PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

Assignment ID: PATI531860

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
Black Duck Software, Inc.	09/30/2024

RECEIVING PARTY DATA

Company Name:	Ares Capital Corporation, as Collateral Agent
Street Address:	245 Park Avenue, 44th Floor
City:	New York
State/Country:	NEW YORK
Postal Code:	10167

PROPERTY NUMBERS Total: 119

Property Type	Number
Patent Number:	7447703
Patent Number:	7539978
Patent Number:	7302707
Patent Number:	7392545
Patent Number:	7340726
Patent Number:	8700533
Patent Number:	7552093
Patent Number:	7644441
Patent Number:	7797245
Patent Number:	7467402
Patent Number:	7966346
Patent Number:	8281401
Patent Number:	8010538
Patent Number:	7631294
Patent Number:	7681045
Patent Number:	7797590
Patent Number:	8010803
Patent Number:	9239745
Patent Number:	8087088
Patent Number:	8370929

Property Type	Number
Patent Number:	8789187
Patent Number:	9489687
Patent Number:	8024313
Patent Number:	8516434
Patent Number:	8473907
Patent Number:	8359583
Patent Number:	8341711
Patent Number:	8869110
Patent Number:	8863093
Patent Number:	8654127
Patent Number:	8850415
Patent Number:	8688676
Patent Number:	8296735
Patent Number:	8869120
Patent Number:	8413249
Patent Number:	8621639
Patent Number:	8726394
Patent Number:	9280668
Patent Number:	9015831
Patent Number:	8893282
Patent Number:	8925051
Patent Number:	8863280
Patent Number:	8762961
Patent Number:	9405915
Patent Number:	9569334
Patent Number:	9141807
Patent Number:	9317399
Patent Number:	9110876
Patent Number:	9612943
Patent Number:	9032376
Patent Number:	9923892
Patent Number:	9305169
Patent Number:	9258320
Patent Number:	10256977
Patent Number:	9547657
Patent Number:	9043924
Patent Number:	9639456
Patent Number:	9369482

Property Type	Number
Patent Number:	9742791
Patent Number:	9208324
Patent Number:	9742792
Patent Number:	9760469
Patent Number:	10282550
Patent Number:	9792443
Patent Number:	9836390
Patent Number:	9471285
Patent Number:	10417430
Patent Number:	9680856
Patent Number:	10291631
Patent Number:	10057280
Patent Number:	10713069
Patent Number:	10216620
Patent Number:	9830460
Patent Number:	10127386
Patent Number:	10133649
Patent Number:	10122749
Patent Number:	10127135
Patent Number:	10628577
Patent Number:	10496524
Patent Number:	10379993
Patent Number:	10491629
Patent Number:	11108803
Patent Number:	10474555
Patent Number:	10650145
Patent Number:	10216611
Patent Number:	10303448
Patent Number:	10362050
Patent Number:	10282282
Patent Number:	10362051
Patent Number:	10289536
Patent Number:	10657264
Patent Number:	11030318
Patent Number:	10965708
Patent Number:	11042645
Patent Number:	11943369
Patent Number:	11036868

Property Type	Number
Patent Number:	11249877
Patent Number:	11307961
Patent Number:	11048798
Patent Number:	10855717
Patent Number:	11775363
Patent Number:	11601462
Patent Number:	11568130
Patent Number:	11422799
Patent Number:	11954485
Patent Number:	11947946
Patent Number:	12008373
Patent Number:	11829751
Application Number:	17667473
Application Number:	17686892
Application Number:	17901071
Application Number:	17901074
Application Number:	17950025
Application Number:	17972353
Application Number:	18121966
Application Number:	18228576
Application Number:	18233735
Application Number:	18242207
Application Number:	18503109

CORRESPONDENCE DATA

Fax Number: 7147558290

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (714)755-8102
Email: rhonda.deleon@lw.com
Correspondent Name: Rhonda DeLeon
Address Line 1: Latham & Watkins LLP, 650 Town Center Drive, 20th Floor
Address Line 4: Costa Mesa, CALIFORNIA 92626-1925

ATTORNEY DOCKET NUMBER:	030205-0744
NAME OF SUBMITTER:	RHONDA DELEON
SIGNATURE:	RHONDA DELEON
DATE SIGNED:	09/30/2024

Total Attachments: 16
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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This **INTELLECTUAL PROPERTY SECURITY AGREEMENT** (as amended, amended and restated, supplemented or otherwise modified from time to time, the "IP Security Agreement") dated as of September 30, 2024, is among the Persons listed on the signature pages hereof (collectively, the "Grantors") and Ares Capital Corporation, as collateral agent (the "Collateral Agent") for the Secured Parties (as defined in the Credit Agreement referred to below).

