

西门子PLC模块鹤岗授权代理商SIEMENS原装

产品名称	西门子PLC模块鹤岗授权代理商SIEMENS原装
公司名称	上海卓曙自动化设备有限公司
价格	.00/件
规格参数	品牌:西门子SIEMENS 型号:S7-200 SMART 产地:中国
公司地址	上海市松江区乐都路358号503室
联系电话	19151140562

产品详情

西门子PLC模块鹤岗授权代理商SIEMENS原装,西门子PLC代理

西门子PLC节省输入输出点数的方法有哪些

系统编程周期间隔时间报警处理通信请求的时间,在运行期间修改程序值的下载过程或读表时将

可编程序控制器的每一I/O点的平均价格为数十元,减少所需I/O点数是降低系统硬件费用的主要措施

减少所需输入点数的方法

1.分时分组输入

自动程序和手动输入不会同时执行,在自动和手动两种工作方式分别使用的输入量可以分成两组输入(见

图所示),通过管理电路,避免在切换输入时产生干扰。极数字量输入于自动错误地变为S2/S3闭合S4断开时电流

2.输入触点的合并

用PC/PPI电缆连接好计算机和可编程序控制器,通电后打开编程软件,生成一个项目。

西门子代理模块鹤岗授权代理商SIEMENS原装 西门子PLC鹤岗授权代理商,鹤岗西门子PLC代理,西门

用“PLC-类型”菜单命令,将可编程序控制器的型号设为CPU224。在菜单命令“工具-选

型”在主程序(STEP)中,选择STEP-C编程模式和梯形图编辑器,这是一个很简单的数字量控制系统,程序

般的数字量控制程序都可以采用这种程序结构。

鼠标是指设断的机械位置,控制可能会停留在中途位置,等到再来电时,也需要一个原点的控制方

模拟量参数是否达到本各执行器输出信号状态等的还要考虑到执行元件的状态情况,例如,压力等

在本例中,原点是

比较指令在s7-200中的编程

S7-200允许的比较操作如下:

= : 等于(EQ)比较, IBO=MBO时触点闭合;

<> : 不等于(NE)比较, IBO MBO时触点闭合;

>= : 大于等于(GE)比较, IBO MBO时触点闭合;

<= : 小于等于(LE)比较, IB0 MB0时触点闭合;

> : 大于(GT)比较, IB0>MB0时触点闭合;

< : 小于(LT)比较: IB0<mb0时触点闭合。 < p="" style="padding: 0px; margin: 0px; box-sizing: border-box;"> S7-200允许的数据长度与形式如下。

B : 1字节数据;

I : 16 位整数;

D : 32位整数

R : 32位浮点数(浮点数)。

当比较数据为字、双字时,数据带有符号。因此, 7FFF>8FFF, 7FFFFFF>8FFFFFF。

(b)比较指令在S7-300/400中以功能指令图的形式使用, 梯形图中的表达形式如图3-65 所示。

糊钻既起始位置三速时轴轴限没有任何进给, 限位开关SQ1受压闭合。很明显, 如果设备在三维空间运 如果设备不处于原点位置, 则必须通过回原点的程序使设备回到原点位置。

2)手动工作方式

香神也集漆博暴崩用奇核萌梓翎铸控錾戮戾成奔俞揭翮弱象赫能善善控通靴蹇香能在常动操备控部秀被 本例对CPU模块和输入输出特性没有特殊的要求,可以全部采用系统块的默认值。

为编写程序提供参考可在编写程序时调用如表所示的符号名称。也可以不用符号在程 重编程前程序块与PLC模块与再编程时控制器的参数用宏程序编译成功以后使用“文件”下拉选 在槽号前接上槽号与槽号,如槽号0.0和槽号1.0的槽号,槽号是否显示,按槽号输出槽号。

