumption of authenticity to foreign official documents by a procedure of certification. It is derived from Rule 44(a)(2) of the Rules of Civil Procedure but is broader in applying to public documents rather than being limited to public records.

Paragraph (4). The common law and innumerable statutes have recognized the procedure of authenticating copies of public records by certificate. The certificate qualifies as a public document, receivable as authentic when in conformity with paragraph (1), (2), or (3). Rule 44(a) of the Rules of Civil Procedure and Rule 27 of the Rules of Criminal Procedure have provided authentication procedures of this nature for both domestic and foreign public records. It will be observed that the certification procedure here provided extends only to public records, reports, and recorded documents, all including data compilations, and does not apply to public documents generally. Hence documents provable when presented in original form under paragraphs (1), (2), or (3) may not be provable by certified copy under paragraph (4).

Paragraph (5). Dispensing with preliminary proof of the genuineness of purportedly official publications, most commonly encountered in connection with statutes, court reports, rules, and regulations, has been greatly enlarged by statutes and decisions. 5 Wigmore §1684. Paragraph (5), it will be noted, does not confer admissibility upon all official publications; it merely provides a means whereby their authenticity may be taken as established for purposes of admissibility. Rule 44(a) of the Rules of Civil Procedure has been to the same effect.

Paragraph (6). The likelihood of forgery of newspapers or periodicals is slight indeed. Hence no danger is apparent in receiving them. Establishing the authenticity of the publication may, of course, leave still open questions of authority and responsibility for items therein contained. See 7 Wigmore §2150. Cf. 39 U.S.C. §4005(b), public advertisement prima facie evidence of agency of person named, in postal fraud order proceeding; Canadian Uniform Evidence Act, Draft of 1936, printed copy of newspaper prima facie evidence that notices or advertisements were authorized.

Paragraph (7). Several factors justify dispensing with preliminary proof of genuineness of commercial and mercantile labels and the like. The risk of forgery is minimal. Trademark infringement involves serious penalties. Great efforts are devoted to inducing the public to buy in reliance on brand names, and substantial protection is given them. Hence the fairness of this treatment finds recognition in the cases. Curtiss Candy Co. v. Johnson, 163 Miss. 426, 141 So. 762 (1932), Baby Ruth candy bar; Doyle v. Continental Baking Co., 262 Mass. 516, 160 N.E. 325 (1928), loaf of bread; Weiner v. Mager & Throne, Inc., 167 Misc. 338, 3 N.Y.S.2d 918 (1938), same. And see W.Va.Code 1966, §47–3–5, trade-mark on bottle prima facie evidence of ownership. Contra, Keegan v. Green Giant Co., 150 Me. 283, 110 A.2d 599 (1954); Murphy v. Campbell Soup Co., 62 F.2d 564 (1st Cir. 1933). Cattle brands have received similar acceptance in the western states. Rev.Code Mont.1947, §46-606; State v.

Wolfley, 75 Kan. 406, 89 P. 1046 (1907); Annot., 11 L.R.A. (N.S.) 87. Inscriptions on trains and vehicles are held to be prima facie evidence of ownership or control. Pittsburgh, Ft. W. & C. Ry. v. Callaghan, 157 Ill. 406, 41 N.E. 909 (1895); 9 Wigmore § 2510a. See also the provision of 19 U.S.C. § 1615(2) that marks, labels, brands, or stamps indicating foreign origin are prima facie evidence of foreign origin of merchandise.

Paragraph (8). In virtually every state, acknowledged title documents are receivable in evidence without further proof. Statutes are collected in 5 Wigmore § 1676. If this authentication suffices for documents of the importance of those affecting titles, logic scarcely permits denying this method when other kinds of documents are involved. Instances of broadly inclusive statutes are California Evidence Code § 1451 and N.Y.CPLR 4538, McKinney's Consol. Laws 1963.

Paragraph (9). Issues of the authenticity of commercial paper in federal courts will usually arise in diversity cases, will involve an element of a cause of action or defense, and with respect to presumptions and burden of proof will be controlled by  $\mathit{Erie}\ \mathit{Railroad}\ \mathit{Co.}\ \mathit{v.}$ Tompkins, 304 U.S. 64, 58 S.Ct. 817, 82 L.Ed. 1188 (1938). Rule 302, supra. There may, however, be questions of authenticity involving lesser segments of a case or the case may be one governed by federal common law. Clearfield Trust Co. v. United States, 318 U.S. 363, 63 S.Ct. 573, 87 L.Ed. 838 (1943). Cf. United States v. Yazell, 382 U.S. 341, 86 S.Ct. 500, 15 L.Ed.2d 404 (1966). In these situations, resort to the useful authentication provisions of the Uniform Commercial Code is provided for. While the phrasing is in terms of "general commercial law," in order to avoid the potential complication inherent in borrowing local statutes, today one would have difficulty in determining the general commercial law without referring to the Code. See Williams v. Walker-Thomas-Furniture Co., 121 U.S.App.D.C. 315, 350 F.2d 445 (1965). Pertinent Code provisions are sections 1-202, 3-307, and 3-510, dealing with third-party documents, signatures on negotiable instruments, protests, and statements of dishonor.

