

04-13-2004

Form PTO-1595
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Pat.

APR 08 2004

102719710
Attorney Docket No. 107314-08003/107314-09009
Date: April 8, 2004To the Assistant Commissioner of Patents
Please record the attached original documents or copy thereof

1. Name of conveying party(ies)

K²T, Inc.

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

2. Name and address of receiving party(ies):

Name: QUANTAPOINT, INC.

Address: 1 South Linden Street
Duquesne, Pennsylvania 15110

Additional name(s) & address(es) attached?

☐ Yes ☒ No

3. Nature of conveyance:

- ☐ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☒ Other Resubmission of Change of Name Documents for
Recordation - Document ID No. 102537854

Execution Date: March 24, 2000

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

09/081,862

B. Patent No.(s)

6,456,731

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Arent Fox PLLC

Street Address: 1050 Connecticut Avenue, N.W., Suite 400

Washington, D.C. 20036-5339

6. Total number of applications and patents involved:
Two

7. Total fee (37 CFR 3.41)..... \$ 80.00

☐ Included in Check # _____.☒ If any fees are required please charge Deposit
Account No. 01-23008. Deposit account number: 01-2300
(Attach duplicate copy of this page if paying by
deposit account)

04/12/2004 LMUELLER 00000185 012300 09081862

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DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Charles M. Marmelstein

Name of Person Signing
Reg. No. 25,895

Signature

April 8, 2004

Date

Total number of pages including cover sheet, attachments, and document: 22

PATENT
REEL: 015190 FRAME: 0218



08-29-2003
102537854
Attorney Docket No. 107314-08003/107314-09009
Date: August 25, 2003

To the Assistant Commissioner of Patents
Please record the attached original documents or copy thereof

1. Name of conveying party

K²T, Inc.
One South Linden Street
Duquesne, PA 15110

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

2. Name and address of receiving party

QUANTAPOINT, INC.

Address: 275 Curry Hollow Road, M100
Pittsburgh, PA 15236

Additional name(s) & address(es) attached?

☐ Yes ☒ No

3. Nature of conveyance:

- ☐ Assignment ☐ Merger
☐ Security Agreement ☒ Change of Name
☐ Other _____

Execution Date:

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s)
09/081,862

B. Patent No.(s)
6,456,731

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Arent Fox Kintner Plotkin & Kahn PLLC

Street Address: 1050 Connecticut Avenue, N.W., Suite 400

Washington, D.C. 20036-5339

6. Total number of applications and patents involved:
Two

7. Total fee (37 CFR 3.41)..... \$ 80.00

☒ Included in attached check.

☒ Any additional fees are authorized to be charged to deposit account

8. Deposit account number: 01-2300
(Attach duplicate copy of this page if paying by deposit account)

09/28/2003 DBYRNE 00000033 09081862

01 FC:8021 80.00 DP

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Lynne D. Anderson

Name of Person Signing
Reg. No. 46,412

Lynne D. Anderson
Signature

August 25, 2003

Date

Total number of pages including cover sheet, attachments, and document: 21

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AUG 21 03 03:53p

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p.3

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TO 914126532940 P.03

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF STATE
CORPORATION BUREAU
ROOM 308, NORTH OFFICE BUILDING
HARRISBURG, PENNSYLVANIA 17120

175

K2T, INC.

THE CORPORATION BUREAU IS HAPPY TO SEND YOU YOUR FILED
DOCUMENT. PLEASE NOTE THE FILE DATE AND SIGNATURE OF THE SECRETARY OF
THE COMMONWEALTH. THE CORPORATION BUREAU IS HERE TO SERVE YOU AND WANTS
TO THANK YOU FOR DOING BUSINESS IN PENNSYLVANIA.

ENTITY NUMBER: 2037693

MICROFILM NUMBER: 09144

0045-0045

DINA G MCINTYRE ESQ
1609 LAWYERS BLDG
PGH

PA 15219

PATENT
REEL: 015190 FRAME: 0220

05CB274 (Rev. 81)

ARTICLES OF INCORPORATION
(PREPARE IN TRIPPLICATE)COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF STATE - CORPORATION BUREAU
308 NORTH OFFICE BUILDING, HARRISBURG, PA 17120

PLEASE INDICATE (CHECK ONE) TYPE CORPORATION:

- ☐ DOMESTIC BUSINESS CORPORATION
- ☐ DOMESTIC BUSINESS CORPORATION
A CLOSE CORPORATION - COMPLETE BACK
- ☐ DOMESTIC PROFESSIONAL CORPORATION
ENTER BOARD LICENSE NO.

FEE
\$75.00

010 NAME OF CORPORATION (MUST CONTAIN A CORPORATE INDICATOR UNLESS EXEMPT UNDER 15 P.S. 2908 B)

K2 T, Inc.

