

## **What is Advanced IP Address Calculator**

Advanced IP Address Calculator is an easy-to-use IP subnet calculator that lets you to calculate every aspect of your subnet configuration in a few mouse clicks!

## About us

Feel free to contact us. If you have something of interest about how you use IPCalc, we'd be very happy to hear from you.

General - [ipcalc@radmin.com](mailto:ipcalc@radmin.com)

Visit our site for the latest news, versions and updates [www.radmin.com](http://www.radmin.com)

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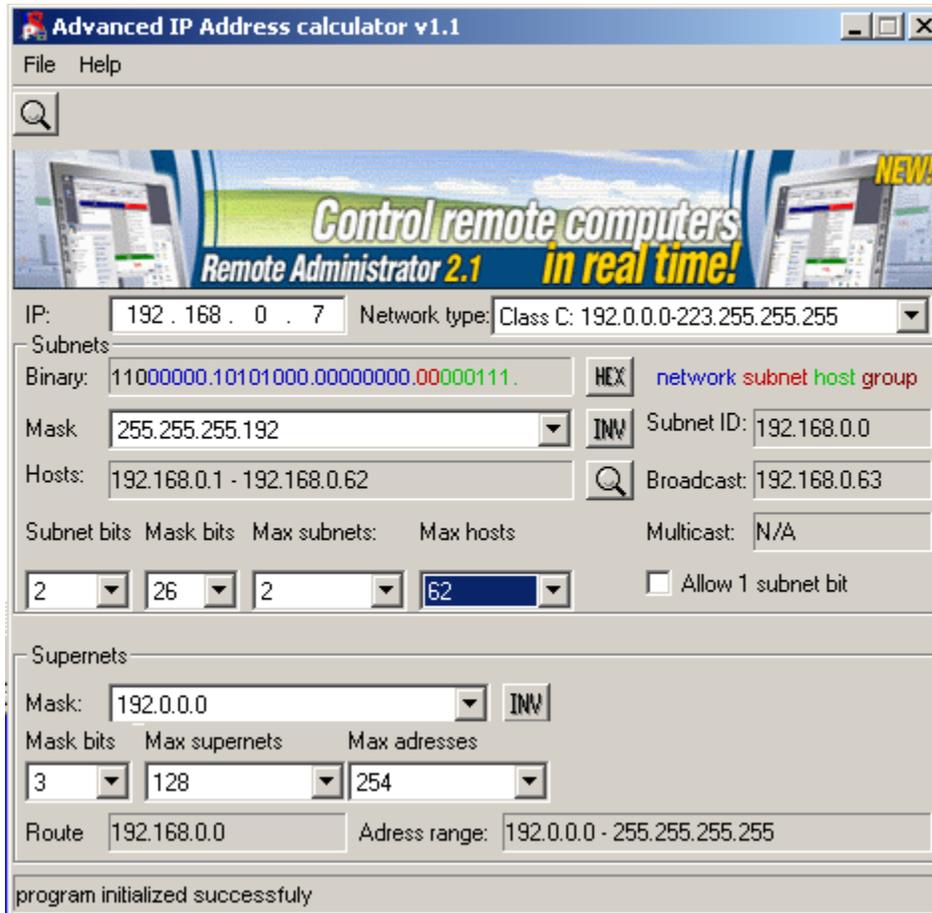
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# Interface

- [Subnets](#)
- [Supernets](#)
- [Subnets list](#)



## Subnets

### IP

In this editbox, enter an IP address and it is automatically validated according to subnet IP rules. For example, the first IP digits cannot be less than 1 or greater than 224. If you enter an invalid IP, it is automatically changed to a valid address.

### Network type

Classes 'A', 'B', 'C' and 'D' are supported. The first three network classes determine the number of bits used for subnet generation and class 'D' network is reserved for multicast. The difference between these network types is in the number of bits that can be used for subnets and hosts. For example, for an 'A' class network you can use 24 bits for subnets and hosts and you can select any address within the range 1.0.0.0 - 126.255.255.255.