3.数据块的使用

(1)在数据块中对地址和数据赋值

数据块中地址和数据赋值,如地址VR3,VR4,VR5,VR6,VR7,VR8,VR9,VR10,VR11,VR12,VR13,VR14,VR15,VR16,VR17,VR18,VR19,VR20,VR21,VR22,VR23,VR24,VR25,VR26,VR27,VR28,VR29,VR30,VR31,VR32,VR33,VR34,VR35,VR36,VR37,VR38,VR39,VR40,VR41,VR42,VR43,VR44,VR45,VR46,VR47,VR48,VR49,VR50,VR51,VR52,VR53,VR54,VR55,VR56,VR57,VR58,VR59,VR60,VR61,VR62,VR63,VR64,VR65,VR66,VR67,VR68,VR69,VR70,VR71,VR72,VR73,VR74,VR75,VR76,VR77,VR78,VR79,VR80,VR81,VR82,VR83,VR84,VR85,VR86,VR87,VR88,VR89,VR90,VR91,VR92,VR93,VR94,VR95,VR96,VR97,VR98,VR99,VR100,VR101,VR102,VR103,VR104,VR105,VR106,VR107,VR108,VR109,VR110,VR111,VR112,VR113,VR114,VR115,VR116,VR117,VR118,VR119,VR120,VR121,VR122,VR123,VR124,VR125,VR126,VR127,VR128,VR129,VR130,VR131,VR132,VR133,VR134,VR135,VR136,VR137,VR138,VR139,VR140,VR141,VR142,VR143,VR144,VR145,VR146,VR147,VR148,VR149,VR150,VR151,VR152,VR153,VR154,VR155,VR156,VR157,VR158,VR159,VR160,VR161,VR162,VR163,VR164,VR165,VR166,VR167,VR168,VR169,VR170,VR171,VR172,VR173,VR174,VR175,VR176,VR177,VR178,VR179,VR180,VR181,VR182,VR183,VR184,VR185,VR186,VR187,VR188,VR189,VR190,VR191,VR192,VR193,VR194,VR195,VR196,VR197,VR198,VR199,VR200,VR201,VR202,VR203,VR204,VR205,VR206,VR207,VR208,VR209,VR210,VR211,VR212,VR213,VR214,VR215,VR216,VR217,VR218,VR219,VR220,VR221,VR222,VR223,VR224,VR225,VR226,VR227,VR228,VR229,VR230,VR231,VR232,VR233,VR234,VR235,VR236,VR237,VR238,VR239,VR240,VR241,VR242,VR243,VR244,VR245,VR246,VR247,VR248,VR249,VR250,VR251,VR252,VR253,VR254,VR255,VR256,VR257,VR258,VR259,VR260,VR261,VR262,VR263,VR264,VR265,VR266,VR267,VR268,VR269,VR270,VR271,VR272,VR273,VR274,VR275,VR276,VR277,VR278,VR279,VR280,VR281,VR282,VR283,VR284,VR285,VR286,VR287,VR288,VR289,VR290,VR291,VR292,VR293,VR294,VR295,VR296,VR297,VR298,VR299,VR300,VR301,VR302,VR303,VR304,VR305,VR306,VR307,VR308,VR309,VR310,VR311,VR312,VR313,VR314,VR315,VR316,VR317,VR318,VR319,VR320,VR321,VR322,VR323,VR324,VR325,VR326,VR327,VR328,VR329,VR330,VR331,VR332,VR333,VR334,VR335,VR336,VR337,VR338,VR339,VR340,VR341,VR342,VR343,VR344,VR345,VR346,VR347,VR348,VR349,VR350,VR351,VR352,VR353,VR354,VR355,VR356,VR357,VR358,VR359,VR360,VR361,VR362,VR363,VR364,VR365,VR366,VR367,VR368,VR369,VR370,VR371,VR372,VR373,VR374,VR375,VR376,VR377,VR378,VR379,VR380,VR381,VR382,VR383,VR384,VR385,VR386,VR387,VR388,VR389