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U.S. Patent & TMO/TM Mail Rept Dt. #56
TRADEMARKS UNI



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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

<p>1. Name of conveying party(ies): DoubleTwist, Inc., a Delaware corp.</p> <p><input type="checkbox"/> Individual(s) <input type="checkbox"/> Association <input type="checkbox"/> General Partnership <input type="checkbox"/> Limited Partnership <input checked="" type="checkbox"/> Corporation-State -- Delaware <input type="checkbox"/> Other _____</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>2. Name and address of receiving party(ies): Name: <u>Mayfield VIII Management, L.L.C.</u> Internal Address: <u>as Collateral Agent</u> Street Address: <u>2800 Sand Hill Road</u> City: <u>Menlo Park</u> State: <u>California</u> Zip: <u>94025</u></p> <p><input type="checkbox"/> Individual(s) citizenship _____ <input type="checkbox"/> Association _____ <input type="checkbox"/> General Partnership _____ <input type="checkbox"/> Limited Partnership _____ <input type="checkbox"/> Corporation-State _____ <input checked="" type="checkbox"/> Other <u>Limited Liability Company</u></p> <p><small>If assignee is not domiciled in the United States, a domestic representative designation is attached: <input type="checkbox"/> Yes <input type="checkbox"/> No (Designations must be a separate document from assignment) Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input type="checkbox"/> No</small></p>
<p>3. Nature of conveyance:</p> <p><input type="checkbox"/> Assignment <input type="checkbox"/> Merger <input checked="" type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____</p> <p>Execution Date: <u>November 28, 2001</u></p>	

<p>4. Application number(s) or registration number(s): A. Trademark Application No.(s) – Eighteen (18) See Attached Exhibit A</p>	<p>B. Trademark Registration No.(s) – Six (6) See Attached Exhibit A</p>
<p>Additional number(s) attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	

<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Name: <u>Robert A. Koenig, Esq.</u> Internal Address: <u>Latham & Watkins</u> Street Address: <u>135 Commonwealth Drive</u> City: <u>Menlo Park</u> State: <u>CA</u> Zip: <u>94025</u></p>	<p>6. Total number of applications and registrations involved:..... 24</p> <p>7. Total fee (37 CFR 3.41) \$ <u>615.00</u> <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to be charged to deposit account</p> <p>8. Deposit account number <u>500524</u> <small>(Attach duplicate copy of this page if paying by deposit account)</small></p>
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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.

Patricia A. Conner *Patricia A. Conner* December 7, 2001
Name of Person Signing Signature Date

Total number of pages including cover sheet, attachments, and document: 15

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patent & Trademarks, Box Assignments
Washington, D.C. 20231

12/13/2001 TBIAZI 00000023 75269286
01 FC:481 40.00 DP
02 FC:482 575.00 DP

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TRADEMARK
REEL: 002407 FRAME: 0585

EXHIBIT A

DOUBLETWIST TRADEMARK APPLICATIONS

	MARK	CLASS	FILING DATE	APPLIC. NO.
1.	GENETHESAURUS	9	5/9/1997	75/289,288
2.	GENESURVEYOR	9	7/20/1999	75/754,863
3.	DOUBLETWIST	9	9/8/1999	75/794,171
4.	SOFTWARE FOR LIFE	9	1/25/2000	75/903,255
5.	EMPOWERING THE SCIENTIST	9	1/25/2000	75/903,256
6.	PORTAL TO THE CODE	9, 42	1/25/2000	75/903,306
7.	DOUBLETWIST	42	1/23/2001	75/980,676
8.	EMPOWERING YOUR DISCOVERY	9	4/21/2000	76/031,785
9.	DESIGN (LOGO)	9, 42	4/21/2000	76/032,159
10.	TWISTTOOLS	9	4/21/2000	76/032,161
11.	MYTWIST	9, 42	4/21/2000	76/032,163
12.	DO SCIENCE WHILE YOU SLEEP	9, 42	4/21/2000	76/032,171
13.	LEA	9	7/6/2000	76/085,088
14.	GENESQUASHER	9	12/4/2000	76/176,339
15.	DOUBLETWIST.COM	42	1/23/2001	76/199,559
16.	DOUBLETWIST	42	1/23/2001	76/199,633
17.	AGAVE	9	5/30/2001	76/264,628
18.	GENOME ZONE	42	9/25/2001	76/320,242

