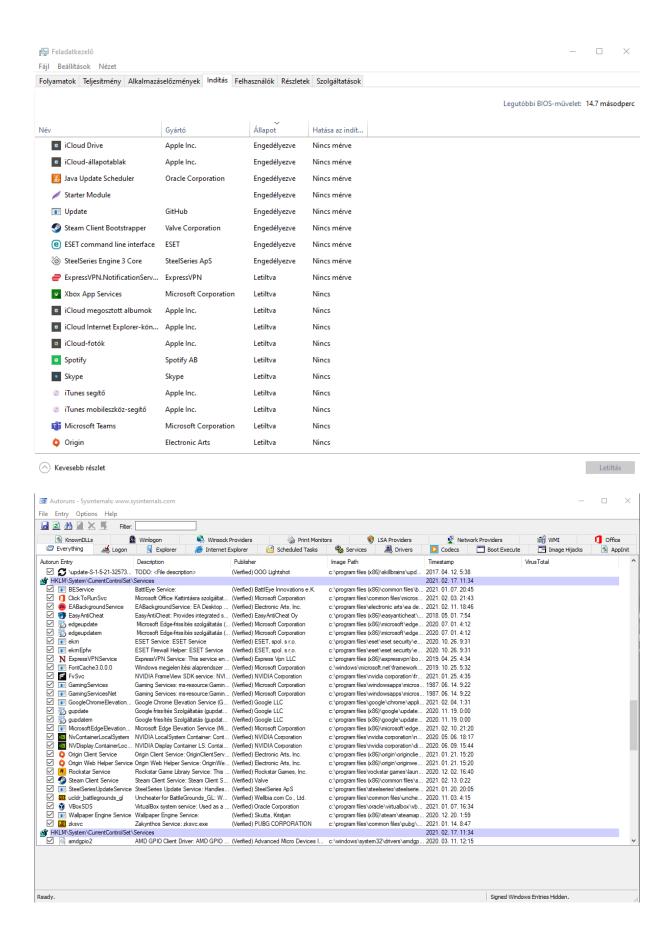
## Babik Szilárd Kristóf – A6NQW1 – OS 2. gyakorlat

A számítógépemen az automatikusan induló programok listája a Feladatkezelő "Indítás" ablakából és az Autoruns segédprogramból (részlet):

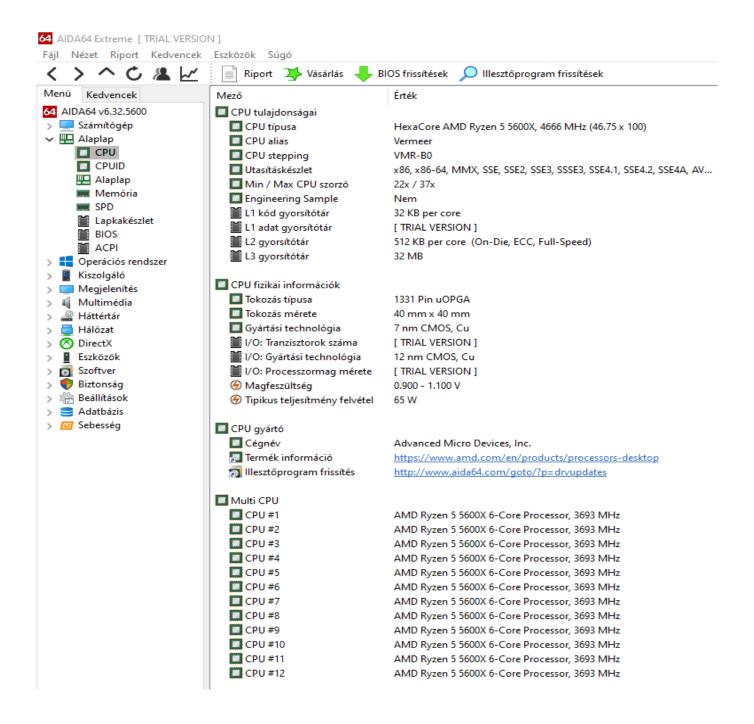


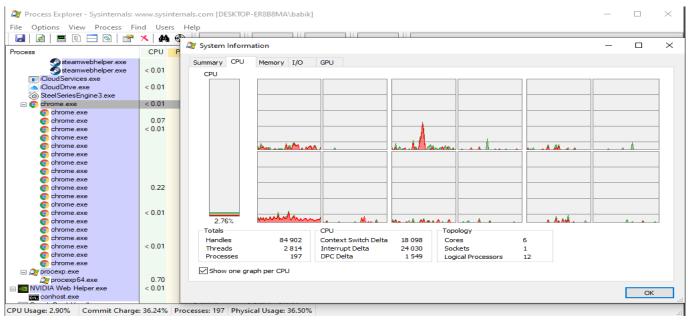
A TCP View segédprogram ablaka (szintén részlet), ahol láthatóak a TCP/UDP kapcsolatok a számítógép illetve külső szerverek között, illetve a helyi localhost kapcsolatok is:

A   Process /  EABackgroun		Protocol	1 1 A 44													
EABackgroun EABack	3660	Protocol	Level Address	<b>■</b> A ¬ (P)												
EAB ackgroum			Local Address	Local Port	Remote Address	Remote Port	State	Sent Packets	Sent Bytes		Rovd Packets	Rovd By	tes			
EAB ackgroum		TCPV6	[0:0:0:0:0:0:0:1]	4699	[0:0:0:0:0:0:0:0]	0	LISTENING									
ekm.exe ekm.exe ekm.exe ekm.exe ekm.exe ekm.exe ekm.exe expressypnd expressypnd expressypnd expressypnd expressypnd ExpressyPnN ExpressYPNN ExpressYPNN CloudDrive.exe iCloudDrive.exe		TCP		3114	104.96.157.132	https	ESTABLISHED		4	1 600		8	6 90			
ekm.exe ekm.exe ekm.exe expressypnd expressypnd expressypnd expressypnd expressypnd ExpressyPNN ExpressYPNN ExpressYPNN GamingServic iCloudDrive.exe iCloudService iCloudService iSass.exe lasss.exe vocontainer.exe vocontainer.exe		TCP	desktop-er8b8ma		104.96.157.132	https	ESTABLISHED		3	1 410		8	6 95			
ekrn exe expressypnd expressypnd expressypnd expressypnd expressypnd expressypnd expressypnd expressypnd ExpressyPnN ExpressYPNN GamingServic iCloudDrive.exe	1908	UDP	DESKTOP-ER8B8		×	×			1	64		1	8			
expressypnd expressypnd expressypnd expressypnd expressypnd expressypnd Expressypnd Expressypnd Expressypnd Could brive exe Cloud Drive exe Cloud	1908	UDP	DESKTOP-ER8B8		×	×			2	62		2	12			
il expressypnd il expressy	1908	UDP	DESKTOP-ER8B8		и	N			1	196		1	20			
expressypnd     expressypnd     expressypnd     expressypnd     ExpressyPnN     ExpressyPnN     ExpressyPnN     Condition    Express		TCP	DESKTOP-ER8B8		localhost	1542	ESTABLISHED									