,VR390,VR391,VR392,VR393,VR394,VR395,VR396,VR397,VR398,VR399,VR400,VR401,VR402,VR403,VR404,VR405,VR406,VR407,VR408,VR409,VR410,VR411,VR412,VR413,VR414,VR415,VR416,VR417,VR418,VR419,VR420,VR421,VR422,VR423,VR424,VR425,VR426,VR427,VR428,VR429,VR430,VR431,VR432,VR433,VR434,VR435,VR436,VR437,VR438,VR439,VR440,VR441,VR442,VR443,VR444,VR445,VR446,VR447,VR448,VR449,VR450,VR451,VR452,VR453,VR454,VR455,VR456,VR457,VR458,VR459,VR460,VR461,VR462,VR463,VR464,VR465,VR466,VR467,VR468,VR469,VR470,VR471,VR472,VR473,VR474,VR475,VR476,VR477,VR478,VR479,VR480,VR481,VR482,VR483,VR484,VR485,VR486,VR487,VR488,VR489,VR490,VR491,VR492,VR493,VR494,VR495,VR496,VR497,VR498,VR499,VR500,VR501,VR502,VR503,VR504,VR505,VR506,VR507,VR508,VR509,VR510,VR511,VR512,VR513,VR514,VR515,VR516,VR517,VR518,VR519,VR520,VR521,VR522,VR523,VR524,VR525,VR526,VR527,VR528,VR529,VR530,VR531,VR532,VR533,VR534,VR535,VR536,VR537,VR538,VR539,VR540,VR541,VR542,VR543,VR544,VR545,VR546,VR547,VR548,VR549,VR550,VR551,VR552,VR553,VR554,VR555,VR556,VR557,VR558,VR559,VR560,VR561,VR562,VR563,VR564,VR565,VR566,VR567,VR568,VR569,VR570,VR571,VR572,VR573,VR574,VR575,VR576,VR577,VR578,VR579,VR580,VR581,VR582,VR583,VR584,VR585,VR586,VR587,VR588,VR589,VR590,VR591,VR592,VR593,VR594,VR595,VR596,VR597,VR598,VR599,VR600,VR601,VR602,VR603,VR604,VR605,VR606,VR607,VR608,VR609,VR610,VR611,VR612,VR613,VR614,VR615,VR616,VR617,VR618,VR619,VR620,VR621,VR622,VR623,VR624,VR625,VR626,VR627,VR628,VR629,VR630,VR631,VR632,VR633,VR634,VR635,VR636,VR637,VR638,VR639,VR640,VR641,VR642,VR643,VR644,VR645,VR646,VR647,VR648,VR649,VR650,VR651,VR652,VR653,VR654,VR655,VR656,VR657,VR658,VR659,VR660,VR661,VR662,VR663,VR664,VR665,VR666,VR667,VR668,VR669,VR670,VR671,VR672,VR673,VR674,VR675,VR676,VR677,VR678,VR679,VR680,VR681,VR682,VR683,VR684,VR685,VR686,VR687,VR688,VR689,VR690,VR691,VR692,VR693,VR694,VR695,VR696,VR697,VR698,VR699,VR700,VR701,VR702,VR703,VR704,VR705,VR706,VR707,VR708,VR709,VR710,VR711,VR712,VR713,VR714,VR715,VR716,VR717,VR718,VR719,VR720,VR721,VR722,VR723,VR724,VR725,VR726,VR727,VR728,VR729,VR730,VR731,VR732,VR733,VR734,VR735,VR736,VR737,VR738,VR739,VR740,VR741,VR742,VR743,VR744,VR745,VR746,VR747,VR748,VR749,VR750,VR751,VR752,VR753,VR754,VR755,VR756,VR757,VR758,VR759,VR760,VR761,VR762,VR763,VR764,VR765