DOUBLETWIST TRADEMARK REGISTRATIONS

	MARK	CLASS	FILING DATE	APP. NO.	REGIS. DATE	REGIS. NO.
1.	GENEWORLD	9	9/20/1996	75/169,150	12/9/1997	2,119,383
2.	PANGAEA SYSTEMS	9	11/8/1996	75/195,089	1/27/1998	2,132,168
3.	GENEMILL	9	6/25/1997	75/314,584	7/28/1998	2,176,758
4.	CHEMWORLD	9	3/18/1997	75/259,165	8/18/1998	2,183,003
5.	DOUBLETWIST.COM	42	9/8/1999	75/794,167	6/12/2001	2,460,384
6.	PROPHECY	9	5/9/1997	75/289,340	9/11/2001	2,487,805

PATENT AND TRADEMARK SECURITY AGREEMENT

This Patent and Trademark Security Agreement (the "Agreement"), dated as of November 28, 2001, is executed by DoubleTwist, Inc., a Delaware corporation (the "Grantor"), in favor of Mayfield VIII Management, L.L.C., as Collateral Agent (as defined herein), on behalf of the Secured Parties listed on the signature page hereof.

RECITALS

A. Grantor and the Secured Parties have entered into a Secured Subordinated Convertible Note Purchase Agreement dated the date hereof (the "Purchase Agreement") and Grantor shall execute a Secured Subordinated Convertible Promissory Note (each a "Note" and collectively, the "Notes") in favor of each Secured Party in connection with each Closing under the Purchase Agreement.

B. Grantor is the owner of certain intellectual property, identified below, in which Grantor is granting a security interest to the Collateral Agent, for the benefit of the Secured Parties.

C. In order to induce each Secured Party to extend the credit evidenced by the Notes, Grantor has agreed to enter into this Agreement and to grant Collateral Agent the security interest in the Collateral described below.

D. Grantor and the Collateral Agent are, contemporaneously herewith, entering into that certain Security Agreement of even date herewith (the "Security Agreement").

NOW THEREFORE, in consideration of the mutual promises, covenants, conditions, representations, and warranties hereinafter set forth and for other good and valuable consideration, the parties hereto mutually agree as follows:

1. DEFINITIONS.

The following terms, as used in this Agreement, have the following meanings:

"Collateral" means all of the following, whether now owned or hereafter acquired:

(i) Each of the trademarks and rights and interest which are capable of being protected as trademarks (including trademarks, service marks, designs, logos, indicia, tradenames, corporate names, company names, business names, fictitious business names, trade styles, and other source or business identifiers, and applications pertaining thereto), which are presently, or in the future may be, owned, created, acquired, or used (whether pursuant to a license or otherwise) by Grantor, in whole or in part, and all trademark rights with respect thereto throughout the world, including all proceeds thereof (including license royalties and proceeds of infringement suits), and rights to renew and extend such trademarks and trademark rights;

(ii) Each of the patents and patent applications which are presently, or in the future may be, owned, issued, acquired, or used (whether pursuant to a license or otherwise and which is assignable, transferable or otherwise sublicensable) by Grantor, in whole or in part, and all patent rights with respect thereto throughout the world, including all proceeds thereof (including license royalties and proceeds of infringement suits), foreign filing rights, and rights to extend such patents and patent rights;

(iii) All of Grantor's right to the trademarks and trademark registrations listed on Exhibit A attached hereto, as the same may be updated hereafter from time to time;

(iv) All of Grantor's right, title, and interest, in and to the patents and patent applications listed on Exhibit B attached hereto, as the same may be updated hereafter from time to time;

(v) All of Grantor's right, title and interest to register trademark claims under any state or federal trademark law or regulation of any foreign country and to apply for, renew, and extend the trademark registrations and trademark rights, the right (without obligation) to sue or bring opposition or cancellation proceedings in the name of Grantor or in the name of the Collateral Agent for past, present, and future infringements of the trademarks, registrations, or trademark rights and all rights (but not obligations) corresponding thereto in the United States and any foreign country;

(vi) All of Grantor's right, title, and interest in all patentable inventions, and to file applications for patent under federal patent law or regulation of any foreign country, and to request reexamination and/or reissue of the patents, the right (without obligation) to sue or bring interference proceedings in the name of Grantor or in the name of the Collateral Agent, for past, present, and future infringements of the patents, and all rights (but not obligations) corresponding thereto in the United States and any foreign country;

(vii) the entire goodwill of or associated with the businesses now or hereafter conducted by Grantor connected with and symbolized by any of the aforementioned properties and assets;

(viii) All general intangibles relating to the foregoing and all other intangible intellectual or other similar property of the Grantor of any kind or nature, associated with or arising out of any of the aforementioned properties and assets and not otherwise described above; and

(ix) All products and proceeds of any and all of the foregoing (including, without limitation, license royalties and proceeds of infringement suits) and, to the extent not otherwise included, all payments under insurance, or any indemnity, warranty, or guaranty payable by reason of loss or damage to or otherwise with respect to the Collateral.