expressvpnd expressvpnd ExpressvPnN ExpressvPnN ExpressvPnN GamingServic iCloudDrive.exe iCloudService iCloudService iCloudService Isass.exe incontainer.exe invcontainer.exe invcontainer.exe		TCP	DESKTOP-ER8B8		localhost	1541	ESTABLISHED									
express/ynd     Express/YnN     Express/YnN     Express/YnN     Caming Free Synd Free Syn		TCP	DESKTOP-ER8B8		localhost	pptconference	ESTABLISHED		9	2 300						
Express/PNN Express/PNN Express/PNN Express/PNN GamingServic iCloudDrive exe iCloudService iCloudDrive exe iCloudDriv		TCP	DESKTOP-ER8B8		DESKTOP-ER8B8	. 0	LISTENING					_				
Express/PNN  GamingServic  Gloud Drive exe  iCloud Brive  i Cloud Service  i Cloud Service  i Cloud Service  i Cloud Service  i Islass. exe  Invocntainer exe  Invocntainer exe		TCP	DESKTOP-ER8B8		localhost	3112	ESTABLISHED		1	1 720		3	42			
Express/PNN. GamingServic. CloudDrive exe CloudService CloudService CloudService CloudService Sass.exe Invcontainer.exe nycontainer.exe		TCP	DESKTOP-ER8B8		DESKTOP ER8B8.		LISTENING									
GamingServic GloudDrive.exe CloudDrive.exe Clou		TCP	DESKTOP-ER8B8		localhost	1713	ESTABLISHED					9	2 30			
iCloud Drive, exe Cloud Drive, exe Cloud Drive, exe Cloud Drive, exe Cloud Drive, exe Cloud Drive, exe Cloud Service Cloud Service Cloud Service Cloud Service Rass, exe sass, exe nycontainer, exe nycontainer, exe		TCP	DESKTOP-ER8B8		localhost	2015	ESTABLISHED		2	421		1	1.72			
i CloudDrive. exe i CloudService i CloudService i CloudService i cloudService i sass. exe nvcontainer. exe nvcontainer. exe		TCP TCP	desktop-er8b8ma		23.197.15.213	https	ESTABLISHED		3	488		6	6 46			
i CloudDrive.exe i CloudDrive.exe i CloudDrive.exe i CloudDrive.exe i CloudService i CloudService i CloudService i CloudService i Sass.exe l sass.exe nvcontainer.exe nvcontainer.exe		TCP	desktop-er8b8ma desktop-er8b8ma		17.248.147.136 17.248.147.40	https	CLOSE_WAIT									
i CloudDrive.exe i CloudDrive.exe i CloudBrive.exe i CloudService i CloudService i CloudService i cloudService rocoudService i sass.exe i sass.exe i vcontainer.exe i nvcontainer.exe		UDP	DESKTOP-ER8B8		17.240.147.40	https *	CLOSE_WAIT	30	EA	3 054						
