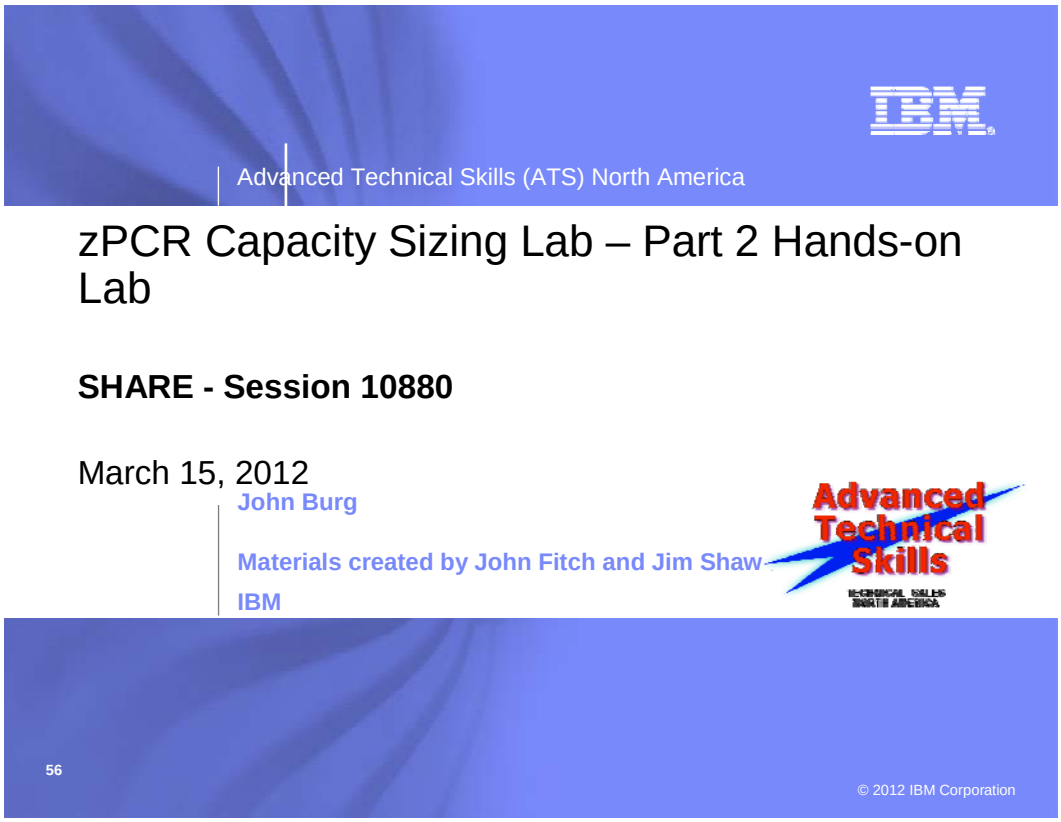
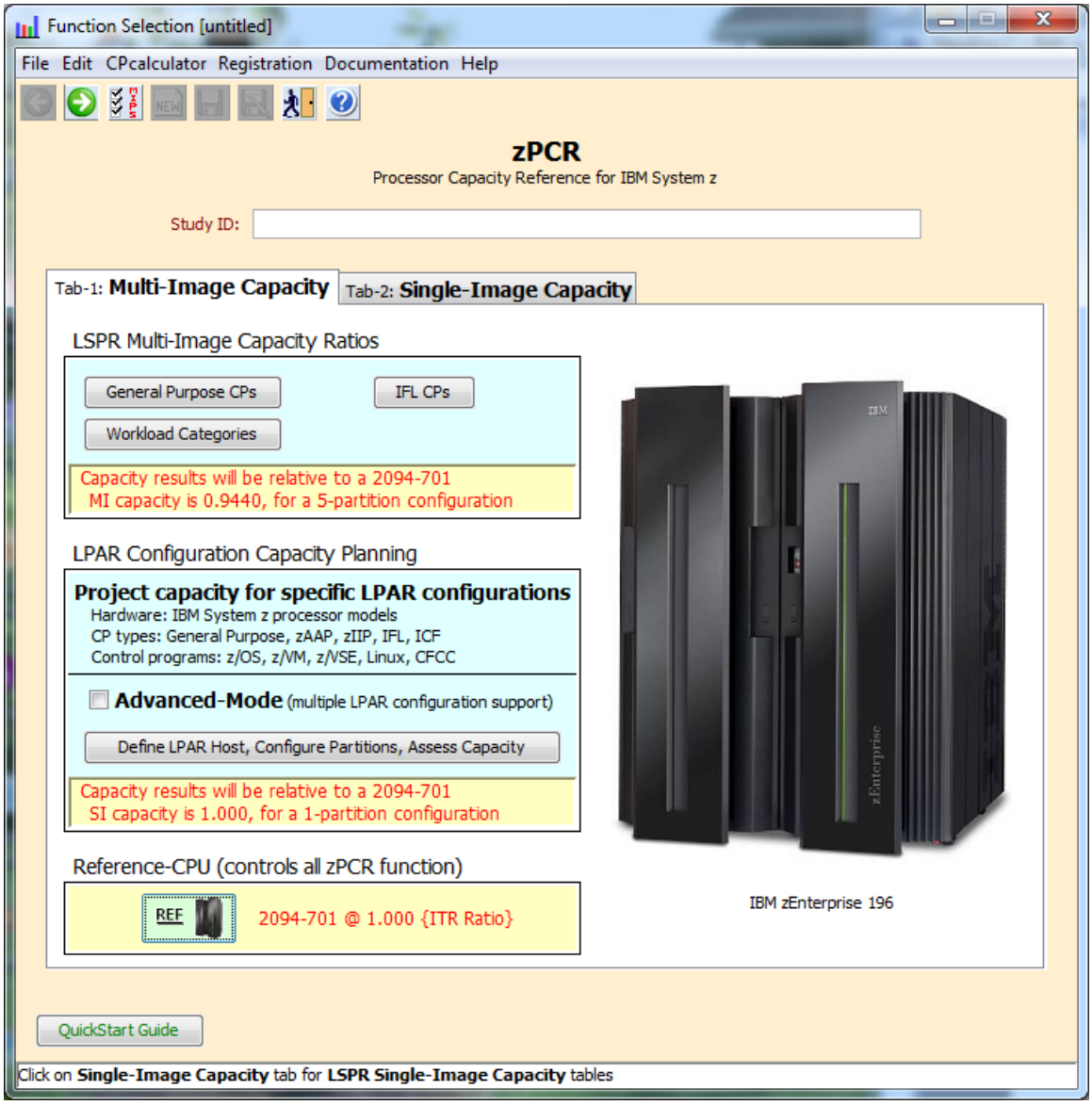


# *zPCR Capacity Sizing Lab – Part 2 Hands On Lab Exercise*

John Burg

## Function Selection Window



## *Objective*

You will use **zPCR** (in Advanced Mode) to define a customer's current LPAR configuration and then project the capacity expectation for an upgrade to newer technology. The capacity results will then be used to determine if the upgrade model is adequate to support all of the work, and to determine if the amount of CP resource available to each partition is adequate to support that partition's workload with the anticipated growth applied.

## *Problem*

XYZ Corporation currently has a **z10 2097-707** (7-way processor) installed, which they view as having **5,100 MIPS** of usable capacity, (so we will need to calibrate zPCR to this view). The 2097-707 is currently averaging **92% busy** during peak processing periods. The workload environment includes multiple logical partitions, all running on General Purpose CPs, as shown in the table below.

| Partition | | LP-mode | LCPs | Busy | Weight | Capped | Workload Category |
|---|---|---|---|---|---|---|---|
| 1 | Batch | Share | 3 | 15% | 150 | No | z/OS-1.11 Average |
| 2 | CICS-1 | Share | 7 | 35% | 350 | No | z/OS-1.11 Avg-High |
| 3 | CICS-2 | Share | 3 | 10% | 100 | No | z/OS-1.11 Avg-High |
| 4 | CICS-3 | Share | 2 | 10% | 100 | No | z/OS-1.11 Avg-High |
| 5 | IMS | Share | 4 | 20% | 200 | No | z/OS-1.11 Avg-High |
| 6 | Test | Share | 2 | 2% | 20 | Yes | z/VM High/LV |

A plan is being developed to **replace the z10 2097-707 with a newer technology zEnterprise 196 processor**. The specific model chosen must provide **20%+ additional capacity**, or at least **6,150 MIPS**. The current partitions are to be moved to the new processor with the partitions and their workloads as being run today. You already have a zPCR study file containing the configuration from the last time you did an upgrade.

## *Tasks*

Here are the 6 tasks that comprise this zPCR familiarization exercise, addressing the problem described above.

- **Task 1** - Load a model of the current LPAR Configuration
- **Task 2** - Calibrate the model to XYZ Company's capacity designation
- **Task 3** - Save the current study in Advanced-Mode (e.g. task2.zpcr)
- **Task 4** - Find an appropriate Enterprise 196 (z196) replacement processor
- **Task 5** - Model the intended z196 LPAR host
- **Task 6** - Review the Capacity results and save the Study (use a different file name than Task 3, e.g. task6.zpcr)
- **Additional**
  - Model 1 IFL in the proposed configuration
  - Model 1 zIIP in the proposed configuration

Note: When instructed to **Return** the  icon should be used

## Task 1: **Load a model of the current LPAR configuration**

In this task you will load the current LPAR configuration into zPCR from the file supplied.

Note: **zPCR**'s default Reference-CPU setting is the 2094-701 rated at 1.00. When this study was saved, the Reference-CPU was set to a 2094-701 rated at 593 MIPS, so we need to restore the **zPCR** Reference-CPU to that setting.

### Analysis Steps

1. Start **zPCR**. After the Logo window stages, you will be viewing the ***Function Selection*** window, on the ***Multi-Image Capacity*** tab.
2. Select the ***Advanced-Mode*** check box if it is not already checked
3. Click the **Enter Advanced-Mode** button
4. On the ***Advanced-Mode Control Panel*** window, double click on the **Reference-CPU** icon 

, currently tagged with "**2094-701 @ 1.000 {ITR Ratio}**". The ***Reference-CPU*** window will appear.
   a) Click **Typical** to set the Reference-CPU to the 2094-701 rated at 593 MIPS.
   b) Click **Return**
5. Open Windows Explorer (by clicking on "Start", "All Programs", "Accessories", "Windows Explorer"). Then using Windows Explorer (under My Computer/Local Disk (C:) ) select to the CPSTOOLS/zPCR directory, where the **Task 1.zpcr** file is located and visible. You'll probably want to size the Windows Explorer window down, so that it can be visible with zPCR active.
6. Drag the "**Task 1.zpcr**" study file from the "**zPCR**" subdirectory underneath or on top of the "**Current**" icon 

