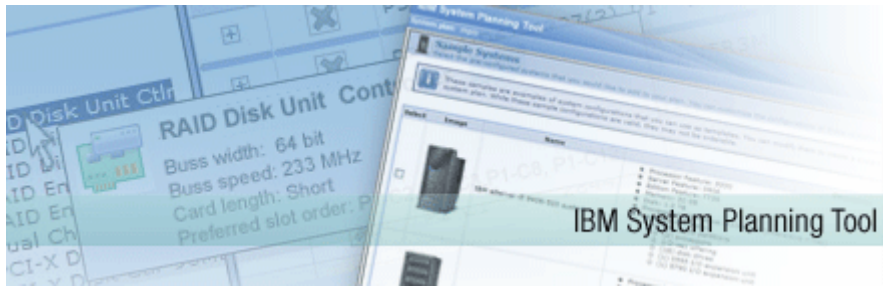


## System Planning Tool - Frequently Asked Questions (FAQs)



## *Frequently Asked Questions*

### **Q: What is partitioning and virtualization?**

**A:** Descriptions of what partitioning and virtualization can be found at:

**iSeries:** <http://www.ibm.com/servers/eserver/series/lpar/>

**pSeries:** <http://www.ibm.com/systems/p/lpar/>

### **Q: Where do I get the System Planning Tool (SPT)?**

**A:** The SPT is available for download to your PC at

<http://www.ibm.com/systems/support/tools/systemplanningtool/>

### **Q: What is the version number of the most current version of the System Planning Tool (SPT)?**

**A:** The version number of the SPT is posted with the SPT at

<http://www.ibm.com/systems/support/tools/systemplanningtool/>

### **Q: How often will the System Planning Tool (SPT) be updated? How often should I refresh my copy of it?**

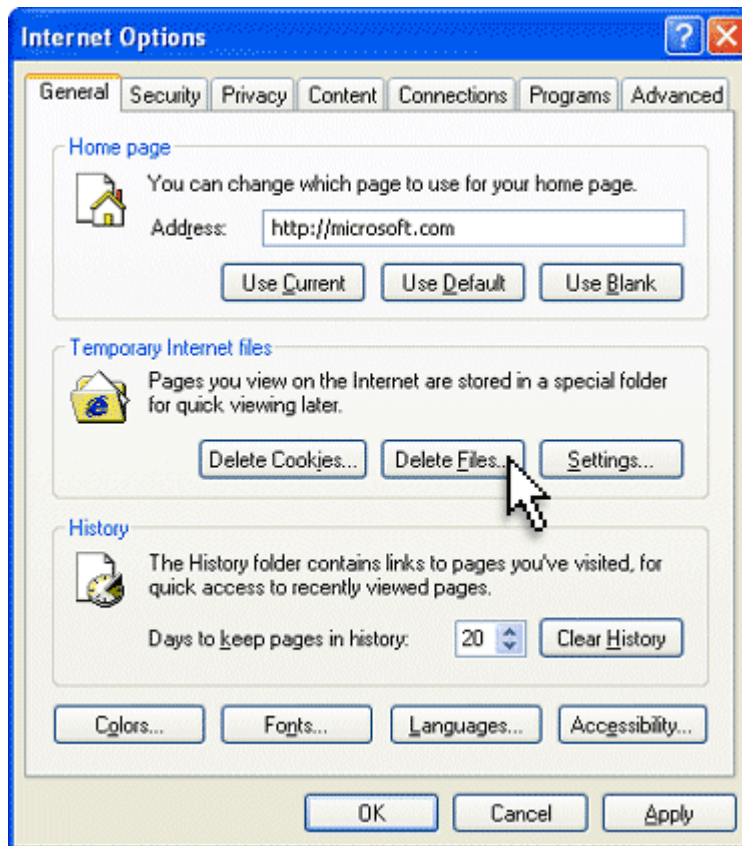
**A:** Updates will be posted as often as necessary, generally every one to four weeks.

**IMPORTANT:** After you install an update, it is important that you clear your browser's cache to ensure that you are getting the latest revisions.

