Form 5500

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Annual Return/Report of Employee Benefit Plan

This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

▶ **Complete all entries in accordance with the instructions to the Form 5500.**

OMB Nos. 1210-0110
1210-0089

2016

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

A This return/report is for:
- [ ] a multiemployer plan
- [ ] a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)
- [X] a single-employer plan
- [ ] a DFE (specify) ____

B This return/report is:
- [ ] the first return/report
- [ ] the final return/report
- [ ] an amended return/report
- [ ] a short plan year return/report (less than 12 months)

C If the plan is a collectively-bargained plan, check here. . . . . ▶ [ ]

D Check box if filing under:
- [X] Form 5558
- [ ] automatic extension
- [ ] the DFVC program
- [ ] special extension (enter description)

Part II Basic Plan Information—enter all requested information

1a Name of plan
ROGUE WAVE SOFTWARE, INC. EMPLOYEES 401(K) PLAN

1b Three-digit plan number (PN) ▶ 001

1c Effective date of plan 05/12/1989

2a Plan sponsor's name (employer, if for a single-employer plan)
Mailing address (include room, apt., suite no. and street, or P.O. Box)
City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions)

ROGUE WAVE SOFTWARE, INC.

1315 WEST CENTURY DRIVE
SUITE 150
LOUISVILLE, CO 80027

2b Employer Identification Number (EIN) 85-0373486

2c Plan Sponsor's telephone number 303-473-9118

2d Business code (see instructions) 621399

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/10/2017	TRACIE ARLDT
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

Preparer's name (including firm name, if applicable) and address (include room or suite number)

Preparer's telephone number

3a Plan administrator's name and address ☐ Same as Plan Sponsor

ROGUE WAVE SOFTWARE, INC.

1315 WEST CENTURY DRIVE, SUITE 150
LOUISVILLE, CO 80027

3b Administrator's EIN: 85-0373486

3c Administrator's telephone number: 303-473-9118

4 If the name and/or EIN of the plan sponsor has changed since the last return/report filed for this plan, enter the name, EIN and the plan number from the last return/report:

a Sponsor's name

4b EIN

4c PN

5	Total number of participants at the beginning of the plan year	**5**	341
6	Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines **6a(1), 6a(2), 6b, 6c,** and **6d**).		
a(1)	Total number of active participants at the beginning of the plan year	**6a(1)**	169
a(2)	Total number of active participants at the end of the plan year	**6a(2)**	159
b	Retired or separated participants receiving benefits	**6b**	0
c	Other retired or separated participants entitled to future benefits	**6c**	165
d	Subtotal. Add lines **6a(2)**, **6b**, and **6c**.	**6d**	324
e	Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	**6e**	0
f	Total. Add lines **6d** and **6e**.	**6f**	324
g	Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**6g**	280
h	Number of participants that terminated employment during the plan year with accrued benefits that were less than 100% vested	**6h**	11
7	Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	**7**	

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

2F 2G 2J 2K 2R 2T 3D

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply)

- **(1)** [X] Insurance
- **(2)** [ ] Code section 412(e)(3) insurance contracts
- **(3)** [X] Trust
- **(4)** [ ] General assets of the sponsor

9b Plan benefit arrangement (check all that apply)

- **(1)** [X] Insurance
- **(2)** [ ] Code section 412(e)(3) insurance contracts
- **(3)** [X] Trust
- **(4)** [ ] General assets of the sponsor

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- **(1)** [X] **R** (Retirement Plan Information)
- **(2)** [ ] **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
- **(3)** [ ] **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

- **(1)** [X] **H** (Financial Information)
- **(2)** [ ] **I** (Financial Information – Small Plan)
- **(3)** [X] 1 **A** (Insurance Information)
- **(4)** [X] **C** (Service Provider Information)
- **(5)** [X] **D** (DFE/Participating Plan Information)
- **(6)** [ ] **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2016 Form M-1 annual report. If the plan was not required to file the 2016 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code_____

SCHEDULE A (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Insurance Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).

▶ **File as an attachment to Form 5500.**

▶ Insurance companies are required to provide the information pursuant to ERISA section 103(a)(2).

OMB No. 1210-0110

2016

This Form is Open to Public Inspection

For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

A Name of plan
ROGUE WAVE SOFTWARE, INC. EMPLOYEES 401(K) PLAN

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500
ROGUE WAVE SOFTWARE, INC.

D Employer Identification Number (EIN)
85-0373486

Part I Information Concerning Insurance Contract Coverage, Fees, and Commissions

Provide information for each contract on a separate Schedule A. Individual contracts grouped as a unit in Parts II and III can be reported on a single Schedule A.

1 Coverage Information:

(a) Name of insurance carrier
JOHN HANCOCK LIFE INSURANCE COMPANY U.S.A.

(b) EIN	(c) NAIC code	(d) Contract or identification number	(e) Approximate number of persons covered at end of policy or contract year	Policy or contract year	
				(f) From	(g) To
01-0233346	65838	101646	334	01/01/2016	12/31/2016

2 Insurance fee and commission information. Enter the total fees and total commissions paid. List in line 3 the agents, brokers, and other persons in descending order of the amount paid.