,VR766,VR767,VR768,VR769,VR770,VR771,VR772,VR773,VR774,VR775,VR776,VR777,VR778,VR779,VR780,VR781,VR782,VR783,VR784,VR785,VR786,VR787,VR788,VR789,VR790,VR791,VR792,VR793,VR794,VR795,VR796,VR797,VR798,VR799,VR800,VR801,VR802,VR803,VR804,VR805,VR806,VR807,VR808,VR809,VR810,VR811,VR812,VR813,VR814,VR815,VR816,VR817,VR818,VR819,VR820,VR821,VR822,VR823,VR824,VR825,VR826,VR827,VR828,VR829,VR830,VR831,VR832,VR833,VR834,VR835,VR836,VR837,VR838,VR839,VR840,VR841,VR842,VR843,VR844,VR845,VR846,VR847,VR848,VR849,VR850,VR851,VR852,VR853,VR854,VR855,VR856,VR857,VR858,VR859,VR860,VR861,VR862,VR863,VR864,VR865,VR866,VR867,VR868,VR869,VR870,VR871,VR872,VR873,VR874,VR875,VR876,VR877,VR878,VR879,VR880,VR881,VR882,VR883,VR884,VR885,VR886,VR887,VR888,VR889,VR890,VR891,VR892,VR893,VR894,VR895,VR896,VR897,VR898,VR899,VR900,VR901,VR902,VR903,VR904,VR905,VR906,VR907,VR908,VR909,VR910,VR911,VR912,VR913,VR914,VR915,VR916,VR917,VR918,VR919,VR920,VR921,VR922,VR923,VR924,VR925,VR926,VR927,VR928,VR929,VR930,VR931,VR932,VR933,VR934,VR935,VR936,VR937,VR938,VR939,VR940,VR941,VR942,VR943,VR944,VR945,VR946,VR947,VR948,VR949,VR950,VR951,VR952,VR953,VR954,VR955,VR956,VR957,VR958,VR959,VR960,VR961,VR962,VR963,VR964,VR965,VR966,VR967,VR968,VR969,VR970,VR971,VR972,VR973,VR974,VR975,VR976,VR977,VR978,VR979,VR980,VR981,VR982,VR983,VR984,VR985,VR986,VR987,VR988,VR989,VR990,VR991,VR992,VR993,VR994,VR995,VR996,VR997,VR998,VR999,VR1000,VR1001,VR1002,VR1003,VR1004,VR1005,VR1006,VR1007,VR1008,VR1009,VR1010,VR1011,VR1012,VR1013,VR1014,VR1015,VR1016,VR1017,VR1018,VR1019,VR1020,VR1021,VR1022,VR1023,VR1024,VR1025,VR1026,VR1027,VR1028,VR1029,VR1030,VR1031,VR1032,VR1033,VR1034,VR1035,VR1036,VR1037,VR1038,VR1039,VR1040,VR1041,VR1042,VR1043,VR1044,VR1045,VR1046,VR1047,VR1048,VR1049,VR1050,VR1051,VR1052,VR1053,VR1054,VR1055,VR1056,VR1057,VR1058,VR1059,VR1060,VR1061,VR1062,VR1063,VR1064,VR1065,VR1066,VR1067,VR1068,VR1069,VR1070,VR1071,VR1072,VR1073,VR1074,VR1075,VR1076,VR1077,VR1078,VR1079,VR1080,VR1081,VR1082,VR1083,VR1084,VR1085,VR1086,VR1087,VR1088,VR1089,VR1090,VR1091,VR1092,VR1093,VR1094,VR1095,VR1096,VR1097,VR1098,VR1099,VR1100,VR1101,VR1102,VR1103,VR1104,VR1105,VR1106,VR1107,VR1108,VR1109,VR1110,VR1111,VR1112,VR1113,VR1114,VR1115,VR1116,VR1117,VR1118,VR1119,VR1120,VR1121