WHEREAS, SAPPHIRE SOFTWARE BUYER, INC., a Delaware corporation, (the "Borrower") and SAPPHIRE SOFTWARE INTERMEDIATE, LLC, a Delaware limited liability company ("Holdings"), have entered into the Credit Agreement, dated as of September 30, 2024 (as amended, restated, amended and restated, supplemented, replaced, refinanced or otherwise modified from time to time, the "Credit Agreement"), with the lenders and financial institutions from time to time party thereto and Ares Capital Corporation, as Administrative Agent, Collateral Agent and an L/C Issuer. Capitalized terms defined in the Credit Agreement or in the Security Agreement (as definedbelow) and not otherwise defined herein are used herein as defined in the Credit Agreement or the Security Agreement, as the case may be (and in the event of a conflict, the applicable definition shall be the one given to such term in the Security Agreement).

WHEREAS, as a condition precedent to the making of the Loans by the Lenders from timeto time and the issuance of Letters of Credit by the L/C Issuers from time to time, the entry into Secured Hedge Agreements by the Hedge Banks from time to time and the entry into Secured Cash Management Agreements by the Cash Management Banks from time to time, each Grantor has executed and delivered that certain Security Agreement, dated as of September 30, 2024 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement"), among the Grantors from time to time party thereto and the Collateral Agent.

WHEREAS, under the terms of the Security Agreement, the Grantors have granted to the Collateral Agent, for the benefit of the Secured Parties, a security interest in, among other property, certain intellectual property of the Grantors, and have agreed thereunder to execute this IP Security Agreement for recording with the USPTO and/or the USCO, as applicable.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor agrees as follows:

A. Grant of Security. Each Grantor, as collateral security for the prompt and complete payment and performance of the Secured Obligations, hereby pledges to the Collateral Agent (and its successors and permitted assigns), for the benefit of the Secured Parties, and each Grantor hereby grants to the Collateral Agent (and its successors and permitted assigns), for the benefit of the Secured Parties, a security interest in and continuing lien on all of such Grantor's right, title and interest in and to the following, whether now owned or hereafter acquired by the undersigned, wherever located, and whether now or hereafter existing or arising (the "Collateral"):

a. all patents, patent applications, utility models, statutory invention registrations, including, without limitation, those set forth in Schedule A hereto, and all inventions claimed or disclosed therein and all improvements thereto (the "Patents");

b. all trademarks, trademark applications, service marks, domain names, tradedress, logos, designs, slogans, trade names, business names, corporate names and other source identifiers, whether registered or unregistered, including, without limitation, those set forth in Schedule B hereto (provided that no security interest shall be granted in United States intent-to-use trademark or service mark applications prior to the filing and acceptance of a "Statement of Use" pursuant to Section 1(d) of the Lanham Act or an "Amendment to Allege Use" pursuant to Section 1(c) of the Lanham Act with respect thereto, to the extent that, and solely during the period, if any, in which,the grant of a security interest therein would impair the validity or enforceability of any registration that issues from such intent-to-use application under applicable federal law), together, in each case, with the goodwill symbolized thereby (the "Trademarks");

c. all copyrights, whether registered or unregistered, including, without limitation, the copyright registrations and applications set forth in Schedule C hereto (the "Copyrights");

d. all reissues, divisions, continuations, continuations-in-part, extensions, renewals and reexaminations of any of the foregoing, all rights in the foregoing provided by international treaties or conventions, all rights corresponding thereto throughout the world and allother rights of any kind whatsoever of such Grantor accruing thereunder or pertaining thereto;

e. any and all claims for damages and injunctive relief for past, present and future infringement, dilution, misappropriation, violation, misuse or breach with respect to any ofthe foregoing, with the right, but not the obligation, to sue for and collect, or otherwise recover, such damages; and

f. any and all proceeds of, collateral for, income, royalties and other payments now or hereafter due and payable with respect to, and supporting obligations relating to, any and all of the Collateral of or arising from any of the foregoing; provided that notwithstanding anything to the contrary contained in the foregoing clauses (a) through (f), the security interest created hereby shall not extend to, and the term "Collateral" shall not include, any Excluded Property.