(a) Total amount of commissions paid	(b) Total amount of fees paid
54551	3345

3 Persons receiving commissions and fees. (Complete as many entries as needed to report all persons).

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid
OPPENHEIMER LIFE AGENCY, LTD
1400 WOODLOCH FOREST DRIVE, STE 250
THE WOODLANDS, TN 77380

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	
54551			3

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid
THE ANGELL PENSION GROUP,INC.
88 BOYD AVENUE
EAST PROVIDENCE, RI 02914

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	
	3345	TPA FEES	5

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

Part II Investment and Annuity Contract Information

Where individual contracts are provided, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

4	Current value of plan's interest under this contract in the general account at year end	**4**	
5	Current value of plan's interest under this contract in separate accounts at year end	**5**	27720028

6 Contracts With Allocated Funds:

a State the basis of premium rates ▶

b	Premiums paid to carrier	**6b**	
c	Premiums due but unpaid at the end of the year	**6c**	
d	If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, enter amount.	**6d**	

Specify nature of costs ▶

e Type of contract: (1) ☐ individual policies (2) ☐ group deferred annuity

(3) ☐ other (specify) ▶

f If contract purchased, in whole or in part, to distribute benefits from a terminating plan, check here ▶ ☐

7 Contracts With Unallocated Funds (Do not include portions of these contracts maintained in separate accounts)

a Type of contract: (1) ☐ deposit administration (2) ☐ immediate participation guarantee

(3) ☐ guaranteed investment (4) ☐ other ▶

b	Balance at the end of the previous year			**7b**	0
c	Additions: (1) Contributions deposited during the year	**7c(1)**			
	(2) Dividends and credits	**7c(2)**			
	(3) Interest credited during the year	**7c(3)**			
	(4) Transferred from separate account	**7c(4)**			
	(5) Other (specify below)	**7c(5)**			
	▶				
	(6) Total additions			**7c(6)**	0
d	Total of balance and additions (add lines **7b** and **7c(6)**)			**7d**	0
e	Deductions:				
	(1) Disbursed from fund to pay benefits or purchase annuities during year	**7e(1)**			
	(2) Administration charge made by carrier	**7e(2)**			
	(3) Transferred to separate account	**7e(3)**			
	(4) Other (specify below)	**7e(4)**			
	▶				
	(5) Total deductions			**7e(5)**	0
f	Balance at the end of the current year (subtract line **7e(5)** from line **7d**)			**7f**	0

Part III Welfare Benefit Contract Information

If more than one contract covers the same group of employees of the same employer(s) or members of the same employee organizations(s), the information may be combined for reporting purposes if such contracts are experience-rated as a unit. Where contracts cover individual employees, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

8 Benefit and contract type (check all applicable boxes)

- **a** ☐ Health (other than dental or vision)
- **b** ☐ Dental
- **c** ☐ Vision
- **d** ☐ Life insurance
- **e** ☐ Temporary disability (accident and sickness)
- **f** ☐ Long-term disability
- **g** ☐ Supplemental unemployment
- **h** ☐ Prescription drug
- **i** ☐ Stop loss (large deductible)
- **j** ☐ HMO contract
- **k** ☐ PPO contract
- **l** ☐ Indemnity contract
- **m** ☐ Other (specify) ▶

9 Experience-rated contracts:				
a Premiums: (1) Amount received	**9a(1)**			
(2) Increase (decrease) in amount due but unpaid	**9a(2)**			
(3) Increase (decrease) in unearned premium reserve	**9a(3)**			
(4) Earned (**(1)** + **(2)** - **(3)**)			**9a(4)**	0
b Benefit charges (1) Claims paid	**9b(1)**			
(2) Increase (decrease) in claim reserves	**9b(2)**			
(3) Incurred claims (add **(1)** and **(2)**)			**9b(3)**	0
(4) Claims charged			**9b(4)**	
c Remainder of premium: (1) Retention charges (on an accrual basis) --				
(A) Commissions	**9c(1)(A)**			
(B) Administrative service or other fees	**9c(1)(B)**			
(C) Other specific acquisition costs	**9c(1)(C)**			
(D) Other expenses	**9c(1)(D)**			
(E) Taxes	**9c(1)(E)**			
(F) Charges for risks or other contingencies	**9c(1)(F)**			
(G) Other retention charges	**9c(1)(G)**			
(H) Total retention			**9c(1)(H)**	0
(2) Dividends or retroactive rate refunds. (These amounts were ☐ paid in cash, or ☐ credited.)			**9c(2)**	
d Status of policyholder reserves at end of year: (1) Amount held to provide benefits after retirement			**9d(1)**	
(2) Claim reserves			**9d(2)**	
(3) Other reserves			**9d(3)**	
e Dividends or retroactive rate refunds due. (Do not include amount entered in line **9c(2)**.)			**9e**	
10 Nonexperience-rated contracts:				
a Total premiums or subscription charges paid to carrier			**10a**	
b If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, other than reported in Part I, line 2 above, report amount.			**10b**	

Specify nature of costs.

Part IV Provision of Information

11 Did the insurance company fail to provide any information necessary to complete Schedule A? ☐ Yes ☒ No

12 If the answer to line 11 is "Yes," specify the information not provided. ▶

SCHEDULE C (Form 5500)	Service Provider Information	OMB No. 1210-0110
Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ **File as an attachment to Form 5500.**	**2016** **This Form is Open to Public Inspection.**

For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

A Name of plan ROGUE WAVE SOFTWARE, INC. EMPLOYEES 401(K) PLAN	**B** Three-digit plan number (PN) ▶ 001
C Plan sponsor's name as shown on line 2a of Form 5500 ROGUE WAVE SOFTWARE, INC.	**D** Employer Identification Number (EIN) 85-0373486

Part I Service Provider Information (see instructions)

You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions). . . . . ☐ Yes ☒ No

b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

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2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

JOHN HANCOCK LIFE INSURANCE COMPANY

01-0233346

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
15 28 59 60 62 63 68	RECORDKEEPER	54997	Yes [X] No [ ]	Yes [X] No [ ]	0	Yes [X] No [ ]

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes [ ] No [ ]	Yes [ ] No [ ]		Yes [ ] No [ ]

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes [ ] No [ ]	Yes [ ] No [ ]		Yes [ ] No [ ]

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	**(c)** Relationship to employer, employee organization, or person known to be a party-in-interest	**(d)** Enter direct compensation paid by the plan. If none, enter -0-.	**(e)** Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	**(f)** Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	**(g)** Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	**(h)** Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	**(c)** Relationship to employer, employee organization, or person known to be a party-in-interest	**(d)** Enter direct compensation paid by the plan. If none, enter -0-.	**(e)** Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	**(f)** Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	**(g)** Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	**(h)** Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	**(c)** Relationship to employer, employee organization, or person known to be a party-in-interest	**(d)** Enter direct compensation paid by the plan. If none, enter -0-.	**(e)** Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	**(f)** Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	**(g)** Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	**(h)** Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received $1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)

(complete as many entries as needed)

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

SCHEDULE D (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

DFE/Participating Plan Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2016

This Form is Open to Public Inspection.