011 ADDRESS OF REGISTERED OFFICE IN PENNSYLVANIA (P.O. BOX NUMBER NOT ACCEPTABLE)

1121 Sunrise Drive, Pittsburgh, PA 15243

012 CITY

Pittsburgh,

013 COUNTY

Allegheny,

013 STATE

Pennsylvania

014 ZIP CODE

15243

050 EXPLAIN THE PURPOSE OR PURPOSES OF THE CORPORATION

To engage in all lawful activities under the Pennsylvania Business Corporation Law of 1988, as amended to date, including, without limiting the generality of the foregoing, the research, development and marketing of high technology.

(ATTACH 8 1/2 x 11 SHEET IF NECESSARY)

The Aggregate Number Shares, Classes of Shares and Par Value of Shares Which the Corporation Shall have Authority to Issue:

040 Number and Class of Shares 1 million common

041 Stated Par Value Per
Share if Any No par042 Total Authorized Capital
\$3,000.00031 Term of Existence
Perpetual

The Name and Address of Each Incorporator, and the Number and Class of Shares Subscribed to by each Incorporator

060 Name	061, 062 063, 064 Address (Street, City, State, Zip Code)	Number & Class of Shares
Dina G. McIntyre,	1609 Lawyers Building, Pittsburgh, PA 15219	one (1) common

(ATTACH 8 1/2 x 11 SHEET IF NECESSARY)

IN TESTIMONY WHEREOF, THE INCORPORATOR (S) HAS (HAVE) SIGNED AND SEALED THE ARTICLES OF INCORPORATION
THIS 10th DAY OF JULY 19 91

Dina G. McIntyre
Dina G. McIntyre, Incorporator.

- FOR OFFICE USE ONLY -

030 FILED

JUL 17 1991

002 CODE

003 REV BOX

SEQUENTIAL NO.

100 MICROFILM NUMBER

9144 45

REVIEWED BY

004 SIC

AMOUNT

001 CORPORATION NUMBER

DATE APPROVED

\$

2037693

DATE REJECTED

CERTIFY TO

INPUT BY

LOG IN

LOG IN (REFILE)

☐ REV.

MAILED BY DATE

☐ L & I

VERIFIED BY

LOG OUT

LOG OUT (REFILE)

☐ OTHER

Secretary of the Commonwealth
Department of State
Commonwealth of Pennsylvania

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TO 914126532940 P.05

MAR 24 '00 14:57 FR BUCHANAN INGERSOLL

TO 18082641137 P.02/21

Microfilm Number

Filed with the Department of State on

MAR 24 2000

Entity Number

2037693

Secretary of the Commonwealth

ARTICLES OF AMENDMENT-DOMESTIC BUSINESS CORPORATION

DSCG:15-1915 (Rev 81)

In compliance with the requirements of 15 Pa.C.S. § 1915 (relating to articles of amendment), the undersigned business corporation, desiring to amend its Articles, hereby states that:

1. The name of the corporation is: Quantapoint, Inc.

2. The (a) address of this corporation's current registered office in this Commonwealth or (b) name of its commercial registered office provider and the county of venue is (the Department is hereby authorized to correct the following information to conform to the records of the Department):

(a) 1 South Linden Street, Duquesne, PA 15110 Allegheny
Number and Street City State Zip County

(b) d/o: _____
Name of Commercial Registered Office Provider County

For a corporation represented by a commercial registered office provider, the county in (b) shall be deemed the county in which the corporation is located for venue and official publication purposes.

3. The statute by or under which it was incorporated is: Pennsylvania Business Corporation Law of 1988,
as amended.

4. The date of its incorporation is: July 17, 1991

5. (Check, and if appropriate complete, one of the following):

☒ The amendment shall be effective upon filing these Articles of Amendment in the Department of State.

___ The amendment shall be effective on: _____ at _____
Date Hour

6. (Check one of the following):

☒ The amendment was adopted by the shareholders (or members) pursuant to 15 Pa.C.S. § 1914(a) and (d).

___ The amendment was adopted by the board of directors pursuant to 15 Pa.C.S. § 1914(c).

7. (Check, and if appropriate complete, one of the following):

___ The amendment adopted by the corporation, set forth in full, is as follows:

☒ The amendment adopted by the corporation as set forth in full in Exhibit A attached hereto and made a part hereof.

BY SECRETARY OF COMMONWEALTH
01/20/03-0115 REG 002-0115

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DSCB:15-1915 (Rev 91)-2

8. (Check if the amendment restates the Articles):

☒ The restated Articles of Incorporation supersede the original Articles and all amendments thereto.

IN TESTIMONY WHEREOF, the undersigned corporation has caused these Articles of Amendment to be signed by a duly authorized officer thereof this 24th day of March, 192000.

