February 2016

Microsoft Volume Licensing Service Center

Understanding Visual Studio Standard subscriptions (MSDN Subscriptions)

| Introduction   |    |
|--|----|
| Benefits and limitations   |    |
| Inventory your pre-production environment  | 4  |
| Visual Studio Standard subscription administration for large teams and external contractors  | 5  |
| Internal teams   | 5  |
| External contractors and partners  | 6  |
| Track user assignment changes and process orders on schedule   | 6  |
| High watermark of usage  | 6  |
| Open License and Open Value  | 6  |
| Enterprise Agreements  | 7  |
| Microsoft Products and Services Agreement  | 7  |
| Resources for Visual Studio Standard subscription administrators   | 7  |
| Using the MSDN Subscription Administration portal  |    |
| Access the MSDN Subscription Administration portal   | 9  |
| Set up your MSDN Subscription Administration access  | 9  |
| Go to the MSDN Subscription Administration portal  |    |
| Search for a Visual Studio subscription using agreement information  |    |
| Search for a Visual Studio subscription using subscriber information<br>Access the MSDN Subscription Administration portal using the subscriptions<br>option |    |
|  |    |
| Viewing subscriber details<br>Open the Subscriber Search tab   |    |
|  | 14 |
| For more information   |    |

### Introduction

This guide was created to help Visual Studio administrators better manage and understand their Visual Studio Standard subscriptions (formerly known as MSDN Subscriptions). It describes the Visual Studio administrator roles and responsibilities, and provides tools and information to help fulfill them.

A Visual Studio administrator has four primary responsibilities:

- 1. Understand the benefits and limitations of Visual Studio Standard subscriptions. Correctly understanding your benefits can enable you to eliminate hardware costs by using cloud services, and reduce software costs with per-user licenses for pre-production environments.
- 2. **Assign Visual Studio subscriptions to specific, named individuals**. Your contract requires that Visual Studio subscriptions be assigned to specific individuals. Use the Volume Licensing Services Center (VLSC) website to manage users and provide them with access to their subscription benefits.
- 3. **Accurately inventory your pre-production environment**. This is essential to ensure that all users who interact with Visual Studio-licensed software have appropriate licenses with their own Visual Studio Standard subscription.
- 4. **Track user assignment changes and acquire additional licenses on schedule**. Microsoft Volume Licensing Agreements give you flexibility in how you use and assign Visual Studio Standard subscriptions. In return, you are expected to track changes to software usage and user assignments and process orders for additional users on the schedule outlined in their agreement.

If you have questions or need help, please contact Microsoft Volume Licensing <u>support</u> for assistance.

### Benefits and limitations

Visual Studio Standard subscriptions (formerly MSDN Subscriptions) allow development team members to install and use software to design, develop, test, evaluate, and demonstrate other software. Visual Studio software is not licensed for production environments.

The following table provides detail on when Visual Studio Standard subscriptions may be used:

| Use                  | Guidance   |
|----------------------|--|
| User-based licensing | MSDN OS, MSDN platforms, and all levels of<br>Visual Studio with MSDN are licensed on a per-<br>user basis. Each development team member that<br>will interact (install, configure, or access) with the<br>software included with these products requires<br>their own Visual Studio subscription. |

| Unlimited installations | Each licensed user may install and use the<br>software on any number of devices to design,<br>develop, test, evaluate, and demonstrate software.<br>The exception is Microsoft Office, which is licensed<br>for one desktop. Visual Studio-licensed software<br>can be installed and used at work, home, school,<br>and on devices at a customer's office or on<br>dedicated hardware hosted by a third party.  |
|-------------------------|---|
| Production environments | Visual Studio software is not licensed for<br>production environments, including any<br>environment accessed by end users for more than<br>acceptance testing or feedback, an environment<br>connecting to a production database, supporting<br>disaster recovery or production backup, or used<br>for production during peak periods of activity.<br>Exceptions to this include specific benefits for<br>subscription levels, outlined on the <u>Visual Studio</u><br><u>subscriptions website</u> .   |
| License reassignment    | When a user leaves a team and no longer requires<br>a license, you may reassign the license if 90 days<br>have passed since the time of the original<br>assignment.   |
| End user exception      | At the end of a software development project,<br>users typically review an application and, through<br>user acceptance testing (UAT) determine whether<br>it meets the criteria for release.<br>Team members such as a business sponsor or a<br>product manager can act as proxies for end users.<br>End users who do not have a Visual Studio<br>subscription may access the software for UAT if<br>use of the software otherwise complies with all<br>Visual Studio licensing terms. It is rare that<br>someone whose primary role is designing,<br>developing, or testing the software would also<br>qualify as an "end user." |

# Inventory your pre-production environment

Visual Studio Standard subscriptions (formerly known as MSDN Subscriptions) simplify asset management by counting users rather than devices.