For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

A Name of plan
ROGUE WAVE SOFTWARE, INC. EMPLOYEES 401(K) PLAN

B Three-digit plan number (PN) ▶ 001

C Plan or DFE sponsor's name as shown on line 2a of Form 5500
ROGUE WAVE SOFTWARE, INC.

D Employer Identification Number (EIN)
85-0373486

Part I **Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs)**
(Complete as many entries as needed to report all interests in DFEs)

a Name of MTIA, CCT, PSA, or 103-12 IE: JH RET TO 2045 MANAGED PORT

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
01-0233346-000	P	1104957

a Name of MTIA, CCT, PSA, or 103-12 IE: JH RET TO 2040 MANAGED PORT

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
01-0233346-000	P	589581

a Name of MTIA, CCT, PSA, or 103-12 IE: JH RET TO 2035 MANAGED PORT

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
01-0233346-000	P	1138755

a Name of MTIA, CCT, PSA, or 103-12 IE: JH RET TO 2030 MANAGED PORT

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
01-0233346-000	P	835958

a Name of MTIA, CCT, PSA, or 103-12 IE: JH RET TO 2025 MANAGED PORT

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
01-0233346-000	P	170333

a Name of MTIA, CCT, PSA, or 103-12 IE: JH RET TO 2020 MANAGED PORT

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
01-0233346-000	P	718307

a Name of MTIA, CCT, PSA, or 103-12 IE: JH RET TO 2010 MANAGED PORT

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
01-0233346-000	P	300410

a Name of MTIA, CCT, PSA, or 103-12 IE: JH LS AGG ACTIVE STRATEGY		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 378458
a Name of MTIA, CCT, PSA, or 103-12 IE: JH LS GROW ACTIVE STRATEGY		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 1308862
a Name of MTIA, CCT, PSA, or 103-12 IE: JH LS BAL ACTIVE STRATEGY		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 822945
a Name of MTIA, CCT, PSA, or 103-12 IE: JH LS MOD ACTIVE STRATEGY		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 155935
a Name of MTIA, CCT, PSA, or 103-12 IE: JH LS CON ACTIVE STRATEGY		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 103654
a Name of MTIA, CCT, PSA, or 103-12 IE: DFA EMERGING MARKETS VALUE		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 40430
a Name of MTIA, CCT, PSA, or 103-12 IE: ROYCE OPPORTUNITY		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 28220
a Name of MTIA, CCT, PSA, or 103-12 IE: INTERNATIONAL VALUE FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 75389
a Name of MTIA, CCT, PSA, or 103-12 IE: DFA US TARGETED VALUE FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 404293
a Name of MTIA, CCT, PSA, or 103-12 IE: T. ROWE PRICE SCI & TECH		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 405269

a Name of MTIA, CCT, PSA, or 103-12 IE: VANGUARD SMALL CAP GROW INDEX		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 461299
a Name of MTIA, CCT, PSA, or 103-12 IE: OPPENHEIMER DEVELOPING MKT		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 74193
a Name of MTIA, CCT, PSA, or 103-12 IE: INTL EQUITY INDEX FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 512500
a Name of MTIA, CCT, PSA, or 103-12 IE: DFA U.S. SMALL CAP FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 32998
a Name of MTIA, CCT, PSA, or 103-12 IE: SMALL CAP INDEX FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 899246
a Name of MTIA, CCT, PSA, or 103-12 IE: EUROPACIFIC GROWTH FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 263703
a Name of MTIA, CCT, PSA, or 103-12 IE: OPPENHEIMER INTL GROWTH FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 290512
a Name of MTIA, CCT, PSA, or 103-12 IE: T. ROWE PRICE HEALTH SCI		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 651764
a Name of MTIA, CCT, PSA, or 103-12 IE: LORD ABBETT VALUE OPPS FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 101375
a Name of MTIA, CCT, PSA, or 103-12 IE: MID CAP INDEX FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 737212

a Name of MTIA, CCT, PSA, or 103-12 IE: BLUE CHIP GROWTH FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 2588718
a Name of MTIA, CCT, PSA, or 103-12 IE: MFS VALUE FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 1046527
a Name of MTIA, CCT, PSA, or 103-12 IE: MASSACHUSETTS INVESTORS FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 375447
a Name of MTIA, CCT, PSA, or 103-12 IE: PRU JENNISON MID GROWTH FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 617229
a Name of MTIA, CCT, PSA, or 103-12 IE: MID VALUE FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 1175455
a Name of MTIA, CCT, PSA, or 103-12 IE: 500 INDEX FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 4549014
a Name of MTIA, CCT, PSA, or 103-12 IE: PIMCO ALL ASSET		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 86267
a Name of MTIA, CCT, PSA, or 103-12 IE: TEMPLETON GLOBAL BOND FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 124490
a Name of MTIA, CCT, PSA, or 103-12 IE: STRATEGIC INCOME OPP FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 343037
a Name of MTIA, CCT, PSA, or 103-12 IE: U.S. HIGH YIELD BOND FUND		
b Name of sponsor of entity listed in (a): JOHN HANCOCK USA		
c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 394668

a Name of MTIA, CCT, PSA, or 103-12 IE: TOTAL BOND FUND

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 979341

a Name of MTIA, CCT, PSA, or 103-12 IE: JOHN HANCOCK STABLE VAL

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 2774595

a Name of MTIA, CCT, PSA, or 103-12 IE: RETIREMENT CHOICES AT 2050

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 57536

a Name of MTIA, CCT, PSA, or 103-12 IE: RETIREMENT CHOICES 2055

b Name of sponsor of entity listed in (a): JOHN HANCOCK USA

c EIN-PN 01-0233346-000	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 1055

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

Part II Information on Participating Plans (to be completed by DFEs)

(Complete as many entries as needed to report all participating plans)

a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

b Name of plan sponsor	**c** EIN-PN

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a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

b Name of plan sponsor	**c** EIN-PN

SCHEDULE H (Form 5500)

Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Financial Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2016

This Form is Open to Public Inspection

For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

A Name of plan
ROGUE WAVE SOFTWARE, INC. EMPLOYEES 401(K) PLAN

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500
ROGUE WAVE SOFTWARE, INC.