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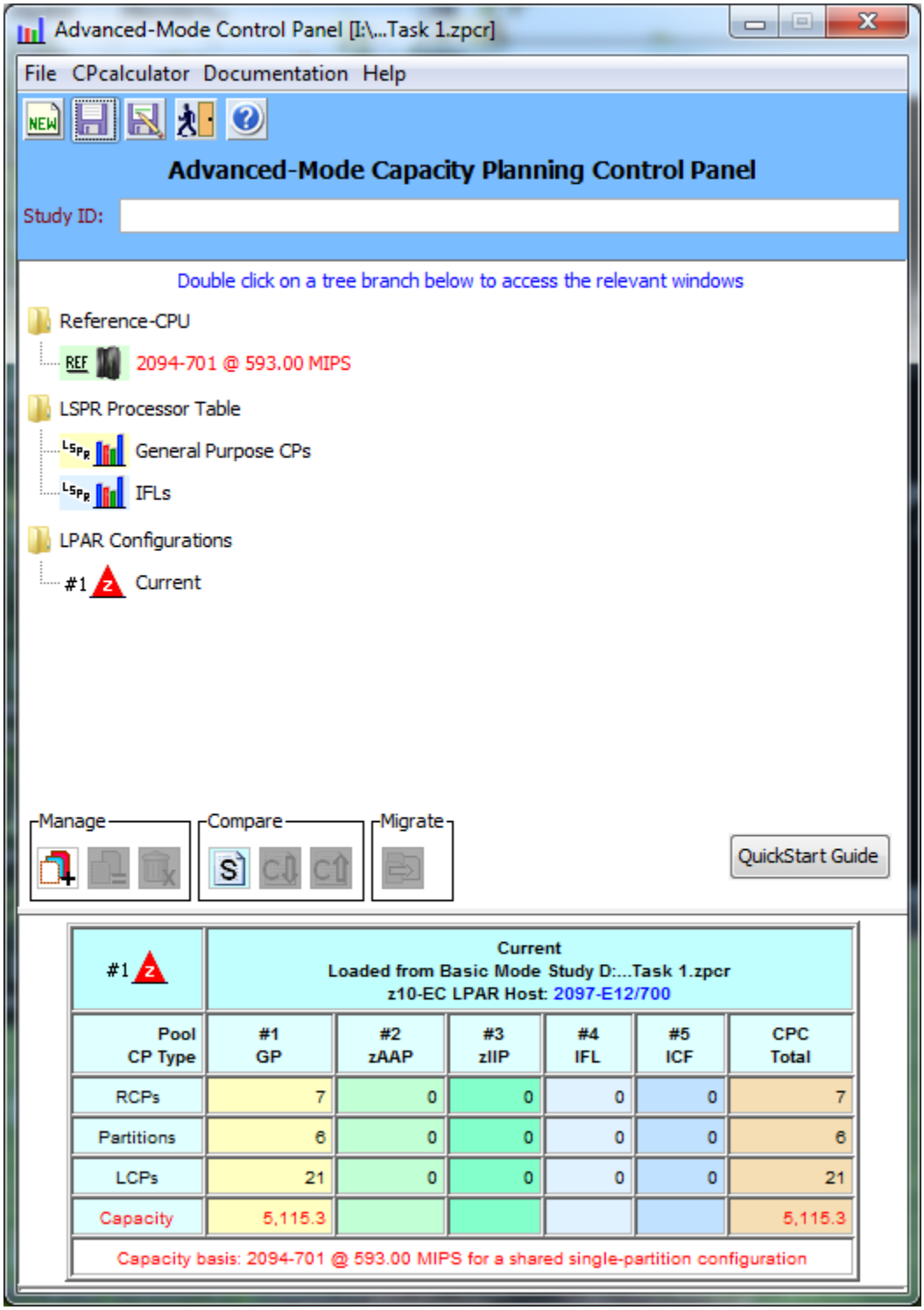
## Advanced-Mode Control Panel Window

Task 1.zpcr



## Task 2: **Calibrate the model to XYZ Company's capacity designation**

Review the capacity assessment and alter the ***Reference-CPU*** scaling-factor such that the company's capacity designation is provided in the results.

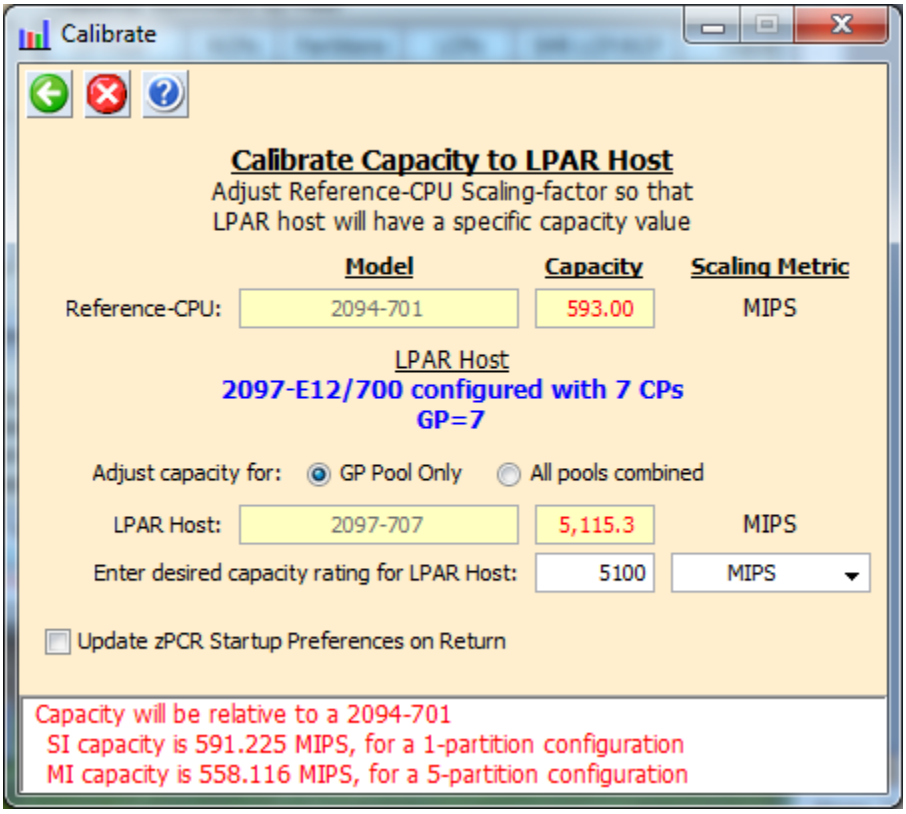
### Analysis Steps

1. Refer to the "**Rename a Configuration**" at the end of this document to rename the configurations as shown in the lab

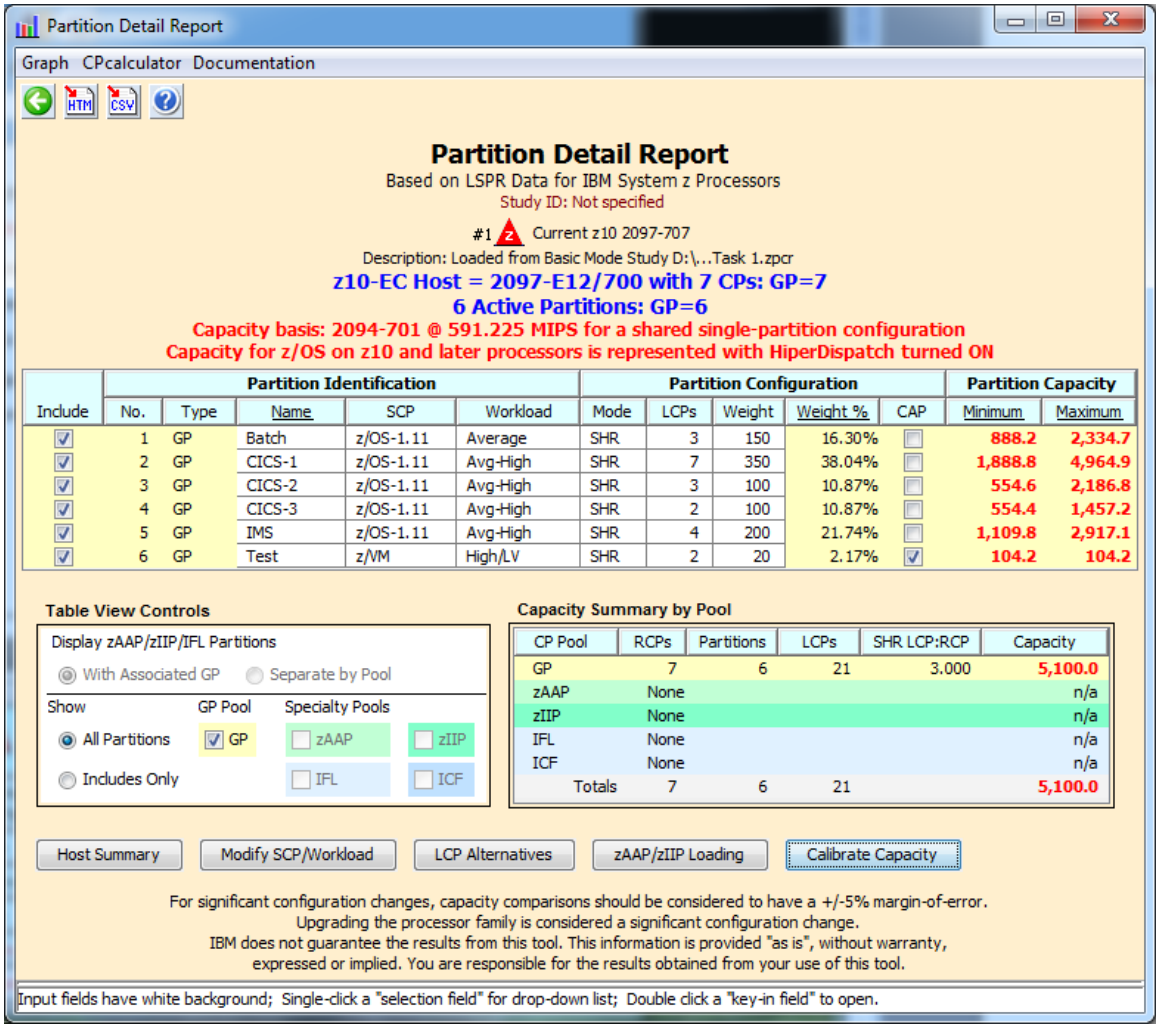
2. Using the directions above to relabel "**Current**" to "**Current z10 2097-707**"

3. Double-click on the **Current z10 2097-707** LPAR configuration icon 

to open the ***LPAR Host and Partition Configuration*** window for the **Current z10 2097-707** LPAR configuration.
4. Click **Partition Detail** in the **Capacity *Reports Groupbox*** to open the ***Partition Detail Report*** window. This window will reveal the total GP capacity available as **5,115.3 MIPS**. The XYZ Company believes that the total GP capacity of this machine for their environment is **5,100 MIPS**. We will adjust the Reference-CPU scaling factor so that the GP capacity result will be **5,100 MIPS**.
5. Click **Calibrate Capacity** to open the ***Calibrate*** window.
6. Key in **5100** in the ***Enter desired capacity rating for LPAR Host*** entry field and press **Enter**.




7. Click **Return**



Partition Detail Report

Graph CPcalculator Documentation

# Partition Detail Report

Based on LSPR Data for IBM System z Processors

Study ID: Not specified

#1 Current z10 2097-707

Description: Loaded from Basic Mode Study D:\...Task 1.zpcr

**z10-EC Host = 2097-E12/700 with 7 CPs: GP=7**

**6 Active Partitions: GP=6**

**Capacity basis: 2094-701 @ 591.225 MIPS for a shared single-partition configuration**

**Capacity for z/OS on z10 and later processors is represented with HiperDispatch turned ON**

| | Partition Identification | | | | | Partition Configuration | | | | | Partition Capacity | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Include | No. | Type | Name | SCP | Workload | Mode | LCPs | Weight | Weight % | CAP | Minimum | Maximum |
| ☑ | 1 | GP | Batch | z/OS-1.11 | Average | SHR | 3 | 150 | 16.30% | ☐ | 888.2 | 2,334.7 |
| ☑ | 2 | GP | CICS-1 | z/OS-1.11 | Avg-High | SHR | 7 | 350 | 38.04% | ☐ | 1,888.8 | 4,964.9 |
| ☑ | 3 | GP | CICS-2 | z/OS-1.11 | Avg-High | SHR | 3 | 100 | 10.87% | ☐ | 554.6 | 2,186.8 |
| ☑ | 4 | GP | CICS-3 | z/OS-1.11 | Avg-High | SHR | 2 | 100 | 10.87% | ☐ | 554.4 | 1,457.2 |
| ☑ | 5 | GP | IMS | z/OS-1.11 | Avg-High | SHR | 4 | 200 | 21.74% | ☐ | 1,109.8 | 2,917.1 |
| ☑ | 6 | GP | Test | z/VM | High/LV | SHR | 2 | 20 | 2.17% | ☑ | 104.2 | 104.2 |

**Table View Controls**

Display zAAP/zIIP/IFL Partitions

With Associated GP  Separate by Pool

| Show | GP Pool | Specialty Pools | |
|---|---|---|---|
| All Partitions | GP | zAAP | zIIP |
| Includes Only | | IFL | ICF |

**Capacity Summary by Pool**

| CP Pool | RCPs | Partitions | LCPs | SHR LCP:RCP | Capacity |
|---|---|---|---|---|---|
| GP | 7 | 6 | 21 | 3.000 | 5,100.0 |
| zAAP | None | | | | n/a |
| zIIP | None | | | | n/a |
| IFL | None | | | | n/a |
| ICF | None | | | | n/a |
| Totals | 7 | 6 | 21 | | 5,100.0 |

Host Summary | Modify SCP/Workload | LCP Alternatives | zAAP/zIIP Loading | Calibrate Capacity

For significant configuration changes, capacity comparisons should be considered to have a +/-5% margin-of-error.
Upgrading the processor family is considered a significant configuration change.
IBM does not guarantee the results from this tool. This information is provided "as is", without warranty,
expressed or implied. You are responsible for the results obtained from your use of this tool.

