

Bereich Simulation - Detaillierung:

22.12.83

Deba

2

2. Zustandsvektoreinteilung

Die Einteilung gilt für eine Raumzelle und erfolgt sich um den gleichen strukturellen Bereich bei jeder weiteren.

1. Raumzellenzustandsgrößen:

- | | |
|-------------------------------|------------------|
| 1. Raumlufttemperatur | 1. Zustandsgröße |
| 2. Hüllflächentemperaturen (6 | " |
| 3. Heizkanalberieidtemp. | 4 |

Die Reihenfolge ist entsprechend den den Feldreservierungen

X_1 = Raumlufttemperatur

X_2 = Decken temperature

X_3 = Wand temp. - Süden

X_4 = Boden temp

X_5 = Wand temp - Norden

X_6 = Wand temp - Westen

X_7 = Wand temp - Osten

X_8 = Decken Kanal temp.

X_9 = Wand Kanal temp.

X_{10} = Boden Kanal temp.

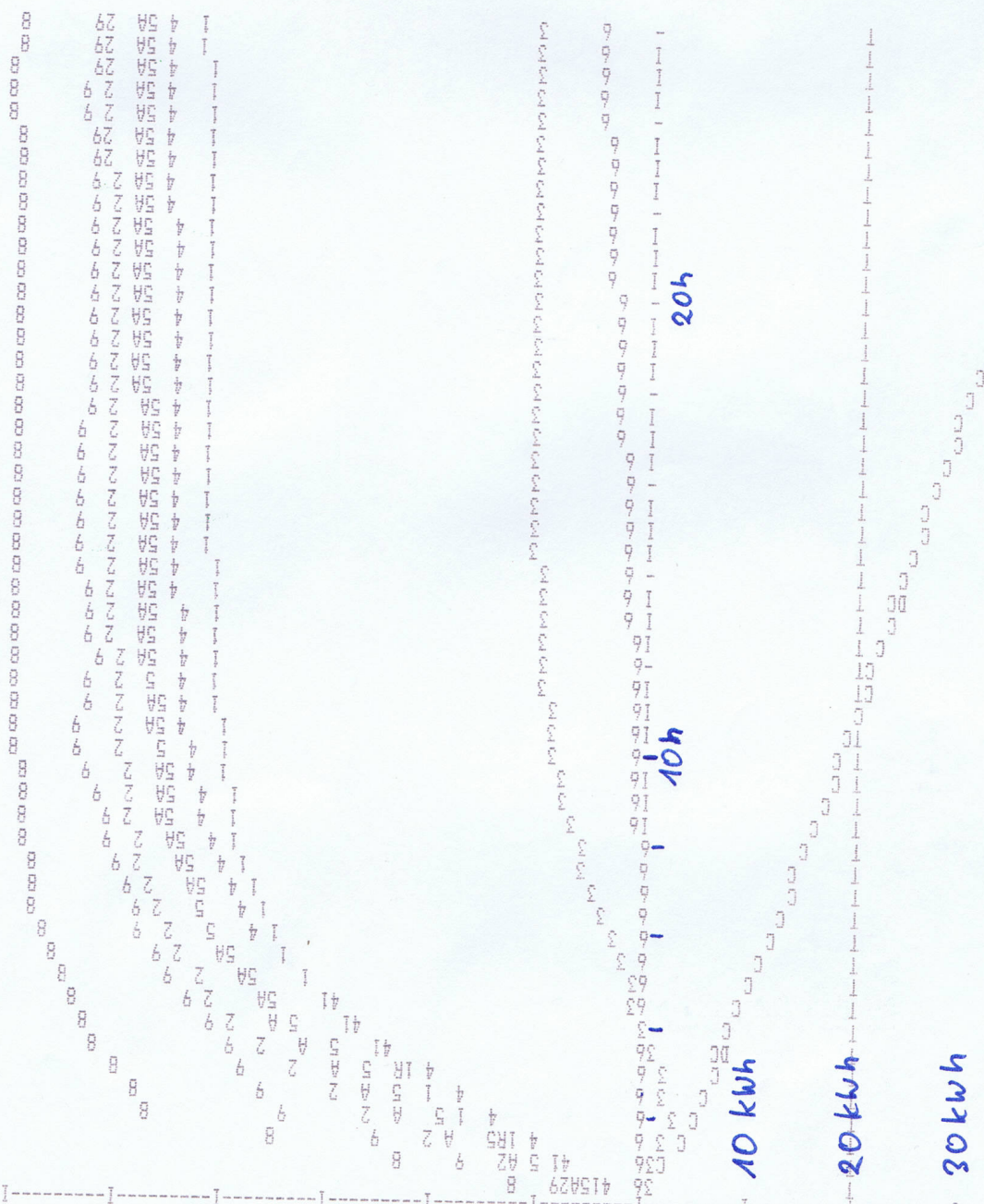
X_{11} = Energie schicht temp.