B. Security for Obligations. The grant of a security interest in the Collateral by each Grantor under this IP Security Agreement secures the payment of all Secured Obligations of such Grantor now or hereafter existing under or in respect of the Secured Documents (as such Secured Documents may be amended, restated, amended and restated, supplemented, replaced, refinanced or otherwise modified from time to time (including any increases of the principal amount outstanding thereunder)). Without limiting the generality of the foregoing, this IP Security Agreement secures, as to each Grantor, the payment of all amounts that constitute part of the Secured Obligations that would be owed by such Grantor to any Secured Party under the

Secured Documents but for the fact that they are unenforceable or not allowable due to the existence of a bankruptcy, or reorganization or similar proceeding involving a Loan Party.

C. Recordation. Each Grantor authorizes and requests that the Register of Copyrights, the Commissioner for Patents and the Commissioner for Trademarks record this IP Security Agreement.

D. Execution in Counterparts. This IP Security Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Delivery of an executed counterpart of a signature page to this IP Security Agreement by telecopier or in .pdf or similar format by electronic mail shall be effective as delivery of an original executed counterpart of this IP Security Agreement. The words "execution," "execute," "signed," "signature," and words of like import in or related to this IP Security Agreement and the transactions contemplated hereby, shall be deemed to include electronic signature, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

E. Grants, Rights and Remedies. This IP Security Agreement has been entered into in conjunction with the provisions of the Security Agreement. Each Grantor does hereby acknowledge and confirm that the grant of the security interest hereunder to, and the rights and remedies of, the Collateral Agent with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this IP Security Agreementand the terms of the Security Agreement, the terms of the Security Agreement shall govern.

F. Governing Law; Jurisdiction; Etc. Sections 10.15 (*Governing Law; Jurisdiction; Etc.*), 10.16 (*Service of Process*) and 10.17 (*Waiver of Right to Trial by Jury*) of the Credit Agreement are hereby incorporated by reference, *mutatis mutandis*.

G. Intercreditor Agreement. Notwithstanding any provision to the contrary in this IP Security Agreement (but without expanding the scope of the Collateral as set forth in this IP Security Agreement), in the event of any conflict or inconsistency between the provisions of any intercreditor agreement entered into by the Collateral Agent in accordance with Section 9.11 of the Credit Agreement and this IP Security Agreement, the provisions of such intercreditor agreement shall prevail.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, each Grantor and the Collateral Agent have caused this IP Security Agreement to be duly executed and delivered by its officer thereunto duly authorized as of the date first written above.

BLACK DUCK SOFTWARE, INC., *a Delaware corporation*

Signed by:
By: _____
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Name: Edward Loftus
Title: President, Chief Financial Officer and Treasurer

ARES CAPITAL CORPORATION, as
Collateral Agent

By: _____
Name: Mark Affolter
Title: Authorized Signatory

Schedule A

Patents

U.S. Patents

Title	App No.	App. Date	Patent No. (Pub. No.)	Issue Date (Pub. Dt.)	Current Owner of Record
COLLECTION INFORMATION MANAGER	09/885,078	2001-06-21	7,447,703	2008-11-04	Black Duck Software, Inc
Method for understanding and testing third party software components	10/285,576	2002-11-01	7,539,978	2009-05-26	Black Duck Software, Inc
Systems and Methods for Detecting Software Buffer Security Vulnerabilities	10/342,247	01/15/2003	7,302,707	11/27/2007	Black Duck Software, Inc
Systems and methods for detecting software security vulnerabilities	10/342,310	2003-01-15	7,392,545	2008-06-24	Black Duck Software, Inc
Systems and methods for performing static analysis on source code	10/637,453	2003-08-08	7,340,726	2008-03-04	Black Duck Software, Inc
Authenticating licenses for legally-protectable content based on license profiles and content identifiers	10/728,173	12/04/2003	8700533	04/15/2014	Black Duck Software, Inc
Resolving license dependencies for aggregations of legally-protectable content	10/728,174	12/04/2003	7552093	06/23/2009	Black Duck Software, Inc
Methods for Identifying Malicious Software	10/948,147	2004-09-24	7,644,441	2010-01-05	Black Duck Software, Inc
Methods and systems for identifying an area of interest in protectable content	11/084,063	2005-03-18	7797245	2010-09-14	Black Duck Software, Inc
AUTOMATED LOGIN SESSION EXTENDER FOR USE IN SECURITY ANALYSIS SYSTEMS	11/210,351	08/23/2005	7,467,402	12/16/2008	Black Duck Software, Inc
UPDATING GROUPS OF ITEMS	11/339,178	2006-01-23	7,966,346	2011-06-21	Black Duck Software, Inc
System for detecting vulnerabilities in web applications using client-side application interfaces	11/339,373	2006-01-24	8,281,401	2012-10-02	Black Duck Software, Inc
Methods and systems for reporting regions of interest in content files	11/429,928	2006-05-08	8010538	2011-08-30	Black Duck Software, Inc
Notification system for source code discovery	11/561,375	2006-11-17	7631294	2009-12-08	Black Duck Software, Inc

