|                |  | 01-19                  | -1999              |   |                  |          |
|----------------|--|------------------------|--------------------|---|------------------|----------|
| 12-23          | -98  |                        |                    | IEET                                      |                  |          |
| To the Hono    | rable commissioner of P                                |                        | 14994              |   |                  |          |
|                | ord the attached original                              |                        | -                  |   |                  |          |
|                | conveying party(ies): Lih-J<br>Shen, Shih Mo, Chung-Hs | •                      | 2. Name and        | d address of receiving                    | ng party(ies):   |          |
| Da-Zhong       | silen, sinn wo, Chung-As                               | ing Chang              | Name:              | Quantum Corporation                       | on.              | 010      |
|                |  |                        | ivanic.            | Quantum Corporatio                        | JII              | 472<br>8 |
|                |  |                        |                    |   |                  | U. S.    |
|                |  |                        | Street Ad          | dress: 500 McCarth                        | y Boulevard      | 2/8      |
|                | ame(s) of conveying                                    |                        |                    |   |                  | 0        |
| party(ies) att | ached?Yes  | <u>X</u> No            | City: Mi           | ilpitas                                   |                  |          |
| 3. Nature of   | 0001/01/01/00  |                        | State: (           | 7.4 7:                                    | 05025            |          |
|                | Assignment   |                        | State: (           | ZA ZIP:                                   | 95035            |          |
|                | Merger   |                        |                    |   |                  |          |
|                | Security Agreement                                     |                        |                    |   |                  |          |
|                | Change of Name   |                        |                    |   |                  |          |
|                | Other  |                        |                    | name(s) & address(e                       |                  |          |
|                |  |                        | attached?          | Yes <u>X</u> N                            | o                |          |
| Execution Da   | ate: December 9, 1998 and<br>December 14, 1998         |                        |                    |   |                  |          |
| 4 Application  | on number(s) or patent number                          | per(s): N/A            |                    |   |                  |          |
| 1              |  | 3-1(3): 1011           |                    |   |                  |          |
| If this doc    | cument is being filed togethe                          | er with a new a        | pplication, th     | e execution                               |                  |          |
| date of the    | application is: December                               | 9, 1998 and D          | ecember 14, 1      | 998                                       |                  |          |
| A Dataut A     | ontine Alico No. (A)                                   |                        | l n.n.             | . 3.1 ( )                                 |                  |          |
| _              | oplication No.(s)                                      |                        | B. Pater           | nt No. (s)                                |                  |          |
|                | 00000018 09219472                                      |                        |                    |   |                  |          |
| 2 FC:581       | Additional nu  | mbers attached         | ?                  | Yes <u>X</u> _N                           | 0                |          |
| 1              | address of party to whom                               |                        | •                  | ber of applications                       |                  |          |
|                | dence concerning document                              | should be              | patents in         | volved:                                   | . 1              |          |
| mailed:        |  |                        | 7 T . 1 C          | (27 CED 2 41)                             | 0.40.0           | ^        |
| Name: Pa       | tricia A. Sheehan, Esq.                                |                        | 7. Total fee       | (37 CFR 3.41)<br>Enclosed                 | \$40.0           | 0        |
|                | sari and McKenna, LLP                                  |                        |                    | Eliciosed                                 |                  |          |
|                |  |                        |                    | Authorized to b                           | be charged to d  | leposit  |
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| copy of the    | of my knowledge and belief, the fooriginal document.   | oregoing injorma.<br>? | ion is irue and c  | orrect and any attached                   | л copy is a true |          |
| - •            |  | Par                    | 4 : <              | 1   |                  |          |
| Patricia A     | . Sheehan (Reg. No. 32,30)                             | / LE (                 | <u>ignature</u>    | het her                                   | December         | 22 1009  |
| i adioia A     | . Direction (10g. 110, 32,30)                          | ., s                   | ignatur¢           |   | December         | 43, 1770 |

PATENT REEL: 9696 FRAME: 0609

## ASSIGNMENT

Whereas We, Lih-Jyh Weng, who reside at 95 Brookdale Circle, Shrewsbury, MA 01545, Ba-Zhong Shen, who reside at 50 Commons Drive, #211, Shrewsbury, MA 01545, Shih Mo, who reside at 548 Wool Drive, Milpitas, CA 95035, and Chung-Hsing Chang, who reside at 3254 Cropley Avenue, San Jose, CA 95132, have made certain inventions or discoveries (or both) set forth in an application for Letters Patent of the United States of America entitled IMPROVED COMBINED SYSTEM FOR PRODUCING ERROR CORRECTION CODE SYMBOLS AND ERROR SYDNDROMES, identified by Cesari and McKenna File No. 101058-0039, which application was executed by us on <u>Docember 9, 1918</u>; and