i CloudDrive.exe i CloudDrive.exe i CloudService i CloudService i CloudService i sass.exe nvcontainer.exe nvcontainer.exe		UDP	DESKTOP-ER8B8		×	×		31	134	3 034	3.05	5.4	3 05			
i CloudDrive.exe i CloudService i CloudService i CloudService i Islass.exe i Islass.exe nvcontainer.exe nvcontainer.exe		TCP	desktop-er8b8ma		17.248.147.113	https	ESTABLISHED		8	5 954		8	9 43			
iCloudService iCloudService iCloudService icloudService kass.exe lsass.exe nvcontainer.exe nvcontainer.exe		TCP	desktop-er8b8ma		17.253.57.202	http	ESTABLISHED		1	258		1	2 22			
iCloudService iCloudService Isass.exe Isass.exe nvcontainer.exe nvcontainer.exe nvcontainer.exe		TCP	desktop-er8b8ma		17.248.147.181	https	CLOSE WAIT			230			2 22			
iCloudService Isass.exe Isass.exe nvcontainer.exe nvcontainer.exe nvcontainer.exe		UDP	DESKTOP-ER8B8		*	× ×	OEOOE_WAIT									
Isass.exe Isass.exe nvcontainer.exe nvcontainer.exe nvcontainer.exe		UDP	DESKTOP-ER8B8		×	×										
lsass.exe nvcontainer.exe nvcontainer.exe nvcontainer.exe	824	TCP	DESKTOP-ER8B8		DESKTOP-ER8B8	Π	LISTENING									
nvcontainer.exe nvcontainer.exe	824	TCPV6	[0:0:0:0:0:0:0:0]	1536	[0:0:0:0:0:0:0:0]	Ö	LISTENING									
nvcontainer.exe nvcontainer.exe		TCP	DESKTOP-ER8B8		localhost	65001	ESTABLISHED									
nvcontainer.exe		TCP	DESKTOP-ER8B8		DESKTOP-ER8B8		LISTENING									
and the second second		TCP	DESKTOP-ER8B8		localhost	1610	ESTABLISHED									
nycontainer.exe	3712	UDP	desktop-er8b8ma	5353	×	×			1	97	-	18	90			
nycontainer.exe	3712	UDP	desktop-er8b8ma	5353	×	×										
nvcontainer.exe	e 6540	UDP	DESKTOP-ER8B8	. 10011	×	×										
nvcontainer.exe		UDP	DESKTOP-ER8B8		×	×										
nvcontainer.exe		UDP	DESKTOP-ER8B8		и	N										
nvcontainer.exe		UDPV6	[0:0:0:0:0:0:0:1]	5353	ж	×										
nvcontainer.exe		UDPV6	[0:0:0:0:0:0:0:0]	51985	*	*										
NVIDIA Share		TCP	DESKTOP-ER8B8		localhost	1614	ESTABLISHED		4	36		4	1			
NVIDIA Web		TCP	DESKTOP-ER8B8		DESKTOP-ER8B8	. 0	LISTENING									
NVIDIA Web		TCP	DESKTOP-ER8B8		localhost	1631	ESTABLISHED		4	12		4	3			
NVIDIA Web		UDP	DESKTOP-ER8B8													