**To clear your browser's cache in Windows Explorer:**

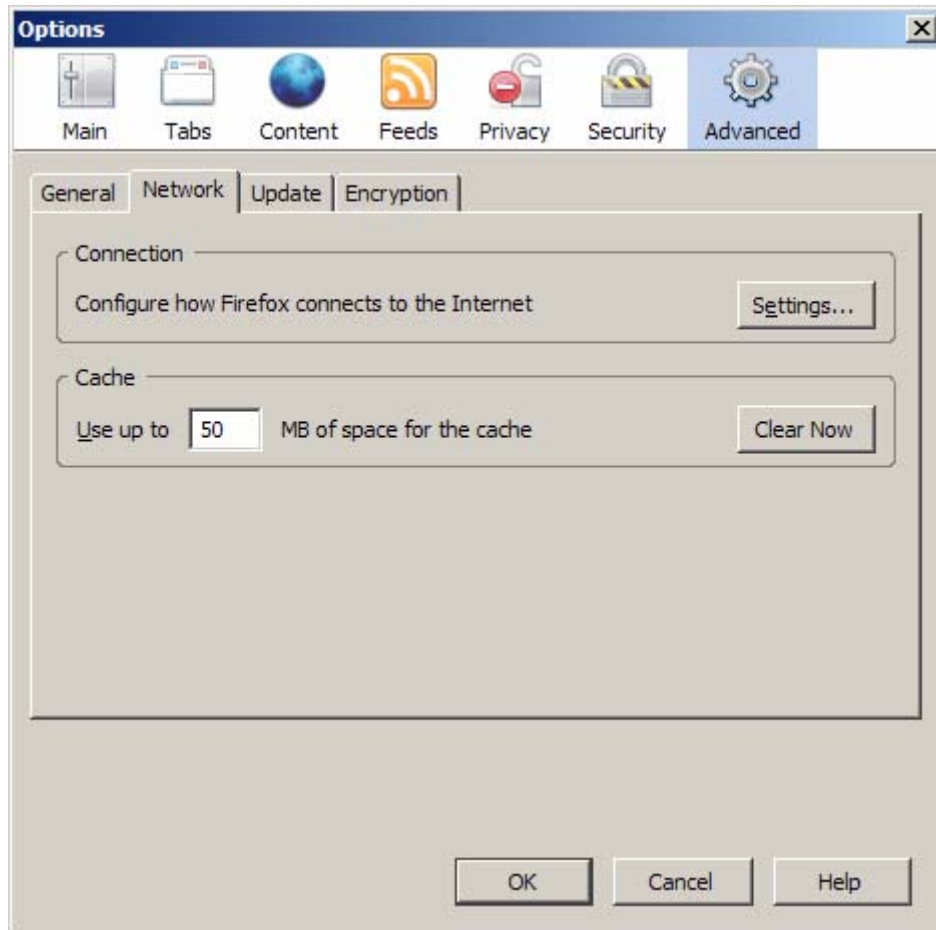
1. Select **Tools > Internet Options**.
2. On the **General** tab, in the **Temporary Internet Files** section, click the **Delete Files** button.

3. Click **OK**, then click **OK** again.



**To clear your browser's cache in Firefox:**

1. Select **Tools > Options**
2. Select the **Advanced** panel and click the **Network** tab.
3. Click the **Clear Now** button at the bottom of the **Cache** tab.



**Q: What happened to the LPAR Validation Tool (LVT)?**

**A:** The LVT has been transformed into the System Planning Tool (SPT). The SPT delivers significant new updates, including a browser-based user interface and many new features. The SPT provides the same validation services and features as those provided by the LVT. Users of the SPT will benefit from its integration with other IBM tools, such as the Workload Estimator. Its new features dramatically simplify the process of deploying new systems based upon the system plan.

**Q: What is a system plan?**

**A:** A system plan is a specification of the hardware and the logical partitions contained in one or more systems. You can create a system plan using the System Planning Tool (SPT). You can then use the System Plans application in the Hardware Management Console (HMC) or Integrated Virtualization Manager (IVM) user interface to deploy the system plan. When you deploy a system plan to a system, the HMC or the IVM creates logical partitions on the system and assigns hardware to logical partitions according to the specifications in the system plan. After you deploy the system plan, you can use the *mksysplan* command in the HMC command-line interface or the IVM command-line interface to create a system plan based upon the existing system. The *mksysplan* command allows you to save a record of the hardware and logical partitions on the system for future reference.

**Q: What application do I use with the System Plan?**

**A:** The System Plan application in the Hardware Management Console (HMC) or Integrated Virtualization Manager (IVM) allows you to create logical partitions on a system based upon a system plan.

