Case Reference Table, 1 Computer L.J. 227 (1978)

Michael D. Scott
While the preceding “Case Digest” section provides an alphabetical summary of all cases to date in the “program-related invention” field,¹ its organization cannot properly convey the dynamic nature of the program patentability debate, nor enumerate all of the issues considered by the Patent Office and the courts. Yet, a clear understanding of the evolutionary process now occurring is imperative if there is to be any semblance of order and predictability in this area.

The following “Case Reference Table” provides a concise summary of the pertinent information contained in the reported decisions in this field. The rows of the Table are organized chronologically by date of decision.² The columns itemize the issues and facts extracted from these decisions under five major groupings. The first group contains “General Information” about the patent application and decision. The last four groupings set forth the key issues addressed by each of the four adjudicatory bodies considering these applications—Patent Office examiners, Patent Office Board of Appeals, Court of Customs and Patent Appeals and United States Supreme Court, respectively.

I. COLUMN HEADINGS
A. General Information

1. Case No.—Each case is given a separate number. These num-

¹ Because of the negative attitude of the United States Patent Office towards patents for computer programs per se, inventors have adopted a variety of forms in which to present their applications. As such, the term “program-related invention” has been adopted as a more accurate description of the inventions presented in the cases to date than either the term “program” or the term “software.”

² Except for four decisions enumerated in the Table, all decisions were rendered by the Court of Customs and Patent Appeals (hereinafter cited as C.C.P.A.). These four decisions are In re Freeman and In re King & Barton, rendered by the Patent Office Board of Appeals, and Gottschalk v. Benson and Dann v. Johnston rendered by the United States Supreme Court.
bers are repeated three times across the Table to facilitate cross-referencing.

2. Case Name—The last name of the applicant, or, if multiple applicants, the last name of the first applicant, is used. For decisions by the United States Supreme Court, the petitioner’s and respondent’s names are given.

3. Date of Decision—This is the date that the decision was rendered by the Patent Office Board of Appeals, C.C.P.A., or United States Supreme Court.

4. Type of Claims—The type of claim(s) presented in the patent application, either method, apparatus, or both, is indicated by an asterisk (*).

5. Type of Disclosure—The type(s) of disclosure contained in the application is indicated by an asterisk (*). The relevant forms of disclosure include block diagram, flowchart, program, equation, hardware and mathematical model.

3. See note 6 infra.


5. These are all of the cases set forth in the Table other than those enumerated in note 4 supra and note 6 infra. While an appeal from the Patent Office may be made to either the United States District Court for the District of Columbia or C.C.P.A. (35 U.S.C. §§ 141, 145 (1970)), all program-related patent cases to date have been appealed to the C.C.P.A.


7. The term “method” as used in this Table is intended to encompass “process” claims, too.

8. The term “apparatus” as used in the Table is intended to encompass “machine” claims, too.

9. A block diagram is:
A diagram of a system, instrument, or computer in which the principal parts are represented by suitably associated geometrical figures to show both the basic functions and the functional relationship among the parts. AMERICAN NAT’L STANDARDS INST., AMERICAN NATIONAL STANDARD VOCABULARY FOR INFORMATION PROCESSING (1970), reprinted in R. BIGelow, COMPUTER L. SERV. § 1-3, art. 1, at 10 (emphasis omitted) [hereinafter cited as ANSI].

10. A flow chart is “[a] graphical representation for the definition, analysis, or solution of a problem in which symbols are used to represent operations, data, flow equipment, etc.” Id. at 36 (emphasis omitted).

11. A program is “[a] series of actions proposed in order to achieve a certain result.” Id. at 70.

12. An equation is “[a] formal statement of the quality or equivalence of mathematical or logical expressions.” WEBSTER’S NEW COLLEGIATE DICTIONARY 386 (1975).

13. Hardware is “[p]hysical equipment, as opposed to the computer program or method of use, e.g., mechanical, magnetic, electrical, or electronic devices.” ANSI, supra note 9, at 40.

14. A mathematical model is “[a] mathematical representation of a process, device, or concept.” Id. at 54.
B. Patent Examiner, Patent Office Board of Appeals, Court of Customs and Patent Appeals (C.C.P.A.), and United States Supreme Court.