**NOTE:** Visual Studio administrators must assign Visual Studio subscriptions to specific, named individuals. Naming conventions such as Dev1 or Dev2 are not allowed.

Here are some ways to simplify the process of inventorying your pre-production environment:

- **Review your user assignments**. The Microsoft MSDN Subscription Administration Portal helps you track Visual Studio Standard subscription (formerly MSDN Subscription) assignments. This portal is within the VLSC. This guide will show you how to access it.
- Use Active Directory to list users. If you use Active Directory to manage user access, you may be able to identify development and test users by their directory membership.
- Use automated tools to inventory systems. You may also need to use a software inventory tool to help manage your software assets and distinguish pre-production environments from production ones. Customers using <u>Microsoft System Center</u> create naming conventions to help automate this part of the inventory process.
- **Get help with manual reconciliation**. Enlist your staff to help reconcile your development and test users with your development and test environment.

### Visual Studio Standard subscription administration for large teams and external contractors

Visual Studio administrators are responsible for ensuring that each user who interacts with Visual Studio software is appropriately licensed with their own Visual Studio subscription.

### **Internal teams**

Typically, modern software organizations include stakeholders from several groups. Identify contacts from each group who can help you keep track of user inventory and changes.

Every organization is different, but a typical list of teams involved in development might include:

- Software engineering teams.
- Business teams, including product owners and business analysts.
- Project management teams.
- Quality teams, including QA staff and manual testers.
- IT operations, including pre-production and lab infrastructure managers.

#### External contractors and partners

External contractors may bring licenses to engage with your Visual Studio-licensed environment. Microsoft Certified Partners may receive a number of free Visual Studio subscriptions for their internal use. However, these subscriptions do not cover revenue-generating activities such as developing custom software for a customer. Ask partners to send you a certified letter that explains the licenses they are providing and those that you need to procure.

## Track user assignment changes and process orders on schedule

Visual Studio administrators are expected to track Visual Studio Standard subscription usage and process orders for any increases in usage on the schedule outlined in their Microsoft Volume License Agreement.

#### High watermark of usage

Your company's obligation to purchase Visual Studio subscriptions takes effect immediately when:

- A license is assigned to a user.
- A user interacts with Visual Studio software.

Your complete purchase obligation is determined by the high watermark of usage. This watermark is the high point either in daily user assignments or in users interacting with Visual Studio software, whichever is higher.

- 1. Visual Studio administrators may increase the high watermark of usage by assigning Visual Studio subscriptions to individuals.
- 2. Visual Studio administrators may reassign Visual Studio Standard subscriptions from one subscriber to another if 90 days have passed since the time of the original assignment. To avoid an artificially high watermark, always do this by removing the existing subscription before adding the new one.
- 3. Visual Studio administrators may change the assigned subscription level for an individual, which would constitute a decrease in one assignment and an increase in another. When you lower a subscriber's assigned subscription level, the individual must immediately stop using and uninstall anything that is in the higher-level subscription.

#### **Open License and Open Value**

You may be assigning subscriptions through another Microsoft Volume Licensing program like Microsoft Open License or Open Value. If so, then you must process

your order for additional users during the month in which users (employees or external contractors) begin interacting with Visual Studio-licensed software.

#### **Enterprise Agreements**

Microsoft Enterprise Agreements (EA) give you flexibility in how you use and license Visual Studio software over time. Visual Studio administrators must make an annual True-Up order to bring their software licenses up to the high watermark of usage established during the EA period.

### **Microsoft Products and Services Agreement**

The Microsoft Products and Service Agreement (MPSA) is a licensing agreement that provides a consolidated licensing agreement for all your software, online services, and Software Assurance purchases. MPSA replaces the Select Plus licensing program (retired July 1, 2015). Although no new agreements can be created on Select Plus, you retain all licensing rights and Software Assurance coverage for the products purchased under your current Select Plus agreement.

