

# Systemové programování Windows

Security Descriptor

# Obsah

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- ▶ Prohlížení oprávnění
- ▶ SECURITY\_ATTRIBUTES
- ▶ Security Descriptor
- ▶ Default Security Descriptor
- ▶ Access Control List
- ▶ AccessPermission



# Prohlížení oprávnění

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- ▶ Soubory/adresáře
- ▶ <http://www.sysinternals.com/>
  - ▶ Sysinternals Suite: WinObj
    - ▶ BaseNamedObjects



# SECURITY\_ATTRIBUTES

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## SA – SECURITY\_ATTRIBUTES

SecurityDescriptor = &SD

```
typedef struct _SECURITY_ATTRIBUTES {  
    DWORD    nLength;  
    LPVOID   lpSecurityDescriptor;  
    BOOL     bInheritHandle;  
} SECURITY_ATTRIBUTES,
```



# Default Security Descriptor

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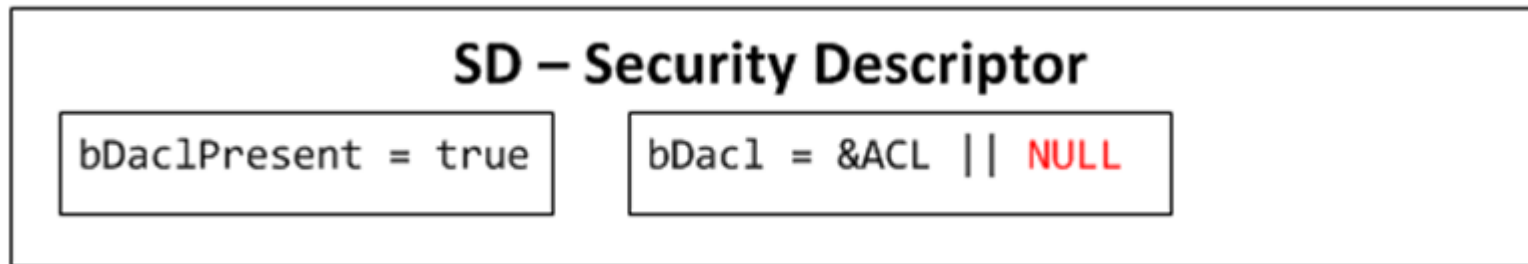
- ▶ Pokud není u objektu uveden Security Descriptor je použit tzv. Default Security Descriptor.
- ▶ Default Security Descriptor vychází z access tokenu aktuálního threadu.



# SECURITY\_DESCRIPTOR

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- ▶ Vnitřní struktura není veřejná
  - ▶ An owner security identifier (SID)
  - ▶ A discretionary access control list (DACL)