Title	App No.	App. Date	Patent No. (Pub. No.)	Issue Date (Pub. Dt.)	Current Owner of Record
Software algorithm identification	11/580,220	10/12/2006	7681045	03/16/2010	Black Duck Software, Inc
Consensus Testing of Electronic System	11/589,484	2006-10-30	7,797,590	2010-09-14	Black Duck Software, Inc
Software export compliance	11/707,672	2007-02-15	8010803	2011-08-30	Black Duck Software, Inc
METHOD AND APPARATUS FOR MANAGING SECURITY VULNERABILITY LIFECYCLES	11/864,712	2007-09-28	9,239,745	2016-01-19	Black Duck Software, Inc
USING FUZZY CLASSIFICATION MODELS TO PERFORM MATCHING OPERATIONS IN A WEB APPLICATION SECURITY SCANNER	11/864,736	09/28/2007	8,087,088	12/27/2011	Black Duck Software, Inc
Automatic response culling for web application security scan spidering process	11/864,749	09/28/2007	8,370,929	02/05/2013	Black Duck Software, Inc
PATTERN TRACKING AND CAPTURING HUMAN INSIGHT IN A WEB APPLICATION SECURITY SCANNER	11/864,787	2007-09-28	8,789,187	2014-07-22	Black Duck Software, Inc
Methods and systems for managing software development	11/961,975	2007-12-20	9,489,687	2016-11-08	Black Duck Software, Inc
System and method for enhanced direction of automated content identification in a distributed environment	12/149,889	2008-05-09	8,024,313	2011-09-20	Black Duck Software, Inc
Methods for Marking, Merging, and Managing the Results of Software Program Analysis	12/168,851	2008-07-07	8,516,434	2013-08-20	Black Duck Software, Inc
COMPUTER PROGRAMMING ADAPTIVE ANALYSIS	12/183,988	2008-07-31	8,473,907	2013-06-25	Black Duck Software, Inc
METHODS FOR SELECTIVELY PRUNING FALSE PATHS IN GRAPHS THAT USE HIGH-PRECISION STATE INFORMATION	12/197,197	08/22/2008	8,359,583	01/22/2013	Black Duck Software, Inc
AUTOMATED LOGIN SESSION EXTENDER FOR USE IN SECURITY ANALYSIS SYSTEMS	12/267,235	11/07/2008	8,341,711	12/25/2012	Black Duck Software, Inc
Method and Arrangement for Test Case Creation	12/378,048	2009-02-10	8,869,110	2014-10-21	Black Duck Software, Inc
LOAD-TIME INSTRUMENTATION OF VIRTUAL MACHINE PROGRAM CODE	12/399,885	2009-03-06	8,863,093	2014-10-14	Black Duck Software, Inc
Method, device arrangement and computer program product for producing identity graphs for analyzing communication network	12/414,960	2009-03-31	8,654,127	2014-02-18	Black Duck Software, Inc
Generating a transition system for use with model checking	12/441,889	2007-09-13	8,850,415	2014-09-30	Black Duck Software, Inc
Source code search engine	12/582,680	2009-10-20	8688676	2014-04-01	Black Duck Software, Inc