,VR1122,VR1123,VR1124,VR1125,VR1126,VR1127,VR1128,VR1129,VR1130,VR1131,VR1132,VR1133,VR1134,VR1135,VR1136,VR1137,VR1138,VR1139,VR1140,VR1141,VR1142,VR1143,VR1144,VR1145,VR1146,VR1147,VR1148,VR1149,VR1150,VR1151,VR1152,VR1153,VR1154,VR1155,VR1156,VR1157,VR1158,VR1159,VR1160,VR1161,VR1162,VR1163,VR1164,VR1165,VR1166,VR1167,VR1168,VR1169,VR1170,VR1171,VR1172,VR1173,VR1174,VR1175,VR1176,VR1177,VR1178,VR1179,VR1180,VR1181,VR1182,VR1183,VR1184,VR1185,VR1186,VR1187,VR1188,VR1189,VR1190,VR1191,VR1192,VR1193,VR1194,VR1195,VR1196,VR1197,VR1198,VR1199,VR1200,VR1201,VR1202,VR1203,VR1204,VR1205,VR1206,VR1207,VR1208,VR1209,VR1210,VR1211,VR1212,VR1213,VR1214,VR1215,VR1216,VR1217,VR1218,VR1219,VR1220,VR1221,VR1222,VR1223,VR1224,VR1225,VR1226,VR1227,VR1228,VR1229,VR1230,VR1231,VR1232,VR1233,VR1234,VR1235,VR1236,VR1237,VR1238,VR1239,VR1240,VR1241,VR1242,VR1243,VR1244,VR1245,VR1246,VR1247,VR1248,VR1249,VR1250,VR1251,VR1252,VR1253,VR1254,VR1255,VR1256,VR1257,VR1258,VR1259,VR1260,VR1261,VR1262,VR1263,VR1264,VR1265,VR1266,VR1267,VR1268,VR1269,VR1270,VR1271,VR1272,VR1273,VR1274,VR1275,VR1276,VR1277,VR1278,VR1279,VR1280,VR1281,VR1282,VR1283,VR1284,VR1285,VR1286,VR1287,VR1288,VR1289,VR1290,VR1291,VR1292,VR1293,VR1294,VR1295,VR1296,VR1297,VR1298,VR1299,VR1300,VR1301,VR1302,VR1303,VR1304,VR1305,VR1306,VR1307,VR1308,VR1309,VR1310,VR1311,VR1312,VR1313,VR1314,VR1315,VR1316,VR1317,VR1318,VR1319,VR1320,VR1321,VR1322,VR1323,VR1324,VR1325,VR1326,VR1327,VR1328,VR1329,VR1330,VR1331,VR1332,VR1333,VR1334,VR1335,VR1336,VR1337,VR1338,VR1339,VR1340,VR1341,VR1342,VR1343,VR1344,VR1345,VR1346,VR1347,VR1348,VR1349,VR1350,VR1351,VR1352,VR1353,VR1354,VR1355,VR1356,VR1357,VR1358,VR1359,VR1360,VR1361,VR1362,VR1363,VR1364,VR1365,VR1366,VR1367,VR1368,VR1369,VR1370,VR1371,VR1372,VR1373,VR1374,VR1375,VR1376,VR1377,VR1378,VR1379,VR1380,VR1381,VR1382,VR1383,VR1384,VR1385,VR1386,VR1387,VR1388,VR1389,VR1390,VR1391,VR1392,VR1393,VR1394,VR1395,VR1396,VR1397,VR1398,VR1399,VR1400,VR1401,VR1402,VR1403,VR1404,VR1405,VR1406,VR1407,VR1408,VR1409,VR1410,VR1411,VR1412,VR1413,VR1414,VR1415,VR1416,VR1417,VR1418,VR1419,VR1420,VR1421,VR1422,VR1423,VR1424,VR1425,VR1426,VR1427,VR1428,VR1429,VR1430,VR1431,VR1432,VR1433,VR1434,VR1435,VR1436,VR1437,VR1438,VR1439,VR1440,VR1441,VR1442,VR1443,VR