Input fields have white background; Single-click a "selection field" for drop-down list; Double click a "key-in field" to open.

## Task 3: **Save the study**

**Analysis Steps**

1. Click **Return** twice to close the LPAR configuration windows.
2. From the menu-bar on the ***Advanced-Mode Control Panel*** window, click **File**→**Save as**, to save your LPAR definitions for the current LPAR host processor. (e.g. task2.zpcr)

Note: the former basic-mode study file has now been converted to an "**Advanced Mode**" study file.

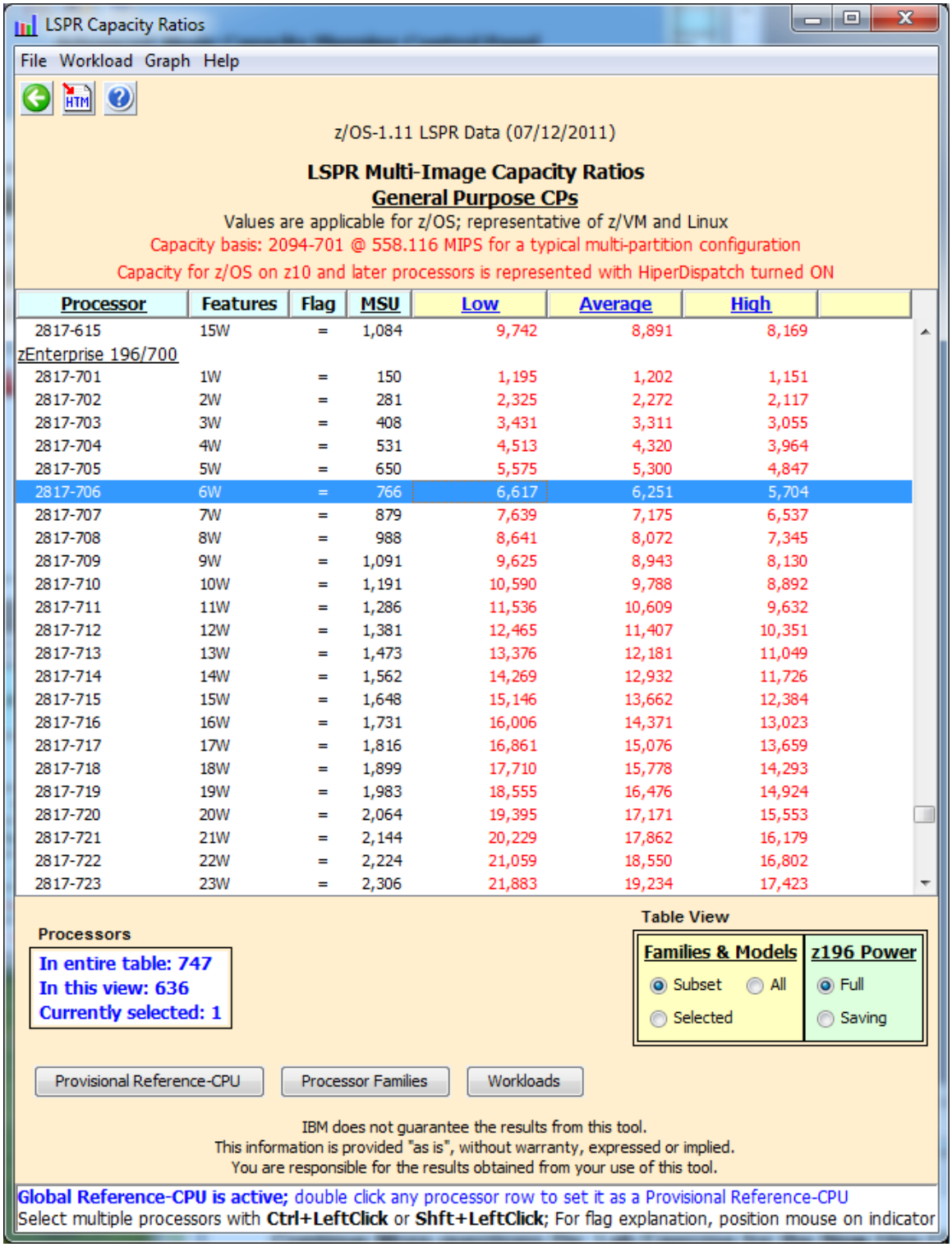
## Task 4: **Find an appropriate replacement processor**

Browsing the ***z/OS-1.11 Multi-Image LSPR Capacity Ratios*** table, find the IBM z196 processor that can provide the required capacity increment using the z/OS Average workload

**Analysis Steps**

1. From the Advanced-Mode window, double click on **General Purpose CPs**  to open the ***LSPR Multi-Image Processor Capacity Ratios*** table.
2. Find an IBM zEnterprise 196 processor that can provide the required **6,150 MIPS**. (tip right click for a list of the Families, then select via scroll to IBM, then select z196/700)

   For the purposes of this exercise, choose the **2817-706**, which appears to have just a bit more capacity than we require, (e.g. **6,251** for Average etc) **Remember that capacity values in the multi-image table represent typical (or average) partition configurations, and therefore can only generalize on capacity**.
3. Click **Return** to go back to the ***Advanced-Mode Control Panel*** window.

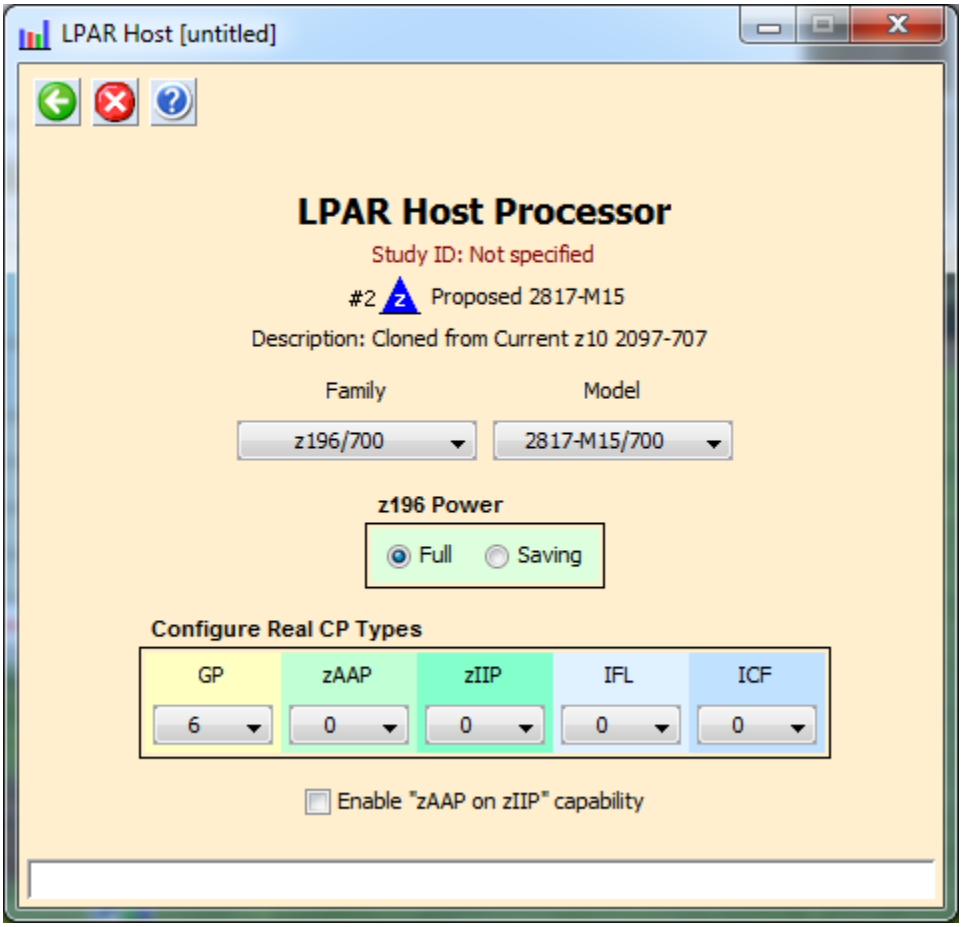


## Task 5: **Model the intended LPAR host**

Using the current LPAR configuration as a starting point, we will transfer it to the new IBM zEnterprise 196 processor, making any necessary adjustments to the partition definitions.

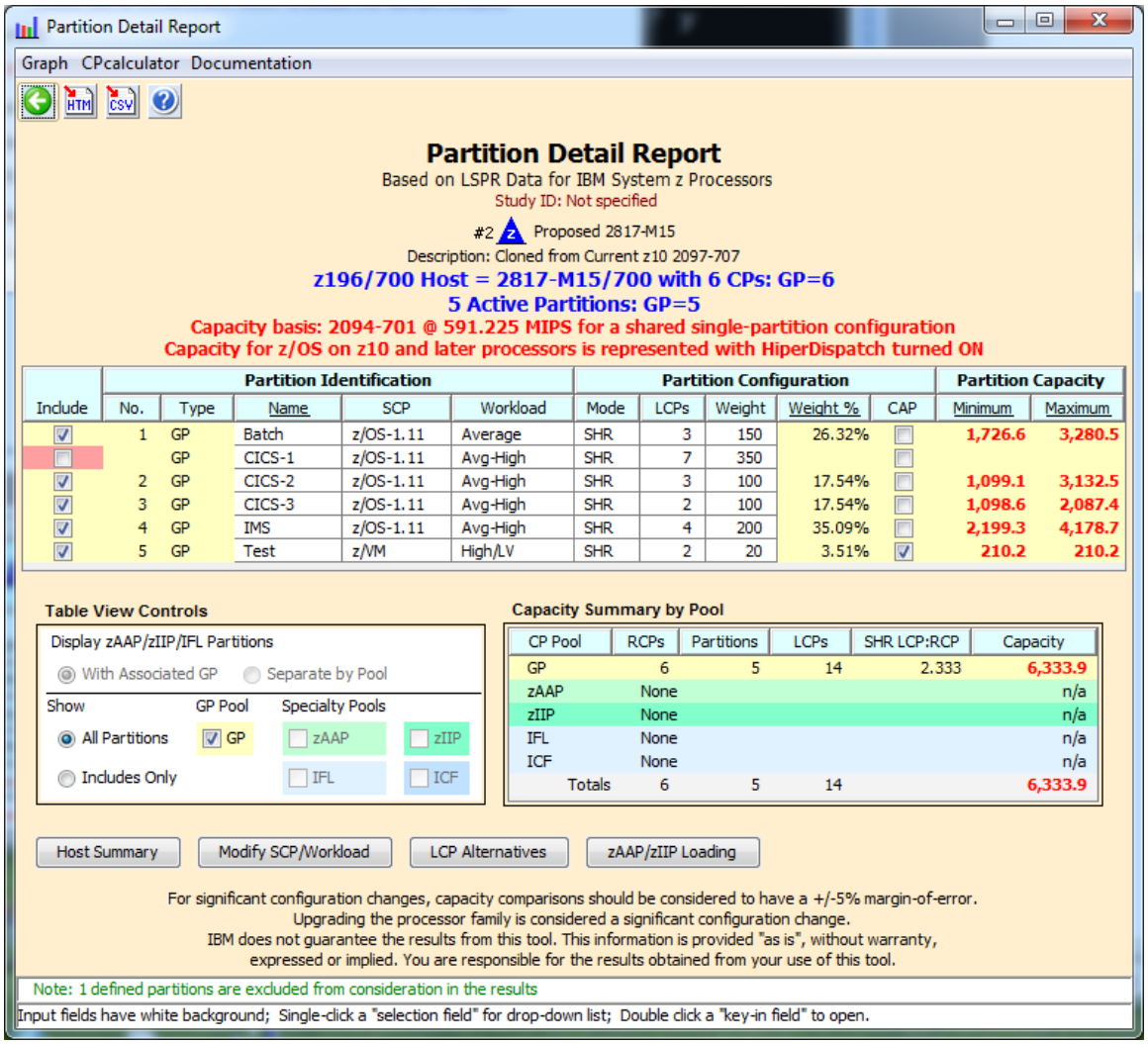
### Analysis Steps

1. Single-click the **Current z10 2097-707** icon on the ***Advanced-Mode Control Panel*** window to select it.
2. Click the **Clone** toolbar button. A second LPAR configuration is created as an exact copy of the first. It is icon #2, Rename it to **Proposed 2817-M15**
3. Double-click the **Proposed 2817-M15** icon #2 to open the ***LPAR Host and Partition Configuration*** window for the **Proposed 2817-M15** LPAR configuration.
4. Click **Specify Host** to open the ***LPAR Host*** window.
   a) Set the ***Family*** to be **z196/700**.
   b) Set the ***Model*** to **2817-M15/700** (this model has a maximum total of 15 configurable CPs).
   c) Leave z196 Power checked to Full
   d) Set ***General Purpose CPs*** to 6 (seen as a 2817-706). There are no other CP types planned at this time.

