

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460



TO THE HUN JKADLE CONTINUE PATENTS AND TRADEMARKS WASHINGTON, D.C. 20231

OFFICE OF GENERAL COUNSEL

REQUEST FOR RECORDING AND COVER SI EET UNDER 37 C.F.R. §§ 3.28 AND 3.31

Please record the attached original documents.

1. Names of parties conveying the interest:

C. Andrew Miller, P. Jeffrey Chappell and Keith J. Fritsky

2. Name and address of party receiving the interest:

The United States of America as represented by the Administrator of the United States Environmental Protection Agency, Washington, DC 20460

- 3. Description of the interest conveyed or transac ion to be recorded: [x] Assignment [] Other
- Application Number: 08/535,405, filed September 28, 1995 4
- 5. Address correspondence concerning this request to: Alan M. Ehrlich, Acting Patent Counsel, Finance and Operations Law Office (2377), Office of General Counsel, U.S. Environmental Protection Agency, Washington, D.C. 20460.
- 6. Number of Applications, Patents or Registrations and total fee: Total: \$ 40 E Patents: <u>1</u> patent rights @ \$40

If no fee is attached, or if a greater or less r fee is required, please charge or credit our Account No. 05-1128.

- 7. Date of execution of document: Co-inventor Miller. July 30, 1998 Co-inventor C tappell: July 29 1998 Co-inventor F-itsky: August 3, 1998
- 8. To the best of knowledge and belief of the und rsigned, the foregoing information is true and correct and the attached are the original documents.

9. Date: /

Nº Elelar

Name: Alan M. Ehrlich Registration Number: 37,999 Telephone: (202) 260-7510

08535405 08/07/1998 JSHABAZZ 00000108 051128 40.00 CH

01 FC:581

ASSIGNMENT

WHEREAS, WE, C. Andrew Miller, residing at Apex, North Carolina, United States, Paul M. Lemieux, residing at Cary, North Carolina, United States, P. Jeffrey Chappell, residing at Ann Arbor, Michigan, United States, and Keith J. Fritsky, residing at Elkton, Maryland, United States, being at the time of invention employees of the the United States of America (hereinafter referred to as the Government), U.S. Environmental Protection Agency, have invented (along with Ronald L. Capone residing at Staunton, Virginia, United States) a new and useful improvement in a METHOD FOR IMPROVING PROCESS CONTROL BY REDUCING LAG TIME OF SENSORS USING ARTIFICIAL NEURAL NETWORKS (hereafter referred to as the Invention) for which we filed an application in the United States Patent and Trademark Office for Letters Patent of the United States of America on September 28, 1995, Serial No. 08/535,405;

WHEREAS, the conditions under which the Invention was made, namely (i) that the Invention is directly related to the duties of our Government employment which we had at the time we made the Invention, and (ii) Government funds and facilities were used to make the Invention, are such as to entitle the Government, pursuant to the provisions of Executive Order 10096, January 28, 1950, as amended by Executive Order 10930, March 24, 1961, and applicable regulations, including 37 CFR Part 50+, to the entire right, title and interest in and to the Invention in the United States of America; and

WHEREAS, the Government, as represented by the Administrator of the U.S. Environmental Protection Agency, is desirous of acquiring the entire right, title and interest in said Invention in the United States of America in said Application Serial No. 08/535,405, and in any and all Letters Patent of the United States that may issue thereon.

NOW THEREFORE, in consideration of these premises, including our employment by the said Government, we, C. Andrew Miller, Paul M. Lemieux, P. Jeffrey Chappell and Keith J. Fritsky do hereby sell, assign, and transfer unto The United States of America, as represented by the Administrator of the U.S. Environmental Protection Agency, our entire right, title, and interest in the United States of America in and to said Application Serial No. 08/553,405 and in and to the Invention as described and/or claimed in said Application, and in and to any Letters Patent that may issue on said Applications or on any application that is a continuation, continuation-in-part, division, reissue, substitution, or extension thereof.

We, C. Andrew Miller, Paul M. Lemieux, P. Jeffrey Chappell and Keith J. Fritsky do hereby agree that the Government will, upon its request, be provided promptly with all pertinent facts and documents relating to said Application, said Invention and said Letters Patent as may be known and accessible to us, that we will testify as to the same in any interference or litigation related thereto, and that we will promptly execute and deliver to the Government or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said Application, said Invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purpose thereof, provided, that all proper expenses arising through extending such assistance will be paid by the Government if we are not employed by the Government at the time the assistance is extended.