Whereas Quantum Corporation, whose address is 500 McCarthy Blvd., Milpitas, CA 95035, and which, together with its successors and assigns, is hereinafter called "Assignee," is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited;

Now, Therefore, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservation:

- 1. Assign, transfer, and convey to Assignee our entire right, title, and interest in and to said inventions and discoveries, said application for Letters Patent of the United States of America, any and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation, continuation-in-part, and Convention applications based in whole or in part upon said inventions or discoveries, or upon said applications, and any and all Letters Patent, reissues, reexaminations, and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications, and said Letters Patent;
- 2. Authorize Assignee to file patent applications in any or all countries on any or all of said inventions and discoveries in our names or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise;
- 3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of the entire right, title, and interest therein or otherwise as Assignee may direct;
- 4. Warrant that we have not knowingly conveyed to others any right in said inventions, discoveries, applications, or patents or any license to use the same or to make, use, or sell anything embodying or utilizing any of said inventions or discoveries; and that we have good right to assign the same Assignee without encumbrance;
- 5. Bind our heirs, legal representatives and assigns, as well as ourselves, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and

PATENT REEL: 9696 FRAME: 0610 enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by us, our heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples, and other physical exhibits in our control or in the control of our heirs, legal representatives or assigns which may be useful for establishing the facts of our conceptions, disclosures, and reduction to practice of said inventions and discoveries.

In testimony of which we have executed this Assignment as an instrument under seal on the dates indicated next to our names.

| Dec. 9,1998                   | yh Weng   | Inventor Jens                                       |
|-------------------------------|-----------|---|
| Commonwealth of Massachusetts | )         | MARJORIE A. CREAMER                                 |
| County of (1) or est 1        | )ss.<br>) | Notary Public  My Commission Expires March 20, 2003 |

On this \_\_\_\_ day of \_\_\_\_\_\_, 1998, before me appeared Lih-Jyh Weng, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Marjone Creamer Notary Public

[seal]

| 12/9/98 Bohn  |                    |
|---|--------------------|
| Date Ba-Zhong Shen, Inventor  |                    |
| Commonwealth of Massachusetts  ) SS.  MARJORIE A. CREAM  Notary Public  Ny Commission Expires March   |                    |
| County of Worcester )   |                    |
| On this day of, 1998, before me appearship to me known and known to me to be the person described in an foregoing instrument, and he acknowledged the same to be his free ac        | d who executed the |
| Mayore C  | reamer.            |
| [seai]  |                    |
| •   |                    |
|   |                    |
| Date Shih Mo, Inventor  | <del></del>        |
| State of California )ss.  |                    |
| County of   |                    |
| On this day of, 1998, before me apperent known and known to me to be the person described in and who expressing instrument, and he acknowledged the same to be his free accordance. | recuted the        |
| Note the position   |                    |
| Notary Public   |                    |
| [seal]  |                    |

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PATENT REEL: 9696 FRAME: 0612

|                                      |  | 101058-0039          |
|--------------------------------------|--|----------------------|
| Date                                 | Ba-Zhong Shen, Inventor  |                      |
| Commonwealth of Massa                |  |                      |
| County of                            | )ss.<br>)  |                      |
|                                      | ay of, 1998, beforenown to me to be the person desc<br>d he acknowledged the same to be              |                      |
|                                      | Notary P   | ublic                |
| [seal]                               |  |                      |
| 12/14/9 B<br>Date                    | Shih Mo, Inventor  | , <del>_</del>       |
| State of California  County of Santa | )<br>Clara)  |                      |
| On this 14th dome known to           | ay of XCVNDCY, 1998, before me to be the person described in a large the acknowledged the same to be | and who executed the |
|                                      | Chauos<br>Notary Pr  | ublic                |
| [seal]                               | CHARLOTTE WEBSTER Commission # 1115294   |                      |



State of California )

County of Santa Clara )

On this Limit day of December, 1998, before me appeared Chung-Hsing Chang, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.



Coll Oth White Notary Public

[seal]