D Employer Identification Number (EIN)
85-0373486

Part I Asset and Liability Statement

1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a	6479	10267
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)		
(2) Participant contributions	1b(2)		
(3) Other	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)	133427	127581
(9) Value of interest in common/collective trusts	1c(9)	0	2774595
(10) Value of interest in pooled separate accounts	1c(10)	27713096	24945433
(11) Value of interest in master trust investment accounts	1c(11)		
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)		
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)		
(15) Other	1c(15)		

			(a) Beginning of Year	(b) End of Year
1d	Employer-related investments:			
	(1) Employer securities	1d(1)		
	(2) Employer real property	1d(2)		
e	Buildings and other property used in plan operation	1e		
f	Total assets (add all amounts in lines 1a through 1e)	1f	27853002	27857876
	Liabilities			
g	Benefit claims payable	1g	0	420315
h	Operating payables	1h		
i	Acquisition indebtedness	1i		
j	Other liabilities	1j		
k	Total liabilities (add all amounts in lines 1g through1j)	1k	0	420315
	Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l	27853002	27437561

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

	Income		(a) Amount	(b) Total
a	**Contributions:**			
	(1) Received or receivable in cash from: **(A)** Employers	2a(1)(A)	369983	
	(B) Participants	2a(1)(B)	1331335	
	(C) Others (including rollovers)	2a(1)(C)	169162	
	(2) Noncash contributions	2a(2)		
	(3) Total contributions. Add lines **2a(1)(A), (B), (C),** and line **2a(2)**	2a(3)		1870480
b	**Earnings on investments:**			
	(1) Interest:			
	(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
	(B) U.S. Government securities	2b(1)(B)		
	(C) Corporate debt instruments	2b(1)(C)		
	(D) Loans (other than to participants)	2b(1)(D)	4394	
	(E) Participant loans	2b(1)(E)		
	(F) Other	2b(1)(F)		
	(G) Total interest. Add lines **2b(1)(A)** through **(F)**	2b(1)(G)		4394
	(2) Dividends: **(A)** Preferred stock	2b(2)(A)		
	(B) Common stock	2b(2)(B)		
	(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)		
	(D) Total dividends. Add lines **2b(2)(A)**, **(B)**, and **(C)**	2b(2)(D)		0
	(3) Rents	2b(3)		
	(4) Net gain (loss) on sale of assets: **(A)** Aggregate proceeds	2b(4)(A)		
	(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
	(C) Subtract line **2b(4)(B)** from line **2b(4)(A)** and enter result	2b(4)(C)		0
	(5) Unrealized appreciation (depreciation) of assets: **(A)** Real estate	2b(5)(A)		
	(B) Other	2b(5)(B)		
	(C) Total unrealized appreciation of assets. Add lines **2b(5)(A)** and **(B)**	2b(5)(C)		0

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		1930443
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		
c Other income	2c		116325
d Total income. Add all **income** amounts in column (b) and enter total	2d		3921642
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	4278741	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines **2e(1)** through **(3)**	2e(4)		4278741
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions)	2g		
h Interest expense	2h		
i Administrative expenses: (1) Professional fees	2i(1)		
(2) Contract administrator fees	2i(2)	54997	
(3) Investment advisory and management fees	2i(3)		
(4) Other	2i(4)	3345	
(5) Total administrative expenses. Add lines **2i(1)** through **(4)**	2i(5)		58342
j Total expenses. Add all **expense** amounts in column (b) and enter total	2j		4337083
Net Income and Reconciliation			
k Net income (loss). Subtract line **2j** from line **2d**	2k		-415441
l Transfers of assets:			
(1) To this plan	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☐ Unqualified **(2)** ☐ Qualified **(3)** ☒ Disclaimer **(4)** ☐ Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)? ☒ Yes ☐ No

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: RSM US LLP **(2)** EIN: 42-0714325

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, or MTIA. **(2)** ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

		Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.)	4a		X	
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)	4b		X	

			Yes	No	Amount
c	Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)	4c		X	
d	Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)	4d		X	
e	Was this plan covered by a fidelity bond?	4e	X		500000
f	Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	4f		X	
g	Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	4g		X	
h	Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	4h		X	
i	Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	4i	X		
j	Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)	4j		X	
k	Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	4k		X	
l	Has the plan failed to provide any benefit when due under the plan?	4l		X	
m	If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	4m		X	
n	If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	4n			
o	Defined Benefit Plan or Money Purchase Pension Plan Only: Were any distributions made during the plan year to an employee who attained age 62 and had not separated from service?	4o			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? If "Yes," enter the amount of any plan assets that reverted to the employer this year ☐ **Yes** ☒ **No** **Amount:**

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	**5b(2)** EIN(s)	**5b(3)** PN(s)

5c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (See ERISA section 4021.)? ..... ☐ Yes ☐ No ☐ Not determined
If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year_____. (See instructions.)

Part V Trust Information

6a Name of trust	**6b** Trust's EIN

6c Name of trustee or custodian	**6d** Trustee's or custodian's telephone number

SCHEDULE R (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Retirement Plan Information

This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2016

This Form is Open to Public Inspection.

For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

A Name of plan
ROGUE WAVE SOFTWARE, INC. EMPLOYEES 401(K) PLAN

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500
ROGUE WAVE SOFTWARE, INC.

D Employer Identification Number (EIN)
85-0373486

Part I Distributions

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions **1** 0

2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits):

EIN(s): 01-0233346

Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.

3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year **3**

Part II Funding Information (If the plan is not subject to the minimum funding requirements of section of 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)

4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ..... ☐ **Yes** ☐ **No** ☐ **N/A**

If the plan is a defined benefit plan, go to line 8.