Quantapoint, Inc.
(Name of Corporation)
BY: [Signature]
(Signature)
TITLE: Chief Executive Officer

SECOND
AMENDED AND RESTATED
ARTICLES OF INCORPORATION
OF
QUANTAPOINT, INC.
(FORMERLY K'T, Inc.)

The Corporation was originally incorporated on July 17, 1991. The Second Amended and Restated Articles of Incorporation were adopted pursuant to the Business Corporation Law of the Commonwealth of Pennsylvania.

ARTICLE I

The name of the Corporation is Quantapoint, Inc. (the "Corporation").

ARTICLE II

The registered office of the Corporation is Arbor Professional Center, Suite M100, 275 Curry Hollow Road, Pittsburgh, PA 15236 (Allegheny County).

ARTICLE III

The purpose of the Corporation is to engage in any lawful acts or activities for which corporations may be organized under the Business Corporation Law of the Commonwealth of Pennsylvania.

ARTICLE IV

A. CLASSES OF STOCK.

The aggregate number of shares of stock that the Corporation shall have the authority to issue shall be 23,576,667 shares, consisting of (a) 20,000,000 shares of Common Stock, no par value ("Common Stock"), (b) 1,200,000 shares of Series A Convertible Preferred Stock, par value \$0.8571 per share ("Series A Preferred Stock"), and (c) 2,376,667 shares of Series B Convertible Preferred Stock, par value \$1.20 per share (the "Series B Preferred Stock") (Series A Preferred Stock and the Series B Preferred Stock sometimes collectively referred to herein as "Preferred Stock").

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**B. RIGHTS, PREFERENCES, PRIVILEGES AND RESTRICTIONS OF
COMMON STOCK AND PREFERRED STOCK**

The rights, preferences, privileges and restrictions granted to and imposed upon Common Stock and Preferred Stock are set forth in this Division B.

1. Dividend Provisions

(a) Holders of Preferred Stock. The holders of (i) Series A Preferred Stock shall be entitled to receive cash dividends at the rate of \$0.07 per share per annum, and (ii) Series B Preferred Stock shall be entitled to receive cash dividends at the rate of \$0.098 per share per annum, out of assets of the Corporation legally available therefor. Cash dividends on the Preferred Stock shall be in preference and priority to any payment of any cash dividend on the Common Stock or any other capital stock of the Corporation that is junior on liquidation to the Preferred Stock (collectively "Junior Shares"). For purposes of the payment of dividends pursuant to this Section 1(a), Series A Preferred Stock and Series B Preferred Stock shall rank *pari passu* with respect to one another such that no dividends shall be paid with respect to either Series A Preferred Stock or the Series B Preferred Stock unless a proportionate payment of dividends is made to each Series of Preferred Stock at the same time. Such dividends shall accrue and be deemed to accrue from day to day whether or not declared. Cash dividends on Series A Preferred Stock and Series B Preferred Stock shall only be paid to the holders of Series A Preferred Stock and Series B Preferred Stock, respectively, upon the occurrence of a liquidation as described in Section 2 of this Division B, or a redemption described in Section 3 of this Division B, and shall not be payable upon a conversion of Series A Preferred Stock or Series B Preferred Stock as described in Section 4 or Section 5 of this Division B.

The holders of a majority of either series of Preferred Stock then outstanding, voting separately as a class, may waive or delay the payment of the dividends on that series of Preferred Stock at any time or times as long as shares of such series of Preferred Stock remain outstanding.

(b) Holders of Common Stock. Subject to Section 1(a) hereof, the holders of shares of Common Stock shall be entitled to receive, when and as declared by the Board of Directors, out of any assets of the Corporation legally available therefor, such dividends as may be declared from time to time by the Board of Directors. No dividends shall be paid on shares of Common Stock until all accrued but unpaid dividends are paid on shares of the Preferred Stock.

2. Liquidation

(a) Preference. In the event of any liquidation, dissolution or winding up of the Corporation, either voluntary or involuntary, the holders of Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation to the holders of Junior Shares by reason of their ownership thereof, an amount per share (equal to subject to adjustment for any stock splits, reverse stock splits, combinations or otherwise) (i) \$0.8571 for each outstanding share of Series A Preferred Stock held by such

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holders, and (ii) \$1.20 for each outstanding share of Series B Preferred Stock held by such holders, plus any accrued but unpaid dividends. For purposes of the payments upon liquidation, dissolution or winding up of the Corporation pursuant to this Section 2(a), Series A Preferred Stock and Series B Preferred Stock shall rank *pari passu* with respect to one another. If, upon the occurrence of such liquidation, dissolution or winding up of the Corporation, the assets and funds legally available for distribution among the holders of Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire assets and funds of the Corporation legally available for distribution shall be distributed ratably among the holders of Preferred Stock in proportion to the respective preferential amounts each such holder is then entitled to pursuant to this Section 2.