X_{12} = Raumklima (ohne DGL, dient nur der Anzeige)

Energieverbrauch
[kWh]

Plot der Daten SIM2NF vom 9.2.1984
Haussimulation Rittershöhe 51

1.4.84
Delzer



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SIMULATION von Hüllflächenheizungen mit Luft als Arbeitsmedium

Folgende Zustandsgrößen wurden simuliert und dargestellt :

Zustandsgröße	Bezeichnung	Kurzbeschreibung	Einheit
1	1	Raumlufttemperatur	(GC)
2	2	mittlere Deckentemperatur	(GC)
3	3	" Wandtemperatur-Süden	(GC)
4	4	" Wandtemperatur-Norden	(GC)
5	5	" Wandtemperatur-Westen	(GC)
6	6	" Wandtemperatur-Osten	(GC)
7	7	" Deckenkanaltemperatur	(GC)
8	8	" Wandkanaltemperatur	(GC)
9	9	" Bodenkanaltemperatur	(GC)
10	A	" Energieschachttemp.	(GC)
11	B	Wärmezufuhr durch Heizung	(kWh)
12	C	Wärmezufuhr durch Energieschacht	(kWh)
13	D	Raumklima	(GC)

Heizung
mit
Thermosiphon

22.1.84
Dh.

B>TOD

current tod: Sun 22-01-1984 16:36:52.00

B>TYPE SIM.DAT

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11	.200000E+01	.100000E+02																	
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	.000000E+00	.190000E+02	.227800E+02	.450000E+01	.203000E+02	.212400E+02	.530000E+01	.530000E+01											
	.235000E+02	.216000E+02	.350000E+02	.000000E+00	.000000E+00	.000000E+00	-.100000E+02												
	.721776E+04	.190174E+02	.227962E+02	.450355E+01	.203020E+02	.212869E+02	.524275E+01	.524275E+01											
	.234871E+02	.216014E+02	.350000E+02	-.128936E+01	-.128950E+01	.189130E+02	-.100000E+02												
	.144210E+05	.190467E+02	.228274E+02	.451989E+01	.203345E+02	.212810E+02	.518368E+01	.518368E+01											
	.235107E+02	.216190E+02	.350000E+02	-.262666E+01	-.262679E+01	.189392E+02	-.100000E+02												
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	.235194E+02	.216469E+02	.350000E+02	-.409133E+01	-.409290E+01	.189461E+02	-.100000E+02												
	.288295E+05	.190784E+02	.228425E+02	.453700E+01	.203793E+02	.213268E+02	.508876E+01	.508876E+01	.26576										
	.236589E+02	.216347E+02	.350000E+02	-.585556E+01	-.585520E+01	.189683E+02	-.100000E+02												
	.360339E+05	.190874E+02	.228498E+02	.454028E+01	.203751E+02	.213279E+02	.504229E+01	.504229E+01	.26545										
	.235425E+02	.216549E+02	.350000E+02	-.782856E+01	-.782825E+01	.189750E+02	-.100000E+02												
	.432353E+05	.190950E+02	.228740E+02	.454587E+01	.203804E+02	.213263E+02	.500789E+01	.500789E+01	.26557										
	.235107E+02	.216321E+02	.350000E+02	-.989451E+01	-.989462E+01	.189825E+02	-.100000E+02												
	.504471E+05	.191143E+02	.228728E+02	.455546E+01	.204126E+02	.213489E+02	.497047E+01	.497047E+01	.26512										
	.230759E+02	.217908E+02	.350000E+02	-.120435E+02	-.120425E+02	.189998E+02	-.100000E+02												
	.576519E+05	.191160E+02	.228764E+02	.455729E+01	.204054E+02	.213209E+02	.493955E+01	.493955E+01	.26505										
	.230019E+02	.217977E+02	.350000E+02	-.142232E+02	-.142227E+02	.189992E+02	-.100000E+02												
	.648600E+05	.191175E+02	.228784E+02	.455788E+01	.203996E+02	.213831E+02	.490996E+01	.490996E+01	.26568										
	.235784E+02	.216871E+02	.350000E+02	-.164691E+02	-.164696E+02	.190026E+02	-.100000E+02												
	.720893E+05	.191217E+02	.228797E+02	.456246E+01	.204070E+02	.213526E+02	.488159E+01	.488159E+01	.26568										
	.234003E+02	.215725E+02	.350000E+02	-.187694E+02	-.187590E+02	.190046E+02	-.100000E+02												
	.793158E+05	.191214E+02	.228806E+02	.456106E+01	.204079E+02	.213640E+02	.485444E+01	.485444E+01	.26486										
	.232268E+02	.216828E+02	.350000E+02	-.210664E+02	-.210588E+02	.190045E+02	-.100000E+02												
	.865307E+05	.191205E+02	.228802E+02	.456062E+01	.204063E+02	.213500E+02	.483318E+01	.483318E+01	.26541										
	.236758E+02	.216536E+02	.350000E+02	-.234040E+02	-.233999E+02	.190026E+02	-.100000E+02												
	.937392E+05	.191189E+02	.228792E+02	.455986E+01	.203974E+02	.213636E+02	.481285E+01	.481285E+01	.26605										
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B>TYPE HAUS.DAT