5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. **Date:** Month _____ Day _____ Year _____

If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.

6 **a** Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived) **6a**

b Enter the amount contributed by the employer to the plan for this plan year **6b**

c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount) **6c**

If you completed line 6c, skip lines 8 and 9.

7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ..... ☐ **Yes** ☐ **No** ☐ **N/A**

8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ..... ☐ **Yes** ☐ **No** ☐ **N/A**

Part III Amendments

9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box. ..... ☐ **Increase** ☐ **Decrease** ☐ **Both** ☐ **No**

Part IV ESOPs (see instructions). If this is not a plan described under Section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.

10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan? ..... ☐ **Yes** ☐ **No**

11 **a** Does the ESOP hold any preferred stock? ..... ☐ **Yes** ☐ **No**

b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.) ..... ☐ **Yes** ☐ **No**

12 Does the ESOP hold any stock that is not readily tradable on an established securities market? ..... ☐ **Yes** ☐ **No**

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify):

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

14 Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:

a The current year	**14a**	
b The plan year immediately preceding the current plan year	**14b**	
c The second preceding plan year	**14c**	

15 Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	**15a**	
b The corresponding number for the second preceding plan year	**15b**	

16 Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	**16a**	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	**16b**	

17 If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

18 If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

19 If the total number of participants is 1,000 or more, complete lines (a) through (c)

a Enter the percentage of plan assets held as:
Stock: 0.0 % Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%

b Provide the average duration of the combined investment-grade and high-yield debt:
☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more

c What duration measure was used to calculate line 19(b)?
☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify):

Part VII IRS Compliance Questions

20a Is the plan a 401(k) plan? If "No," skip b	☐ Yes ☐ No
20b How did the plan satisfy the nondiscrimination requirements for employee deferrals under section 401(k)(3) for the plan year? Check all that apply:	☐ Design-based safe harbor ☐ "Prior year" ADP test ☐ "Current year" ADP test ☐ N/A
21a What testing method was used to satisfy the coverage requirements under section 410(b) for the plan year? Check all that apply:	☐ Ratio percentage test ☐ Average benefit test ☐ N/A
21b Did the plan satisfy the coverage and nondiscrimination requirements of sections 410(b) and 401(a)(4) for the plan year by combining this plan with any other plan under the permissive aggregation rules?	☐ Yes ☐ No

22a If the plan is a master and prototype plan (M&P) or volume submitter plan that received a favorable IRS opinion letter or advisory letter, enter the date of the letter ____/____/____ and the serial number _____.

22b If the plan is an individually-designed plan that received a favorable determination letter from the IRS, enter the date of the most recent determination letter ____/____/____.

Rogue Wave Software, Inc. Employees 401(k) Plan

Financial Report
December 31, 2016

THE POWER OF BEING UNDERSTOOD
AUDIT | TAX | CONSULTING

RSM

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RSM

Independent Auditor's Report

RSM US LLP

To the Plan Administrator and Board of Directors
Rogue Wave Software, Inc. Employees 401(k) Plan

Report on the Financial Statements
We were engaged to audit the accompanying financial statements of Rogue Wave Software, Inc. Employees 401(k) Plan (the Plan), which comprise the statements of net assets available for benefits as of December 31, 2016 and 2015, and the related statement of changes in net assets available for benefits for the year ended December 31, 2016, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility
Our responsibility is to express an opinion on these financial statements based on conducting the audit in accordance with auditing standards generally accepted in the United States of America. Because of the matter described in the Basis for Disclaimer of Opinion paragraph, however, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion.

Basis for Disclaimer of Opinion
As permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974, the Plan Administrator instructed us not to perform, and we did not perform, any auditing procedures with respect to the information summarized in Note 3, which was certified or provided by John Hancock Life Insurance Company (U.S.A.), the custodian of the Plan, except for comparing this information with the related information included in the financial statements. We have been informed by the Plan Administrator that the custodian holds the Plan's assets and executes transactions. The Plan Administrator has obtained certifications from the custodian as of December 31, 2016 and 2015, and for the year ended December 31, 2016, that the information provided to the Plan Administrator by the custodian is complete and accurate.

Disclaimer of Opinion
Because of the significance of the matter described in the Basis for Disclaimer of Opinion paragraph, we have not been able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion. Accordingly, we do not express an opinion on these financial statements.

RSM US LLP is the U.S. member firm of RSM International, a global network of independent audit, tax, and consulting firms. Visit rsmus.com/aboutus for more information regarding RSM US LLP and RSM International.

Other Matter
The supplemental schedule, Schedule H—Part IV, Line 4i—Schedule of assets (held at end of year) as of December 31, 2016, is required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 and is presented for the purposes of additional analysis and is not a required part of the financial statements. The supplemental schedule is the responsibility of the Plan's management. Because of the significance of the matter described in the Basis for Disclaimer of Opinion paragraph, we do not express an opinion on the supplemental schedule.

Report on Form and Content in Compliance with DOL Rules and Regulations
The form and content of the information included in the financial statements and supplemental schedule, other than that derived from the information certified or provided by the custodian, have been audited by us in accordance with auditing standards generally accepted in the United States of America and, in our opinion, are presented in compliance with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974.

RSM US LLP

Denver, Colorado
October 9, 2017

Rogue Wave Software, Inc. Employees 401(k) Plan

Statements of Net Assets Available for Benefits
December 31, 2016 and 2015

	2016	2015
Assets		
Cash	**$ 10,267**	$ 6,479
Investments, at fair value	**27,720,028**	27,713,096
Notes receivable from participants	**127,581**	133,427
Total assets	**27,857,876**	27,853,002
Liabilities	**-**	-
Net Assets Available for Benefits	**$ 27,857,876**	$ 27,853,002

See notes to financial statements.