(b) Distributions to Holders of Common Stock. After the payment in full of all preferential amounts required to be paid to the holders of Preferred Stock upon the liquidation, dissolution or winding up of the Corporation, the holders of shares of Common Stock then outstanding shall be entitled to receive the remaining assets and funds of the Corporation available for distribution to its stockholders, pro rata based on the number of shares of Common Stock held by each such holder.

(c) Sale of Assets. A Sale of the Corporation as defined in Section 8(d)(i) shall be deemed to be a liquidation, dissolution or winding up of the Corporation within the meaning of this Section 2.

3. Redemption

(a) Procedure for Redemption. The Company shall redeem from each holder of Preferred Stock all of such holder's shares of Preferred Stock at any time on or after February 28, 2005 upon the written consent or affirmative vote of the holders of at least 51% of the then outstanding shares of Preferred Stock consenting or voting, as the case may be, as a single class (such time being the "Redemption Date")

(b) Redemption Price. For purposes hereof, the redemption price per share (of subject to adjustment for any stock splits, reverse stock splits, combinations or otherwise) (i) Series A Preferred Stock shall be \$0.8571 for each outstanding share of Series A Preferred Stock (the "Series A Redemption Price"), and (ii) Series B Preferred Stock shall be \$1.20 for each outstanding share of Series B Preferred Stock (the "Series B Redemption Price"), plus any accrued but unpaid dividends.

(c) Payment of Redemption Price. On the Redemption Date, the Corporation shall pay the Series A Redemption Price to each holder of Series A Preferred Stock and the Series B Redemption Price to each holder of Series B Preferred Stock in immediately available funds against delivery to the Corporation of such holder's certificates evidencing shares of Series A Preferred Stock and/or Series B Preferred Stock, together with such assignment instruments and stock powers as the Corporation shall reasonably request.

(d) Effect of Redemption. Except as otherwise provided in Section 3(e), from and after the Redemption Date, all rights (including conversion rights) of the

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holders of Preferred Stock (except the right to receive the Series A Redemption Price and/or Series B Redemption Price without interest upon surrender of their certificate or certificates) shall cease with respect to such shares of Preferred Stock, and such shares of Preferred Stock shall not thereafter be transferred on the books of the Corporation or be deemed to be outstanding for any purpose whatsoever.

(c) Funds for Redemption Insufficient. If the funds of the Corporation legally available for redemption of shares of Preferred Stock on the Redemption Date are insufficient to redeem all of the shares of Preferred Stock, the holders of shares of Preferred Stock shall share ratably in any funds legally available for redemption of such shares of Preferred Stock in proportion to the Series A Redemption Price and the Series B Redemption Price and any amounts paid by the Corporation shall be applied to the payment in full of the Series A Redemption Price and Series B Redemption Price in respect of the largest number of whole shares of Series A Preferred Stock and Series B Preferred Stock which may be paid from such distribution and such shares of the Series A Preferred Stock and the Series B Preferred Stock shall be redeemed and shall no longer be outstanding. The shares of Preferred Stock not redeemed shall remain outstanding and entitled to all rights and preferences provided herein. At the end of each succeeding fiscal quarter when any shares of Preferred Stock remain outstanding a determination shall be made as to whether additional funds of the Company are legally available for the redemption of such shares of Preferred Stock, and, if so, such funds will be used, at the end of such succeeding fiscal quarter, to redeem the balance of such shares, or such portion thereof for which funds are then legally available, on the basis set forth above.

4. Conversion.

The holders of Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Right to Convert. Each share of Preferred Stock shall be convertible, at the option of the holder thereof at any time and from time to time, into such number of fully paid and nonassessable shares of Common Stock as is determined (i) for each share of Series A Preferred Stock, by dividing \$0.8571 by the Series A Conversion Price (as defined below) in effect at the time of conversion, (the "Series A Conversion Rate"), and (ii) for each share of Series B Preferred Stock, by dividing \$1.20 by the Series B Conversion Price (as defined below) in effect at the time of conversion (the "Series B Conversion Rate"). The conversion price at which shares of Common Stock shall be deliverable upon conversion of Series A Preferred Stock without the payment of additional consideration by the holder thereof (the "Series A Conversion Price") shall initially be \$0.8571 per share, and the conversion price at which shares of Common Stock shall be deliverable upon conversion of Series B Preferred Stock without the payment of additional consideration by the holder thereof (the "Series B Conversion Price") shall initially be \$1.20 per share. Such initial Series A Conversion Price and Initial Series B Conversion Price, and the Series A Conversion Rate and the Series B Conversion Rate, respectively, shall be subject to adjustment as provided below.