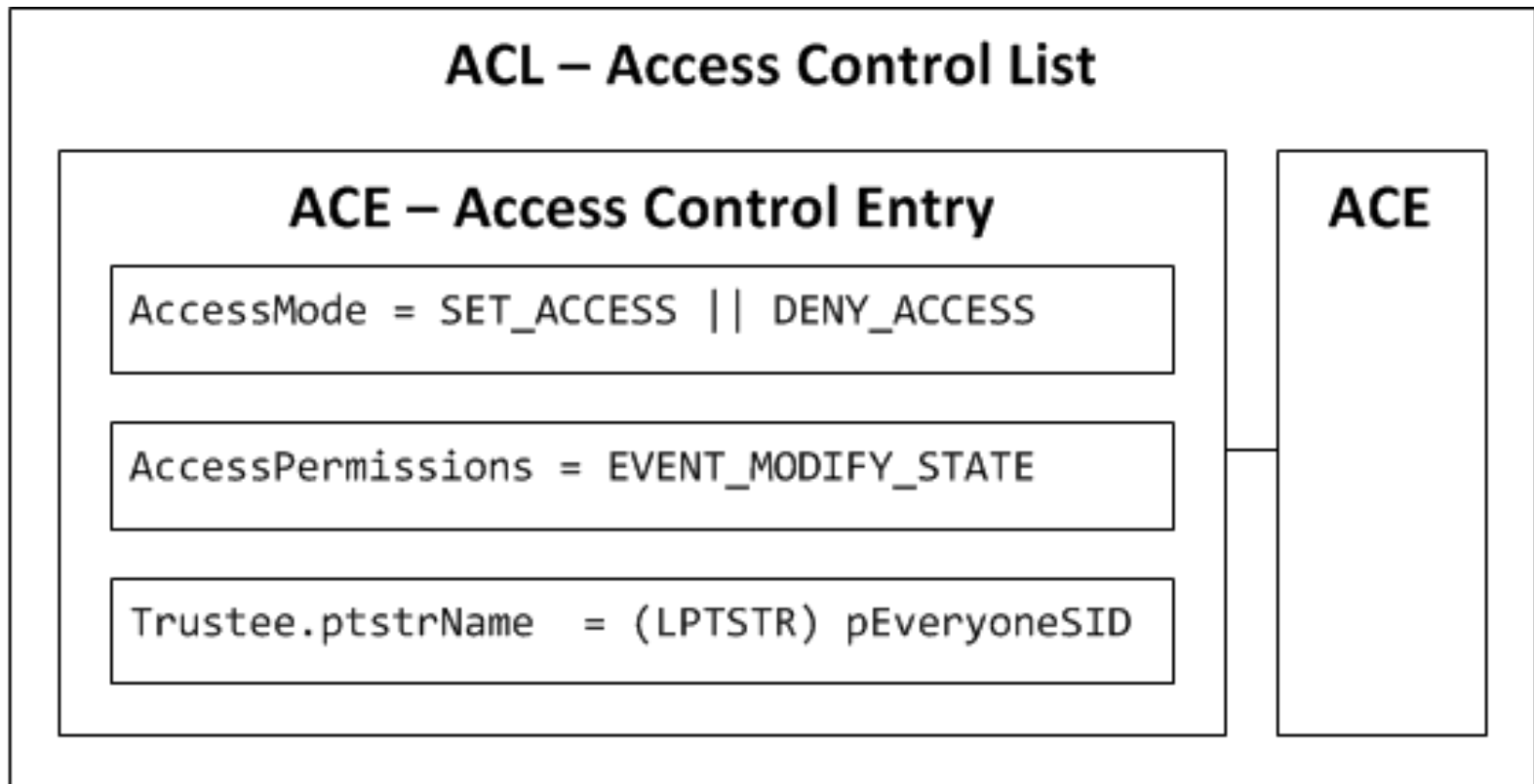
- ▶ 

```
BOOL WINAPI SetSecurityDescriptorDacl(  
    _Inout_ PSECURITY_DESCRIPTOR pSecurityDescriptor  
    _In_     BOOL bDaclPresent,  
    _In_opt_ PACL pDacl, //NULL - úplný přístup všem  
                    //Prázdný - žádný přístup nikomu  
    _In_     BOOL bDaclDefaulted);
```



# Access Control List

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# AccessPermission

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## ▶ **Eventy**

- ▶ **EVENT\_ALL\_ACCESS** (0x1F0003)
- ▶ **EVENT\_MODIFY\_STATE** (0x0002)

## ▶ **Mutexy**

- ▶ **MUTEX\_ALL\_ACCESS** (0x1F0001)
- ▶ **MUTEX\_MODIFY\_STATE** (0x0001)

## ▶ **FileMapping**

- ▶ **FILE\_MAP\_READ** (0x0004)
  - ▶ **FILE\_MAP\_WRITE** (0x0002)
- 





# SDDL

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- ▶ “D:(A;;0x100002;;;WD)(A;;KA;;;BA)”

[http://msdn.microsoft.com/en-us/library/windows/desktop/aa374928\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/aa374928(v=vs.85).aspx)

- ▶ **ConvertStringSecurityDescriptorToSecurityDescriptor**

```
(  
    _In_ LPCWSTR StringSecurityDescriptor,  
    _In_ DWORD StringSDRevision, // SDDL_REVISION_1  
    _Outptr_ PSECURITY_DESCRIPTOR * SecurityDescriptor,  
    _Out_opt_ PULONG SecurityDescriptorSize );
```

- ▶ **ConvertSecurityDescriptorToStringSecurityDescriptor**
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Díky za pozornost