"Obligations" mean, with respect to each Secured Party, all debts, obligations and liabilities of Grantor to such Secured Party currently existing or now or hereafter made, incurred

or created under, pursuant to or in connection with the Transaction Documents, whether voluntary or involuntary and however arising or evidenced, whether direct or acquired by the Secured Party by assignment or succession, whether due or not due, absolute or contingent, liquidated or unliquidated, determined or undetermined, and whether Grantor may be liable individually or jointly, or whether recovery upon such debt may be or become unenforceable; and all renewals, extensions and modifications thereof; and all attorneys' fees and costs incurred by the Secured Party in connection with the collection and enforcement thereof as provided for in any Transaction Document.

"UCC" means the Uniform Commercial Code as the same may, from time to time, be in effect in the State of California; *provided*, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection or priority of, or remedies with respect to, the Lien on any Collateral is governed by the Uniform Commercial Code as enacted and in effect in a jurisdiction other than the State of California, the term "UCC" shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes of the provisions thereof relating to such attachment, perfection, priority or remedies and for purposes of definitions related to such provisions.

All capitalized terms not otherwise defined herein shall have the respective meanings given in the Purchase Agreement.

2. GRANT OF SECURITY INTEREST.

To secure the complete and timely payment and performance of all Obligations, and without limiting any other security interest Grantor has granted to the Secured Parties or the Collateral Agent, Grantor hereby grants, assigns, and conveys to the Collateral Agent, for the benefit of the Secured Parties, a security interest in Grantor's entire right, title, and interest in and to the Collateral.

3. REPRESENTATIONS, WARRANTIES AND COVENANTS.

Grantor hereby represents, warrants, and covenants that:

3.1 Trademarks; Patents. A true and complete schedule setting forth all federal and state trademark registrations owned or controlled by Grantor or licensed to Grantor, together with a summary description and full information in respect of the filing or issuance thereof and expiration dates is set forth on Exhibit A; and a true and complete schedule setting forth all patent and patent applications owned or controlled by Grantor or licensed to Grantor, together with a summary description and full information in respect of the filing or issuance thereof and expiration dates is set forth on Exhibit B.

3.2 Proprietary Assignments; Employees. Each employee and consultant of the Company has executed an agreement with the Company, agreeing to maintain the confidentiality of proprietary information and agreeing to assign all right, title and interest to any copyrightable, patentable or trade secret material developed on behalf of the Company to the Company. The Company is not aware that any of its current or former employees or consultants is in violation of such agreements.

3.2 Validity; Enforceability. To Grantor's knowledge, each of the patents and trademarks is valid and enforceable, and Grantor is not presently aware of any past, present, or prospective claim by any third party that any of the patents or trademarks are invalid or unenforceable, or that the use of any patents or trademarks violates the rights of any third person, or of any basis for any such claims.

3.3 Title. Grantor is the sole and exclusive owner of the entire and unencumbered right, title, and interest in and to each of the patents, patent applications, trademarks, and trademark registrations, free and clear of any liens, charges, and encumbrances, including pledges, assignments, licenses, shop rights, and covenants by Grantor not to sue third persons, except for the security interests previously granted by Grantor in favor of Silicon Valley Bank.

3.4 Notice. Grantor has used and will continue to use proper statutory notice in connection with its use of each of the patents and trademarks.

3.5 Quality. Grantor has used and will continue to use commercially reasonable and consistent standards of quality (which may be consistent with Grantor's past practices) in the manufacture, sale, and delivery of products and services sold or delivered under or in connection with the trademarks, including, to the extent applicable, in the operation and maintenance of its merchandising operations, and will use commercially reasonable efforts to maintain the validity of the trademarks.

3.6 Perfection of Security Interest. To Grantor's knowledge, except for the filing of a financing statement with the Secretary of State of Delaware and filings with the United States Patent and Trademark Office necessary to perfect the security interests created hereunder, no authorization, approval, or other action by, and no notice to or filing with, any governmental authority or regulatory body is required either for the grant by Grantor of the security interest hereunder or for the execution, delivery, or performance of this Agreement by Grantor or for the perfection of or the exercise by the Collateral Agent of its rights hereunder to the Collateral in the United States.