Title	App No.	App. Date	Patent No. (Pub. No.)	Issue Date (Pub. Dt.)	Current Owner of Record
Inter-Procedural Analysis of Computer Programs	12/709,053	2010-02-19	8,296,735	2012-10-23	Black Duck Software, Inc
Multi Language Software Code Analysis	12/743,695	2008-11-17	8,869,120	2014-10-21	Black Duck Software, Inc
THREAT ASSESSMENT OF SOFTWARE-CONFIGURED SYSTEM BASED UPON ARCHITECTURE MODEL AND AS-BUILT CODE	12/895,847	2010-09-30	8,413,249	2013-04-02	Black Duck Software, Inc
USING FUZZY CLASSIFICATION MODELS TO PERFORM MATCHING OPERATIONS IN A WEB APPLICATION SECURITY SCANNER	13/307,382	2011-11-30	8,621,639	2013-12-31	Black Duck Software, Inc
Method and System of Runtime Analysis	13/515,538	06/13/2012	8,726,394	05/13/2014	Black Duck Software, Inc
Methods and systems of detecting and analyzing correlated operations in a common storage	13/515,545	2010-12-14	9,280,668	2016-03-08	Black Duck Software, Inc
STATIC TAINTING ANASYSTEM AND METHOD FOR TAINT ANALYSIS OF COMPUTER PROGRAM CODELYSIS	13/570,024	2012-08-08	9,015,831	2015-04-21	Black Duck Software, Inc
SYSTEM FOR DETECTING VULNERABILITIES IN WEB APPLICATIONS USING CLIENT-SIDE APPLICATION INTERFACES	13/595,829	08/27/2012	8,893,282	11/18/2014	Black Duck Software, Inc
AUTOMATED LOGIN SESSION EXTENDER FOR USE IN SECURITY ANALYSIS SYSTEMS	13/681,759	2012-11-20	8,925,051	2014-12-30	Black Duck Software, Inc
Automatic response culling for web application security scan spidering process	13/732,554	2013-01-02	8,863,280	2014-10-14	Black Duck Software, Inc
METHODS FOR SELECTIVELY PRUNING FALSE PATHS IN GRAPHS THAT USE HIGH-PRECISION STATE INFORMATION	13/745,946	2013-01-21	8,762,961	2014-06-24	Black Duck Software, Inc
TECHNIQUES FOR CORRELATING VULNERABILITIES ACROSS AN EVOLVING CODEBASE	13/830,312	03/14/2013	9,405,915	08/02/2016	Black Duck Software, Inc
TECHNIQUES FOR TRAVERSING REPRESENTATIONS OF SOURCE CODE	13/830,510	03/14/2013	9,569,334	02/14/2017	Black Duck Software, Inc
SECURITY REMEDIATION	13/842,176	03/15/2013	9,141,807	09/22/2015	Black Duck Software, Inc
POLICY EVALUATION BASED UPON DYNAMIC OBSERVATION, STATIC ANALYSIS AND CODE CHANGE HISTORY	13/844,110	03/15/2013	9,317,399	04/19/2016	Black Duck Software, Inc

Title	App No.	App. Date	Patent No. (Pub. No.)	Issue Date (Pub. Dt.)	Current Owner of Record
Monitoring Operation of Communication Protocol Procedure	14/022,585	2013-09-10	9,110,876	2015-08-18	Black Duck Software, Inc
PRIORITIZATION OF TESTS OF COMPUTER PROGRAM CODE	14/037,540	2013-09-26	9,612,943	2017-04-04	Black Duck Software, Inc
STATIC ANALYSIS OF COMPUTER CODE TO DETERMINE IMPACT OF CHANGE TO A CODE COMPONENT UPON A DEPENDENT CODE COMPONENT	14/037,576	09/26/2013	9,032,376	05/12/2015	Black Duck Software, Inc
ENHANCED AUTOMATIC RESPONSE CULLING WITH SIGNATURE GENERATION AND FILTERING	14/041,699	2013-09-30	9,923,892	2018-03-20	Black Duck Software, Inc
System and methods for scalably identifying and characterizing structural differences between document object models	14/105,038	12/12/2013	9,305,169	04/05/2016	Black Duck Software, Inc
System for Testing Computer Application	14/161,306	01/22/2014	9,258,320	02/09/2016	Black Duck Software, Inc
Methods and systems for efficient representation of file sets	14/182,699	2014-02-18	10,256,977	2019-04-09	Black Duck Software, Inc
Methods and systems for efficient comparison of file sets	14/182,711	2014-02-18	9,547,657	2017-01-17	Black Duck Software, Inc
Method and system of runtime analysis	14/274,804	05/12/2014	9,043,924	05/26/2015	Black Duck Software, Inc
Network-Based Testing Service and Method of Testing in a Network	14/365,128	2012-12-04	9,639,456	2017-05-02	Black Duck Software, Inc
Site Independent System for Deriving Contextually Tailored Security Vulnerability Corrections for Hardening Solution Stacks	14/485,643	09/12/2014	9,369,482	06/14/2016	Black Duck Software, Inc
Site independent methods for deriving contextually tailored security vulnerability corrections for hardening solution stacks	14/485,645	09/12/2014	9,742,791	08/22/2017	Black Duck Software, Inc
System and Method to Perform Secure Web Application Testing Based on a Hybrid Pipelined Approach	14/488,232	2014-09-16	9,208,324	2015-12-08	Black Duck Software, Inc
SITE SECURITY MONITOR	14/504,256	10/01/2014	9,742,792	08/22/2017	Black Duck Software, Inc
Analysis of Program Code	14/540,929	2014-11-13	9,760,469	2017-09-12	Black Duck Software, Inc
AUTO-REMEDIATION WORKFLOW FOR COMPUTER SECURITY TESTING	14/656,490	03/12/2015	10,282,550	05/07/2019	Black Duck Software, Inc
POSITION ANALYSIS OF SOURCE CODE VULNERABILITIES	14/656,503	2015-03-12	9,792,443	2017-10-17	Black Duck Software, Inc