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In the event of a liquidation of the Corporation, the Conversion Rights shall terminate at the close of business on the day immediately preceding the date fixed for the payment of any amounts distributable on liquidation to the holders of Preferred Stock pursuant to Section 2 of this Division B.

(b) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation at its election shall either (i) pay cash equal to the product (calculated to the nearest cent) of such fraction and the then effective Series A Conversion Price or Series B Conversion Price, as applicable, or (ii) issue one whole share of Common Stock for each fractional share to which the holder would otherwise be entitled.

(c) Mechanics of Conversion.

(i) In order for a holder of Preferred Stock to convert shares of Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Preferred Stock, at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of Preferred Stock represented by such certificate or certificates. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his or its attorney duly authorized in writing. The date of receipt of such certificates and notice by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) shall be the conversion date ("Conversion Date"). The Corporation shall, as soon as practicable after the Conversion Date, issue and deliver at such office to such holder of Preferred Stock, or to his or its nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled, together with cash in lieu of any fraction of a share payable to such holder.

(ii) The Corporation shall at all times when Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued stock, for the purpose of effecting the conversion of Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of Preferred Stock.

(iii) On the Conversion Date, all shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares, including the rights, if any, to receive notices and to vote, shall immediately cease and terminate on the Conversion Date, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor.

(iv) If the conversion is in connection with an underwritten offering of securities registered pursuant to the Securities Act of 1933, as amended, the conversion may at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing with the underwriter of the sale of securities pursuant to such offering, in which event the person(s) entitled to receive the Common Stock issuable upon such conversion of Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of the sale of securities in such underwritten offering.

(d) Adjustments to Conversion Price for Diluting Issues.

(i) Special Definitions. For purposes of this Section 4(d), the following definitions shall apply:

(A) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(B) "Original Issue Date" shall mean with respect to the Series A Preferred Stock June 28, 1999, the date on which each share of Series A Preferred Stock was first issued and, with respect to the Series B Preferred Stock, the date upon which each share of Series B Preferred Stock was first issued.

(C) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities of the Corporation directly or indirectly convertible into or exchangeable for Common Stock.

(D) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to Section 4(d)(iii) below, deemed to be issued) by the Corporation after the Original Issue Date, other than shares of Common Stock issued or issuable:

(I) upon the conversion of shares of Preferred Stock or as a dividend or distribution on Preferred Stock;

(II) pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization;

(III) to directors or employees of, or consultants to, the Corporation pursuant to the exercise of Options granted under the Stock Option Plan of the Corporation, as amended, or otherwise, in any event not to exceed an aggregate of 700,000 shares of Common Stock;

(IV) upon the closing of an offering of Common Stock by the Company in which holders of Preferred Stock have elected to

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TO 18002641137

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participate pursuant to registration rights granted to them by the Company;
or

(V) by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock excluded from the definition of Additional Shares of Common Stock by the foregoing clauses (I), (II), (III), (IV) or this clause (V).

(ii) No Adjustment of Conversion Price. No adjustment in the number of shares of Common Stock into which Preferred Stock is convertible shall be made, by adjustment in the applicable Series A or Series B Conversion Price thereof unless the consideration per share (determined pursuant to Section 4(d)(v)) for an Additional Share of Common Stock issued or deemed to be issued by the Corporation is less than the applicable Series A Conversion Price or Series B Conversion Price in effect on the date of, and immediately prior to, the issue of such Additional Shares.

(iii) Issue of Securities Deemed Issue of Additional Shares of Common Stock. If the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities; then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided that in any such case in which Additional Shares of Common Stock are deemed to be issued:

(A) No further adjustment in the Series A Conversion Price and/or Series B Conversion Price shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities,

(B) If such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase in the consideration payable to the Corporation, or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange thereof, the Series A Conversion Price and/or Series B Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustment based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities,

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(C) upon the expiration of any such Options or any rights of conversion or exchange under such Convertible Securities which shall not have been exercised, the Series A Conversion Price and/or Series B Conversion Price computed, upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon such expiration, be recomputed as if;

(I) in the case of Convertible Securities or Options for Common Stock, only the Additional Shares of Common Stock issued were shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities and the consideration received therefor was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration actually received by the Corporation upon such exercise, or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually received by the Corporation upon such conversion or exchange, and

(II) in the case of Options for Convertible Securities, only the Convertible Securities, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration received by the Corporation for the Additional Shares of Common Stock deemed to have been then issued was the consideration actually received by the Corporation for the issue of such Options, whether or not exercised, plus the consideration deemed to have been received by the corporation upon the issue of the Convertible Securities with respect to which such Options were actually exercised;

(D) No readjustment pursuant to clause (C) above shall have the effect of increasing the Series A Conversion Price and/or Series B Conversion Price to an amount which exceeds the lower of (i) the Series A Conversion Price and/or Series B Conversion Price on the original adjustment date, or (ii) the Series A Conversion Price and/or Series B Conversion Price, as applicable, that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date;