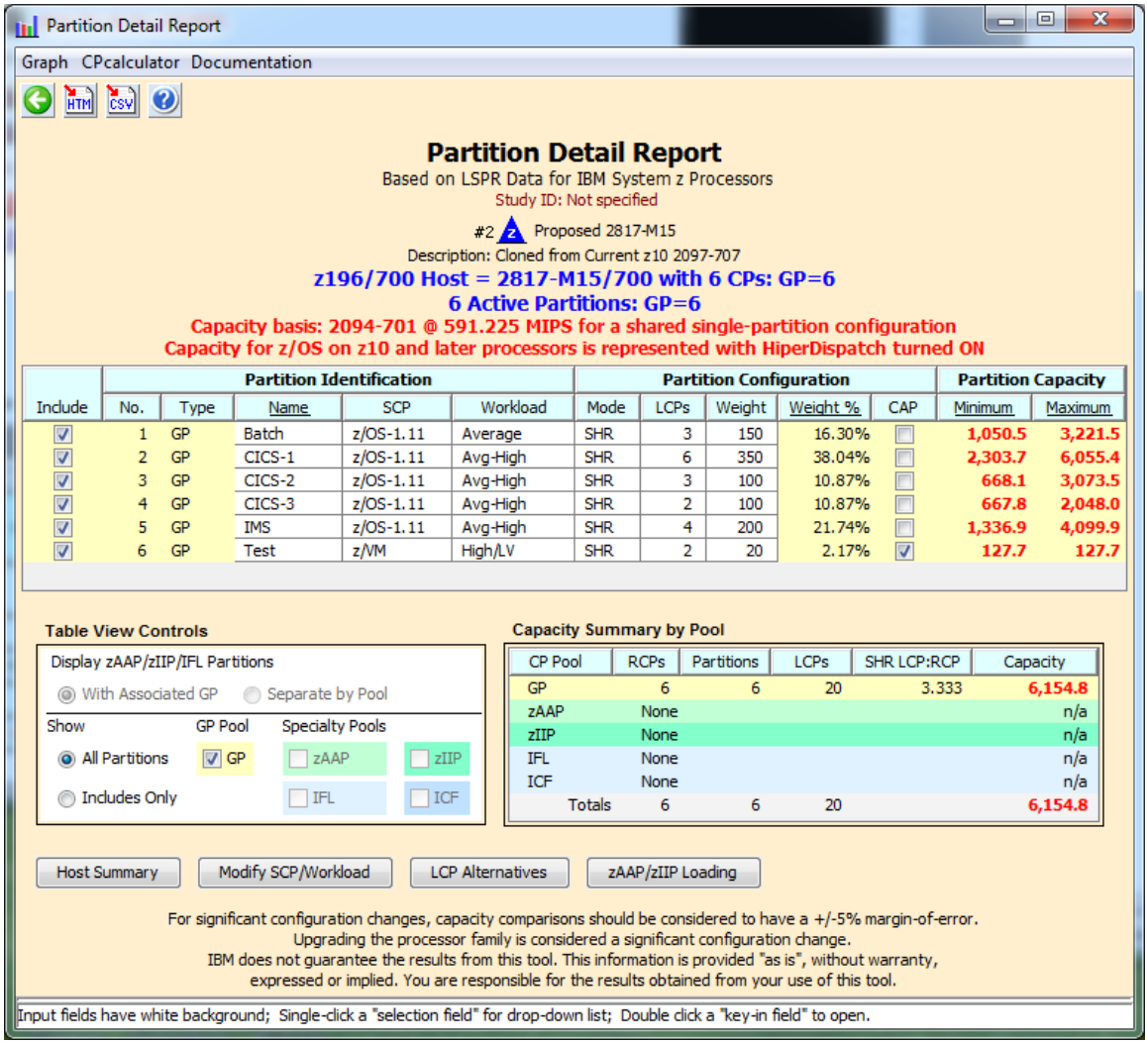


e) Click **Return**.

5. Click **Partition Detail** in the **Capacity Reports** group box.



8. Correct **CICS-1** partition in error
    a. Set the **LCPs** to **6** (the maximum allowed on a 2817-706).
    b. Check the **Include** box

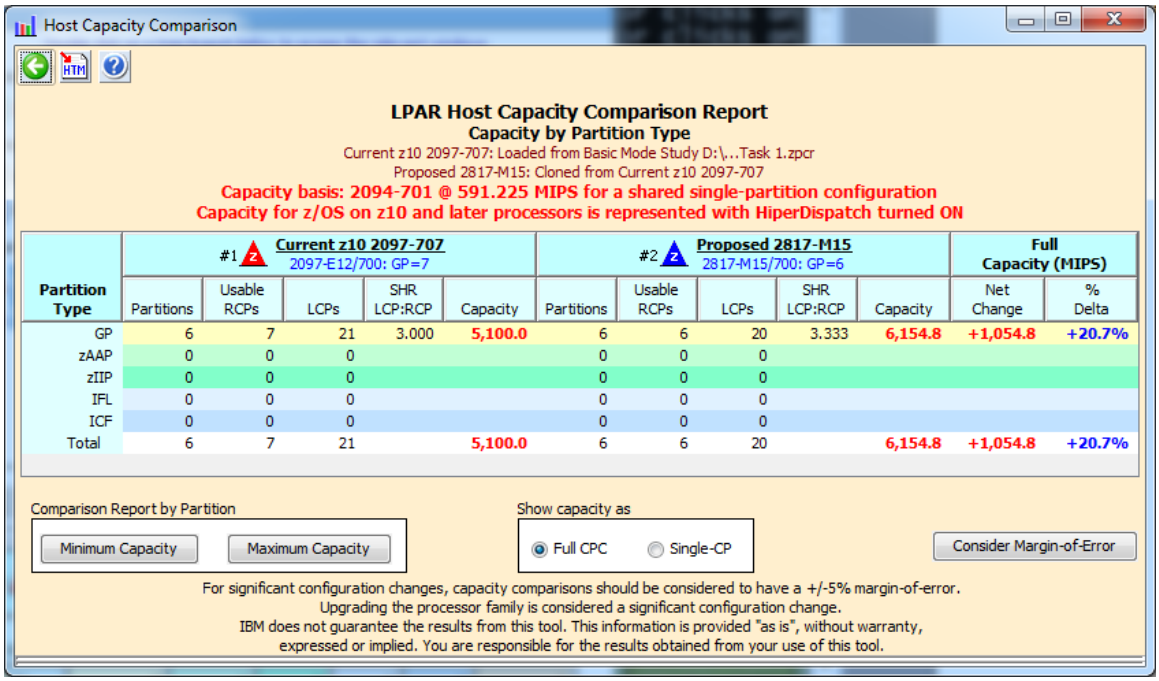


## Task 6: **Review capacity results and save the study**

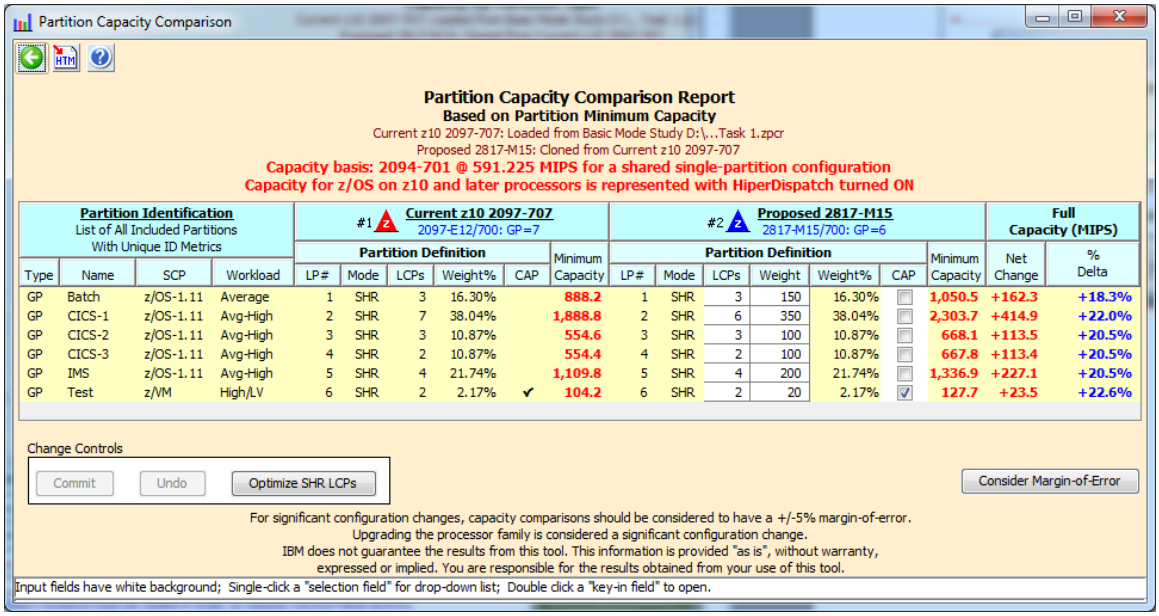
Using the capacity results for this new LPAR host, determine if we realized the desired 20% capacity increase (**6,150 MIPS**), for the overall host and for each individual partition.

### Analysis Steps

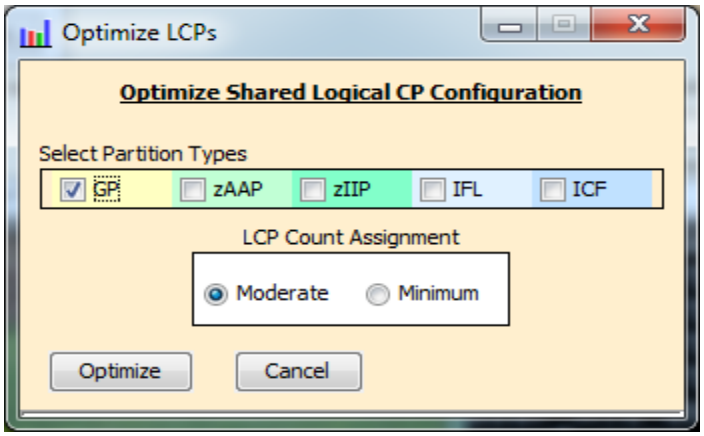
1. On the ***Detail Report*** window, the overall effective capacity for the 2817-706 is **6,154.8 MIPS** for this LPAR configuration. The effective capacity for the 2097-707 was **5,100 MIPS.** (see page 8)
2. Click two **Return** buttons to close the LPAR configuration windows.
3. On the ***Advanced-Mode Control Panel*** window, select the two configurations (hold the cntl key and click on both) and click the **Compare** tool bar icon. The ***Host Capacity Comparison*** window presents a processor oriented summary of the two LPAR host configurations. The first LPAR configuration is shown on the left, and the second is shown on the right. The partition types are listed in separate rows; the metrics presented are their combined values representing the number of partitions, the number of RCPs, the number of LCPs and the resulting capacity.