Title	App No.	App. Date	Patent No. (Pub. No.)	Issue Date (Pub. Dt.)	Current Owner of Record
STATIC ANALYSIS OF COMPUTER CODE TO DETERMINE IMPACT OF CHANGE TO A CODE COMPONENT UPON A DEPENDENT CODE COMPONENT	14/708,980	2015-05-11	9,836,390	2017-12-05	Black Duck Software, Inc
Identifying software components in a software codebase	14/795,559	07/09/2015	9,471,285	10/18/2016	Black Duck Software, Inc
SECURITY REMEDIATION	14/859,650	2015-09-21	10,417,430	2019-09-17	Black Duck Software, Inc
System and methods for scalably identifying and characterizing structural differences between document object models	14/993,014	01/11/2016	9,680,856	06/13/2017	Black Duck Software, Inc
System for Testing Computer Application	15/003,791	2016-01-21	10,291,631	2019-05-14	Black Duck Software, Inc
Methods and systems of detecting and analyzing correlated operations in a common storage	15/063,452	03/07/2016	10,057,280	08/21/2018	Black Duck Software, Inc
Software and hardware emulation system	15/132,196	2016-04-18	10,713,069	2020-07-14	Black Duck Software, Inc
STATIC CODE TESTING OF ACTIVE CODE	15/202,547	2016-07-05	10,216,620	2019-02-26	Black Duck Software, Inc
TECHNIQUES FOR CORRELATING VULNERABILITIES ACROSS AN EVOLVING CODEBASE	15/222,595	07/28/2016	9,830,460	11/28/2017	Black Duck Software, Inc
Systems and methods for adaptive analysis of software	15/249,268	08/26/2016	10,127,386	11/13/2018	Black Duck Software, Inc
System and Methods for Model-Based Analysis of Software	15/249,269	2016-08-26	10,133,649	2018-11-20	Black Duck Software, Inc
Systems and methods for analyzing software using queries	15/249,284	08/26/2016	10,122,749	11/06/2018	Black Duck Software, Inc
Systems and methods for incremental analysis of software	15/249,300	08/26/2016	10,127,135	11/13/2018	Black Duck Software, Inc
Identifying software components in a software codebase	15/296,024	2016-10-17	10,628,577	2020-04-21	Black Duck Software, Inc
Separating test coverage in software processes using shared memory	15/389,454	2016-12-23	10,496,524	2019-12-03	Black Duck Software, Inc
TECHNIQUES FOR TRAVERSING REPRESENTATIONS OF SOURCE CODE	15/405,045	01/12/2017	10,379,993	08/13/2019	Black Duck Software, Inc
Detecting Sensitive Data Sent From Client Device to Third-Party	15/425,985	02/06/2017	10,491,629	11/26/2019	Black Duck Software, Inc
Determining Security Vulnerabilities in Application Programming Interfaces	15/447,108	2017-03-01	11108803	2021-08-31	Black Duck Software, Inc