(E) in the case of any Options which expire by their terms not more than 90 days after the date of issue thereof, no adjustments of the Series A Conversion Price and/or Series B Conversion Price shall be made until the expiration or exercise of all such Options issued on the same date, whereupon such adjustment shall be made in the manner provided in clause (C) above; and

(F) if such record date shall have been fixed and such Options or Convertible Securities are not issued on the date fixed therefor, the

adjustments previously made in the Series A Conversion Price and/or Series B Conversion Price which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter the Series A Conversion Price and/or Series B Conversion Price shall be adjusted pursuant to this subsection 4(d)(iii) as of the actual date of their issuance.

(iv) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. Subject to the provisions of Section 4(d)(ii) above, in the event the Corporation shall at any time after the Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 4(d)(iii), but excluding shares issued as a dividend or distribution as provided in Section 4(f) or upon a stock split or combination as provided in Section 4(c)), without consideration or for a consideration per share less than the Series A Conversion Price or the Series B Conversion Price in effect on the date of and immediately prior to such issue, then and in such event, such Series A Conversion Price or Series B Conversion Price, as applicable, shall be reduced, concurrently with such issue to a price (calculated to the nearest cent) determined by multiplying the Series A Conversion Price and/or Series B Conversion Price, as the case may be, by a fraction, (x) the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at such Series A Conversion Price or Series B Conversion Price, and (y) the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common Stock so issued; provided that for the purposes of this subsection 4(d)(iv), all shares of Common Stock issuable upon exercise, conversion or exchange of outstanding Options or Convertible Securities, as the case may be, shall be deemed to be outstanding, and immediately after any Additional Shares of Common Stock shall be deemed issued pursuant to subsection 4(d)(iii) above, such Additional Shares of Common Stock shall be deemed to be outstanding.

Notwithstanding the foregoing, the applicable Series A Conversion Price or Series B Conversion Price shall not be so reduced at such time if the amount of such reduction would be an amount less than \$.01, but any such amount shall be carried forward and a reduction with respect thereto made at the time of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$.01 or more.

(v) Determination of Consideration. For purposes of this Section 4(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(A) Cash and Property. Such consideration shall:

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(I) insofar as it consists of cash, be computed including all sums of cash received by the Corporation for such Additional Shares, excluding amounts paid or payable for accrued interest or accrued dividends;

(II) insofar as it consists of property other than cash be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(III) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration, which covers both, be the proportion of such consideration so received, computed as provided in clauses (I) and (II) above, as determined in good faith by the Board of Directors.

(B) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 4(d)(iii), relating to Options and Convertible Securities, shall be determined by dividing:

(x) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(y) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(e) Adjustment for Stock Splits and Combination. If the Corporation shall at any time or from time to time after the Original Issue Date effect a subdivision of the outstanding Common Stock, the Series A Conversion Price and the Series B Conversion Price then in effect immediately before that subdivision shall be proportionately decreased. If the Corporation shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Series A Conversion Price and the Series B Conversion Price then in effect immediately before the combination shall be proportionately

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increased. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

(f) Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time, or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in Additional Shares of Common Stock, then and in each such event the Series A Conversion Price and the Series B Conversion Price then in effect shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Series A Conversion Price and the Series B Conversion Price then in effect by a fraction;

(x) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(y) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

provided, however, if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Series A Conversion Price and the Series B Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions.

(g) Adjustments for Other Dividends and Distribution. In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation other than shares of Common Stock (other than as otherwise adjusted in this Section 4), then and in each such event provision shall be made so that the holders of Preferred Stock shall receive upon conversion thereof in addition to the number of shares of Common Stock receivable thereupon, the amount of securities of the Corporation that they would have received had their Preferred Stock been converted into Common Stock on the date of such event and had thereafter, during the period from the date of such event to and including the Conversion Date, retained such securities receivable by them as aforesaid during such period giving application to all adjustments called for during such period (subject to all other adjustments called for during such period under this Section 4), under this paragraph with respect to the rights of the holders of Preferred Stock.

(h) Adjustment for Reclassification, Exchange, or Substitution. If the Common Stock issuable upon the conversion of Preferred Stock shall be changed into the same or a different number of shares of any class or classes of stock, whether by capital reorganization, reclassification, or otherwise (other than a subdivision or combination of shares provided for above), the Series A Conversion Price and the Series B Conversion Price then in effect shall,

concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted such that the Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders would otherwise have been entitled to receive, a number of shares of such other class or classes of stock equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of Preferred Stock immediately before that change.