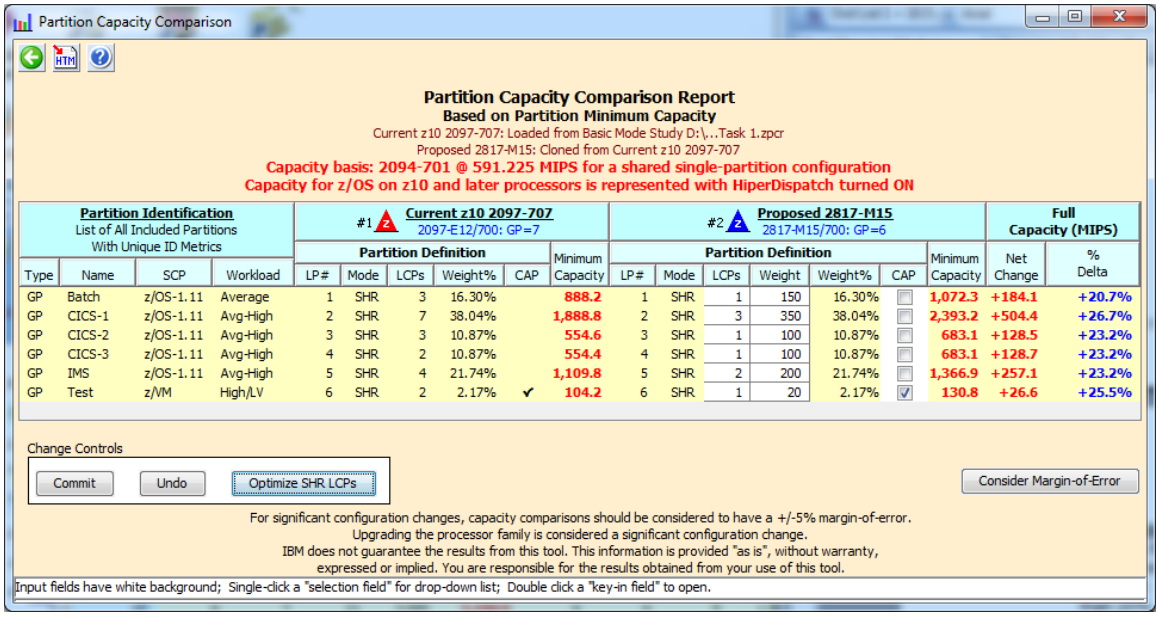
Click **Minimum Capacity** in the ***Comparison Report by Partition*** group box. Note that most of the partitions see an increase of approximately 20% or more, but there is 1 of them that does not, Batch.




4. Click **Optimize SHR LCPs** for GPs in the ***Change Controls*** group box to see if you can improve the results by reducing the number of LCPs assign to each partition to that required to accommodate its weight.

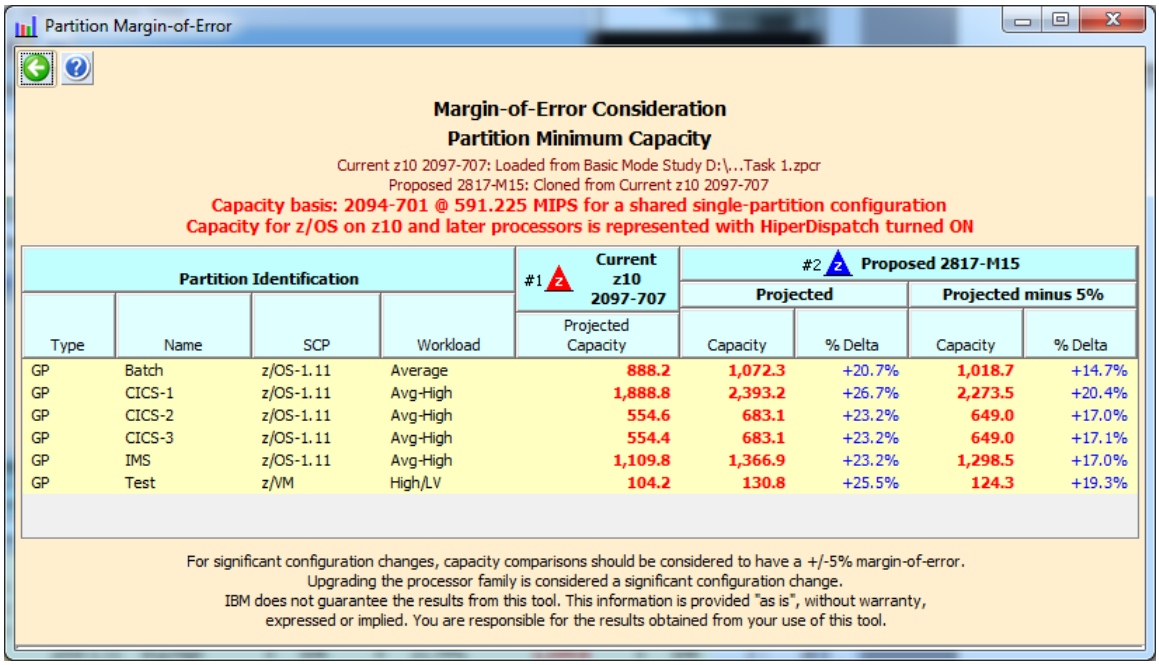


5. Click **Optimize** and use the default “Moderate” to see if you can improve the results by reducing the number of LCPs assign to each partition. Note: The weight percent is used to determine the exact number of LCPs (rounded up to the nearest whole number) to be assigned. You can see that all the partitions improved, and that Batch is now greater than 20%.

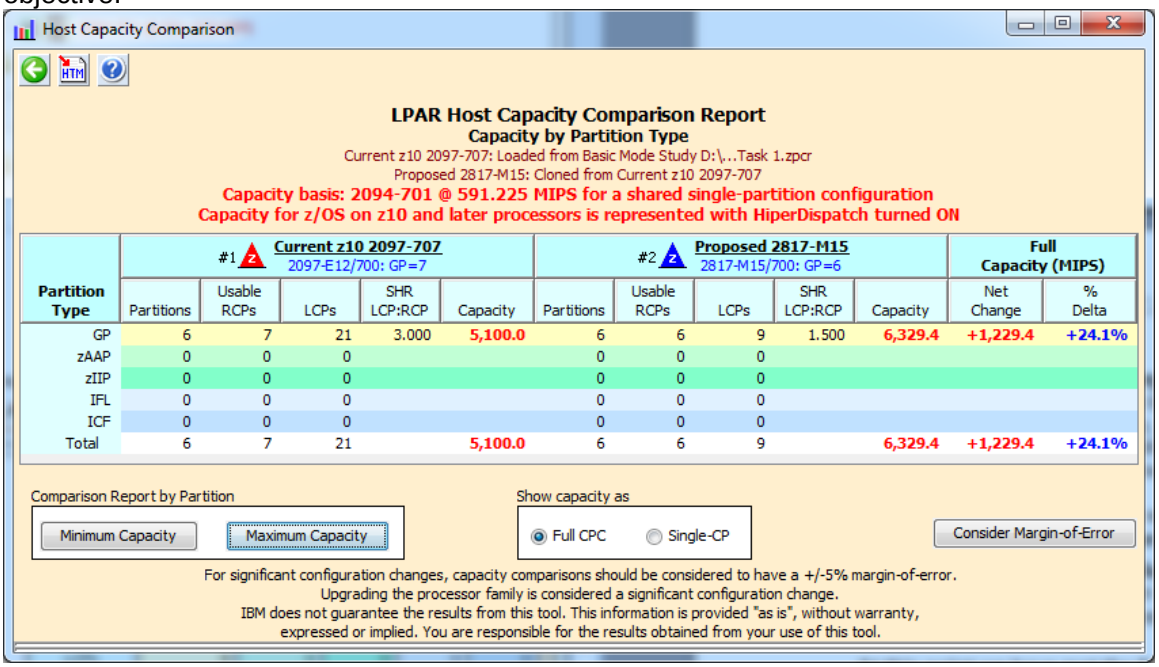


6. Click **Consider Margin-of-Error**

The capacity expectation derived from **zPCR** for a new machine should normally be considered to have up to a ±5% margin-of-error. The full ±5% margin of error should be considered whenever the LPAR host processor family is changed, or when very significant changes are made to either the LPAR host CP configuration or to the partition configuration itself. At this point only the CICS-1 partition has met the 20% capacity increase when factoring in the -5% margin of error.



7. First close the ***Partition-Margin-of- Error*** window. Then click **Commit** in the Change Controls group box to change the LPAR configuration to permanently include the modified metrics, (from the Optimize). Note that the ***Host Capacity Comparison*** window now shows we are delivering **6,329.4 MIPS**, which is more than the **6,150 MIPS** objective.




8. Close all of the comparison windows by clicking the **Return** toolbar icon on the ***Host Capacity Comparison*** window.
9. From the menu bar on the ***Advanced-Mode Control Panel*** window click **File→Save as**, and save the complete study which will include both LPAR configurations. (Use a different file name than in Task 3, e.g. “Task6.zpcr”.)

**At this point we have met the 6,150 MIPS objective and 20% for each partition. If we want to meet the 20% with the -5% margin of error, there may be additional configuration options to handle this, so continue with the next 2 steps to determine if they can make an impact.**

## Additional analyses to try

## Add an IFL to the Configuration for the z/VM workload

**How might the addition of an IFL change the capacity picture?** z/VM (partition #6) could actually be running on an IFL rather than a General Purpose CP. You might experiment.

### Analysis Steps

1. Single-click the **Proposed 2817-M15** icon  on the ***Advanced-Mode Control Panel*** window to select it.
2. Click the **Clone**  toolbar button. A third LPAR configuration is created as an exact copy of the second. Its icon  , Rename it to **2817-M15 with IFL**
3. Double-click the **2817-M15 with IFL**  icon to open the ***LPAR Host and Partition Configuration*** window for the **2817-M15 with IFL** LPAR configuration.
4. From the ***LPAR Host and Partition Configuration*** window, click **Specify Host**
5. From the ***LPAR Host*** window, change the host to include 1 IFL CP in addition to the current 6 General Purpose CPs and click **Return**.
6. From the ***LPAR Host and Partition Configuration*** window, click **IFL** in the ***Define Partitions*** group box
7. From the ***LPAR Partition Definition*** window, edit the partition name (from LP-07) by double-clicking the name field to open it and entering text to “Test2.
8. set the ***Mode*** to **DED** using the drop-down selection list provided
9. click **Return**.
10. From the ***LPAR Host and Partition Configuration*** window, click **Partition Detail** in the **Capacity *Reports*** group box to open the **Partition *Detail Report*** window, revealing the updated capacity picture.