OriginWebHel		TCP	DESKTOP-ER8B8		DESKTOP-ER8B8	. U	LISTENING									
OriginWebHel		UDP	DESKTOP-ER8B8		104510010	1.0	FOTABLICHED			1.000		7	0.00			
OriginWebHel		TCP TCP	desktop-er8b8ma desktop-er8b8ma		184.51.8.219	https	ESTABLISHED ESTABLISHED		3	1 632 458		3	6 68 4 08			
procexp64.exe		TCP	desktop-eroboma desktop-er8b8ma		23.51.123.27 23.51.123.27	http	ESTABLISHED		1	231		1	1 98			
procexp64.exe		TCP	desktop-eroboma desktop-er8b8ma		93.184.220.29	http http	ESTABLISHED		20	4 710		23	15 90			
procexp64.exe		TCP	desktop-er8b8ma		23.51.123.27	http	ESTABLISHED		4	936		43 6	7 89			
procexp64.exe		TCP	desktop-er8b8ma		104.18.20.226	http	ESTABLISHED		5	1 252		7	11 08			
procexp64.exe		TCP	desktop-er8b8ma		23.51.123.27	http	ESTABLISHED		1	229		1	1 97			
procexp64.exe		TCP	desktop-er8b8ma		151.139.128.14	http	ESTABLISHED		2	527		2	70			
procexp64.exe		TCP	desktop-er8b8ma		151.133.128.14	http	ESTABLISHED		1	262		1	92			
procexp64.exe		TCP	desktop-er8b8ma		23.51.123.27	http	ESTABLISHED		4	954		5	8 18			
procexp64.exe		TCP	desktop-er8b8ma	3152	23.51.123.27	http	ESTABLISHED		2	468		2	4 04			
dpoints: 200	Established: 66	Listening: 33	Time Wait: 11	Close Wait: 3												

Az alábbi képeken a Process Explorer segédprogram CPU használati statisztikái láthatóak, továbbá a Coreinfo segédprogramon keresztül \*-al jelölve láthatóak a CPU által támogatott instrukciókészletek (instruction set). Érdekességképpen az AIDA64 program CPU tulajdonság ablakát is mellékeltem. A számítógépem 2021 elején lett összeállítva, és a legújabb generációs, 7 nm-es gyártási technológiával készült AMD Ryzen 5600X található benne. A processzor 6 magos, és 12 szálon fut, gyári maximális órajele pedig 4,6 Ghz, amelyet a maximális teljesítmény elérése érdekében 4,8 Ghz-re túlhajtottam. A virtualizálási képességek be vannak kapcsolva, így a VirtualBoxon lévő Linux is jóval jobban fut.

Szerencsére az órán említett programok nagy részét eddig is ismertem, és némelyik ilyen segédprogram (AIDA64, CPU-Z, GPU-Z, Autoruns, stb.) gyakorlott is vagyok és kéznél voltak a gyakorlatra.