Paragraph (10). The paragraph continues in effect dispensations with preliminary proof of genuineness provided in various Acts of Congress. See, for example, 10 U.S.C. §936, signature, without seal, together with title, prima facie evidence of authenticity of acts of certain military personnel who are given notarial power; 15 U.S.C. §77f(a), signature on SEC registration presumed genuine; 26 U.S.C. §6064, signature to tax return prima facie genuine.

# Notes of Committee on the Judiciary, House Report No. 93–650 $\,$

Rule 902(8) as submitted by the Court referred to certificates of acknowledgment "under the hand and seal of" a notary public or other officer authorized by law to take acknowledgments. The Committee amended the Rule to eliminate the requirement, believed to be inconsistent with the law in some States, that a notary public must affix a seal to a document acknowledged before him. As amended the Rule merely requires that the document be executed in the manner prescribed by State law.

The Committee approved Rule 902(9) as submitted by the Court. With respect to the meaning of the phrase "general commercial law", the Committee intends that the Uniform Commercial Code, which has been adopted in virtually every State, will be followed generally, but that federal commercial law will apply where federal commercial paper is involved. See Clearfield Trust Co. v. United States, 318 U.S. 363 (1943). Further, in those instances in which the issues are governed by Erie R. Co. v. Tompkins, 304 U.S. 64 (1938), State law will apply irrespective of whether it is the Uniform Commercial Code.

#### NOTES OF ADVISORY COMMITTEE ON RULES—1987 AMENDMENT

The amendments are technical. No substantive change is intended.

## Notes of Advisory Committee on Rules—1988 ${\rm Amendment}$

These two sentences were inadvertently eliminated from the 1987 amendments. The amendment is technical. No substantive change is intended.

### COMMITTEE NOTES ON RULES-2000 AMENDMENT

The amendment adds two new paragraphs to the rule on self-authentication. It sets forth a procedure by which parties can authenticate certain records of regularly conducted activity, other than through the testimony of a foundation witness. See the amendment to Rule 803(6). 18 U.S.C. §3505 currently provides a means for certifying foreign records of regularly conducted activity in criminal cases, and this amendment is intended to establish a similar procedure for domestic records, and for foreign records offered in civil cases.

A declaration that satisfies 28 U.S.C. §1746 would satisfy the declaration requirement of Rule 902(11), as would any comparable certification under oath.

The notice requirement in Rules 902(11) and (12) is intended to give the opponent of the evidence a full opportunity to test the adequacy of the foundation set forth in the declaration.

GAP Report—Proposed Amendment to Rule 902. The Committee made the following changes to the published draft of the proposed amendment to Evidence Rule 902:

1. Minor stylistic changes were made in the text, in accordance with suggestions of the Style Subcommittee of the Standing Committee on Rules of Practice and Procedure.

2. The phrase "in a manner complying with any Act of Congress or rule prescribed by the Supreme Court pursuant to statutory authority" was added to proposed Rule 902(11), to provide consistency with Evidence Rule 902(4). The Committee Note was amended to accord with this textual change.

3. Minor stylistic changes were made in the text to provide a uniform construction of the terms "declaration" and "certifying."

4. The notice provisions in the text were revised to clarify that the proponent must make both the declaration and the underlying record available for inspection.

### TERMINATION OF TRUST TERRITORY OF THE PACIFIC ISLANDS

For termination of Trust Territory of the Pacific Islands, see note set out preceding section 1681 of Title 48, Territories and Insular Possessions.

### COMMITTEE NOTES ON RULES-2011 AMENDMENT

The language of Rule 902 has been amended as part of the restyling of the Evidence Rules to make them more easily understood and to make style and terminology consistent throughout the rules. These changes are intended to be stylistic only. There is no intent to change any result in any ruling on evidence admissibility.