4. AFTER-ACQUIRED PATENT OR TRADEMARK RIGHTS.

If Grantor shall obtain rights to any new trademarks, any new patentable inventions or become entitled to the benefit of any patent application or patent for any reissue, division, or continuation, of any patent, the provisions of this Agreement shall automatically apply thereto. Grantor shall give prompt notice in writing to the Collateral Agent with respect to any such new trademarks or patents, or renewal or extension of any trademark registration. Grantor shall bear any expenses incurred in connection with future patent applications or trademark registrations. Without limiting Grantor's obligation under this Section 4, Grantor authorizes the Collateral Agent to modify this Agreement by amending Exhibits A or B to include any such new patent or trademark rights. Notwithstanding the foregoing, no failure to so modify this Agreement or amend Exhibits A or B shall in any way affect, invalidate or detract from the Collateral Agent's continuing security interest in all Collateral, whether or not listed on Exhibit A or B.

5. LITIGATION AND PROCEEDINGS.

Grantor shall commence and diligently prosecute in its own name, as the real party in interest, for its own benefit, and its own expense, such suits, administrative proceedings, or other action for infringement or other damages as are in its reasonable business judgment necessary to protect the Collateral. Grantor shall provide to the Collateral Agent any information with respect thereto requested by the Collateral Agent. The Collateral Agent shall provide at Grantor's expense all necessary cooperation in connection with any such suits, proceedings, or action, including, without limitation, joining as a necessary party. Following Grantor's becoming aware thereof, Grantor shall notify the Collateral Agent of the institution of, or any adverse determination in, any proceeding in the United States Patent and Trademark Office, or any United States, state, or foreign court regarding Grantor's claim of ownership in any of the patents or trademarks, its right to apply for the same, or its right to keep and maintain such patent or trademark rights.

6. POWER OF ATTORNEY.

Grantor hereby appoints the Collateral Agent as Grantor's true and lawful attorney, with full power of substitution, to do any or all of the following, in the name, place and stead of Grantor: (a) file this Agreement (or an abstract hereof) or any other document describing the Collateral Agent's interest in the Collateral with the United States Patent and Trademark Office; (b) file UCC financing statements and amendments thereto; (c) execute any modification of this Agreement pursuant to Section 4 of this Agreement; (d) take any action and execute any instrument which the Collateral Agent may deem necessary or advisable to accomplish the purposes of this Agreement; and (e) following an Event of Default (as defined in the Notes), (i) endorse Grantor's name on all applications, documents, papers and instruments necessary for the Collateral Agent to use or maintain the Collateral; (ii) ask, demand, collect, sue for, recover, impound, receive, and give acquittance and receipts for money due or to become due under or in respect of any of the Collateral; (iii) file any claims or take any action or institute any proceedings that the Collateral Agent may deem necessary or desirable for the collection of any of the Collateral or otherwise enforce the Collateral Agent's rights with respect to any of the Collateral, and (iv) assign, pledge, convey, or otherwise transfer title in or dispose of the Collateral to any person.

7. COLLATERAL AGENT

7.1 **Appointment.** Mayfield VIII Management, L.L.C. is hereby appointed as the Collateral Agent hereunder by each Secured Party, and each Secured Party hereby authorizes the Collateral Agent to act hereunder as its agent under the express conditions contained in this Agreement. The Collateral Agent agrees to act as such upon the express conditions contained in this Section 7. The provisions of this Section 7 are solely for the benefit of the Collateral Agent and the Secured Parties and Grantor shall not have any rights as a third party beneficiary of any of the provisions hereof. In performing its functions and duties under this Agreement, the Collateral Agent shall act solely as agent of the Secured Parties, and the Collateral Agent shall not assume or be deemed to have assumed any obligation towards or relationship of agency or trust with or for Grantor.

7.2 Duties Specified. Each Secured Party irrevocably authorizes the Collateral Agent to take such action on such Secured Party's behalf and to exercise such powers hereunder as are specifically delegated to the Collateral Agent by the terms hereof, together with such responsibilities which are expressly specified in this Agreement, and may perform such duties by or through its agents or employees. The duties of the Collateral Agent shall be mechanical and administrative in nature; the Collateral Agent shall not have by reason of this Agreement a fiduciary relationship in respect of any Secured Party; and nothing in this Agreement, expressed or implied, is intended to or shall be so construed as to impose upon the Collateral Agent any obligations in respect to this Agreement, except as expressly set forth herein.