Rogue Wave Software, Inc. Employees 401(k) Plan

Statement of Changes in Net Assets Available for Benefits
Year Ended December 31, 2016

Additions to net assets attributed to:	
Investment income:	
Net appreciation in fair value of investments	$ 1,930,443
Other income	116,325
	2,046,768
Interest income on notes receivable from participants	4,394
Contributions:	
Participants	1,331,335
Employer, net of forfeitures applied	369,983
Amounts rolled over from other plans	169,162
	1,870,480
Total additions	3,921,642
Deductions from net assets attributed to:	
Benefits paid to participants	3,858,426
Administrative fees	58,342
Total deductions	3,916,768
Net increase	4,874
Net assets available for benefits:	
Beginning of year	27,853,002
End of year	$ 27,857,876

See notes to financial statements.

Note 1. Plan Description

The following description of the Rogue Wave Software, Inc. Employees 401(k) Plan (the Plan) is provided for general information purposes only. Participants and all others should refer to the Plan document for a complete description of the Plan's provisions.

General and eligibility: The Plan is a participant-directed defined contribution plan covering all full-time employees of Rogue Wave Software, Inc. (the Company or the Plan Sponsor). Participants may enter the Plan on the first day of the month following their date of hire. There is no age or service requirement to be eligible to participate in the Plan and make elective deferrals. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA), and the applicable current Internal Revenue Code provisions.

Contributions and investment options: Each year, as defined by the Plan, participants may contribute up to the maximum percentage of compensation and dollar amount permissible under the annual limits of the Internal Revenue Code. Participants may also contribute amounts representing distributions from other qualified plans. The Company may make discretionary contributions. During the year ended December 31, 2016, the Company contributed a discretionary contribution amount equal to 50 percent of each participant's elective deferrals, subject to a maximum of 6 percent of the participant's eligible compensation. Participants direct the investment of their contributions and employer contributions into various pooled separate accounts offered by the Plan. Participants may change their investment options daily.

Participant accounts: Each participant's account is credited with the participant's contributions, the Company matching contributions and allocations of Plan earnings, and is charged with an allocation of administrative expenses. Allocations are based on participant earnings or account balances, as defined in the Plan. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Vesting: Participants are immediately vested in their elective contributions plus investment earnings thereon, and such amounts are nonforfeitable. Vesting in the Company's discretionary matching contributions plus earnings thereon is based on years of credited service under the following schedule:

Years of Vesting Service	Vested Percentages
1 year	33 1/3%
2 years	66 2/3%
3 years	100%

In the event of Plan termination, death, permanent disability, or total disability, participants will become 100 percent vested in their account balances.

Payment of benefits: Participants or their beneficiaries are eligible for benefits upon hardship, retirement, termination, death or disability. All benefits shall be distributed through a lump sum payment. Accounts with a vested interest of less than $1,000, upon termination for any reason, are automatically distributed in full.

Note 1. Plan Description (Continued)

Notes receivable from participants: Participants may borrow from their accounts a minimum of $1,000 up to a maximum equal to the lesser of 50 percent of the participant's vested account balance or $50,000 reduced by the participant's highest outstanding balance of all notes receivables (if any) during the prior 12 months. Notes receivables are due in equal installments not to exceed 5 years or 15 years for the purchase of a primary residence. Notes receivable shall bear interest at a rate equal to the prime rate or such other reasonable rate as the Plan Administrator or the Plan's investment company shall set at the time the note is made. Principal and interest is paid ratably through payroll deductions. In addition, each participant may not have more than one note receivable outstanding at any time. Notes receivables outstanding at December 31, 2016, bear interest ranging from 3.25 percent to 3.50 percent and are due through December 2028.

Forfeitures: Participants terminating employment without being 100 percent vested in the Company's contributions forfeit the nonvested portion of their account. This occurs in the year they receive a distribution of their entire vested account balance. Forfeitures are used to either reduce future Company contributions to the Plan or to pay administrative expenses of the Plan. The outstanding balances of forfeited accounts were $10,267 and $6,479 as of December 31, 2016 and 2015, respectively. During 2016, $16,337 of forfeitures were used to reduce Company contributions.

Administrative expenses: Certain administrative functions are performed by employees of the Company. No such employee receives compensation from the Plan. All administrative fees, other than loan fees, are first paid from the forfeiture account and then any remainder is paid by the Plan or Plan sponsor.

Investment management fees and operating expenses: Certain investment management fees charged to the Plan for investments in the mutual funds are deducted from income earned on a daily basis and are not separately reflected. Consequently, management fees are reflected as a reduction of investment return for such investments.

Note 2. Summary of Significant Accounting Policies

Basis of accounting: The accompanying financial statements have been prepared under the accrual method of accounting in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP).

Accounting estimates and assumptions: The preparation of financial statements in conformity with generally accepted accounting principles requires Plan management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and net assets available for benefits and changes therein and disclosures of contingent assets and liabilities. Actual results could differ from those estimates.

Risks and uncertainties: The Plan utilizes various funds as investment instruments. Pooled separate accounts are invested in mutual funds, which are exposed to various risks, such as interest rate and credit risk and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

Investment valuation and income recognition: Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Plan's investment committee determines the Plan's valuation policies utilizing information provided by the investment custodian and insurance company. See Note 4 for discussion of fair value measurements.

Note 2. Summary of Significant Accounting Policies (Continued)

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation or depreciation includes the Plan's gains and losses on investments bought and sold as well as held during the year.

Payment of benefits: Benefit payments to participants are recorded when paid.

Notes receivable from participants: Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Delinquent loans are treated as distributions based upon the terms of the Plan document.

Subsequent events: The Plan Administrator evaluated subsequent events through October 9, 2017, the date the financial statements were available to be issued. See Note 8.

Note 3. Information Certified and Provided by John Hancock Life Insurance Company (U.S.A.)