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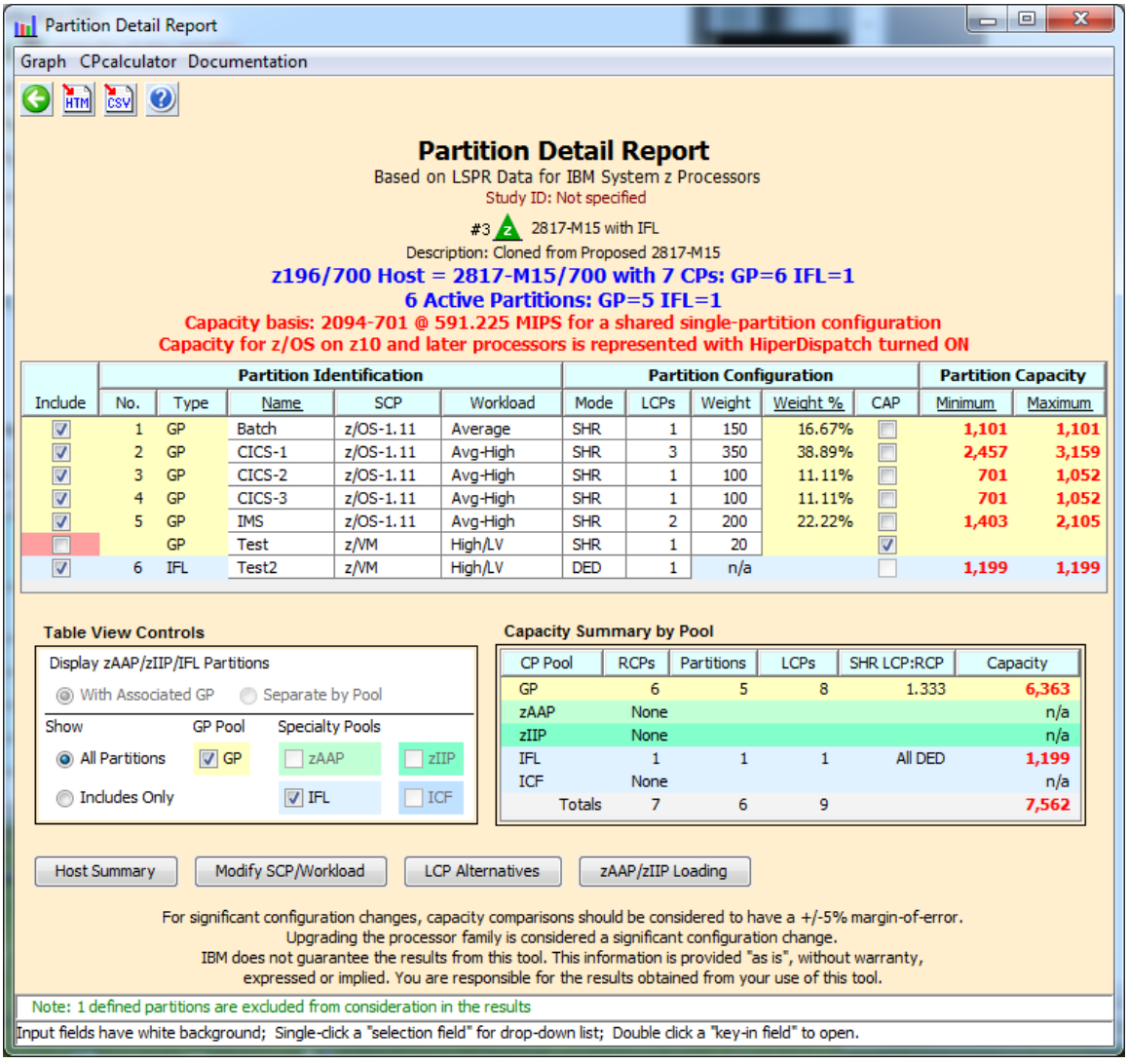
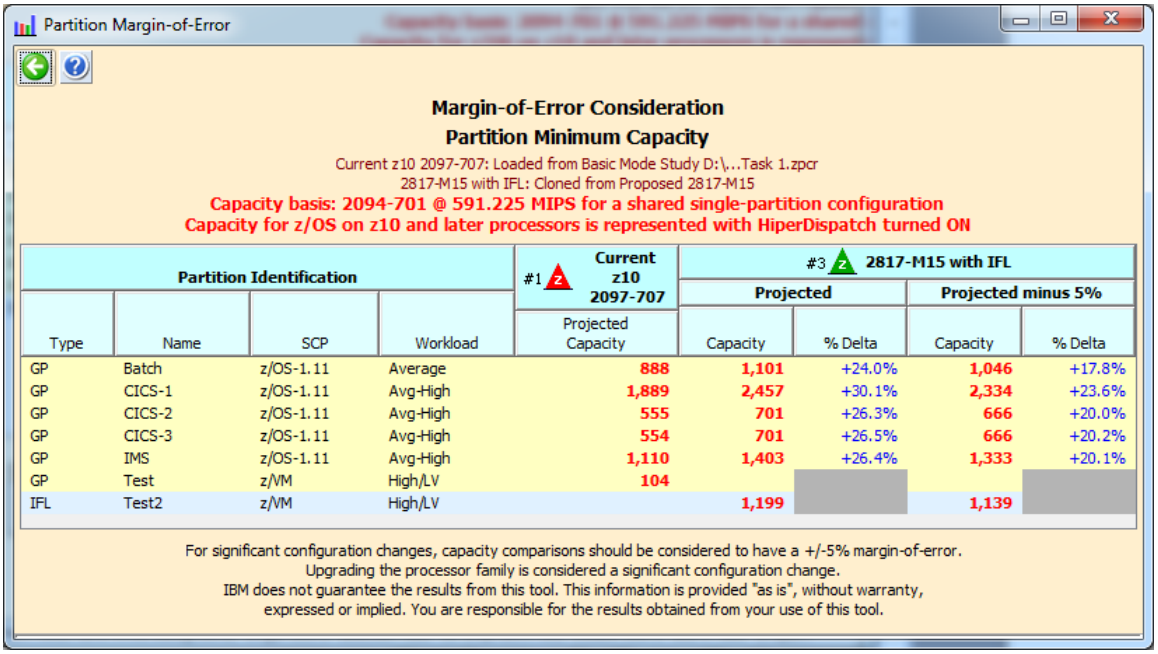
a) From the ***Partition Detail Report*** window, uncheck the **Include** box for partition #6, as this partition's workload is now represented with the IFL.

In this case, we cannot simply replace a General Purpose CP with an IFL, because the z/VM partition is consuming such a small portion of the available capacity. 6 General Purpose CPs are still required to provide the necessary capacity for the z/OS partitions. We have increased the GP MIPS from **6329 (page 19)** to **6363**, and all but the Batch partition have met the 20% growth when considering the -5% margin of error. You can see this on the next page, and when you compare #1 Vs #3 Minimum Capacity and Margin of Error.



**Consider the "Margin of Error"**

1. Click two **Return** buttons to close the LPAR configuration windows.
2. On the ***Advanced-Mode Control Panel*** window, select the two configurations (#1 and #3 hold the cntl key and click on both) and click the **Compare** tool bar icon.
3. Click on Minimum Capacity
4. Click on Consider Margin-of-Error




So try the next Step to see if adding a zIIP to the configuration can help increase the capacity and meet all of the objectives.

Click three **Return** buttons to close the LPAR configuration windows

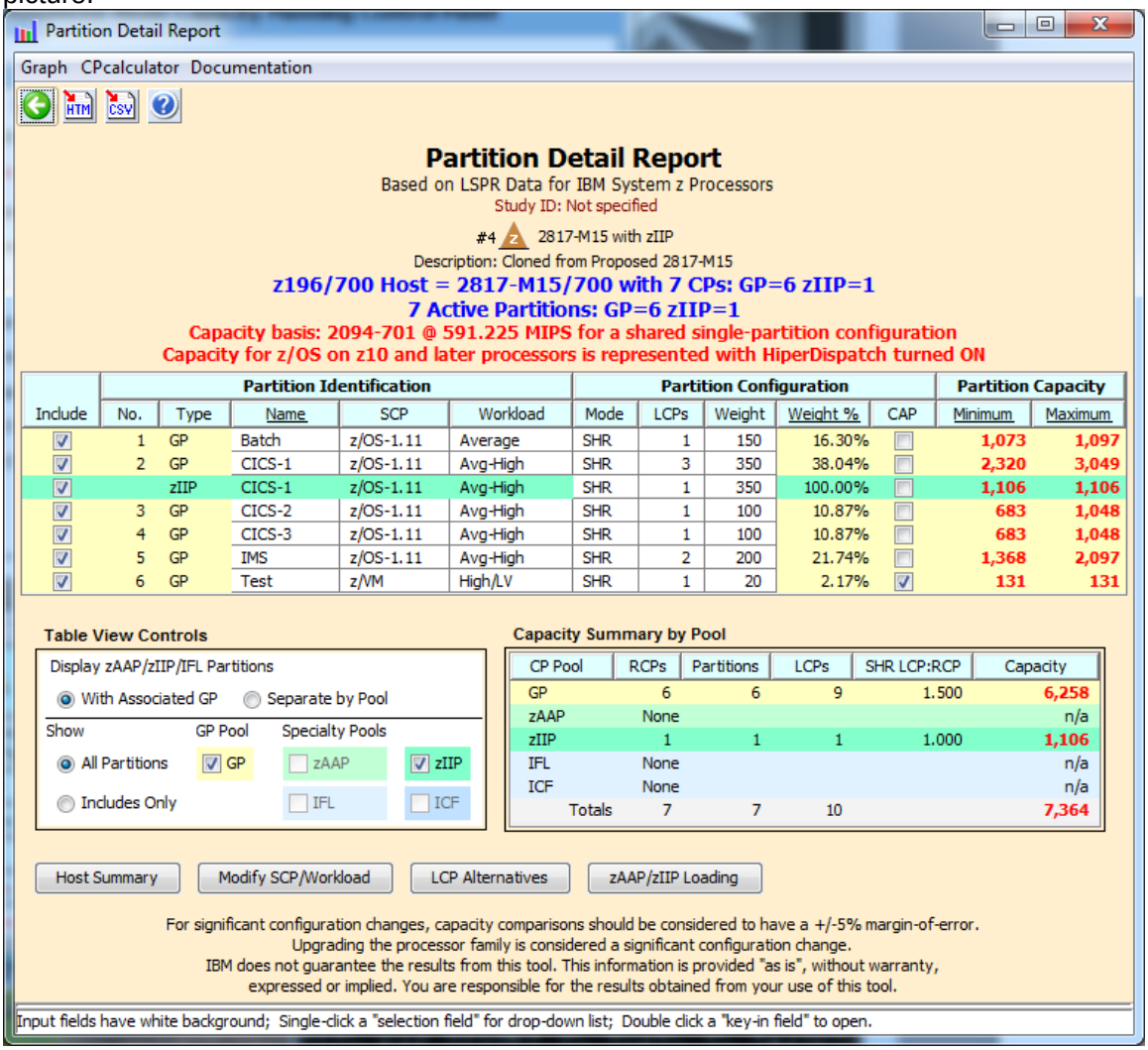
## Add a zIIP to the Configuration

**How might the addition of a zIIP change the capacity picture?** Assume partition #2 (CICS-1) is running a WebSphere application, and at least 50% of that workload could be run on zIIP LCPs. Alter the LPAR configuration to include and exploit the zIIP CPs.

### Analysis Steps

1. Single-click the **Proposed 2817-M15** icon  on the ***Advanced-Mode Control Panel*** window to select it.
2. Click the **Clone**  toolbar button. A forth LPAR configuration is created as an exact copy of the second. Its icon  , Rename it **2817-M15 with zIIP**
3. Double-click the **2817-M15 with zIIP**  icon to open the ***LPAR Host and Partition Configuration*** window for the **2817-M15 with zIIP** LPAR configuration.
4. Click **Specify Host** and change the LPAR host to include 1 zIIP CP in addition to the current 6 General Purpose CPs. **Click Return**
5. Click **GP / zIIP** (***Define Partitions*** group box) and enable 1 zIIP LCP for partition #2 (CICS-1) by clicking on the z/OS zIIPs field. Close the zAAP and zIIP LCP notice. Then **Click Return**.

6. Click **Partition Detail** in the **Capacity *Reports*** group box, and review the capacity picture.



Partition Detail Report

Graph CPcalculator Documentation

## Partition Detail Report

Based on LSPR Data for IBM System z Processors

Study ID: Not specified

#4 2817-M15 with zIIP

Description: Cloned from Proposed 2817-M15

**z196/700 Host = 2817-M15/700 with 7 CPs: GP=6 zIIP=1**

**7 Active Partitions: GP=6 zIIP=1**

**Capacity basis: 2094-701 @ 591.225 MIPS for a shared single-partition configuration**

**Capacity for z/OS on z10 and later processors is represented with HiperDispatch turned ON**

| | Partition Identification | | | | | Partition Configuration | | | | | Partition Capacity | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Include | No. | Type | Name | SCP | Workload | Mode | LCPs | Weight | Weight % | CAP | Minimum | Maximum |
| ☑ | 1 | GP | Batch | z/OS-1.11 | Average | SHR | 1 | 150 | 16.30% | ☐ | 1,073 | 1,097 |
| ☑ | 2 | GP | CICS-1 | z/OS-1.11 | Avg-High | SHR | 3 | 350 | 38.04% | ☐ | 2,320 | 3,049 |
| ☑ | | zIIP | CICS-1 | z/OS-1.11 | Avg-High | SHR | 1 | 350 | 100.00% | ☐ | 1,106 | 1,106 |
| ☑ | 3 | GP | CICS-2 | z/OS-1.11 | Avg-High | SHR | 1 | 100 | 10.87% | ☐ | 683 | 1,048 |
| ☑ | 4 | GP | CICS-3 | z/OS-1.11 | Avg-High | SHR | 1 | 100 | 10.87% | ☐ | 683 | 1,048 |
| ☑ | 5 | GP | IMS | z/OS-1.11 | Avg-High | SHR | 2 | 200 | 21.74% | ☐ | 1,368 | 2,097 |
| ☑ | 6 | GP | Test | z/VM | High/LV | SHR | 1 | 20 | 2.17% | ☑ | 131 | 131 |

**Table View Controls**

Display zAAP/zIIP/IFL Partitions

◉ With Associated GP ○ Separate by Pool

| Show | GP Pool | Specialty Pools | |
|---|---|---|---|
| ◉ All Partitions | ☑ GP | ☐ zAAP | ☑ zIIP |
| ○ Includes Only | | ☐ IFL | ☐ ICF |

**Capacity Summary by Pool**

| CP Pool | RCPs | Partitions | LCPs | SHR LCP:RCP | Capacity |
|---|---|---|---|---|---|
| GP | 6 | 6 | 9 | 1.500 | 6,258 |
| zAAP | None | | | | n/a |
| zIIP | 1 | 1 | 1 | 1.000 | 1,106 |
| IFL | None | | | | n/a |
| ICF | None | | | | n/a |
| Totals | 7 | 7 | 10 | | 7,364 |

Host Summary | Modify SCP/Workload | LCP Alternatives | zAAP/zIIP Loading

For significant configuration changes, capacity comparisons should be considered to have a +/-5% margin-of-error.
Upgrading the processor family is considered a significant configuration change.
IBM does not guarantee the results from this tool. This information is provided "as is", without warranty,
expressed or implied. You are responsible for the results obtained from your use of this tool.