7.3 No Responsibility for Certain Matters. The Collateral Agent shall not be responsible to any Secured Party for the execution, effectiveness, genuineness, validity, enforceability, collectibility or sufficiency of this Agreement, or any other Transaction Document, or for any representations, warranties, recitals or statements made herein or therein or made in any written or oral statement or in any financial or other statements, instruments, reports, certificates or any other documents in connection herewith or therewith furnished or made by the Collateral Agent to the Secured Parties or by or on behalf of Grantor to the Collateral Agent or any Secured Party or be required to ascertain or inquire as to the performance or observance of any of the terms, conditions, provisions, covenants, or agreements contained herein or therein or as to the use of the proceeds of the Notes or of the existence or possible existence of any Event of Default or potential Event of Default (as defined in the Notes).

7.4 Exculpatory Provisions. Neither the Collateral Agent nor any of its respective officers, partners, directors, employees or agents shall be liable to the Secured Parties for any action taken or omitted hereunder or in connection herewith unless caused by its or their gross negligence or willful misconduct. If the Collateral Agent shall request instructions from the Secured Parties with respect to any act or action (including the failure to take an action) in connection with this Agreement, the Collateral Agent shall be entitled to refrain from such act or taking such action unless and until it shall have received instructions from the holders of at least a majority in principal amount of the then outstanding Notes (the "Requisite Holders"). Without prejudice to the generality of the foregoing, (i) the Collateral Agent shall be entitled to rely, and shall be fully protected in relying, upon any communication, instrument or document believed by it to be genuine and correct and to have been signed or sent by the proper person or persons, and shall be entitled to rely and shall be protected in relying on opinions and judgments of attorneys (who may be attorneys for Grantor), accountants, experts and other professional advisors selected by it; and (ii) no Secured Party shall have any right of action whatsoever against the Collateral Agent as a result of the Collateral Agent acting or (where so instructed) refraining from acting under this Agreement in accordance with the instructions of Requisite Holders. The Collateral Agent shall be entitled to refrain from exercising any power, discretion or authority vested in it under this Agreement unless and until it has obtained the instructions of Requisite Holders.

7.5 Collateral Agent Entitled to Act as Secured Party. To the extent that the Collateral Agent or any of its affiliates holds Obligations, the agency hereby created shall in no way impair or affect any of the rights and powers of, or impose any duties or obligations upon, the Collateral Agent or any affiliate of the Collateral Agent in its individual capacity as a Secured Party hereunder. With respect to its participation as a holder of Notes, the Collateral Agent or any affiliate of the Collateral Agent shall have the same rights and powers hereunder as

any other Secured Party and may exercise the same as though the Collateral Agent were not performing the duties and functions delegated to it hereunder, and the term "Secured Party" or "Secured Parties" or any similar term shall, if applicable, include the Collateral Agent or any its affiliates in its individual capacity. The Collateral Agent and its affiliates may engage in any kind of business with Grantor or any affiliate of Grantor as if it were not performing the duties specified herein, and may accept fees and other consideration from Grantor for services in connection with this Agreement and otherwise without having to account for the same to the Secured Parties.

7.6 Representations and Warranties; No Responsibility for Appraisal of Creditworthiness. Each Secured Party represents and warrants that it has made its own independent investigation of the financial condition and affairs of Grantor in connection with the issuance of the Notes and has made and shall continue to make its own appraisal of the creditworthiness of Grantor. The Collateral Agent shall not have any duty or responsibility either initially or on a continuing basis to make any such investigation or any such appraisal on behalf of the Secured Parties or to provide any Secured Party with any credit or other information with respect thereto whether coming into its possession before the issuance of the Notes or any time or times thereafter, nor shall it have any responsibility with respect to the accuracy of or the completeness of the information provided to the Secured Parties.

7.7 Indemnification. Each Secured Party severally agrees to indemnify the Collateral Agent, proportionately to its pro rata interest in such Notes, to the extent the Collateral Agent shall not have been reimbursed by Grantor, for liabilities, obligations, losses, damages, penalties, actions judgments, suits, costs, expenses (including without limitations counsel fees and disbursements) or disbursements of any kind or nature whatsoever which may be imposed on, incurred by or asserted against the Collateral Agent in performing its duties hereunder, in any way relating to or arising out of this Agreement or any other Transaction Document; provided that no Secured Party shall be liable to the Collateral Agent for any portion of such liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements resulting from the gross negligence or willful misconduct of the Collateral Agent. If any indemnity furnished to the Collateral Agent for any purpose shall, in the opinion of the Collateral Agent, be insufficient or become impaired, the Collateral Agent may call for additional indemnity and cease, or not commence, to do the acts indemnified against until such additional indemnity is furnished.