Title	App No.	App. Date	Patent No. (Pub. No.)	Issue Date (Pub. Dt.)	Current Owner of Record
Detecting Errors for Function Calls with an Implicit Receiver Object	15/449,851	2017-03-03	10,474,555	2019-11-12	Black Duck Software, Inc
Method for testing computer program product	15/514,498	03/24/2017	10,650,145	05/12/2020	Black Duck Software, Inc
Detecting Mistyped Identifiers and Suggesting Corrections Using Other Program Identifiers	17/593,292	2017-05-11	10,216,611	2019-02-26	Black Duck Software, Inc
Systems and Methods for Model-Based Analysis of Software	15/595,683	2017-05-15	10,303,448	2019-05-28	Black Duck Software, Inc
System and methods for scalably identifying and characterizing structural differences between document object models	15/603,391	05/23/2017	10,362,050	07/23/2019	Black Duck Software, Inc
AUTOMATED HTTP USER FLOWS SIMULATOR	15/636,721	2017-06-29	10,282,282	2019-05-07	Black Duck Software, Inc
Site independent methods for deriving contextually tailored security vulnerability corrections for hardening solution stacks	15/682,432	2017-08-21	10,362,051	2019-07-23	Black Duck Software, Inc
DISTINGUISHING PUBLIC AND PRIVATE CODE IN TESTING ENVIRONMENTS	15/693,341	2017-08-31	10,289,536	2019-05-14	Black Duck Software, Inc
TECHNIQUES FOR CORRELATING VULNERABILITIES ACROSS AN EVOLVING CODEBASE	15/822,797	2017-11-27	10,657,264	2020-05-19	Black Duck Software, Inc
Interactive Verification of Security Vulnerability Detections Using Runtime Application Traffic	15/887,900	02/02/2018	11,030,318	06/08/2021	Black Duck Software, Inc
SYSTEMS AND METHODS FOR MACHINE LEARNING BASED APPLICATION SECURITY TESTING	16/001,812	06/06/2018	10,965,708	03/30/2021	Black Duck Software, Inc
AUTO-REMEDIATION WORKFLOW FOR COMPUTER SECURITY TESTING UTILIZING PRE-EXISTING SECURITY CONTROLS	16/049,683	2018-07-30	11,042,645	2021-06-22	Black Duck Software, Inc
TECHNOLOGY VALIDATION AND OWNERSHIP	16/324,422	2017-08-09	11,943,369	2024-03-26	Black Duck Software, Inc
AUTO-REMEDIATION WORKFLOW FOR COMPUTER SECURITY TESTING	16/403,934	05/06/2019	11,036,868	06/15/2021	Black Duck Software, Inc
TECHNIQUES FOR TRAVERSING REPRESENTATIONS OF SOURCE CODE	16/460,828	07/02/2019	11,249,877	02/15/2022	Black Duck Software, Inc
TECHNIQUES FOR TRAVERSING REPRESENTATIONS OF SOURCE CODE	16/534,918	08/07/2019	11,307,961	04/19/2022	Black Duck Software, Inc
Method for Detecting Libraries in Program Binaries	16/872,525	2020-05-12	11,048,798	2021-06-29	Black Duck Software, Inc

Title	App No.	App. Date	Patent No. (Pub. No.)	Issue Date (Pub. Dt.)	Current Owner of Record
SYSTEMS AND METHODS OF INTELLIGENT AND DIRECTED DYNAMIC APPLICATION SECURITY TESTING	16/891,996	06/03/2020	10,855,717	12/01/2020	Black Duck Software, Inc
System and Method for Auditing a Graph-Based API	16/986,141	08/05/2020	11,775,363	10/03/2023	Black Duck Software, Inc
SYSTEMS AND METHODS OF INTELLIGENT AND DIRECTED DYNAMIC APPLICATION SECURITY TESTING	17/105,239	2020-11-25	11,601,462	2023-03-07	Black Duck Software, Inc
Discovering Contextualized Placeholder Variables in Template Code	17/116,795	12/09/2020	11,568,130	01/31/2023	Black Duck Software, Inc
Organizing software packages based on identification of unique attributes	17/125,069	12/17/2020	11,422,799	08/23/2022	Black Duck Software, Inc
Classification of programming language code into the basic constructs of source code and non-source code	17/356,269	06/23/2021	11,954,485	3/20/2024	Black Duck Software, Inc
Intelligent Software Development, Security, and Operations Workflow	17/387,832	07/28/2021	11947946	04/02/2024	Black Duck Software, Inc
Instance instrumentation for different data sources	17/450,564	10/12/2021	12,008,373	5/22/2024	Black Duck Software, Inc
System and Method for Automatically Capturing Source Code and Associated Artifacts for Static Analysis	17/558,242	12/21/2021	11,829,751	11/28/2023	Black Duck Software, Inc
CORRELATING OPEN SOURCE COMPONENT MATCHING RESULTS USING DIFFERENT SCANNING TECHNIQUES	17/667,473	2022-02-08			Software Integrity Group, Inc.
SEMANTIC ANALYSIS OF SOURCE CODE USING STUBS FOR EXTERNAL REFERENCES	17/686,892				Software Integrity Group, Inc.
Accelerating Static Program Analysis With Artifact Reuse	17/901,071	09/01/2022	11941379	03/26/2024	Black Duck Software, Inc
Accelerating Static Program Analysis With Summary Reuse	17/901,074				Black Duck Software, Inc
Iterative generation of hypertext transfer protocol traffic	17/950,025	2022-09-21			Black Duck Software, Inc
Discovery methods and fuzzing techniques for serverless functions through the management API	17/972,353	10/24/2022			Black Duck Software, Inc
ELECTRONIC SYSTEM BEHAVIOR-BASED FEEDBACK FUZZ TESTING	18/121,966				Black Duck Software, Inc
INFERRED DEPENDENCIES BETWEEN RESOURCES IN AN APPLICATION PROGRAMMING INTERFACE	18/228,576				Black Duck Software, Inc