Input fields have white background; Single-click a "selection field" for drop-down list; Double click a "key-in field" to open.

a) With the additional zIIP CP configured, the total capacity available has increased above our **6,150 MIPS** requirement, (**7,364** Total with **6,258** in GP). In this case, we could reduce the number of General Purpose CPs.

b) Click **Return**

c) Click **Specify Host** to open the ***LPAR Host*** window. Change the LPAR host configuration from 6 to 5 General Purpose CPs. Click **Return**

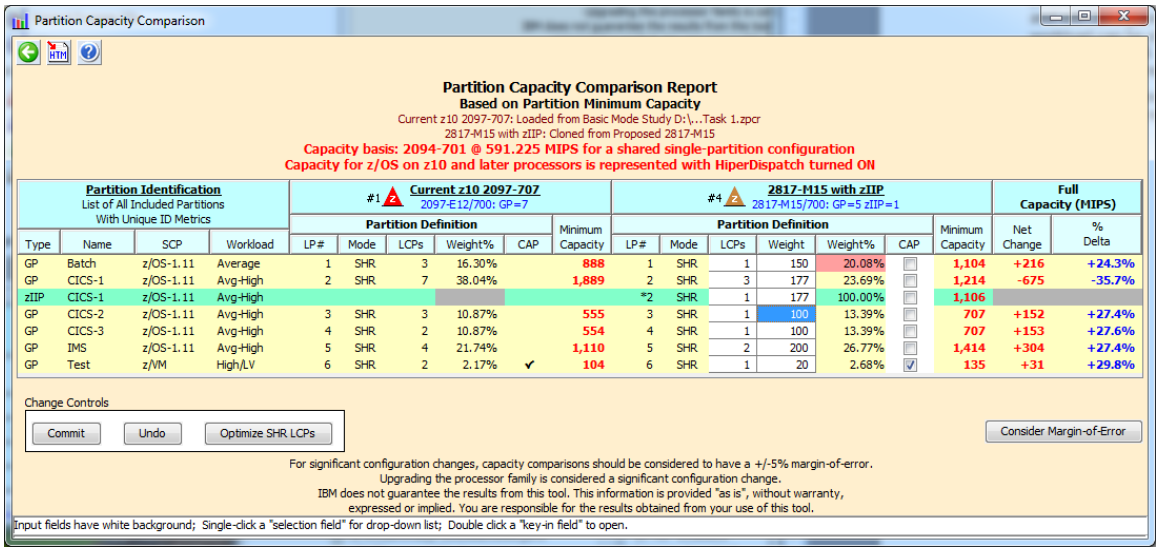
d) Click **Partition Detail**. Note that adequate Total capacity remains (**6357** vs 6150 requirement). Click **Return** 2 times to get back to **Advanced-Mode_Control Panel**

e) Select both **Current z10 2097-707** #1 and the **2817-M15 with zIIP** #4 configurations and then click **Compare** icon on the ***Advanced-Mode_Control Panel*** window.

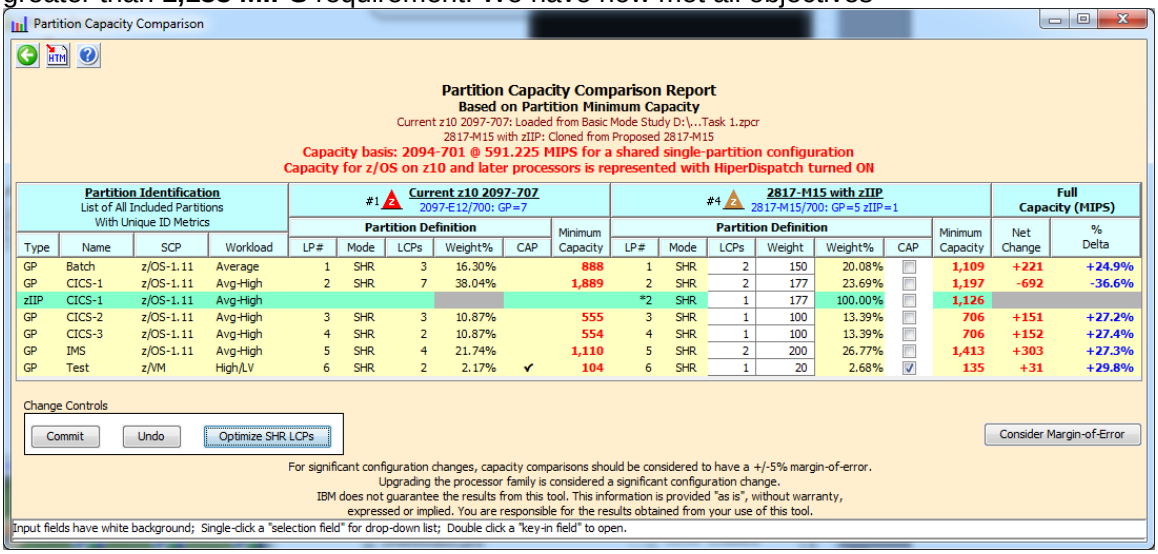
f) Click **Minimum Capacity**. Note that now all partitions are not seeing the required 20% capacity increase over the old 2097-707 configuration. Because a large part of partition #2's capacity requirement can now be satisfied by the zIIP LCPs, its weight for the General Purpose pool should be reduced to achieve a new balance.

g) Try reducing partition #2's weight from **350** to **177,** by double clicking in the weight field to edit the field and hit enter **.** Now all partitions except #2 (CICS-1) see well over a 20% increase. Partition #2 originally needed **1,889 MIPS**, and with 20% growth, it would need **2,266 MIPS**. Since 50% of partition #2's workload can be offloaded to the zIIP LCPs, its General Purpose LCPs would only need **1,133 MIPS**. Does the modified LPAR configuration satisfy partition #2's capacity requirement? Yes, since Partition #2 is now at **1,214**.

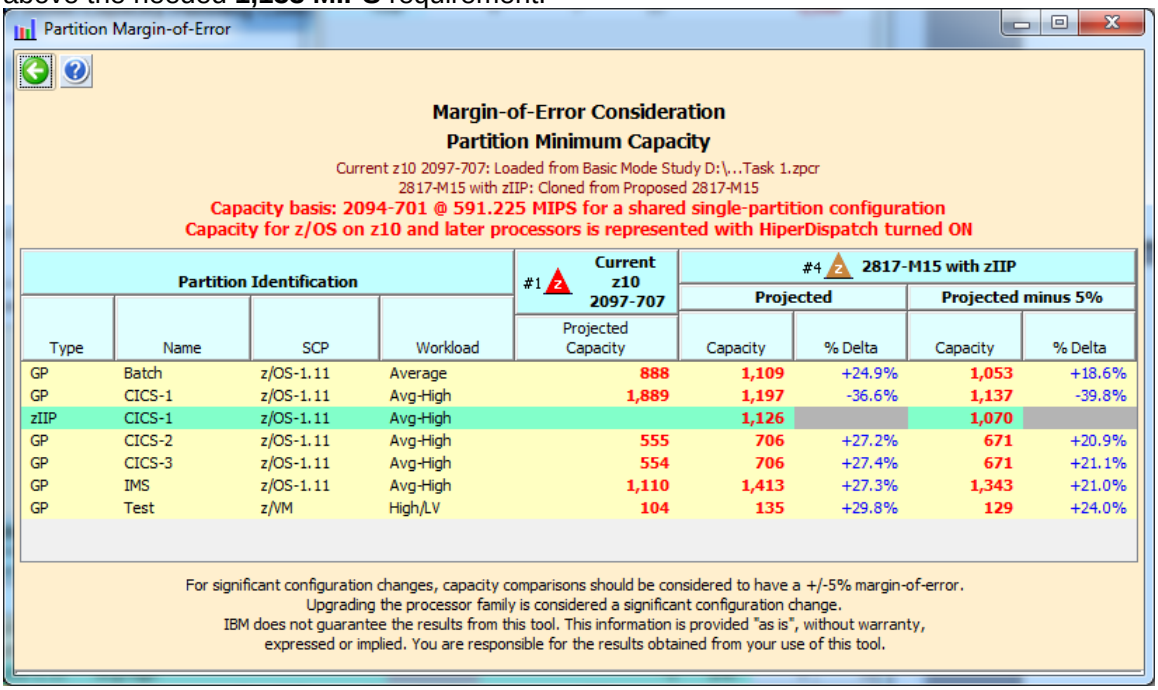
h) Notice that we have created a new problem Partition #1 (it's weight is now in red) is not receiving the new weight of 20.08. Previously it had been 16.30 before we made the last change.



i) Click **Optimize SHR LCPs** (use “Moderate” and click Optimize) since we have changed the weight assigned to Partition # 2. Does the over all capacity increase? Yes from **6357 (page 25)** to **6393**. Partition #2 CICS-1, went from **1,214 MIPS** to **1,197** but it is still greater than **1,133 MIPS** requirement. We have now met all objectives

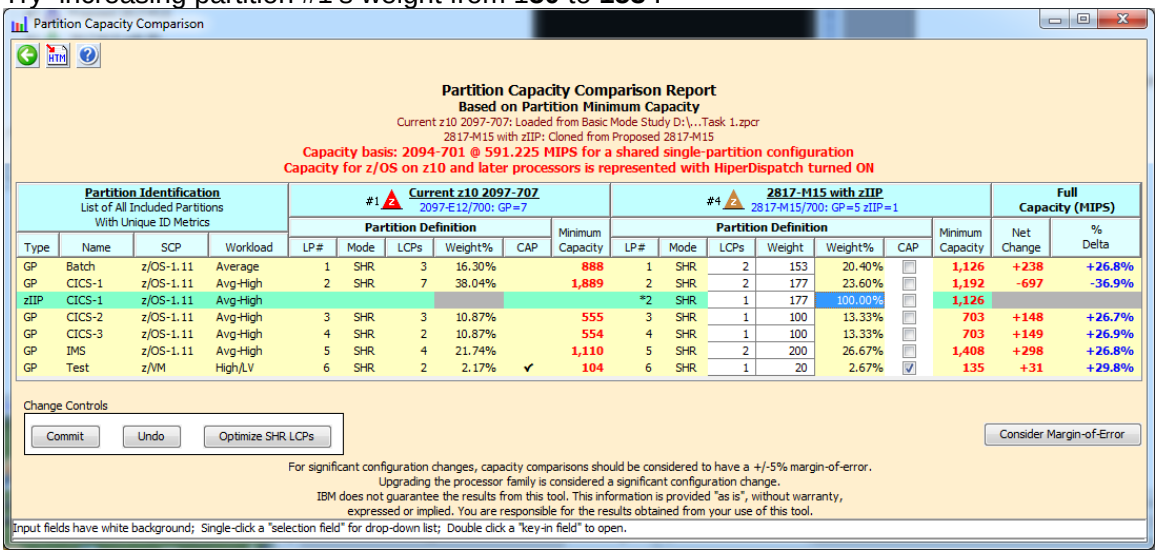


j) Click **Consider Margin-of-Error.** We also want to validate that all of the partitions have enough capacity to ensure they cover the -5% Margin-of-Error. We can see that all partitions are >20% delta on the projected minus 5% except Partition #1 which is below the 20% threshold at 18.6%. Partition #2, CICS-2, margin-of-Error is at **1,137 MIPS**, still above the needed **1,133 MIPS** requirement.




k) Click **Return**

l) Try increasing partition #1's weight from 1**50** to **153** .


