Scan Class

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Parses data scanned from DoD Common Access Card barcodes.

Inheritance Object -> Scan

# Constructors

|  |  |
| --- | --- |
| [Scan(String)](#CACScanConstructor) | Initializes a new instance of the Scan class based on the specified string |

# Properties

|  |  |
| --- | --- |
| [Barcode](#BarcodeProperty) | Gets the [BarcodeType](#BarcodeTypeEnum) for the specified barcode |
| [Branch](#BranchProperty) | Gets the [BranchCode](#BranchCodeEnum) of the cardholder |
| [DateofBirth](#DateofBirthProperty) | Gets a value of the date of birth of the cardholder |
| [Edipi](#EdipiProperty) | Gets a value of the EDIPI of the cardholder |
| [ExpDate](#ExpDateProperty) | Gets a value of the expiration date of the card |
| [Firstname](#FirstnameProperty) | Gets a value of the First Name of the cardholder |
| [Grade](#GradeProperty) | Gets a value of the pay grade of the cardholder |
| [Instance](#InstanceProperty) | Gets a value of the card instance code of the card |
| [IssueDate](#IssueDateProperty) | Gets a value of the issue date of the card |
| [MiddleInitial](#MiddleInitialProperty) | Gets a value of the Middle Initial of the cardholder |
| [PayPlan](#PayplanProperty) | Gets a value of the pay plan of the cardholder |
| [Pdi](#PdiProperty) | Gets a value of the Personal Data Identifier of the cardholder (deprecated) |
| [PersonCategory](#PersonCategoryProperty) | Gets the [PersonCategoryCode](#PersonCategoryCodeEnum) of the cardholder |
| [PersonDesignatorType](#PDTProperty) | Gets the [PersonDesignatorTypeCode](#PersonDesignatorTypeCodeEnum) of the PDI (deprecated) |
| [Rank](#RankProperty) | Gets the value of the rank of the cardholder |
| [ScanResult](#ScanResultProperty) | Gets the [ScanStatus](#ScanStatusEnum) for the specified barcode |
| [Surname](#SurnameProperty) | Gets a value of the Surname of the cardholder |
| [Version](#VersionProperty) | Gets a value of the version code for the specified barcode |

# Methods

|  |  |
| --- | --- |
| [TestScan(string)](#TestScan) | Returns a [TestResult](#TestResultEnum) object based on initial criteria for successful parse |

Scan Constructor

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Initializes a new instance of the [Scan](#CACScanClass) class.

# Scan(string)

Initializes a new instance of the [Scan](#CACScanClass) class using the specified value as the data obtained from a barcode scan.

public Scan (string scan);

## Parameters

scan String

The barcode data to be parsed.

Scan.Barcode Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the BarcodeType of the provided barcode.

public BarcodeType? Barcode { get; }

## Property Value

BarcodeType

The [BarcodeType](#BarcodeTypeEnum) of the provided barcode. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum).

Scan.Branch Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the BranchCode of the cardholder.

public BranchCode? Branch { get; }

## Property Value

[BranchCode](#BranchCodeEnum)

The BranchCode of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum).

Scan.DateofBirth Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the Date of Birth of the cardholder.

public DateTime? DateofBirth { get; }

## Property Value

DateTime

The date of birth of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum) or if [Scan.Barcode](#BarcodeProperty) is equal to [BarcodeType.Code39](#BarcodeTypeEnum).

Scan.Edipi Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the EDIPI of the cardholder.

public string? Edipi { get; }

## Property Value

string

The EDIPI of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum).

Scan.ExpDate Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the Expiration Date of the presented card.

public DateTime? ExpDate { get; }

## Property Value

DateTime

The expiration date of the presented card. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum) or if [Scan.Barcode](#BarcodeProperty) is equal to [BarcodeType.Code39](#BarcodeTypeEnum).

Scan.Firstname Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the First Name of the cardholder.

public string? Firstname { get; }

## Property Value

string

The first name of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum) or if [Scan.Barcode](#BarcodeProperty) is equal to [BarcodeType.Code39](#BarcodeTypeEnum).

Scan.Grade Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the pay grade of the cardholder.

public short? Grade { get; }

## Property Value

short

The pay grade of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum) or if [Scan.Barcode](#BarcodeProperty) is equal to [BarcodeType.Code39](#BarcodeTypeEnum).