### COMMITTEE NOTES ON RULES-2017 AMENDMENT

Paragraph (13). The amendment sets forth a procedure by which parties can authenticate certain electronic evidence other than through the testimony of a foundation witness. As with the provisions on business records in Rules 902(11) and (12), the Committee has found that the expense and inconvenience of producing a witness to authenticate an item of electronic evidence is often unnecessary. It is often the case that a party goes to the expense of producing an authentication witness, and then the adversary either stipulates authenticity before the witness is called or fails to challenge the authentication testimony once it is presented. The amendment provides a procedure under which the parties can determine in advance of trial whether a real challenge to authenticity will be made, and can then plan accordingly.

Nothing in the amendment is intended to limit a party from establishing authenticity of electronic evi-

dence on any ground provided in these Rules, including through judicial notice where appropriate.

A proponent establishing authenticity under this Rule must present a certification containing information that would be sufficient to establish authenticity were that information provided by a witness at trial. If the certification provides information that would be insufficient to authenticate the record if the certifying person testified, then authenticity is not established under this Rule. The Rule specifically allows the authenticity foundation that satisfies Rule 901(b)(9) to be established by a certification rather than the testimony of a live witness.

The reference to the "certification requirements of Rule 902(11) or (12)" is only to the procedural requirements for a valid certification. There is no intent to require, or permit, a certification under this Rule to prove the requirements of Rule 803(6). Rule 902(13) is solely limited to authentication, and any attempt to satisfy a hearsay exception must be made independently.

A certification under this Rule can establish only that the proffered item has satisfied the admissibility requirements for authenticity. The opponent remains free to object to admissibility of the proffered item on other grounds-including hearsay, relevance, or in criminal cases the right to confrontation. For example, assume that a plaintiff in a defamation case offers what purports to be a printout of a webpage on which a defamatory statement was made. Plaintiff offers a certification under this Rule in which a qualified person describes the process by which the webpage was retrieved. Even if that certification sufficiently establishes that the webpage is authentic, defendant remains free to object that the statement on the webpage was not placed there by defendant. Similarly, a certification authenticating a computer output, such as a spreadsheet, does not preclude an objection that the information produced is unreliable—the authentication establishes only that the output came from the computer.

A challenge to the authenticity of electronic evidence may require technical information about the system or process at issue, including possibly retaining a forensic technical expert; such factors will affect whether the opponent has a fair opportunity to challenge the evidence given the notice provided.

The reference to Rule 902(12) is intended to cover certifications that are made in a foreign country.

Paragraph (14). The amendment sets forth a procedure by which parties can authenticate data copied from an electronic device, storage medium, or an electronic file, other than through the testimony of a foundation witness. As with the provisions on business records in Rules 902(11) and (12), the Committee has found that the expense and inconvenience of producing an authenticating witness for this evidence is often unnecessary. It is often the case that a party goes to the expense of producing an authentication witness, and then the adversary either stipulates authenticity before the witness is called or fails to challenge the authentication testimony once it is presented. The amendment provides a procedure in which the parties can determine in advance of trial whether a real challenge to authenticity will be made, and can then plan accordingly.

Today, data copied from electronic devices, storage media, and electronic files are ordinarily authenticated by "hash value." A hash value is a number that is often represented as a sequence of characters and is produced by an algorithm based upon the digital contents of a drive, medium, or file. If the hash values for the original and copy are different, then the copy is not identical to the original. If the hash values for the original and copy are the same, it is highly improbable that the original and copy are not identical. Thus, identical hash values for the original and copy reliably attest to the fact that they are exact duplicates. This amendment allows self-authentication by a certification of a qualified person that she checked the hash value of the proffered item and that it was identical to the original. The rule is flexible enough to allow certifications

through processes other than comparison of hash value, including by other reliable means of identification provided by future technology.

Nothing in the amendment is intended to limit a party from establishing authenticity of electronic evidence on any ground provided in these Rules, including through judicial notice where appropriate.

A proponent establishing authenticity under this

A proponent establishing authenticity under this Rule must present a certification containing information that would be sufficient to establish authenticity were that information provided by a witness at trial. If the certification provides information that would be insufficient to authenticate the record if the certifying person testified, then authenticity is not established under this Rule.

The reference to the "certification requirements of Rule 902(11) or (12)" is only to the procedural requirements for a valid certification. There is no intent to require, or permit, a certification under this Rule to prove the requirements of Rule 803(6). Rule 902(14) is solely limited to authentication, and any attempt to satisfy a hearsay exception must be made independently.

A certification under this Rule can only establish that the proffered item is authentic. The opponent remains free to object to admissibility of the proffered item on other grounds—including hearsay, relevance, or in criminal cases the right to confrontation. For example, in a criminal case in which data copied from a hard drive is proffered, the defendant can still challenge hearsay found in the hard drive, and can still challenge whether the information on the hard drive was placed there by the defendant.