Partition Capacity Comparison

**Partition Capacity Comparison Report**
**Based on Partition Minimum Capacity**
Current z10 2097-707: Loaded from Basic Mode Study D:\...Task 1.zpcr
2817-M15 with zIIP: Cloned from Proposed 2817-M15
**Capacity basis: 2094-701 @ 591.225 MIPS for a shared single-partition configuration**
**Capacity for z/OS on z10 and later processors is represented with HiperDispatch turned ON**

| Partition Identification<br>List of All Included Partitions<br>With Unique ID Metrics | | | | #1 Current z10 2097-707<br>2097-E12/700: GP=7 | | | | | | #4 2817-M15 with zIIP<br>2817-M15/700: GP=5 zIIP=1 | | | | | | | Full Capacity (MIPS) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Partition Definition | | | | | | Partition Definition | | | | | | | | |
| Type | Name | SCP | Workload | LP# | Mode | LCPs | Weight% | CAP | Minimum Capacity | LP# | Mode | LCPs | Weight | Weight% | CAP | Minimum Capacity | Net Change | % Delta |
| GP | Batch | z/OS-1.11 | Average | 1 | SHR | 3 | 16.30% | | 888 | 1 | SHR | 2 | 153 | 20.40% | ☐ | 1,126 | +238 | +26.8% |
| GP | CICS-1 | z/OS-1.11 | Avg-High | 2 | SHR | 7 | 38.04% | | 1,889 | 2 | SHR | 2 | 177 | 23.60% | ☐ | 1,192 | -697 | -36.9% |
| zIIP | CICS-1 | z/OS-1.11 | Avg-High | | | | | | | *2 | SHR | 1 | 177 | 100.00% | ☐ | 1,126 | | |
| GP | CICS-2 | z/OS-1.11 | Avg-High | 3 | SHR | 3 | 10.87% | | 555 | 3 | SHR | 1 | 100 | 13.33% | ☐ | 703 | +148 | +26.7% |
| GP | CICS-3 | z/OS-1.11 | Avg-High | 4 | SHR | 2 | 10.87% | | 554 | 4 | SHR | 1 | 100 | 13.33% | ☐ | 703 | +149 | +26.9% |
| GP | IMS | z/OS-1.11 | Avg-High | 5 | SHR | 4 | 21.74% | | 1,110 | 5 | SHR | 2 | 200 | 26.67% | ☐ | 1,408 | +298 | +26.8% |
| GP | Test | z/VM | High/LV | 6 | SHR | 2 | 2.17% | ✔ | 104 | 6 | SHR | 1 | 20 | 2.67% | ☑ | 135 | +31 | +29.8% |

Change Controls
Commit | Undo | Optimize SHR LCPs
Consider Margin-of-Error

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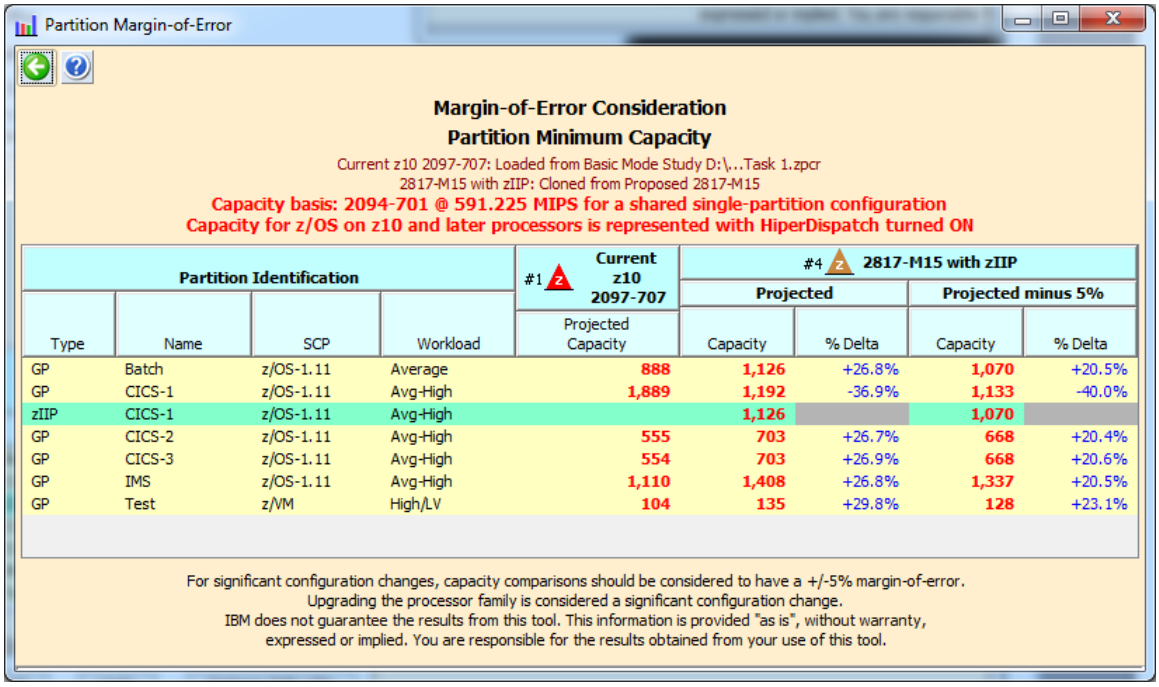
Input fields have white background; Single-click a "selection field" for drop-down list; Double click a "key-in field" to open.

m) Click **Consider Margin-of-Error.** We also want to validate that all of the partitions have enough capacity to ensure they cover the -5% Margin-of-Error. We can see that all partitions are >20% delta on the projected minus 5%. Partition #2, CICS-2, margin-of-Error is at **1,133 MIPS**, meeting the needed **1,133 MIPS** requirement.




Click one **Return** buttons to close the Partition Margin of Error

Click Commit

Click two **Return** buttons to close the windows

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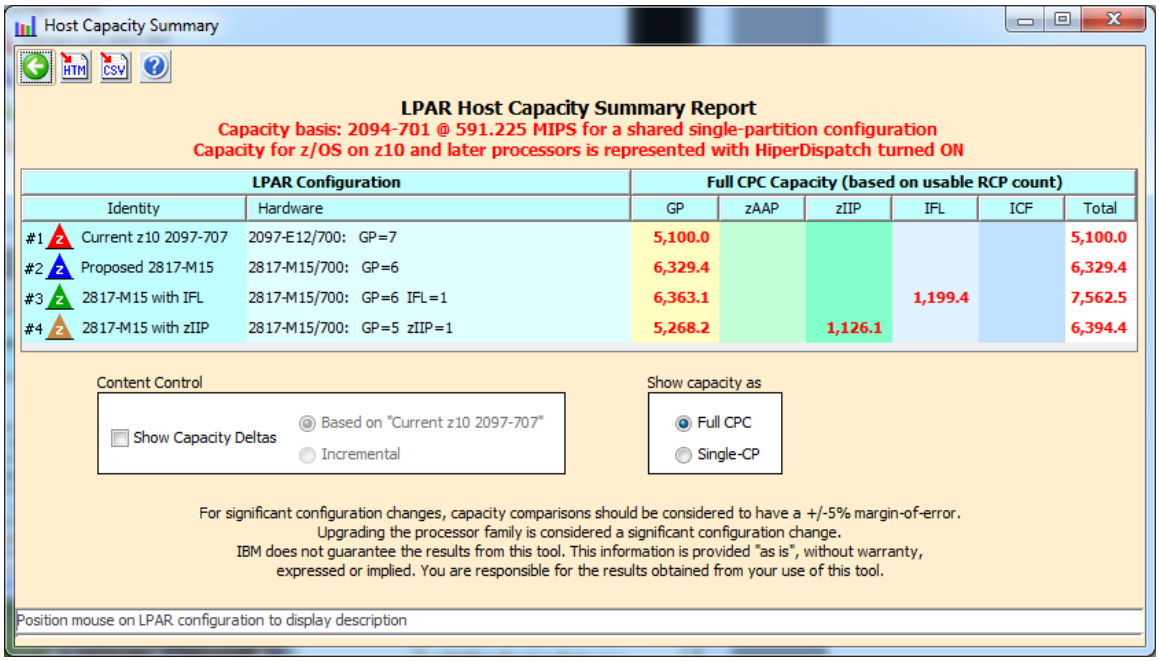
n) From the Advanced-Mode Control Panel, click LPAR Host Capacity Summary Report  . This report relates the capacity projections by partition type (CP pool) for each LPAR configuration that is defined. The sum of the individual pool capacity values is shown as a total for the entire CPC on the right.

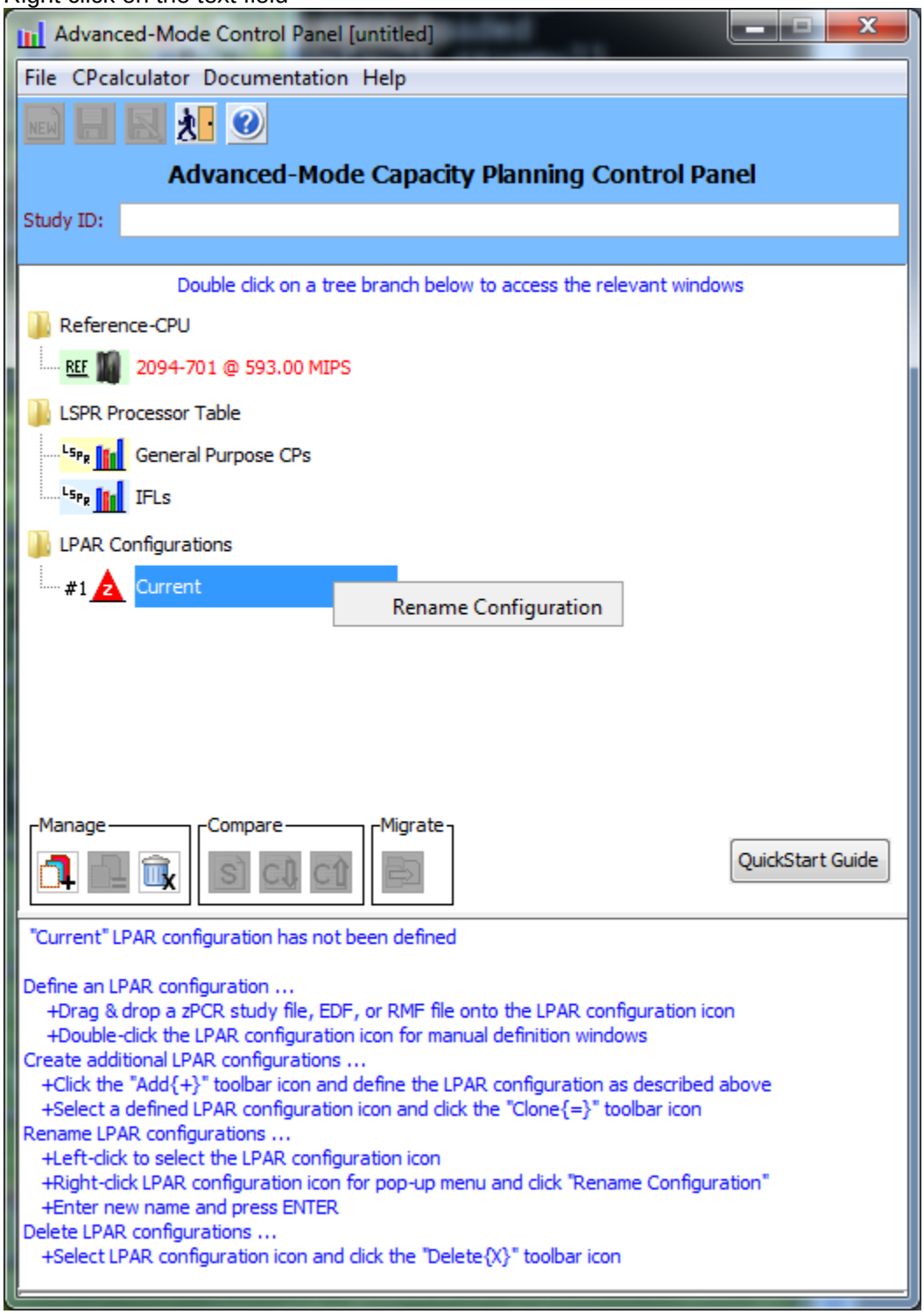


## Rename a Configuration

### Procedure

1. Single-click the **Current** icon on the ***Advanced-Mode Control Panel*** window to select it.

2. Right click on the text field



3. Key in the name that you wish to use and hit enter