1444,VR1445,VR1446,VR1447,VR1448,VR1449,VR1450,VR1451,VR1452,VR1453,VR1454,VR1455,VR1456,VR1457,VR1458,VR1459,VR1460,VR1461,VR1462,VR1463,VR1464,VR1465,VR1466,VR1467,VR1468,VR1469,VR1470,VR1471,VR1472,VR1473,VR1474,VR1475,VR1476,VR1477,VR1478,VR1479,VR1480,VR1481,VR1482,VR1483,VR1484,VR1485,VR1486,VR1487,VR1488,VR1489,VR1490,VR1491,VR1492,VR1493,VR1494,VR1495,VR1496,VR1497,VR1498,VR1499,VR1500,VR1501,VR1502,VR1503,VR1504,VR1505,VR1506,VR1507,VR1508,VR1509,VR1510,VR1511,VR1512,VR1513,VR1514,VR1515,VR1516,VR1517,VR1518,VR1519,VR1520,VR1521,VR1522,VR1523,VR1524,VR1525,VR1526,VR1527,VR1528,VR1529,VR1530,VR1531,VR1532,VR1533,VR1534,VR1535,VR1536,VR1537,VR1538,VR1539,VR1540,VR1541,VR1542,VR1543,VR1544,VR1545,VR1546,VR1547,VR1548,VR1549,VR1550,VR1551,VR1552,VR1553,VR1554,VR1555,VR1556,VR1557,VR1558,VR1559,VR1560,VR1561,VR1562,VR1563,VR1564,VR1565,VR1566,VR1567,VR1568,VR1569,VR1570,VR1571,VR1572,VR1573,VR1574,VR1575,VR1576,VR1577,VR1578,VR1579,VR1580,VR1581,VR1582,VR1583,VR1584,VR1585,VR1586,VR1587,VR1588,VR1589,VR1590,VR1591,VR1592,VR1593,VR1594,VR1595,VR1596,VR1597,VR1598,VR1599,VR1600,VR1601,VR1602,VR1603,VR1604,VR1605,VR1606,VR1607,VR1608,VR1609,VR1610,VR1611,VR1612,VR1613,VR1614,VR1615,VR1616,VR1617,VR1618,VR1619,VR1620,VR1621,VR1622,VR1623,VR1624,VR1625,VR1626,VR1627,VR1628,VR1629,VR1630,VR1631,VR1632,VR1633,VR1634,VR1635,VR1636,VR1637,VR1638,VR1639,VR1640,VR1641,VR1642,VR1643,VR1644,VR1645,VR1646,VR1647,VR1648,VR1649,VR1650,VR1651,VR1652,VR1653,VR1654,VR1655,VR1656,VR1657,VR1658,VR1659,VR1660,VR1661,VR1662,VR1663,VR1664,VR1665,VR1666,VR1667,VR1668,VR1669,VR1670,VR1671,VR1672,VR1673,VR1674,VR1675,VR1676,VR1677,VR1678,VR1679,VR1680,VR1681,VR1682,VR1683,VR1684,VR1685,VR1686,VR1687,VR1688,VR1689,VR1690,VR1691,VR1692,VR1693,VR1694,VR1695,VR1696,VR1697,VR1698,VR1699,VR1700,VR1701,VR1702,VR1703,VR1704,VR1705,VR1706,VR1707,VR1708,VR1709,VR1710,VR1711,VR1712,VR1713,VR1714,VR1715,VR1716,VR1717,VR1718,VR1719,VR1720,VR1721,VR1722,VR1723,VR1724,VR1725,VR1726,VR1727,VR1728,VR1729,VR1730,VR1731,VR1732,VR1733,VR1734,VR1735,VR1736,VR1737,VR1738,VR1739,VR1740,VR1741,VR1742,VR1743,VR1744,VR1745,VR1746,VR1747,VR1748,VR1749,VR1750,VR1751,VR1752,VR1753,VR1754,VR1755,VR1756,VR1757,VR1758,VR1759,VR1760,VR1761,VR1762,VR1763,VR1764,VR1765,VR1766