```
Administrator: Parancssor
 C:\Users\babik\Downloads\Coreinfo>coreinfo
Coreinfo v3.5 - Dump information on system CPU and memory topology
Copyright (C) 2008-2020 Mark Russinovich
Sysinternals - www.sysinternals.com
AMD Ryzen 5 5600X 6-Core Processor
AMD64 Family 25 Model 33 Stepping 0, AuthenticAMD
Microcode signature: 00000000
                                                     Multicore
                                                      Hypervisor is present
Supports Intel hardware-assisted virtualization
Supports AMD hardware-assisted virtualization
 HYPERVISOR
VMX
SVM
                                                      Supports 64-bit mode
 (64
                                                     Supports Intel trusted execution Supports AMD SKINIT
SMY
SKINIT
                                                      Supports no-execute page protection
Supports Supervisor Mode Execution Prevention
NX
SMEP
                                    *
                                                      Supports Supervisor Mode Access Prevention
 SMAP
                                                      Supports 1 GB large pages
Supports > 32-bit physical addresses
Supports Page Attribute Table
PAGE1GR
 PAE
PAT
                                                     Supports Page Attribute Table
Supports 4 MB pages
Supports > 32-bit address 4 MB pages
Supports global bit in page tables
Supports bus snooping for cache operations
Supports Virtual-8086 mode
Supports direct GS/FS base access
PSE
PSE36
PGF
SS
VME
RDWRFSGSBASE
                                                     Implements i387 floating point instructions
Supports MMX instruction set
Implements AMD MMX extensions
Supports 3DNow! instructions
Supports 3DNow! extension instructions
Supports Streaming SIMD Extensions
Supports Streaming SIMD Extensions 2
Supports Streaming SIMD Extensions 3
Supports Supplemental SIMD Extensions 3
FPU
MMX
 MMXEXT
3DNOW
3DNOWEXT
SSE
SSE2
SSE3
                                                      Supports Supplemental SIMD Extensions 3
SSSE3
                                                      Supports Streaming SIMDR Extensions 4a
Supports Streaming SIMD Extensions 4.1
Supports Streaming SIMD Extensions 4.2
SSE4a
SSE4.1
SSE4.2
                                                     Supports AES extensions
Supports AVX instruction extensions
Supports FMA extensions using YMM state
Implements RDMSR/WRMSR instructions
AES
AVX
 FMA
 1SR
                                                      Supports Memory Type Range Registers
Supports XSAVE/XRSTOR instructions
Supports XSETBV/XGETBV instructions
MTRR
XSAVE
OSXSAVE
                                                      Supports RDRAND instruction
Supports RDSEED instruction
RDRAND
RDSEED
                                                      Supports CMOVcc instruction
Supports CLFLUSH instruction
Supports compare and exchange 8-byte instructions
CMOV
CLFSH
 CX8
                                                      Supports CMPXCHG16B instruction
Supports bit manipulation extensions 1
 CX16
BMI1
                                                      Supports bit manipulation extensions 2
Supports ADCX/ADOX instructions
Supports prefetch from memory-mapped device
BMI2
ADX
 OCA
```

Utolsóként a LogonSessions segédprogram segítségével láthatóak a számítógépen bejelentkezett és még ki nem jelentkezett, futó folyamatok. A -p kapcsolóval láthatóak, hogy egyes folyamatok alatt mely processzek futnak a számítógépen:

```
Administrator: Parancssor
C:\Users\babik\Downloads\logonSessions>logonsessions64
LogonSessions v1.41 - Lists logon session information
Copyright (C) 2004-2020 Mark Russinovich
Sysinternals - www.sysinternals.com
[0] Logon session 00000000:000003e7:
   User name: WORKGROUP\DESKTOP-ER8B8MA$
   Auth package: NTLM
   Logon type: (none)
   Session:
                 0
                 5-1-5-18
   Sid:
                 2021. 02. 17. 11:34:21
   Logon time:
   Logon server:
   DNS Domain:
   UPN:
[1] Logon session 00000000:0000c1ef:
   User name:
   Auth package: NTLM
   Logon type:
                 (none)
   Session:
                 0
   Sid:
                  (none)
                 2021. 02. 17. 11:34:21
   Logon time:
   Logon server:
   DNS Domain:
   UPN:
[2] Logon session 00000000:0000c6a2:
   User name: Font Driver Host\UMFD-0
   Auth package: Negotiate
   Logon type: Interactive Session: 0
   Session:
   Sid:
                5-1-5-96-0-0
   Logon time: 2021. 02. 17. 11:34:21
   Logon server:
   DNS Domain:
   UPN:
[3] Logon session 00000000:000003e4:
   User name: WORKGROUP\DESKTOP-ER8B8MA$
   Auth package: Negotiate
   Logon type: Service
   Session:
                 О
                S-1-5-20
   Sid:
   Logon time: 2021. 02. 17. 11:34:21
   Logon server:
   DNS Domain:
   UPN:
[4] Logon session 00000000:00012d9a:
   User name: Font Driver Host\UMFD-1
   Auth package: Negotiate
   Logon type: Interactive
   Session:
                 5-1-5-96-0-1
   Logon time: 2021. 02. 17. 11:34:21
   Logon server:
   DNS Domain:
   UPN:
```