**Q: Does the SPT provide a .TXT version of a saved System Plan file (.sysplan)?**

**A:** To view a .TXT version of your system plan, open the system plan in the SPT, and click **Report** to load the selected system plan in the **System Plan Viewer**. Click **Text Report** to view a .TXT version of your system plan. Click **Save** to save the system plan in a .TXT format.

**Q: Why can't I configure my Virtual I/O slots from the Memory tab in the Add System Wizard; this step seems to be missing in the latest version of the SPT?**

**A:** In previously released versions of the SPT, the **Memory** tab focused on the number of virtual I/O slots for which you want to reserve system memory. You no longer need to work with virtual adapters and slots configuration during this step. In the new version of the SPT slots are automatically mapped and created as you configure your network (virtual Ethernet), storage (virtual SCSI), and Consoles (virtual serial).

To work with virtual Ethernet, virtual SCSI, and virtual serial slots, select your system plan from the **Work with Planned Systems** page and click **Edit**. As you configure the Networking, Storage, and Consoles tabs, the SPT will automatically configure your virtual I/O slots. If you want to modify the slots the SPT automatically assigns, you can still manage virtual slot numbers by clicking **Edit Virtual Slots** from the Networking, Storage, and Consoles tabs.

**Q: How do I work with existing HMC and IVM systems plans?**

**A:** In previous releases of the SPT, you could view a Hardware Management Console (HMC) or Integrated Virtualization Manager (IVM) system plan, but you could not edit the plan. You can still view the system plan at any time, but the SPT now allows you to convert an HMC or IVM system plan into a format that will allow you to edit the plan in the SPT. When you open an existing HMC or IVM system plan and click **Convert**, you will launch the System Plan Conversion Wizard.

Follow the conversion wizard and provide any additional system attributes required to make the system plan compatible with SPT.

For more information on optimizing your conversion results, see the online help or the conversion guide available from the SPT Website: **Converting system plans to System Planning Tool (SPT) format**.

The SPT also allows you to import partitions from an HMC or IVM generated system plan into an SPT generated system plan by using the Copy/Import Partitions Wizard. This wizard is available in edit mode from the Partitions tab.

**Q: My system allows the use of multiple shared processor pools. How do I know which shared processor pool to use?**

**A:** A default shared processor pool with no explicit maximum capacity is always available for use by shared partitions within the System Planning Tool. The implied maximum capacity for the default shared processor pool is the total number of active processors not currently dedicated to a specific partition, and where that partition does not enable idle sharing. The SPT planning process always assumes that all partitions are active at once. In reality, a scenario could occur where this is not true. If a partition with dedicated processors is powered down and inactive, those dedicated processors become available to shared partitions. This could result in there being more processors available for shared

partitions than SPT planned for, and in turn could require more licenses than were planned for. If the managed system allows the configuration of multiple shared processor pools, you can configure additional shared processor pools (not the default shared processor pool) to use an explicit maximum processor capacity. The default shared processor pool does not allow you to set an explicit maximum capacity, but the additional shared processor pools do allow you to set an explicit maximum capacity. Choosing not to use the default shared processor pool, and instead choosing to use additional shared processor pools which allow for limiting capacity can help ensure that you do not exceed the licenses you planned for.

**Q: I want my network environment to support VLAN tagging, how do I map a Virtual Ethernet Adapter (VEA) to multiple VLANs?**

**A:** You can now take advantage of VLAN tagging and map additional VLANs to a VEA from the Networking tab in the SPT.

In the past, the SPT only supported untagged VLANs. A port used to connect VLAN-unaware hosts is called an untagged port, and it can be a member of only a single VLAN identified by its Port VLAN ID (PVID). Hosts that are VLAN-aware can insert and remove their own tags and can be members of more than one VLAN. To setup your network environment to support VLAN tagging, you can select to add additional VLANs from the VEA details tab.

**Q: Why can't I add this part to my hardware configuration?**

**A:** A number of reasons prevent adding a feature. Generally speaking, either weighting or positioning prevents a feature I/O adapter (IOA) from being added. For example, only four IOAs may be placed on any single I/O processor (IOP), and those four may not exceed the capabilities of the IOP.

**Q: Why does the System Planning Tool (SPT) allow me to add withdrawn features?**

**A:** If a feature is valid for a logical partition solution, it is included in the SPT. The SPT allows withdrawn features so that it can be used to generate system plans that can be deployed on existing systems. SPT validates for new orders, and when this option is enabled a withdrawn part or feature icon (🚫) will appear next to withdrawn parts and withdrawn features.