7.8 Initial Secured Parties Treated as Holders. The Collateral Agent may deem and treat the initial Secured Parties named herein as the holders of the Obligations for all purposes hereof unless and until a written notice of the assignment or transfer of any Obligations (including the Notes) shall have been filed with the Collateral Agent. Any request, authority, or consent of any person or entity who, at the time of making such request or giving such authority or consent, is the holder of any Obligation shall be conclusive and binding on any subsequent holder, transferee or assignee of that Obligation.

7.9 Successor Collateral Agent. The Collateral Agent may resign at any time by giving written notice thereof to the Secured Parties and Grantor. Upon any such resignation, holders of a majority in principal amount of the then outstanding Notes shall have the right, upon five days' notice to Grantor, to appoint a successor Collateral Agent. If no successor Collateral Agent shall have been so appointed by such holders, and shall have accepted such appointment,

within 30 days after the retiring Collateral Agent's giving of notice of resignation, then, upon five days' notice to Grantor, the retiring Collateral Agent may, on behalf of the Secured Parties, appoint a successor Collateral Agent. Upon the acceptance of any appointment as Collateral Agent hereunder by a successor Collateral Agent, that successor Collateral Agent shall thereupon succeed to and become vested with all the rights, powers, privileges and duties of the retiring Collateral Agent, and the retiring Collateral Agent shall be discharged from its duties and obligations under this Agreement. After any retiring Collateral Agent ceases to serve hereunder as Collateral Agent, the provisions of this Section 7 shall inure to its benefit as to any actions taken or omitted to be taken by it while it was Collateral Agent under this Agreement.

7.10 Application of Proceeds. All cash, property or other amounts paid to or held by the Collateral Agent under this Agreement shall be applied, after payment of all fees, costs, expenses and other amounts due to the Collateral Agent hereunder, for the benefit of the Secured Parties pro rata based on the total amount of Obligations owed to each of them.

8. RIGHT TO INSPECT.

Grantor grants to the Collateral Agent and its employees and agents the right upon reasonable advance notice to visit Grantor's facilities which manufacture, inspect, or store products sold under any of the patents or trademarks, and to inspect the products and quality control records relating thereto at reasonable times during regular business hours.

9. SPECIFIC REMEDIES.

Upon the occurrence and during the continuance of any Event of Default (as defined in the Notes), the Collateral Agent shall have, in addition to, other rights given by law or in this Agreement or in any other Transaction Document, all of the rights and remedies with respect to the Collateral of a secured party under the UCC, including the following:

9.1 Notification. The Collateral Agent may notify licensees to make royalty payments on license agreements directly to the Collateral Agent.

9.2 Sale. The Collateral Agent may sell or assign the Collateral and associated goodwill at public or private sale for such amounts, and at such time or times as the Collateral Agent deems advisable. Any requirement of reasonable notice of any disposition of the Collateral shall be satisfied if such notice is sent to Grantor and any other person entitled to notice under §9611 of the UCC five (5) days prior to such disposition. Grantor shall be credited with the net proceeds of such sale only when they are actually received by the Collateral Agent, and Grantor shall continue to be liable for any deficiency remaining after the Collateral is sold or collected. If the sale is to be a public sale, the Collateral Agent shall also give notice of the time and place by publishing a notice one time at least five (5) days before the date of the sale in a newspaper of general circulation in the county in which the sale is to be held. To the maximum extent permitted by applicable law, the Collateral Agent may be the purchaser of any or all of the Collateral and associated goodwill at any public sale and shall be entitled, for the purpose of bidding and making settlement or payment of the purchase price for all or any portion of the Collateral sold at any public sale, to use and apply all or any part of the Obligations as a credit on account of the purchase price of any collateral payable by the Collateral Agent at such sale.

10. GENERAL PROVISIONS.

10.1 Effectiveness. This Agreement shall be binding and deemed effective when executed by Grantor, the Collateral Agent and the Secured Parties.

10.2 Notices. Except to the extent otherwise provided herein, all notices, demands, and requests that either party is required or elects to give to the other shall be in writing and shall be governed by the notice provisions of the Security Agreement.

10.3 No Waiver. No course of dealing between Grantor and the Collateral Agent, nor any failure to exercise nor any delay in exercising, on the part of the Collateral Agent, any right, power, or privilege under this Agreement or under the Security Agreement or any other Transaction Document, shall operate as a waiver. No single or partial exercise of any right, power, or privilege under this Agreement or under the Security Agreement or any other agreement by the Collateral Agent shall preclude any other or further exercise of such right, power, or privilege or the exercise of any other right, power, or privilege by the Collateral Agent.