Customers with an MPSA agreement:

- Must use the <u>Microsoft Volume Licensing Center</u> to manage their volume licensing.
- Can still use the Volume Licensing Service Center (VLSC) to manage volume licensing under other Microsoft agreements.
- Have access to a new portal for administering Visual Studio Standard subscriptions.

For additional information on understanding and managing Visual Studio Standard subscriptions under an MPSA, see the <u>MPSA MSDN Administrator Guide</u>.

# Resources for Visual Studio Standard subscription administrators

Here are additional links and resources for Visual Studio Standard subscription administrators:

- Manage non-MPSA licenses: <u>Sign in to Volume Licensing Service Center</u>
- <u>Visual Studio (formerly MSDN) Licensing</u>
- <u>Visual Studio subscriptions overview</u>
- <u>Compare Visual Studio subscription benefits</u>
- <u>Visual Studio subscriptions (formerly MSDN) help</u>

For a complete explanation of licensing requirements for common deployment scenarios, see the <u>Visual Studio 2015 Licensing White Paper</u>.

### Using the MSDN Subscription Administration portal

The MSDN Subscription Administration portal gives you a central location for managing your Visual Studio Standard subscriptions (formerly MSDN Subscriptions) and allows you to:

- Assign Visual Studio Standard subscriptions to your organization's end users
- Change benefit assignment and contact information
- View summaries of license and benefit assignments
- Change Visual Studio subscription levels for your users
- Allocate, track, and manage media assignments

NOTE: The MSDN Subscription Administration portal is a section within the VLSC.

Keep this in mind when you use the MSDN Subscription Administration portal:

- **Visual Studio subscriptions are licensed per user.** Each subscriber can use the software on as many computers as needed for development and testing.
- Leave all the component benefits (Subscriber Downloads, Technical Support incidents, Priority Support in MSDN Forums, and MSDN Online Chat) selected when assigning a subscription. If you make Subscriber Downloads unavailable, subscribers cannot access the Visual Studio subscriptions portal. This will prevent them from downloading software or accessing e-learning, Microsoft Azure, Visual Studio Team Services, and other benefits that may be included with their subscription.
- Assign only one subscription level for each subscriber, corresponding to the Visual Studio subscription your organization purchased. If you have subscribers with more than one subscription level assigned to them, edit their settings so that they only have one.
- A subscriber's subscription level will need to be updated when the subscription is upgraded (after the purchase of a "step-up" license) or renewed at a lower level.
- **Do not share subscriptions between subscribers.** You must assign a subscription to anyone who uses all or part of the subscription benefits (software for development and testing, Microsoft Azure, e-learning, etc.).

### Access the MSDN Subscription Administration portal

To access the portal, your organization's VLSC Online Administrator must assign a Subscription Manager role to you. Your Administrator must assign permissions to your business email address before you attempt to register for access to the VLSC site. If you are a VLSC Online Administrator, you will automatically be able to use the MSDN Subscription Administration portal.

Questions? See VLSC Frequently Asked Questions.

### Set up your MSDN Subscription Administration access

You can skip this step if you are already registered on VLSC and have the correct permissions. If this is the first time you are accessing the VLSC, then you will see a registration screen asking you to provide your business email address.

- 1. Go to the VLSC.
- 2. To begin the registration process, select Sign In.
- 3. Type your Microsoft account and password, and then select Sign In.
- Type your business email address, confirm the Business E-mail fields, and then select Submit.

**IMPORTANT:** You must type the exact business email address that your Online Administrator associated with your VLSC Subscriptions Manager permissions.

| Permi | ssions to view and manage agreements are linked to your Business E-mail address.                     |                           |
|-------|--|---------------------------|
| >     | If you received an e-mail invitation to VLSC   |                           |
|       | Enter the e-mail address to which your invitation was sent.  |                           |
| >     | If you lost or did not receive an e-mail invitation to VLSC  |                           |
|       | Enter the e-mail address that you use for business which would most likely be named on an agreement. |                           |
|       |  | * Indicates a required fi |
|       |  |                           |
| *8    | usiness E-mail   |                           |
| *     |  |                           |
|       | onfirm your Business E-mail  |                           |
|       |  |                           |
|       |  |                           |
| Ľ     | PORTANT: Your Business E-mail address may be different from your Windows Live ID.                    |                           |

5. You will see a screen that acknowledges receipt of the business email address you provided. Follow the on-screen instructions to validate your email address.