The following is a summary of the Plan's asset information as of December 31, 2016 and 2015, and for the year ended December 31, 2016, included throughout the Plan's financial statements and supplemental schedule, that was prepared by or derived from information provided by John Hancock Life Insurance Company (U.S.A) (the Custodian) and furnished to the Plan Administrator. The Plan Administrator has obtained certifications from the Custodian that information provided to the Plan Administrator by the Custodian related to the following assets is complete and accurate. Accordingly, as permitted by 29 CFR 2520.103-8 of the Department of Labor (DOL)'s Rules and Regulations for Reporting and Disclosure under ERISA, the Plan Administrator instructed the Plan's independent auditors not to perform any auditing procedures with respect to information which appears throughout the financial statements and the supplemental schedule related to the following assets:

	2016	2015
Cash	$ 10,267	$ 6,479
Investments, at fair value:		
Pooled separate accounts	24,945,433	24,763,007
Common collective trust	2,774,595	2,950,089
	$ 27,720,028	$ 27,713,096
Notes receivable from participants	$ 127,581	$ 133,427

The Custodian also certified to the completeness and accuracy of the investment income information (including investments bought, sold and held during the year) and interest income on notes receivable from participants for the year ended December 31, 2016, included on the accompanying statement of changes in net assets available for benefits.

Note 4. Fair Value Measurements

The Fair Value Measurements and Disclosures Topic of the FASB Accounting Standards Codification (ASC), establishes a framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under the topic are described below:

Level 1: Quoted prices (unadjusted) for identical assets or liabilities in active markets that the Plan has the ability to access as of the measurement date.

Level 2: Significant other observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3: Significant unobservable inputs that reflect the Plan's own assumptions about the assumptions that market participants would use in pricing an asset or liability.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs. There have been no changes in valuation methodologies at December 31, 2016 compared to December 31, 2015.

Following is a description of the valuation methodologies used for assets measured at fair value:

Pooled separate accounts: Pooled separate accounts invest primarily in mutual funds. The fair values of these pooled separate accounts are primarily based on quoted market prices for the underlying securities or similar instruments. These fair values are classified within Level 2 of the valuation hierarchy since the net asset value (NAV) of the pooled separate account itself is not publically quoted in an active market but the values are not dependent on the input of any significant judgments or assumptions by management. Each pooled separate account provides for redemptions by the Plan at the reported NAV per share, with little to no advance notice requirement. These investments are not eligible to use the NAV practical expedient as published prices are available.

Common collective trust (CCT): These investments are public investment vehicles valued using the NAV provided by the administrator of the fund. The NAV is based on the value of the underlying assets owned by the fund, minus the liabilities, and then divided by the number of shares outstanding. The CCT is not classified within the fair value hierarchy pursuant to Accounting Standards Update (ASU) 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in certain entities that calculate net asset value per share (or its equivalent).*

The methods above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Note 4. Fair Value Measurements (Continued)

The following tables set forth by level within the fair value hierarchy the Plan's investments at fair value as of December 31, 2016 and 2015:

	2016			
	Level 1	Level 2	Level 3	Total
Pooled separate accounts	$ -	$ 24,945,433	$ -	$ 24,945,433
Total assets at fair value	$ -	$ 24,945,433	$ -	24,945,433
Investments measured at NAV (a)				2,774,595
				$ 27,720,028

	2015			
	Level 1	Level 2	Level 3	Total
Pooled separate accounts	$ -	$ 24,763,007	$ -	$ 24,763,007
Total assets at fair value	$ -	$ 24,763,007	$ -	24,763,007
Investments measured at NAV (a)				2,950,089
				$ 27,713,096

(a) In accordance with Subtopic 820-10, certain investments that were measured at net asset value per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the statements of net assets available for benefits.

The following table summarizes investments for which fair value is measured using the net asset value per share practical expedient as of December 31, 2016 and 2015. There are no participant redemption restrictions for these investments; the redemption notice period is applicable only to the Plan.

Investment	Fair Value 2016	Fair Value 2015	Unfunded Commitment	Redemption Frequency	Redemption Notice Period
Common collective trust accounts:					
John Hancock Stable Value Fund (a)	$ 2,774,595	$ 2,950,089	n/a	Daily	None

(a) The investment strategy of this fund is not disclosed pursuant to ASU 2015-12 as the fund is a Direct Filing Entity.

Note 5. Plan Termination

Although it has not expressed any intent to do so, the Company has the right to terminate the Plan at its discretion. In the event of termination, the net assets of the Plan, after payment of any expenses properly charged, will be distributed to each participant according to the amount then credited to his or her account.

Note 6. Tax Status

Effective January 1, 2012, the Plan adopted a non-standardized form of a prototype plan sponsored by the Custodian. The prototype plan has received an opinion letter from the Internal Revenue Service dated September 30, 2014, as to the prototype plan's qualified status. The prototype plan opinion letter has been relied upon by this Plan. Although the Plan has been amended since receiving opinion letter, the Plan Administrator believes the Plan is designed and is being operated in compliance with the applicable provisions of the Internal Revenue Code.

U.S. GAAP requires plan management to evaluate tax positions taken by the Plan and recognize a tax liability if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

Note 7. Related Party Transactions

Certain Plan investments are shares of pooled separate accounts and common collective trust, which are managed by the Custodian and therefore qualify as party-in-interest transactions. Service charges paid by the Plan for the investment management services were $58,342 for the year ended December 31, 2016.

Note 8. Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of the financial statements to the Form 5500:

	2016	2015
Net assets available for benefits per the financial statements	$ 27,857,876	$ 27,853,002
Benefit payable to participant at December 31, 2016	(420,315)	-
Net assets available for benefits per the Form 5500	$ 27,437,561	$ 27,853,002

	2016
Benefit payments per the financial statements	$ 3,858,426
Benefits payable to participants at December 31, 2016	420,315
Benefit payments per the Form 5500	$ 4,278,741

Note 9. Subsequent Events

Effective March 16, 2017, the Plan was amended to count years of service with Akana Inc., SOA Software Inc., and LogicLibrary for eligibility purposes. Additionally, the vested percentage for participants who were eligible under the Akana Inc. 401(k) Plan and Trust who became employees of Rogue Wave Software Inc. on January 1, 2017, will be the greater of the percentage determined under this Plan or under the terms of the Akana Inc. 401(k) Plan and Trust.