### Binary

This field displays the binary IP representation using colored digits, so the roles of the individual segments are shown. Each color represents a different part of the IP: the network prefix, subnet number and host number. The network number is the first 8, 16 or 24 bits (depending on the "Network Class" ), that determines an address of your network. The subnet number is the next array of bits that determines the quantity of subnets.

For example, if you have two subnet bits, you can use four networks with these bits set to 00, 01, 10, and 11. Note that if "Allow 1 subnet bit" is checked, the first subnet bit will always be 1. So you will get only two subnets - 10 and 11. Host bits determine the range of IP's that can be used in each of the subnets. For example, three subnet bits will result in IP's with the last bits of 001, 010, 011, 100, 101, 110, i.e. six IP's. The 000 and 111 are used for ID and broadcast.

#### **"HEX" / "BIN" button**

This button switches between binary and hexadecimal IP representations.

#### **Mask**

You can choose a valid network mask for a current network class. Press the "invert mask" button to see an inverted mask used in some programs.

#### **Hosts**

This field shows you the range of ALL available hosts (in all subnets) that can be used in a current network configuration. Press the "look at hosts" button to see a list of all the available hosts.

#### **Subnet ID**

The "ID" that is assigned to a current subnet. This is the first host in a subnet.

#### **Broadcast Address**

The broadcast address for a current IP address and mask. This is the last host in a subnet.

#### **Multicast Address**

If a 'D' class network is selected, this field contains its multicast address.

#### **Subnet Bits**

Select the number of bits for a subnet. Look at the binary IP field to see a visual representation of the changes you make.

#### **Mask Bits**

Select the number of bits for a subnet mask. Look at the binary IP field to see a visual representation of the changes made.

#### **Mask Subnets**

Select the maximum number of subnets that can be generated using the current network configuration. Look at the binary IP field to see a visual representation of the changes made.

#### **Mask Hosts**

Select the maximum number of hosts that can be generated using the current network configuration. Look at the binary IP field to see a visual representation of the changes you make.

#### **Allow One Subnet Bit**

In some networks the subnet cannot be described with less than two bits. Use this checkbox to allow or forbid "using only 1 bit" as a subnet identifier.

## **Supernets or CIDR (Classless InterDomain Routing)**

### Supernet Mask

Choose a supernet mask and it is validated for the current network configuration.

### Supernet Mask Bits, Max Supernets, Max Supernet Addresses

Use these parameters to configure your supernet settings.

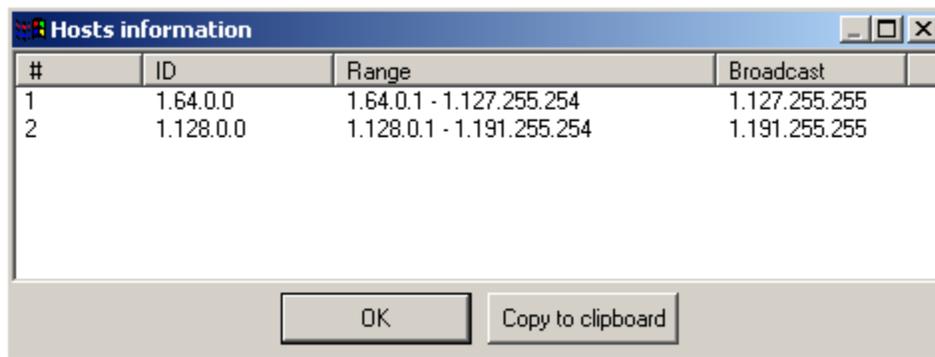
### Route

Displays the supernet route to a target IP address.

### Supernet Address Range

Address range for all valid supernets within a current network configuration.

## Subnets list



The screenshot shows a window titled "Hosts information" with a table containing two rows of data. The table has four columns: "#", "ID", "Range", and "Broadcast". Below the table are two buttons: "OK" and "Copy to clipboard".

#	ID	Range	Broadcast
1	1.64.0.0	1.64.0.1 - 1.127.255.254	1.127.255.255
2	1.128.0.0	1.128.0.1 - 1.191.255.254	1.191.255.255

This screen pops up when you press the "look at hosts" button. It contains the host ranges for each subnet. You can select any number of elements and press the "copy to clipboard" button to copy them to the clipboard as plain text.