**Q: Can I have a Linux logical partition without any Linux features selected?**

**A:** Yes. You can set up a Linux logical partition to use I/O resources from a Virtual I/O Server or i5/OS logical partition. The Linux logical partition can connect to disk resources on the other logical partition through virtual SCSI. The Linux logical partition can connect to an external network through a virtual LAN connection. Virtual I/O allows you to create the Linux logical partition without any I/O resources of its own.

**Q: On a 2-way iSeries model 820, there are four logical partitions. One logical partition uses 0.6 processing units, the second logical partition uses 0.5 processing units, the third logical partition uses 0.8 processing units, and the fourth logical partition uses 0.1 processing units. This means at least one logical partition works on both processors. Is this possible?**

**A:** This is valid because the system does not separate the processors and allocate them so that the same partial processor is always dedicated to the same logical partition. The system works out of the shared processor pool and the same processor will not always be used in the partition. It used that particular amount of a processor in the shared processor pool.

**Q: The System Planning Tool (SPT) is allowing me to have unassigned processor and memory resources. Is this right?**

**A:** Yes. There is no requirement to allocate all processors and memory.

**Q: Is a disk IOA allowed on a switchable IOP?**

**A:** Yes. The disk IOA is allowed on a switchable IOP because the tool can be used for clustering with switched disk support or to design switchable towers. You can also switch a CD-ROM by placing it in a tower CD-ROM drive (removable media) bay driven by a disk IOA, attached to a switchable IOP, and not have any disks in the disk slots controlled by the switchable IOP.

**Q: For the iSeries model 270, there can be as many as three disk bays in the system unit but you are only allowed two disk IOA adapters. Which disk IOAs control which disk bays?**

**A:** The 9767 disk IOA can control six disk units. (There is a maximum of one 9767 per system.) The 2763 can control seven to 12 disk units. The 4748/4778 can control 13 to 18 disk units. It depends how many disk units you want in each partition as to the disk controllers that you use. The disk controller in C01 will always control the first disk bay (DB)

**Q: Now that I have been able to use the SPT to decide what DASD and IO I need and where to place this hardware within the drawers, can I get this new system shipped to me with this placement already complete?**

**A:** There is an offering called Customer Specified Placement (CSP) that is available to you on new initial orders. The use of CSP offering ensures that the placement you define in the SPT will be used to build and test your system. This offering can easily be requested by importing the CFReport (.cfr file) output of the SPT into the IBM Sales Configurator (eConfig) and selecting the CSP feature from the CSP/LPAR tab. The output of the Sales Configurator is used to place the order. Once you receive your IBM order numbers, this same output of the Sales Configurator is submitted to IBM through the following website <http://www.ibm.com/servers/eserver/power/csp/>. Depending on your location and the order process you use, you may be able to bypass the submission through the website. Please see the website for further details.

This offering ensures that you do not have to take hours and sometimes days of your installation time moving parts once the system is delivered. It also increases the overall quality of your system since IBM is able to test the system in your configuration before shipment and it eliminates the possibility of handling damage during the process of moving the parts.

A similar offering is available for systems ordered through IBM's Solution Delivery Integrators (SDI's).

**Q: I want to upgrade the memory capacity of my 9119-FHA system and I currently have 1 or more processors with feature code 4695. Can I add additional processor feature 4705 and enhance my memory capacity?**

**A:** You can mix processors, but the only way to gain support of the larger memory capacity is to move to a configuration that uses only the 4705. The 9119-FHA allows the mixing of processor features 4695 and 4705 within a single system. The only advantage of the 4705 over the 4695 is its ability to utilize the larger 64GB memory feature (5697) which allows it to support twice as much memory as the 4695 (which does not support the 5697). However, when mixing the 4705 with one or more 4695s, that advantage is lost. The 4705 in a mixed-processor system cannot utilize the 64GB 5697 memory feature and so 4705s in mixed-processor systems function identically to 4695s. Therefore, when using the SPT to model a 9119-FHA that contains a mixture of 4695s and 4705s, you should simply model all the processors as though they are 4695s.

This offering ensures that you do not have to take hours and sometimes days of your installation time moving parts once the system is delivered. It also increases the overall quality of your system since IBM is able to test the system in your configuration before shipment and it eliminates the possibility of handling damage during the process of moving the parts.

A similar offering is available for systems ordered through IBM's Solution Delivery Integrators (SDI's).