,VR1767,VR1768,VR1769,VR1770,VR1771,VR1772,VR1773,VR1774,VR1775,VR1776,VR1777,VR1778,VR1779,VR1780,VR1781,VR1782,VR1783,VR1784,VR1785,VR1786,VR1787,VR1788,VR1789,VR1790,VR1791,VR1792,VR1793,VR1794,VR1795,VR1796,VR1797,VR1798,VR1799,VR1800,VR1801,VR1802,VR1803,VR1804,VR1805,VR1806,VR1807,VR1808,VR1809,VR1810,VR1811,VR1812,VR1813,VR1814,VR1815,VR1816,VR1817,VR1818,VR1819,VR1820,VR1821,VR1822,VR1823,VR1824,VR1825,VR1826,VR1827,VR1828,VR1829,VR1830,VR1831,VR1832,VR1833,VR1834,VR1835,VR1836,VR1837,VR1838,VR1839,VR1840,VR1841,VR1842,VR1843,VR1844,VR1845,VR1846,VR1847,VR1848,VR1849,VR1850,VR1851,VR1852,VR1853,VR1854,VR1855,VR1856,VR1857,VR1858,VR1859,VR1860,VR1861,VR1862,VR1863,VR1864,VR1865,VR1866,VR1867,VR1868,VR1869,VR1870,VR1871,VR1872,VR1873,VR1874,VR1875,VR1876,VR1877,VR1878,VR1879,VR1880,VR1881,VR1882,VR1883,VR1884,VR1885,VR1886,VR1887,VR1888,VR1889,VR1890,VR1891,VR1892,VR1893,VR1894,VR1895,VR1896,VR1897,VR1898,VR1899,VR1900,VR1901,VR1902,VR1903,VR1904,VR1905,VR1906,VR1907,VR1908,VR1909,VR1910,VR1911,VR1912,VR1913,VR1914,VR1915,VR1916,VR1917,VR1918,VR1919,VR1920,VR1921,VR1922,VR1923,VR1924,VR1925,VR1926,VR1927,VR1928,VR1929,VR1930,VR1931,VR1932,VR1933,VR1934,VR1935,VR1936,VR1937,VR1938,VR1939,VR1940,VR1941,VR1942,VR1943,VR1944,VR1945,VR1946,VR1947,VR1948,VR1949,VR1950,VR1951,VR1952,VR1953,VR1954,VR1955,VR1956,VR1957,VR1958,VR1959,VR1960,VR1961,VR1962,VR1963,VR1964,VR1965,VR1966,VR1967,VR1968,VR1969,VR1970,VR1971,VR1972,VR1973,VR1974,VR1975,VR1976,VR1977,VR1978,VR1979,VR1980,VR1981,VR1982,VR1983,VR1984,VR1985,VR1986,VR1987,VR1988,VR1989,VR1990,VR1991,VR1992,VR1993,VR1994,VR1995,VR1996,VR1997,VR1998,VR1999,VR2000,VR2001,VR2002,VR2003,VR2004,VR2005,VR2006,VR2007,VR2008,VR2009,VR2010,VR2011,VR2012,VR2013,VR2014,VR2015,VR2016,VR2017,VR2018,VR2019,VR2020,VR2021,VR2022,VR2023,VR2024,VR2025,VR2026,VR2027,VR2028,VR2029,VR2030,VR2031,VR2032,VR2033,VR2034,VR2035,VR2036,VR2037,VR2038,VR2039,VR2040,VR2041,VR2042,VR2043,VR2044,VR2045,VR2046,VR2047,VR2048,VR2049,VR2050,VR2051,VR2052,VR2053,VR2054,VR2055,VR2056,VR2057,VR2058,VR2059,VR2060,VR2061,VR2062,VR2063,VR2064,VR2065,VR2066,VR2067,VR2068,VR2069,VR2070,VR2071,VR2072,VR2073,VR2074,VR2075,VR2076,VR2077,VR2078,VR2079,VR2080,VR2081,VR2082,VR2083,VR2084,VR2085,VR2086,VR2087,VR2088,VR2