The last four groupings repeat the same columnar headings for each of the four adjudicatory bodies which consider patent applications. These groupings are further divided into two major subdivisions:

The first subdivision, containing four subcategories, sets forth the grounds of rejection used by the adjudicatory body. These grounds are grouped under the statutory bases for patentability as enumerated in Title 35, United States Code—35 U.S.C. §§ 101, 102, 103 and 112. The abbreviations used under these headings are:

"R" - claim(s) rejected on this ground
"U" - claim(s) upheld over prior rejection by inferior tribunal
"-" - rejection on this ground by inferior tribunal not discussed

The subcategories, and subgroupings under the headings are:

1. § 101—Statutory Subject Matter—Rejections in this category are based on the assertion that the claimed invention is outside of the recognized categories of patentable subject matter.
   b. Method-Mental Steps—A rejection based on the ground that a method that can be performed mentally is not patentable.
   c. Method-Function of a Machine—A rejection based on the ground that while a machine can be patented, the function of that machine cannot.
   d. Method-End Use—A rejection based on the grounds (1) that the method claim is not limited to a particular industrial or technological area, or (2) that the method (process) does not act to change specified materials to a different state or thing.
   e. Method-Algorithm—A rejection based on the ground that a method claim, where an algorithm lies at the point of novelty, is unpatentable.
   f. Apparatus-General—Same as “Method-General.”
   g. Apparatus-Mental Steps—Same as “Method-Mental Steps.”
   h. Apparatus-Printed Matter—A rejection based on the ground that an invention is not patentable where the sole novelty is in the printed matter.
2. § 102—Novelty—Rejections in this category are based on the assertion that the claimed invention was anticipated by one or more prior inventions.

3. § 103—Nonobviousness (Non-Obv.)—Rejections in this category are based on the assertion that the invention does not mark such an advance over the relevant prior art that it would not have been obvious to persons of ordinary skill in that art.

4. § 112—Disclosure—Rejections in this category are based on the assertion that the patent application fails to adequately disclose and distinctly claim the invention claimed.
   a. Inadequate—A rejection based generally on § 112, without specification of the "theory" of rejection.
   b. Affidavits—The sufficiency of affidavits submitted by applicants were considered on the question of adequate disclosure.
   c. Hardware—Hardware was specifically disclosed in the application.
   d. Overbroad—A rejection based on the ground that the specification was overbroad, i.e., claimed more than the inventor considered to be his or her invention.

The second subdivision, entitled "Cases Cited," has seven columns, corresponding to the seven cases considered precedentially most important in this area. The abbreviations used in these columns are:

- "F" - the case was followed by the citing case.
- "D" - the case was distinguished by the citing case.
- "N" - the case was narrowly construed by the citing case.

Finally, the heavy, horizontal line drawn in a stepped fashion across the chart indicates the point in the chronology of each adjudicatory body at which the United States Supreme Court rendered its decision in Gottschalk v. Benson.

II. SUGGESTED USES

This Table was developed to permit general usage by anyone doing

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research in the program patent area. As such, its utility is limited solely by the imagination of the user. This section, therefore, enumerates only a small sampling of the possible ways in which the information presented can be exploited.

1. Case History—Perhaps the simplest use is as a convenient means of tracing the history of a particular case. Each row of the Table provides a capsule summary of the relevant issues covered by the judicial opinion and the court’s resolution of those issues.

2. Disclosure Requirements—By using the “Type of Disclosure” columns under the “General Information” heading and the “§ 112—Disclosure” columns under the specific adjudicatory body headings, one can readily determine the cases which discuss the minimum disclosure necessary to satisfy 35 U.S.C. § 112.

3. Historical Grounds for Rejections—The distinctive value of the Table is that it provides a visual “picture” of the strategy used by the Patent Office in denying patent protection to computer software. For example, the Table shows that during the period 1968-72, the Patent Office used the “mental steps” doctrine repeatedly as a basis for rejecting method claims under 35 U.S.C. § 101. During this period, the C.C.P.A. just as repeatedly upheld method claims over that rejection. Thereafter, in 1973, the Patent Office virtually abandoned the “mental steps” doctrine as a basis for rejection and began relying more heavily on inadequate disclosure under 35 U.S.C. § 112. The Table also clearly shows the increased usage of the “algorithm” rejection by the Patent Office following the decision in Gottschalk v. Benson,17 and the somewhat “checkered career” that rejection has had before the C.C.P.A.

17. Id.
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