After getting IPv6-blocks (::/48 or ::/32) everyone has the problem to structure these address in an appropriate way, since otherwise the routing-tables will explode. This presentation shows a two-dimensional approach to get a structured address-plan just by coloring squares (painting by numbers) instead of calculating hexadecimal numbers. This makes it much easier to explain address-plans even to management. The presentation explains the method and shows an example for a program using this method to structure a large address-space. A one-dimensional approach is not really scalable and almost unreadable. A two-dimensional presentation is much better: you just can "see" the structure: The following square represents for example the address-space 2001:0DB8::/32. You can "see" all possible sizes of subnets from ::/40 to ::/32 by just colouring squares

Visualization-Matrix of aggregatable IPv6-address-ranges (8 Bit)

00	01	04	05	10	11	14	15	40	41	44	45	50	51	54	55
02	03	06	07	12	13	16	17	42	43	46	47	52	53	56	57
08	09	0C	0D	18	19	1C	1D	48	49	4C	4D	58	59	5C	5D
0A	0B	0E	0F	1A	1B	1E	1F	4A	4B	4E	4F	5A	5B	5E	5F
20	21	24	25	30	31	34	35	60	61	64	65	70	71	74	75
22	23	26	27	32	33	36	37	62	63	66	67	72	73	76	77
28	29	2C	2D	38	39	3C	3D	68	69	6C	6D	78	79	7C	7D
2A	2B	2E	2F	3A	3B	3E	3F	6A	6B	6E	6F	7A	7B	7E	7F
80	81	84	85	90	91	94	95	C0	C1	C4	C5	D0	D1	D4	D5
82	83	86	87	92	93	96	97	C2	C3	C6	C7	D2	D3	D6	D7
88	89	8C	8D	98	99	9C	9D	C8	C9	CC	CD	D8	D9	DC	DD
8A	8B	8E	8F	9A	9B	9E	9F	CA	CB	CE	CF	DA	DB	DE	DF
A0	A1	A4	A5	B0	B1	B4	B5	E0	E1	E4	E5	F0	F1	F4	F5
A2	A3	A6	A7	B2	B3	B6	B7	E2	E3	E6	E7	F2	F3	F6	F7
A8	A9	AC	AD	B8	B9	BC	BD	E8	E9	EC	ED	F8	F9	FC	FD
AA	AB	AE	AF	BA	BB	BE	BF	EA	EB	EE	EF	FA	FB	FE	FF

For each network-size there are marked samples in the above square:

2001:0DB8:1600::/40 violet   - - - - - - - - - - - - - - -

2001:0DB8:0600::/39 orange

2001:0DB8:2000::/38 dark-green   ——————

2001:0DB8:3800::/37 light-green

2001:0DB8:8000::/36 red   ——————

2001:0DB8:4000::/35 yellow

2001:0DB8:C000::/34 blue   ——————

2001:0DB8:8000::/33 the lower half

2001:0DB8:0000::/32 the whole address-block