10.4 Rights Are Cumulative. All of the Collateral Agent's rights and remedies with respect to the Collateral whether established by this Agreement, the Security Agreement, or any other documents or agreements, or by law shall be cumulative and may be exercised concurrently or in any order.

10.5 Successors. The benefits and burdens of this Agreement shall inure to the benefit of and be binding upon the respective successors and permitted assigns of the parties; provided that Grantor may not transfer any of the Collateral or any rights hereunder, without the prior written consent of the Collateral Agent, except as specifically permitted hereby.

10.6 Severability. The provisions of this Agreement are severable. If any provision of this Agreement is held invalid or unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such provision, or part thereof, in such jurisdiction, and shall not in any manner affect such provision or part thereof in any other jurisdiction, or any other provision of this Agreement in any jurisdiction.

10.7 Entire Agreement. This Agreement is subject to modification only by a writing signed by the parties, except as provided in Section 4 of this Agreement. To the extent that any provision of this Agreement conflicts with any provision of the Security Agreement, the Purchase Agreement or any other Transaction Document, the provision giving the Collateral Agent greater rights or remedies shall govern, it being understood that the purpose of this Agreement is to add to, and not detract from, the rights granted to the Collateral Agent under the Security Agreement. This Agreement and the Transaction Documents comprise the entire agreement of the parties with respect to the matters addressed in this Agreement.

10.8 Fees and Expenses. Grantor shall pay to the Collateral Agent on demand all reasonable costs and expenses that the Collateral Agent pays or incurs in connection with the negotiation, preparation, consummation, administration, enforcement, and termination of this Agreement, including: (a) reasonable attorneys' and paralegals' fees and disbursements of counsel to the Collateral Agent; (b) reasonable costs and expenses (including reasonable attorneys' and paralegals' fees and disbursements) for any amendment, supplement, waiver,

consent, or subsequent closing in connection with this Agreement and the transactions contemplated hereby; (c) reasonable costs and expenses of lien and title searches; (d) taxes, fees, and other reasonable charges for filing this Agreement at the United States Patent and Trademark Office, or for filing financing statements, and continuations, and other actions to perfect, protect, and continue the security interest created hereunder; (e) reasonable sums paid or incurred to pay any amount or take any action required of Grantor under this Agreement that Grantor fails to pay or take; (f) reasonable costs and expenses of preserving and protecting the Collateral; and (g) reasonable costs and expenses (including reasonable attorneys' and paralegals' fees and disbursements) paid or incurred to enforce the security interest created hereunder, sell or otherwise realize upon the Collateral, and otherwise enforce the provisions of this Agreement, or to defend any claims made or threatened against the Collateral Agent arising out of the transactions contemplated hereby (including preparations for the consultations concerning any such matters). The foregoing shall not be construed to limit any other provisions of this Agreement or the Transaction Documents regarding costs and expenses to be paid by Grantor. The parties agree that reasonable attorneys' and paralegals' fees and costs incurred in enforcing any judgment are recoverable as a separate item in addition to fees and costs incurred in obtaining the judgment and that the recovery of such attorneys' and paralegals' fees and costs is intended to survive any judgment, and is not to be deemed merged into any judgment.

10.9 Indemnity. Grantor shall protect, defend, indemnify, and hold harmless the Collateral Agent and the Collateral Agent's assigns from all liabilities, losses, and costs (including without limitation reasonable attorneys' fees) incurred or imposed on the Collateral Agent relating to the matters in this Agreement.

10.10 Further Assurances. At the Collateral Agent's request, Grantor shall execute and deliver to the Collateral Agent any further instruments or documentation, and perform any acts, that may be reasonably necessary or appropriate to implement this Agreement, the Security Agreement or any other agreement, and the documents relating thereto, including without limitation any instrument or documentation reasonably necessary or appropriate to create, maintain, perfect, or effectuate the Collateral Agent's security interests in the Collateral.

10.11 Release. At such time as Grantor shall completely satisfy all of the Obligations and the Transaction Documents shall be terminated, the Collateral Agent shall execute and deliver to Grantor all assignments and other instruments as may be reasonably necessary or proper to terminate the Secured Party's security interest in the Collateral, subject to any disposition of the Collateral which may have been made by the Collateral Agent pursuant to this Agreement. For the purpose of this Agreement, the Obligations shall be deemed to continue if Grantor enters into any bankruptcy or similar proceeding at a time when any amount paid to the Collateral Agent could be ordered to be repaid as a preference or pursuant to a similar theory, and shall continue until it is finally determined that no such repayment can be ordered.