Scan.Instance Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the card instance code of the presented card.

public char? Instance { get; }

## Property Value

char

The card instance code of the provided barcode. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum).

Scan.IssueDate Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the issue date of the provided barcode.

public DateTime? IssueDate { get; }

## Property Value

DateTime

The issue date of the presented card. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum) or if [Scan.Barcode](#BarcodeProperty) is equal to [BarcodeType.Code39](#BarcodeTypeEnum).

Scan.MiddleInitial Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the middle initial of the cardholder.

public char? MiddleInitial { get; }

## Property Value

char?

The middle initial of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum) or if [Scan.Barcode](#BarcodeProperty) is equal to [BarcodeType.Code39](#BarcodeTypeEnum).

Scan.PayPlan Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the pay plan of the cardholder.

public string? PayPlan { get; }

## Property Value

string

The pay plan of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum) or if [Scan.Barcode](#BarcodeProperty) is equal to [BarcodeType.Code39](#BarcodeTypeEnum).

Scan.Pdi Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the PDI of the cardholder.

public string? PDI { get; }

## Property Value

string

This field is deprecated, and returns NULL under all circumstances.

Scan.PersonCategory Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the PersonCategoryCode of the provided barcode.

public PersonCategoryCode? PersonCategory { get; }

## Property Value

[PersonCategoryCode](#PersonCategoryCodeEnum)

The Person Category Code of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum).

Scan.PersonDesignatorType Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the PDT of the provided barcode.

public PersonDesignatorTypeCode? PersonDesignatorType { get; }

## Property Value

[PersonDesignatorTypeCode](#PersonCategoryCodeEnum)

This field is deprecated, and returns NULL under all circumstances.

Scan.Rank Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the rank of the cardholder.

public string? Rank { get; }

## Property Value

string

The rank of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum) or if [Scan.Barcode](#BarcodeProperty) is equal to [BarcodeType.Code39](#BarcodeTypeEnum).

Scan.ScanResult Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the ScanStatus of the provided barcode.

public ScanStatus ScanResult { get; }

## Property Value

ScanStatus

The ScanStatus of the provided barcode. This is the only property guaranteed to be not NULL.

Scan.Surname Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the surname of the cardholder.

public string? Surname { get; }

## Property Value

string

The surname of the cardholder. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum) or if [Scan.Barcode](#BarcodeProperty) is equal to [BarcodeType.Code39](#BarcodeTypeEnum).

Scan.Version Property

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Gets the version of the provided barcode.

public char? Version { get; }

## Property Value

char

The version code of the provided barcode. Will be NULL if [Scan.ScanResult](#ScanResultProperty) is not equal to [ScanStatus.Success](#ScanStatusEnum).

BarcodeType Enum

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Specifies constants defining types of barcodes that can be parsed.

Inheritance Object -> ValueType -> Enum -> BarcodeType

# Fields

|  |  |  |
| --- | --- | --- |
| Code39 | 0 | The 1D Code 39 barcode on the back of the CAC |
| PDF417N | 1 | The 2D PDF 417 barcode on the front of the CAC (version 1 and N) |
| PDF417M | 2 | The 2D PDF 417 barcode on the front of the CAC (version M) |

# Remarks

This enumeration is used by the [Scan](#CACScanClass) class.

BranchCode Enum

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Specifies constants defining Branches of Service.

Inheritance Object -> ValueType -> Enum -> BranchCode

# Fields

|  |  |  |
| --- | --- | --- |
| Army | 0 | United States Army |
| CoastGuard | 1 | United States Coast Guard |
| DoD | 2 | Department of Defense Executive Agencies |
| AirForce | 3 | United States Air Force |
| PublicHealth | 4 | United States Public Health Service |
| MarineCorps | 5 | United States Marine Corps |
| Navy | 6 | United States Navy |
| NOAA | 7 | National Oceanic and Atmospheric Administration |
| ForeignArmy | 8 |  |
| ForeignNavy | 9 |  |
| ForeignMarineCorps | 10 |  |
| ForeignAirForce | 11 |  |
| Other | 12 |  |

# Remarks

This enumeration is used by the [Scan](#CACScanClass) class.

PersonCategoryCode Enum

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Specifies constants defining Person Category.