On June 23, 2017, Brian N. Pierce was appointed to act as Trustee of the Trust established as part of the Plan is authorized to hold the assets of the Trust under the terms of the Trust Agreement.

Rogue Wave Software, Inc. Employees 401(k) Plan

Schedule of Assets (Held at End of Year)
December 31, 2016

Identity of Issuer, Borrower, Lessor, or Similar Party	Description of Investment, Including Maturity Date and Rate of Interest	Current Value
Common collective trust:		
John Hancock USA*	Stable Value Fund	$ 2,774,595
Pooled separate accounts:		
John Hancock USA*	Retirement Choices at 2055	1,055
John Hancock USA*	Retirement Choices at 2050	57,536
John Hancock USA*	Retirement Choices at 2045	1,104,957
John Hancock USA*	Retirement Choices at 2040	589,581
John Hancock USA*	Retirement Choices at 2035	1,138,755
John Hancock USA*	Retirement Choices at 2030	835,958
John Hancock USA*	Retirement Choices at 2025	170,333
John Hancock USA*	Retirement Choices at 2020	718,307
John Hancock USA*	Retirement Choices at 2015	300,410
John Hancock USA*	Lifestyle Aggressive	378,548
John Hancock USA*	Lifestyle Growth	1,308,862
John Hancock USA*	Lifestyle Balanced	822,945
John Hancock USA*	Lifestyle Moderate	155,935
John Hancock USA*	Lifestyle Conservative	103,654
John Hancock USA*	FID Total	979,341
John Hancock USA*	DFA Emerging Markets Value	40,430
John Hancock USA*	Oppenheimer Developing Market	74,193
John Hancock USA*	T. Rowe Price Science & Tech	405,269
John Hancock USA*	Blue Chip Growth Fund	2,588,718
John Hancock USA*	Lord Abbett Value Opps Fund	101,375
John Hancock USA*	Vanguard Small Cap Grow Index	461,299
John Hancock USA*	500 Index Fund	4,549,014
John Hancock USA*	MFS Value Fund	1,046,527
John Hancock USA*	T. Rowe Price Health Science	651,764
John Hancock USA*	Mid Cap Index Fund	737,212
John Hancock USA*	Mid Value Fund	1,175,455
John Hancock USA*	Prudential Jennison Mid Growth Fund	617,229
John Hancock USA*	Royce Opportunity	28,220
	DFA U.S. Targeted Value Fund	404,293
	DFA U.S. Small Cap Fund	32,998
	Subtotal	24,354,768

Rogue Wave Software, Inc. Employees 401(k) Plan

Schedule of Assets (Held at End of Year) (Continued)
December 31, 2016

Identity of Issuer, Borrower, Lessor, or Similar Party	Description of Investment, Including Maturity Date and Rate of Interest	Current Value
	Subtotal brought forward	$ 24,354,768
	International Value Fund	75,389
	International Equity Index Fund	512,500
	Small Cap Index Fund	899,246
	Oppenheimer International Growth Fund	290,512
	American Funds EuroPacific Growth Fund	263,703
	PIMCO All Asset	86,267
	U.S. High Yield Bond Fund	394,668
	Franklin Templeton Global Bond Fund	124,490
	Strategic Income Opp Fund	343,038
	MFS Mass Investors Fund	375,447
		27,720,028
	Notes receivable from participants, maturing through December 2028 at interest rates ranging from 3.25% to 3.50%	127,581
		$ 27,847,609

*Represents a party-in-interest

The above information has been certified by John Hancock Life Insurance Company (U.S.A.), the Custodian, as complete and accurate.

Rogue Wave Software, Inc. Employees 401(k) Plan

Schedule of Assets (Held at End of Year)
December 31, 2016

Identity of Issuer, Borrower, Lessor, or Similar Party	Description of Investment, Including Maturity Date and Rate of Interest	Current Value
Cash	Cash	$ 10,267
John Hancock USA*	Stable Value Fund	2,774,595
John Hancock USA*	Retirement Choices at 2055	1,055
John Hancock USA*	Retirement Choices at 2050	57,536
John Hancock USA*	Retirement Choices at 2045	1,104,957
John Hancock USA*	Retirement Choices at 2040	589,581
John Hancock USA*	Retirement Choices at 2035	1,138,755
John Hancock USA*	Retirement Choices at 2030	835,958
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John Hancock USA*	Lord Abbett Value Opps Fund	101,375
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John Hancock USA*	Mid Cap Index Fund	737,212
John Hancock USA*	Mid Value Fund	1,175,455
John Hancock USA*	Prudential Jennison Mid Growth Fund	617,229
John Hancock USA*	Royce Opportunity	28,220
John Hancock USA*	DFA U.S. Targeted Value Fund	404,293
John Hancock USA*	DFA U.S. Small Cap Fund	32,998
	Subtotal	24,365,035

Rogue Wave Software, Inc. Employees 401(k) Plan

Schedule of Assets (Held at End of Year) (Continued)
December 31, 2016

Identity of Issuer, Borrower, Lessor, or Similar Party	Description of Investment, Including Maturity Date and Rate of Interest	Current Value
	Subtotal brought forward	$ 24,365,035
John Hancock USA*	Small Cap Growth Index	
John Hancock USA*	International Value Fund	75,389
John Hancock USA*	International Equity Index Fund	512,500
John Hancock USA*	Small Cap Index Fund	899,246
John Hancock USA*	Oppenheimer International Growth Fund	290,512
John Hancock USA*	American Funds EuroPacific Growth Fund	263,703
John Hancock USA*	PIMCO All Asset	86,267
John Hancock USA*	U.S. High Yield Bond Fund	394,668
John Hancock USA*	Franklin Templeton Global Bond Fund	124,490
John Hancock USA*	Strategic Income Opp Fund	343,038
John Hancock USA*	MFS Mass Investors Fund	375,447
		27,730,295
Participants*	Notes receivable from participants, maturing through December 2028 at interest rates ranging from 3.25% to 3.50%	127,581
		$ 27,857,876

*Represents a party-in-interest

	27,857,876
$	-