10.12 Governing Law. The validity and interpretation of this Agreement and the rights and obligations of the parties shall be governed by the laws of the State of California, excluding its conflict of law rules to the extent such rules would apply the law of another jurisdiction, and the United States.

10.13 Waiver of Right to Jury Trial. THE COLLATERAL AGENT AND GRANTOR EACH HEREBY WAIVE THE RIGHT TO TRIAL BY JURY IN ANY

ACTION OR PROCEEDING BASED UPON, ARISING OUT OF, OR IN ANY WAY RELATING TO: (I) THIS AGREEMENT; OR (II) ANY OTHER PRESENT OR FUTURE INSTRUMENT OR AGREEMENT BETWEEN THE COLLATERAL AGENT AND GRANTOR; OR (III) ANY CONDUCT, ACTS OR OMISSIONS OF THE COLLATERAL AGENT OR GRANTOR OR ANY OF THEIR DIRECTORS, OFFICERS, EMPLOYEES, AGENTS, ATTORNEYS OR ANY OTHER PERSONS AFFILIATED WITH THE COLLATERAL AGENT OR GRANTOR; IN EACH OF THE FOREGOING CASES, WHETHER SOUNDING IN CONTRACT OR TORT OR OTHERWISE.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first written above.

THE COMPANY:

DOUBLETWIST, INC.

By: [Signature]

Name: Robert F. Williamson
Title: President

COLLATERAL AGENT:

MAYFIELD VIII MANAGEMENT, L.L.C.
as Collateral Agent

By: [Signature]

Name: A. Grant Heidrich
Title: General Partner

SECURED PARTIES:

MAYFIELD VIII,
A CALIFORNIA LIMITED PARTNERSHIP
By: MAYFIELD VIII MANAGEMENT, L.L.C.
A DELAWARE LIMITED LIABILITY
COMPANY, its General Partner

By: [Signature]

Name: A. Grant Heidrich
(print)

Title: _____

[Signature page to Patent and Trademark Security Agreement]

EXHIBIT A

DOUBLETWIST TRADEMARK APPLICATIONS

	MARK	CLASS	FILING DATE	APPLIC. NO.
1.	GENETHESAURUS	9	5/9/1997	75/289,288
2.	GENESURVEYOR	9	7/20/1999	75/754,863
3.	DOUBLETWIST	9	9/8/1999	75/794,171
4.	SOFTWARE FOR LIFE	9	1/25/2000	75/903,255
5.	EMPOWERING THE SCIENTIST	9	1/25/2000	75/903,256
6.	PORTAL TO THE CODE	9, 42	1/25/2000	75/903,306
7.	DOUBLETWIST	42	1/23/2001	75/980,676
8.	EMPOWERING YOUR DISCOVERY	9	4/21/2000	76/031,785
9.	DESIGN (LOGO)	9, 42	4/21/2000	76/032,159
10.	TWISTTOOLS	9	4/21/2000	76/032,161
11.	MYTWIST	9, 42	4/21/2000	76/032,163
12.	DO SCIENCE WHILE YOU SLEEP	9, 42	4/21/2000	76/032,171
13.	LEA	9	7/6/2000	76/085,088
14.	GENESQUASHER	9	12/4/2000	76/176,339
15.	DOUBLETWIST.COM	42	1/23/2001	76/199,559
16.	DOUBLETWIST	42	1/23/2001	76/199,633
17.	AGAVE	9	5/30/2001	76/264,628
18.	GENOME ZONE	42	9/25/2001	76/320,242

DOUBLETWIST TRADEMARK REGISTRATIONS

	MARK	CLASS	FILING DATE	APP. NO.	REGIS. DATE	REGIS. NO.
1.	GENEWORLD	9	9/20/1996	75/169,150	12/9/1997	2,119,383
2.	PANGEA SYSTEMS	9	11/8/1996	75/195,089	1/27/1998	2,132,168
3.	GENEMILL	9	6/25/1997	75/314,584	7/28/1998	2,176,758
4.	CHEMWORLD	9	3/18/1997	75/259,165	8/18/1998	2,183,003
5.	DOUBLETWIST.COM	42	9/8/1999	75/794,167	6/12/2001	2,460,384
6.	PROPHECY	9	5/9/1997	75/289,340	9/11/2001	2,487,805