- 6. Go to your inbox and open the message from the VLSC.
- 7. Select the link in the message to confirm your ownership of the business email address.

### Go to the MSDN Subscription Administration portal

- 1. Go to the <u>VLSC</u>.
- 2. To begin the registration process, select Sign In.
- 3. Type your Microsoft account and password, and then select Sign In.

From the VLSC homepage, there are two ways to access the MSDN Subscription Administration portal. When you select **Subscriptions** in the top navigation menu, two choices appear on the submenu: **MSDN Search** and **Subscriptions**.

| Mic     | rosoft <b>\</b>    | /olume Licensin                        | ıg Service Cei            | nter               |                              |                |                    |
|---------|--------------------|--|---------------------------|--------------------|------------------------------|----------------|--------------------|
| Home    | Licenses           | Online Service Activation              | Downloads and Keys        | Software Assurance | Subscriptions                | Administration | Help               |
| 🕕 Do yo | ou have Onlir      | ne Service Orders that need a          | activation? View Online S | ervice Activations | Subscriptions<br>MSDN Search |                |                    |
| Find    | Find What You Need |  |                           | nsing Info         |                              | Pending Reque  |                    |
|         | ##                 | <ul> <li>Software Downloads</li> </ul> |                           | > View License     | Summary                      | View Software  | Assurance benefits |

#### Search for a Visual Studio subscription using agreement information

- 1. On the main navigation menu, select Subscriptions.
- 2. From the **Subscriptions** drop-down menu, select **MSDN Search**. The **MSDN Subscription Administration** search page appears.

| I date and status are based on your current/last registration in the program.  |                                 |          |
|--|---------------------------------|----------|
| Agreement number ? Customer Name Publi   |                                 |          |
|  |                                 |          |
|  |                                 |          |
| date and status are based on your current/last registration in the program.  | blic Customer Number 🤗          |          |
| ail Address, Agreement Number, Master Agreement Number, or Public Customer Number, please enter the exact value. For 'Select Plu   | Plus', please note that the sta | start di |
| ect the Agreement Number below to manage MSDN subscriptions, or narrow your search by entering additional information. If you ar<br>all Address, Agreement Number, Master Agreement Number, or Public Customer Number, place onter the event value For Select Nu |                                 |          |
| ect Search Type: Agreement V Search by agreement information O Search by s   | y subscriber information        |          |

**IMPORTANT:** Some fields will only return search results if the input you provide is an exact match for the information they contain. On the Agreement search screen, Agreement number and Public Customer Number each require an exact match. However, neither of these fields is required.

- 3. To search for an agreement, select the **Search by agreement information** option.
- 4. Select Search.
- 5. When the results from your search appears, select an **Agreement #** or **Public Customer #** to view detailed subscription information for the agreement.

The agreement information will display in the **Agreement** area of the MSDN Subscription Administration portal.

### Search for a Visual Studio subscription using subscriber information

- 1. On the main navigation menu, select Subscriptions.
- 2. From the Subscriptions drop-down menu, select **MSDN Search**. The MSDN Subscription Administration search page appears.

| earch               |           |     |   |   |
|---------------------|-----------|-----|---|---|
| Select Search Type: | Agreement | ~   | O Search by agreement information   | Search by subscriber information                      |
|                     |           |     | v. For 'Select Plus', please note that the Start Date<br>ds will return exact matches only. | e, End Date and status are based on your current/last |
| Subscriber ID 🦉     |           | Lac | t Name  | First Name  |
| Subscriber ID *     |           | OR  | tivane  | First Maine   |
|                     |           | Ema | ail Address 🕜   |   |
|                     |           | Ref | erence 1  | Reference 2   |
|                     |           |     |   |   |

**IMPORTANT**: Some fields will only return search results if the input you provide is an exact match for the information they contain. On the Subscriber search screen, Subscriber ID and Email Address each require an exact match. However, none of these fields is a required field.

- 3. To search for an agreement using subscriber information, select the option to **Search by subscriber information**.
- 4. Select Search.
- 5. When the results of your search appear, select an Agreement # or Public Customer to view the detailed subscriber information for the agreement.

The agreement information will display in the **Agreement** area of the MSDN Subscription Administration portal.