We, Andrew Miller, Paul M. I emieux, P. Jeffrey Chappell and Keith J. Fritsky hereby warrant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

Executed this 25th day of July 1998. Signature University Andrew Miller County of bandelph Before me personally appeared said C. Andrew Miller acknowledged the foregoing instrument to be his free act and deed this <u>30</u> day of <u>July</u> 1998 My Commission Experies Carol P. Fuzzos Morraper 12 2000 Executed this _____ day of _____ 1998 Signatur :: Inventor--Paul M. Lemieux County of _____ Before me personally appeared said Paul M. Lemieux and acknowledged the foregoing

instrument to be his free act and deed this _____ day of ______ 1998.

(NOTARY PUBLIC)

Executed this _____ day of _____ 1998

Signature Inventor--P. Jeffrey Chappell

County of _____

Before me personally appeared said P. Jeffrey Chappell and acknowledged the foregoing instrument to be his free act and deed this _____ day of _____ 1998.

(NOTARY PUBLIC)

Executed this _____ day of _____ 1998.

Signature Inventor--Keith J. Fritsky

County of

Before me personally appeared said Keith J. Fritsky and acknowledged the foregoing instrument to be his free act and deed this _____ day of _____ 1998.

(NOTARY PUBLIC)

3

ASSIGNMENT

WHEREAS, WE, C. Andrew Miller, residing at Apex, North Carolina, United States, Paul M. Lemieux, residing at Cary, North Carolina, United States, P. Jeffrey Chappell, residing at Ann Arbor, Michigan, United States, and Keith J. Fritsky, residing at Elkton, Maryland, United States, being at the time of invention employees of the the United States of America (hereinafter referred to as the Government), U.S. Environmental Protection Agency, have invented (along with Ronald L. Capone residing at Staunton, Virginia, United States) a new and useful improvement in a METHOD FOR IMPROVING PROCESS CONTROL BY REDUCING LAG TIME OF SENSORS USING ARTIFICIAL NEURAL NETWORKS (hereafter referred to as the Invention) for which we filed an application in the United States Patent and Trademark Office for Letters Patent of the United States of America on September 28, 1995, Serial No. 08/535,405;

WHEREAS, the conditions under which the Invention was made, namely (i) that the Invention is directly related to the duties of our Government employment which we had at the time we made the Invention, and (ii) Government funds and facilities were used to make the Invention, are such as to entitle the Government, pursuant to the provisions of Executive Order 10096, January 28, 1950, as amended by Executive Order 10930, March 24, 1961, and applicable regulations, including 37 CFR Part 501, to the entire right, title and interest in and to the Invention in the United States of America; and

WHEREAS, the Government, as represented by the Administrator of the U.S. Environmental Protection Agency, is desirous of acquiring the entire right, title and interest in said Invention in the United States of America in said Application Serial No. 08/535,405, and in any and all Letters Patent of the United States that may issue thereon.

NOW THEREFORE, in consideration of these premises, including our employment by the said Government, we, C. Andrew Miller, Paul M. Lemieux, P. Jeffrey Chappell and Keith J. Fritsky do hereby sell, assign, and transfer unto The United States of America, as represented by the Administrator of the U.S. Environmental Protection Agency, our entire right, title, and interest in the United States of America in and to said Application Serial No. 08/553,405 and in and to the Invention as described and/or claimed in said Application, and in and to any Letters Patent that may issue on said Applications or on any application that is a continuation, continuation-in-part, division, reissue, substitution, or extension thereof.

We, C. Andrew Miller, Paul M. I emieux, P. Jeffrey Chappell and Keith J. Fritsky do hereby agree that the Government will, upon its request, be provided promptly with all pertinent facts and documents relating to said Application, said Invention and said Letters Patent as may be known and accessible to us, that we will testify as to the same in any interference or litigation related thereto, and that we will promptly execute and deliver to the Government or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said Application, said Invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purpose thereof, provided, that all proper expenses arising through extending such assistance will be paid by the Government if we are not employed by the Government at the time the assistance is extended.

We, Andrew Miller, Paul M. Lemieux, P. Jeffrey Chappell and Keith J. Fritsky hereby warrant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

Executed this _____ lay of _____ 1998.

Signature ______ Inventor--C. Andrew Miller

County of _____

Before me personally appeared said C. Andrew Miller acknowledged the foregoing instrument to be his free act and deed this _____ day of _____ 1998

(NOTARY PUBLIC)

Executed this _____ day of _____ 1998.

Signature _____ Inventor--Paul M. Lemieux

County of

Before me personally appeared said Paul M. Lemieux and acknowledged the foregoing instrument to be his free act and deed this _____ day of _____ 1998.

(NOTARY PUBLIC)

PATENT REEL: 9372 FRAME: 0037

2

Executed this $\frac{2G}{2}$ day of	- ctill	1998.
-------------------------------------	---------	-------

Signature ______ Signature ______ Inventor - P. Jeffrey Chappell

County of WHEAT TO KATES

Before me personally appeared said P. Jeffrey Chappell and acknowledged the foregoing instrument to be his free act and deed this 2224 day of 1998.