A challenge to the authenticity of electronic evidence may require technical information about the system or process at issue, including possibly retaining a forensic technical expert; such factors will affect whether the opponent has a fair opportunity to challenge the evidence given the notice provided.

The reference to Rule 902(12) is intended to cover certifications that are made in a foreign country.

#### Rule 903. Subscribing Witness's Testimony

A subscribing witness's testimony is necessary to authenticate a writing only if required by the law of the jurisdiction that governs its validity. (Pub. L. 93–595, §1, Jan. 2, 1975, 88 Stat. 1945; Apr. 26, 2011, eff. Dec. 1, 2011.)

NOTES OF ADVISORY COMMITTEE ON PROPOSED RULES

The common law required that attesting witnesses be produced or accounted for. Today the requirement has generally been abolished except with respect to documents which must be attested to be valid, e.g. wills in some states. McCormick §188. Uniform Rule 71; California Evidence Code §1411; Kansas Code of Civil Procedure §60–468; New Jersey Evidence Rule 71; New York CPLR Rule 4537.

COMMITTEE NOTES ON RULES—2011 AMENDMENT

The language of Rule 903 has been amended as part of the restyling of the Evidence Rules to make them more easily understood and to make style and terminology consistent throughout the rules. These changes are intended to be stylistic only. There is no intent to change any result in any ruling on evidence admissibility.

### ARTICLE X. CONTENTS OF WRITINGS, RECORDINGS, AND PHOTOGRAPHS

### Rule 1001. Definitions That Apply to This Article

In this article:

- (a) A "writing" consists of letters, words, numbers, or their equivalent set down in any form.
- (b) A "recording" consists of letters, words, numbers, or their equivalent recorded in any manner.

- (c) A "photograph" means a photographic image or its equivalent stored in any form.
- (d) An "original" of a writing or recording means the writing or recording itself or any counterpart intended to have the same effect by the person who executed or issued it. For electronically stored information, "original" means any printout—or other output readable by sight—if it accurately reflects the information. An "original" of a photograph includes the negative or a print from it.
- (e) A "duplicate" means a counterpart produced by a mechanical, photographic, chemical, electronic, or other equivalent process or technique that accurately reproduces the original.

(Pub. L. 93-595, §1, Jan. 2, 1975, 88 Stat. 1945; Apr. 26, 2011, eff. Dec. 1, 2011.)

NOTES OF ADVISORY COMMITTEE ON PROPOSED RULES

In an earlier day, when discovery and other related procedures were strictly limited, the misleading named "best evidence rule" afforded substantial guarantees against inaccuracies and fraud by its insistence upon production of original documents. The great enlargement of the scope of discovery and related procedures in recent times has measurably reduced the need for the rule. Nevertheless important areas of usefulness persist: discovery of documents outside the jurisdiction may require substantial outlay of time and money; the unanticipated document may not practically be discoverable; criminal cases have built-in limitations on discovery. Cleary and Strong, The Best Evidence Rule: An Evaluation in Context, 51 Iowa L.Rev. 825 (1966).

Paragraph (1). Traditionally the rule requiring the original centered upon accumulations of data and expressions affecting legal relations set forth in words and figures. This meant that the rule was one essentially related to writings. Present day techniques have expanded methods of storing data, yet the essential form which the information ultimately assumes for usable purposes is words and figures. Hence the considerations underlying the rule dictate its expansion to include computers, photographic systems, and other modern developments.

Paragraph (3). In most instances, what is an original will be self-evident and further refinement will be unnecessary. However, in some instances particularized definition is required. A carbon copy of a contract executed in duplicate becomes an original, as does a sales ticket carbon copy given to a customer. While strictly speaking the original of a photograph might be thought to be only the negative, practicality and common usage require that any print from the negative be regarded as an original. Similarly, practicality and usage confer the status of original upon any computer printout. Transport Indemnity Co. v. Seib, 178 Neb. 253, 132 N.W.2d 871 (1965).

Paragraph (4). The definition describes "copies" produced by methods possessing an accuracy which virtually eliminates the possibility of error. Copies thus produced are given the status of originals in large measure by Rule 1003, infra. Copies subsequently produced manually, whether handwritten or typed, are not within the definition. It should be noted that what is an original for some purposes may be a duplicate for others. Thus a bank's microfilm record of checks cleared is the original as a record. However, a print offered as a copy of a check whose contents are in controversy is a duplicate. This result is substantially consistent with 28 U.S.C. §1732(b). Compare 26 U.S.C. §7513(c), giving full status as originals to photographic reproductions of tax returns and other documents. made by authority of the Secretary of the Treasury. and 44 U.S.C. §399(a), giving original status to photographic copies in the National Archives.