Inheritance Object -> ValueType -> Enum -> PersonCategoryCode

# Fields

|  |  |  |
| --- | --- | --- |
| ActiveDuty | 0 | Active duty member |
| PresidentialAppointee | 1 |  |
| DoDCivilian | 2 | DoD civil service employee |
| DisabledVeteran | 3 | 100% disabled American veteran |
| DoDContractor | 4 | DoD contract employee |
| FormerMember | 5 | Former member (a 20-year active-duty serviceperson who was eligible to retire but chose discharge) |
| NationalGuardActive | 6 | National Guard member (mobilized or on active duty for 31 days or more) |
| MedalofHonor | 7 | Medal of Honor recipient |
| OtherCivilian | 8 | Non-DoD civil service employee |
| AcadamyStudent | 9 | Academy student (does not include Officer Candidate School) |
| DoDNAF | 10 | non-appropriated fund (NAF) DoD employee |
| Lighthouse | 11 | Lighthouse service |
| NGO | 12 | Non-Government agency personnel (e.g., American Red Cross) |
| NationalGuardInactive | 13 | National Guard member (not on active duty or on active duty for 30 days or less) |
| OtherContract | 14 | Non-DoD contract employee |
| ReserveRetired | 15 | Reserve retiree not yet eligible for retired pay |
| ActiveRetired | 16 | Retired Uniformed Service member eligible for retired pay |
| ReserveActive | 17 | Reserve (mobilized or on active duty for 31 days or more) |
| ForeignMilitary | 18 | Foreign military member |
| ForeignNational | 19 | Foreign national employee (DoD or non-DoD) |
| ReserveInactive | 20 | Reserve member (not on active duty or on active duty for 30 days or less) |
| Beneficiary | 21 | DoD beneficiary (person who receives benefits based on prior  association, condition, or authorization; e.g., former or surviving spouse) |
| CivilianRetired | 22 | Retired DoD Civil Service Employees |
| NationalGuard | 23 | National Guard – activation status indeterminate |
| Reserve | 24 | Reserve – activation status indeterminate |

# Remarks

This enumeration is used by the [Scan](#CACScanClass) class.

PersonDesignatorTypeCode Enum

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Specifies constants defining types of PDIs. This data is deprecated – modern CACs have either removed the PDI field (version M) or fill the PDI field with garbage data (versions 1 and N).

Inheritance Object -> ValueType -> Enum -> PersonDesignatorTypeCode

# Fields

|  |  |  |
| --- | --- | --- |
| ValidSSN | 0 | The PDI field contains the cardholder’s Social Security Number |
| InvalidSSN | 1 | The PDI field contains a nine-digit code that looks like an SSN, but is not in a valid SSN range. |
| PreSSN | 2 | The PDI field contains a special nine-digit code created for U.S. military personnel from Service numbers before the switch to SSNs. |
| TempIN | 3 | The PDI field contains a special nine-digit code created for individuals (i.e., babies) who do not have or have not  provided an SSN when the person is added to DEERS (dependents only). Known as a Temporary Identifier Number (TIN). |
| ForeignIN | 4 | The PDI field contains a special nine-digit code created for foreign military and nationals. Known as a Foreign Identifier Number (FIN). |
| Test | 5 | Used for testing. |
| TaxIN | 6 | The PDI field contains an Individual Taxpayer Identification Number. |

# Remarks

This enumeration is used by the [Scan](#CACScanClass) class.

ScanStatus Enum

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Specifies the status of the scan parse attempt.

Inheritance Object -> ValueType -> Enum -> ScanStatus

# Fields

|  |  |  |
| --- | --- | --- |
| Success | 0 | Scan data was successfully parsed with no errors |
| UnknownDataFormat | 1 | Scan data did not match any known barcode format |
| UnsupportedCard | 2 | Scan data matched a known barcode format, but not one supported by Scan |
| InvalidScanData | 3 | Scan data matched a known and supported barcode format, but an error occurred during parsing |
| NullInput | 4 | A null or empty string was provided |

# Remarks

This enumeration is used by the [Scan](#CACScanClass) class.

Scan.TestScan Method

Reference

# Definition

Namespace: CAC

Assembly: CACScan.dll

Returns a [TestResult](#TestResultEnum) that represents a first glance check of the barcode.

public static TestResult TestScan(string scan)

# Returns

[TestResult](#TestResultEnum)

A TestResult enum that represents the validity of the barcode.