(i) Adjustment for Sale of the Corporation. In case of any Sale of the Corporation as defined in Section 8(d)(ii), each share of Preferred Stock shall thereafter be convertible into the kind and amount of shares of stock or other securities or property to which a holder of the number of shares of Common Stock of the Corporation deliverable upon conversion of such Preferred Stock would have been entitled upon such Sale of the Corporation; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors) shall be made in the application of the provisions set forth in this Section 4 with respect to the rights and interest thereafter of the holders of Preferred Stock to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Series A Conversion Price and/or Series B Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any shares of stock or other property thereafter deliverable upon the conversion of Preferred Stock.

(j) No Impairment. The Corporation will not, by amendment of these Second Amended and Restated Articles of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but will at all times in good faith assist in the carrying out of all the provisions of this Section 4 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of Series A Preferred Stock and Series B Preferred Stock against impairment.

(k) Certificate as to Adjustments. Upon the occurrence of each adjustment of the Series A Conversion Price and/or Series B Conversion Price pursuant to this Section 4, the Corporation at its expense shall promptly compute such adjustment in accordance with the terms hereof and furnish to each holder of Series A Preferred Stock and Series B Preferred Stock, as applicable, a certificate setting forth such adjustment and showing in detail the facts upon which such adjustment is based. The Corporation shall, upon the written request at any time of any holder of Series A Preferred Stock and/or Series B Preferred Stock, as applicable, furnish or cause to be furnished to such holder a similar certificate setting forth (i) such adjustments, (ii) the Series A Conversion Price and/or Series B Conversion Price then in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which then would be received upon the conversion of Series A Preferred Stock and/or Series B Preferred Stock, as applicable.

(l) Notices of Record Date. In the event of any taking by the Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other

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distribution, the Corporation shall mail to each holder of Preferred Stock at least ten (10) days prior to the date specified therein, a notice specifying the date on which any such record is to be taken of the purpose of such dividend or distribution.

(m) Notices. Any notice required by the provisions of this Section 4 to be given to the holders of shares of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at its address appearing on the books of the Corporation.

5. Automatic Conversion.

(a) Automatic Conversion Events. All shares of Series A Preferred Stock or Series B Preferred Stock then outstanding shall automatically be converted into shares of Common Stock, at the then effective Series A Conversion Rate or Series B Conversion Rate pursuant to Section 4, as applicable, upon (i) the agreement of the holders of at least 51% of the outstanding shares of Preferred Stock, voting together as one class, that all of the shares of Preferred Stock shall be converted into shares of Common Stock, (ii) upon the closing of the sale of shares of Common Stock in an underwritten public offering of the Common Stock of the Corporation pursuant to an effective registration statement under the Securities Act of 1933, as amended, where the aggregate gross sales price of such securities (before deduction of underwriting discounts, commissions and expenses of sale) is not less than \$12,500,000 and the price per share is at least \$6.00, subject to adjustment to reflect stock splits, reverse stock splits or combinations (a "Public Offering"), or (iii) a Sale of the Corporation where the consideration received by the holders of Common Stock of the Corporation is at least \$6.00 per share (on a fully diluted basis), subject to adjustment for any stock split, reverse stock splits, combinations or otherwise.

(b) Procedure. In the event of a automatic conversion pursuant to this Section 5, the outstanding shares of Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, and provided further that the Corporation shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such automatic conversion unless the certificates evidencing such shares of Preferred Stock are either delivered to the Corporation or its transfer agent as provided above, or the holder notifies the Corporation or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificates. Such conversion shall be deemed to have been made on the date of closing of the offering or the effective date of the applicable vote or written consent, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date. On the date fixed for conversion, all rights with respect to the Preferred Stock so converted, including the rights, if any, to receive notices and vote, will terminate, except only the rights of the holders thereof, upon surrender of their certificate or certificates therefor, to receive certificates for the number of shares of Common Stock into which such Preferred Stock has been converted (and cash, if any,

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with respect to any fraction of a share as provided in Section 4(b)). If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly authorized in writing. As soon as practicable after the date of such mandatory conversion and the surrender of the certificate or certificates for Preferred Stock, the Corporation shall cause to be issued and delivered to such holder a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and cash, if any, as provided in Section 4(b) in respect of any fraction of a share of Common Stock otherwise issuable upon such conversion.

(c) Retirement and Cancellation of Shares. All certificates evidencing shares of Preferred Stock which are required to be surrendered for conversion in accordance with the provisions hereof shall, from and after the date such certificates are so required to be surrendered, be deemed to have been retired and canceled and the shares of Preferred Stock represented thereby converted into Common Stock for all purposes, notwithstanding the failure of the holder or holders thereof to surrender such certificates on or prior to such date.

6. Status of Converted Stock.

In the event any shares of Preferred Stock shall be converted pursuant to Section 4 or Section 5 hereof, the shares so converted shall be canceled and shall not be reissuable by the Corporation.