Title	App No.	App. Date	Patent No. (Pub. No.)	Issue Date (Pub. Dt.)	Current Owner of Record
Software component definition locator by area and trail search of relational component identifiers	18/233,735				Black Duck Software, Inc
Instrumenting Functions to Mitigate Security Vulnerabilities	18/242,207				Black Duck Software, Inc
Code Defect Scoring for Static Code Analysis	18/503,109				Black Duck Software, Inc.

Patent Applications

[None.]

Schedule B

Trademarks

Registered Trademarks

Mark	App. No./ App. Date	Reg. No./ Reg. Date	Current Owner of Record
BLACK DUCK	78271328 08-JUL-2003	2973498 19-JUL-2005	Synopsys, Inc.[1]
BLACK DUCK	78271331 08-JUL-2003	2981904 02-AUG-2005	Synopsys, Inc.
COVERITY	77198946 06-JUN-2007	3571163 10-FEB-2009	Synopsys, Inc.
COVERITY	77571589 16-SEP-2008	3608807 21-APR-2009	Synopsys, Inc.
COVERITY	77571597 16-SEP-2008	3608809 21-APR-2009	Synopsys, Inc.
COVERITY SCAN	85924335 06-MAY-2013	4643343 25-NOV-2014	Synopsys, Inc.
DEFENSICS	78948131 09-AUG-2006	3455800 24-JUN-2008	Synopsys, Inc.
KNOW YOUR CODE	78882085 12-MAY-2006	3306940 09-OCT-2007	Synopsys, Inc.
POLARIS SOFTWARE INTEGRITY PLATFORM	88438745 20-MAY-2019	6148653 08-SEP-2020	Synopsys, Inc.
SEEKER	85019068 21-APR-2010	3980405 21-JUN-2011	Synopsys, Inc.

[1] The trademarks that list Synopsys, Inc. as the owner of record were transferred to Black Duck, Inc. pursuant to an Asset Contribution Agreement dated January 20, 2024. The owner of record will be updated with the USPTO.

Trademark Applications

None.

Schedule C

U.S. Copyright

Registered Copyrights

Title	Reg. No.	Reg. Date	Current Owner
ExportIP version 1	TX0006813783	2007-08-06	Black Duck Software, Inc.
ProtexIP version 1	TX0006813785	2007-08-06	Black Duck Software, Inc.
ProtexIP version 4.3	TX0006813788	2007-08-06	Black Duck Software, Inc.
SWaudit 2.0	TX0006980766	2008-07-07	Synopsys, Inc.[2]
Protex Version 5.2.2	TX0007388912	2011-03-25	Black Duck Software, Inc.
Black Duck Code Center	TX0007388914	2011-03-25	Black Duck Software, Inc.
Code Sight	TX0007433463	2011-05-06	Black Duck Software, Inc.
Black Duck Hub	TX0008370990	2017-02-08	Black Duck Software, Inc.

Copyright Applications

None.

[2] Synopsys, Inc. assigned this copyright to Black Duck Software, Inc. pursuant to an Asset Contribution Agreement dated January 20, 2024.