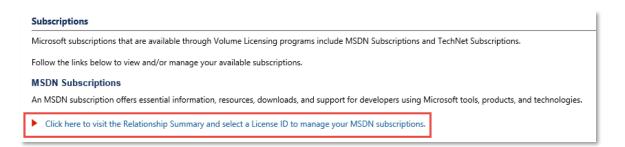
**NOTE:** When you search using subscriber information, the portal will display up to a maximum of 5,000 agreements in the search results.

### Access the MSDN Subscription Administration portal using the subscriptions option

- 1. After you sign in to the VLSC Home page, select Subscriptions.
- 2. Select **Subscriptions** from the drop down menu.

| and Keys | Software Assurance | Subscriptions | Administration | Help |
|----------|--------------------|---------------|----------------|------|
|          | [                  | Subscriptions |                |      |
|          |                    | MSDN Search   |                |      |

3. Go to the section titled MSDN Subscriptions. Select Click here to visit the Relationship Summary and select a License ID to manage your MSDN Subscriptions.



4. The **Relationship Summary** page opens. Select a **Licensing ID** with the Visual Studio subscriptions you want to manage.

| Home Licens   | es Onlin                                     | e Service Activation           | Downloads and Keys          | Software Assurance        | Subscriptions            | Administ                | ration   | Help                                    |                          |
|---|--|--------------------------------|-----------------------------|---------------------------|--------------------------|-------------------------|--|---|--------------------------|
| elationship Sun                                       | nmary  |                                |                             |                           |                          |                         |  |   | -                        |
| ne list below displ                                   | lays all the Li                              | icensing IDs that you are      | e authorized to view or man | age.                      |                          |                         | 0  | Add<br>Relationship S                   | Open Licen<br>Summary F/ |
| Filter View   |  | Parent Program                 | All                         | V                         | Status All               |                         |  | ~                                       | Go                       |
|   |  |                                |                             |                           |                          |                         |  |   |                          |
| Licensing ID 🔺  | Orders                                       | Organization <b>)</b>          | City                        | Country                   | End Date                 | Status                  |  | vnload all licen<br>Program             | ise informat<br>MBSA     |
| Licensing ID ▲<br>License<br>65260040                 | Orders<br>1                                  | Organization ><br>Contoso Ltd. | City<br>Us                  | <b>Country</b><br>Unknown | End Date<br>2017-07-31   | <b>Status</b><br>Active | Parent<br>OPEN   | nload all licen<br>Program<br>17ZZC1707 |                          |
| License   | Orders<br>1<br>1                             | -                              |                             |                           |                          |                         | Parent<br>OPEN<br>952627<br>OPEN   | Program                                 | MBSA                     |
| License<br>65260040<br>License                        | Orders 1 1 1 1                               | Contoso Ltd.                   | Us                          | Unknown                   | 2017-07-31               | Active                  | Parent<br>OPEN<br>952627 <sup>°</sup><br>OPEN<br>952627 <sup>°</sup><br>OPEN | Program<br>17ZZC1707                    | MBSA<br>N/A              |
| License<br>65260040<br>License<br>65260040<br>License | Orders 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Contoso Ltd.<br>Contoso Ltd.   | Us<br>Us                    | Unknown<br>United States  | 2017-07-31<br>2017-07-31 | Active<br>Active        | Parent<br>OPEN<br>952627<br>OPEN<br>952627<br>OPEN<br>952644<br>OPEN         | Program<br>17ZZC1707<br>17ZZC1707       | MBSA<br>N/A<br>N/A       |

5. After the **License Details** page opens, select the link next to **Manage MSDN Subscriptions**.

|                                       |                         | 🕜 Relationship Summa |
|---------------------------------------|-------------------------|----------------------|
| Open License Details : 65260040       | Status : Active         | Organization : Sujan |
| Parent Program : OPEN 95262717ZZC1707 | Start Date : 2015-07-08 | Location : REdmond   |