7. Voting Rights.

(a) Preferred Stock Voting Rights. Except as may be otherwise provided in the terms of Series A Preferred Stock, Series B Preferred Stock or as required by law, Series A Preferred Stock and Series B Preferred Stock shall vote together with all other classes and series of stock of the Corporation as a single class on all actions to be taken by the holders of stock of the Corporation. Each share of Preferred Stock shall entitle the holder thereof to such number of votes per share on each action as shall equal the number of shares of Common Stock into which each share of Preferred Stock is then convertible. The holder of each outstanding share of Preferred Stock shall be entitled to notice of any shareholders' meeting in accordance with the bylaws of the Corporation.

(b) Common Stock Voting Rights. The holder of each outstanding share of Common Stock shall have the right to one vote, and shall be entitled to notice of any shareholders' meeting in accordance with the bylaws of the Corporation, and shall be entitled to vote upon such matters and in such manner as may be provided by law.

(c) Elections of Directors. The election of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide. The provisions of that certain Amended and Restated Shareholders' and Investors' Rights Agreement dated as of February 25, 2000, by and among the Corporation and the persons named therein, as it may be amended or restated, shall govern in all elections of directors of the Corporation. Shareholders shall not have the right to cumulate their votes in the election of directors of the Corporation.

8. Protective Provisions.

(a) The Corporation shall not, without the prior written consent or affirmative vote of the holders of at least 51% of the outstanding shares of Preferred Stock, given in writing or by vote at a meeting, consenting or voting, as the case may be, together as one class:

(i) Engage in or recognize the effectiveness of a Sale of the Corporation as defined in subsection (d)(i) and (ii) hereof, except where any such transaction results in the consideration received by the holders of Preferred Stock of at least \$6.00 per share, subject to adjustment for any stock splits, reverse stock splits, combinations or otherwise; or

(ii) Create, incur, assume, suffer to exist or issue any indebtedness, other than for working capital or capital leases approved by the Board of Directors without limitation as to amount, with an aggregate value of more than \$500,000, or issue any indebtedness with equity conversion provisions or warrants (which is tantamount to preferred stock equity financing).

(b) The Corporation shall not, without the prior written consent or affirmative vote of the holders of at least 51% of the outstanding shares of Series A Preferred Stock, given in writing or by vote at a meeting, consenting or voting, as the case may be, separately as a class:

(i) Amend, alter or repeal the preferences, special rights or other powers of the Series A Preferred Stock; or

(ii) Increase the number of authorized shares of Series A Preferred Stock; or

(iii) Create any new class or series of stock, or any other equity securities, or any other securities convertible into equity securities of the Corporation, in any of the foregoing cases having a preference over, or being on a parity with, the Series A Preferred Stock.

(c) The Corporation shall not, without the prior written consent or affirmative vote of the holders of at least 51% of the outstanding shares of Series B Preferred Stock, given in writing or by vote at a meeting, consenting or voting, as the case may be, separately as a class:

(i) Amend, alter or repeal the preferences, special rights or other powers of the Series B Preferred Stock; or

(ii) Increase the number of authorized shares of Series B Preferred Stock; or

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(iii) Create any new class or series of stock, or any other equity securities, or any other securities convertible into equity securities of the Corporation, in any of the foregoing cases having a preference over, or being on a parity with, the Series B Preferred Stock.

(d) A "Sale of the Corporation" shall mean:

(i) A sale, conveyance or disposition of all or substantially all of the assets of the Corporation;

(ii) A consolidation or merger of the Corporation with or into any other entity or entities (or otherwise) which results in the shareholders of the Corporation immediately prior to such transaction holding less than a majority of the voting power of the outstanding securities (or other interests) of the surviving entity or entities; or

(iii) A sale by the shareholders of the Corporation in a single transaction or series of related transactions in which shares constituting more than a majority of the voting power of the Common Stock of the Corporation are transferred by the persons holding such shares immediately prior to the consummation of such transaction or series of transactions.

ARTICLE V

The Corporation is to have perpetual existence.

ARTICLE VI

Subject only to the limitations of 15 Pa. C.S. Sec. 1713(b)(1), a director of the Company shall not be personally liable, as such, for monetary damages for any action taken or failure to take any action unless:

(a) the director has breached or failed to perform the duties of his or her office under 15 Pa. C.S. Subch. 17B; and

(b) the breach or failure to perform constitutes self-dealing, willful misconduct or recklessness.

(c) Neither any amendment nor repeal of this Article VI, nor the adoption of any provision of these Second Amended and Restated Articles of Incorporation inconsistent with this Article VI, shall eliminate or reduce the effect of this Article VI in respect of any matter occurring, or any cause of action, suit or claim that, but for this Article VI, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.