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1																			
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	.300000E+02	.100000E+04	.120000E+01	.558000E+01	.455985E+01	.147408E+02	.191197E+02	-.100000E+02	.55800										
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	.180000E+02	.500000E+03	.200000E+01	.558000E+01	.213424E+02	.205463E+02	.191197E+02	.241993E+02	.56872										
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	.180000E+02	.100000E+04	.500000E+00	.558000E+01	.479461E+01	.169426E+02	.191197E+02	-.100000E+02	.55800										
	.300000E+03	.100000E+04	.500000E+00	.558000E+01	.479461E+01	.169426E+02	.191197E+02	-.100000E+02	.55800										
	.150000E+02	.100000E+04	.500000E+00	.558000E+01	.479461E+01	.169426E+02	.191197E+02	-.100000E+02	.55800										
	.300000E+03	.100000E+04	.500000E+00	.558000E+01	.479461E+01	.169426E+02	.191197E+02	-.100000E+02	.55800										
	.150000E+02	.200000E+01	.120000E+02	.240000E+02	.465504E-01	.265686E+02													
	.100000E+00	.300000E+01	.300000E+01	.600000E+01	.465504E-01	.241993E+02													
	.100000E+00	.200000E+01	.120000E+02	.240000E+02	.465504E-01	.215105E+02													
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B>
B>

Simulation 22.1.84

B>TOD
current tod: 84 9:58:39.00

Raumzelle
Ritterstraße 51

B>TYPE SIM.DAT	0	100000E+04	100000E+04		
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	.105297E+03	.199574E+02	-.201632E+02	.253837E+01	.200836E+02
200062E+02	.712192E+01	.712192E+01	.248589E+02	.221788E+02	-.24E+02
4E+02	.350000E+02	-.301735E-01	-.160918E-01	.190331E+02	-.100000E+02
	.223755E+03	.199154E+02	.202935E+02	.258046E+01	.201164E+02
201576E+02	.676067E+01	.676067E+01	.249594E+02	.221521E+02	-.24E+02
5E+02	.350000E+02	-.536577E-01	-.403591E-01	.189974E+02	-.100000E+02
	.330115E+03	.198761E+02	.203908E+02	.261731E+01	.201291E+02
202149E+02	.648531E+01	.648531E+01	.250085E+02	.222807E+02	-.24E+02
5E+02	.350000E+02	-.744647E-01	-.612614E-01	.189668E+02	-.100000E+02
	.439697E+03	.198398E+02	.205185E+02	.265437E+01	.201596E+02
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	.555891E+03	.198022E+02	.206279E+02	.269271E+01	.201705E+02
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6E+02	.350000E+02	-.118266E+00	-.105878E+00	.189127E+02	-.100000E+02
	.666416E+03	.197639E+02	.207292E+02	.272828E+01	.201800E+02
203767E+02	.584535E+01	.584535E+01	.251899E+02	.223494E+02	-.24E+02
6E+02	.350000E+02	-.139534E+00	-.126409E+00	.188887E+02	-.100000E+02
	.771640E+03	.197491E+02	.208439E+02	.276137E+01	.202084E+02
204361E+02	.569989E+01	.569989E+01	.252577E+02	.225084E+02	-.24E+02
4E+02	.350000E+02	-.159712E+00	-.146638E+00	.188664E+02	-.100000E+02
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6E+02	.350000E+02	-.180722E+00	-.167988E+00	.188459E+02	-.100000E+02
	.100131E+04	.196798E+02	.210535E+02	.283110E+01	.202438E+02
205289E+02	.544725E+01	.544725E+01	.254050E+02	.226292E+02	-.24E+02
2E+02	.350000E+02	-.203606E+00	-.190470E+00	.188259E+02	-.100000E+02

B>TYPE HAUS.DAT
22 1 1984 9 57 54

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	.200000E+02	.100000E+04	.120000E+01	.558000E+01	.203110E+01
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	.300000E+02	.500000E+03	.200000E+01	.558000E+01	.202438E+02
199153E+02	.196798E+02	.212242E+02	.573157E+01	.300000E+02	
	.200000E+02	.100000E+04	.500000E+01	.558000E+01	.205289E+02
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	.300000E+01	.100000E+04	.200000E+01	.558000E+01	.544725E+01
137372E+02	.196798E+02	-.100000E+02	.558000E+01	.150000E+02	
	.300000E+01	.100000E+04	.200000E+01	.558000E+01	.544725E+01
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226292E+02					
	.100000E+00	.200000E+01	.120000E+02	.240000E+02	.500162E-01
212242E+02					
	.500000E+00	.500000E+00	.300000E+01	.120000E+01	.500162E-01