(NOTARY PUBLIC)

(NUTARY PUBLIC) GILDA ELKINS Notary Public, Washtenaw County, Michigan My Commission Expires June 18, 2002

Executed this _____ day of _____ 1998.

Signature Inventor--Keith J. Fritsky

County of

Before me personally appeared said Keith J. Fritsky and acknowledged the foregoing instrument to be his free act and deed this ______ day of ______ 1998.

(NOTARY PUBLIC)

3

ASSIGNMENT

WHEREAS, WE, C. Andrew Miller, residing at Apex, North Carolina, United States, Paul M. Lemieux, residing at Cary, North Carolina, United States, P. Jeffrey Chappell, residing at Ann Arbor, Michigan, United States, and Keith J. Fritsky, residing at Elkton, Maryland, United States, being at the time of invention employees of the the United States of America (hereinafter referred to as the Government), U.S. Environmental Protection Agency, have invented (along with Ronald L. Capone residing at Staunton, Virginia, United States) a new and useful improvement in a METHOD FOR IMPROVING PROCESS CONTROL BY REDUCING LAG TIME OF SENSORS USING ARTIFICIAL NEURAL NETWORKS (hereafter referred to as the Invention) for which we filed an application in the United States Patent and Trademark Office for Letters Patent of the United States of America on September 28, 1995, Serial No. 08/535,405;

WHEREAS, the conditions under which the Invention was made, namely (i) that the Invention is directly related to the duties of our Government employment which we had at the time we made the Invention, and (ii) Government funds and facilities were used to make the Invention, are such as to entitle the Government, pursuant to the provisions of Executive Order 10096, January 28, 1950, as amended by Executive Order 10930, March 24, 1961, and applicable regulations, including 37 CFR Part 501 to the entire right, title and interest in and to the Invention in the United States of America; and

WHEREAS, the Government, as represented by the Administrator of the U.S. Environmental Protection Agency, is desirous of acquiring the entire right, title and interest in said Invention in the United States of America in said Application Serial No. 08/535,405, and in any and all Letters Patent of the United States that may issue thereon.

NOW THEREFORE, in consideration of these premises, including our employment by the said Government, we, C. Andrew Miller, Paul M. Lemieux, P. Jeffrey Chappell and Keith J. Fritsky do hereby sell, assign, and transfer unto The United States of America, as represented by the Administrator of the U.S. Environmental Protection Agency, our entire right, title, and interest in the United States of America in and to said Application Serial No. 08/553,405 and in and to the Invention as described and/or claimed in said Application, and in and to any Letters Patent that may issue on said Applications or on any application that is a continuation, continuation-in-part, division, reissue, substitution, or extension thereof.

We, C. Andrew Miller, Paul M. Lemieux, P. Jeffrey Chappell and Keith J. Fritsky do hereby agree that the Government will, upon its request, be provided promptly with all pertinent facts and documents relating to said Application, said Invention and said Letters Patent as may be known and accessible to us, that we will testify as to the same in any interference or litigation related thereto, and that we will promptly execute and deliver to the Government or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said Application, said Invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purpose thereof, provided, that all proper expenses arising through extending such assistance will be paid by the Government if we are not employed by the Government at the time the assistance is extended

We, Andrew Miller, Paul M. Lemieux, P. Jeffrey Chappell and Keith J. Fritsky hereby warrant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

Executed this _____ day of _____ 1998

Signature ______ Inventor--C. Andrew Miller

County of _____

Before me personally appeared said C. Andrew Miller acknowledged the foregoing instrument to be his free act and deed this _____ day of _____ 1998.

(NOTARY PUBLIC)

Executed this _____ day of _____ 1998.

Signature ______ Inventor--Paul M. Lemieux

County of _____

Before me personally appeared said Paul M. Lemieux and acknowledged the foregoing instrument to be his free act and deed this _____ day of _____ 1998

(NOTARY PUBLIC)

PATENT REEL: 9372 FRAME: 0040

Executed this _____ day of _____ 1998.

Signature ______ Inventor--P. Jeffrey Chappell

3

County of _____

Before me personally appeared said P. Jeffrey Chappell and acknowledged the foregoing instrument to be his free act and deed this _____ day of _____ 1998.

(NOTARY PUBLIC)

Executed this $\frac{2ct}{day}$ day of $A_{u\bar{q}w} t$ 1998.

Signature / All Frantshing Inventor+Keith J. Fritsky

County of CECIL

Before me personally appeared said Keith J. Fritsky and acknowledged the foregoing instrument to be his free act and deed this 3rd day of august 1998.

(NOTARY PUBLIC)

DINAH H. JONES NOTARY PUBLIC STATE OF MARYLAND My Commission Expires April 10, 2001

PATENT REEL: 9372 FRAME: 0041

RECORDED: 08/05/1998