#### 6. The MSDN Subscription Administration portal opens.

**NOTE**: The MSDN Subscription Administration portal is a section within the VLSC. It is not a separate website.

| Home      | Licenses        | Online Servio                  | ce Activation   | Downloads and Key     | s Software Assurance     | e Subscriptions        | Administratio | on Help  | )           |           |
|-----------|-----------------|--------------------------------|-----------------|-----------------------|--------------------------|------------------------|---------------|----------|-------------|-----------|
| MSDN Su   | Ibscription     | Administratio                  | n               |                       |                          |                        |               |          |             | 4         |
| Agreeme   | ent             |                                |                 |                       |                          |                        |               |          |             | ^         |
| Sujan     |                 |                                |                 |                       |                          |                        |               |          |             |           |
| Author    | ization numb    | er: 952627                     | 17ZZC1707       |                       | Start Date:              | 2015-07-0              | 08            |          |             |           |
| License   | number:         | 652600                         | 40              |                       | End Date:                | 2017-07-3              | 31            |          |             |           |
| Progra    | m:              | OPEN                           |                 |                       |                          |                        |               |          |             |           |
|           |                 | Studio Premiu<br>N. Learn more | e.              |                       | Itimate with MSDN s      |                        |               |          |             |           |
|           |                 |                                | Subscri         | ber Search Assign     | Subscription Assign      | Multiple Subscriptions | Shipment Se   | earch Su | ubscription | n Summary |
| Search    |                 |                                |                 |                       |                          |                        |               |          |             | V         |
| Subscrib  | ers             |                                |                 |                       |                          |                        |               |          |             |           |
| To view/e | edit details, s | earch for the sul              | bscriber lick   | on the hyperlinked La | st Name below.           |                        |               |          |             |           |
| Export Al | I Subscribers   | CSV                            |                 |                       |                          |                        |               | F        | Resend In   | vitation  |
|           |                 |                                |                 |                       |                          |                        |               |          |             |           |
|           | st Name⊁        | First Name ►                   | Email Address > | Subscriber ID >       | Subscription Level       | Media                  | a Download    | Support  | Forums      | Chat C    |
| Yee       | e               | Taito                          | taitoy@contoso  | .com *****CNGI        | Visual Studio Enterprise | w/MSDN                 | ×             | <b>~</b> | 1           | 🗸 Ui      |
| <         |                 |                                |                 |                       |                          |                        |               |          |             | >         |

**NOTE:** If you previously purchased either Visual Studio Premium with MSDN or Visual Studio Ultimate with MSDN, you will see a notice indicating the change to Visual Studio Enterprise with MSDN.

### Viewing subscriber details

Once you have selected an agreement, you can use the **Subscriber Search** tab to view details about individual subscribers. The **Subscriber Search** tab is collapsed by default.

Open the Subscriber Search tab

- 1. After you select an agreement, select the **Subscriber Search** tab.
- 2. The **Subscriptions** page appears with the **Search** area hidden. To open the

Search area, select the arrow

|  | Subscriber Search Assign Subscription  | Assign Multiple Subscriptions | Shipment Search | Subscription Summar |
|--|--|-------------------------------|-----------------|---------------------|
| earch  |  |                               |                 |                     |
| Last Name  | First Name   | Email                         | Address ?       |                     |
| Subscriber ID ?  | Reference 1  | Refere                        | ence 2          |                     |
| Country  | Subscription Level   |                               |                 |                     |
| All<br>Afghanistan<br>Albania<br>Algeria<br>American Samoa | All<br>Media - Expression Subscription<br>MEDIA - MSDN Operating Syste<br>MEDIA - Visual Studio Enterprise<br>MEDIA - Visual Studio Profession | e with MSDN                   |                 | <b>~</b>            |
|  |  |                               |                 | Search              |
| ubscribers   |  |                               |                 | •                   |

- 3. From this screen, you can:
  - View and edit the subscriber's details by selecting the subscriber's last name.
  - Remove a subscriber by selecting the check box next to the subscriber(s), and then selecting **Remove Subscribers.**
  - Resend an email invitation to the subscriber by selecting the box next to the subscriber's name, and then **Resend Invitation**. More details about the invitation email are in step 8 of the "Assign a Subscription from an Agreement" section in the <u>Managing Visual Studio subscriptions (MSDN</u> <u>Subscriptions)</u> guide.
  - View other subscribers that are not visible by doing one of the following:
    - o Export the entire subscriber list to a CSV file
    - o Sort your search results within the subscriber list
    - o Use the Search area to narrow the search results

### For more information

For more information about how to use the MSDN Subscription Administration portal, see the guide titled <u>Managing Visual Studio subscriptions (MSDN</u> <u>Subscriptions)</u> on the <u>VLSC training and resources</u> page.