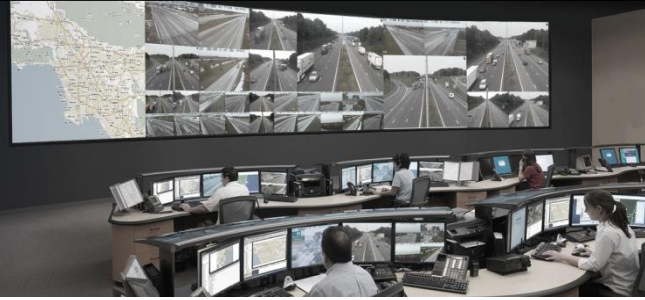


# Geutebruck GCore

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## 1 Document Versions

Version	Date	Name	Change
1.0	2018-09-12	MK	Document Created.
1.1	2019-09-25	MK	Added <b>Auto Connect</b> property as part of Lifetime Manager implementation

## 2 Referenced Documents

Document	Version	Description
<b>Driver Project Requirements (DDK-PR)</b>	1.0	The Geutebruck Geutebruck GeViScope Server driver must conform to all the requirements detailed in this document.
<b>Driver Connection and Online States Requirements (DDK-DC)</b>	1.0	The Geutebruck Geutebruck GeViScope Server driver must conform to all requirements in this document detailed in the section: <a href="#">Device Connection and Online States</a>
<b>Driver Video Requirements (DDK-VID)</b>	1.0	The Geutebruck Geutebruck GeViScope Server driver must conform to all requirements in this document detailed in the section: <a href="#">Video</a>

## 3 Manufacturer

**Name** Geutebruck



**Website** <http://www.geutebrueck.com/>

**Description** GEUTEBRÜCK solutions offer seamless integration and migration from analog to hybrid and on to omnibrid and pure IP systems. Integrated solutions to meet everyone's highest requirements, from the user to the administrator.



## 4 IPSecurityCenter Versions

The driver must be compatible with the following IPSecurityCenter versions:

IPSecurityCenter Version	Supported
5.5	<input checked="" type="checkbox"/>

## 5 Operating Systems

### 5.1 Client Side Functionality

Operating Systems	Supported
Windows 10 64 bit	<input checked="" type="checkbox"/>

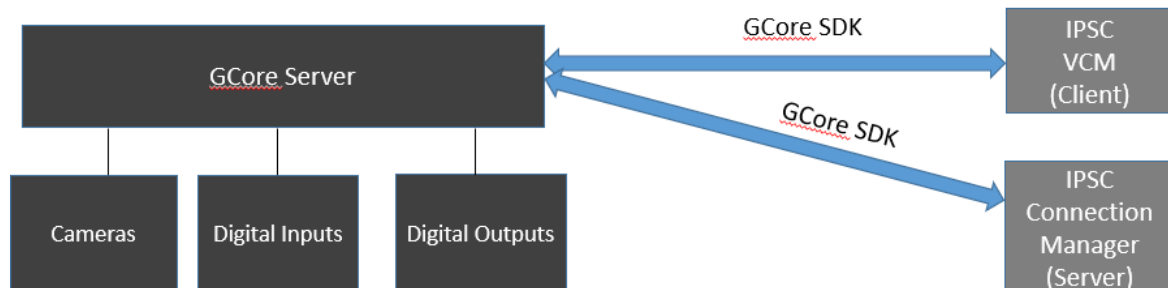
### 5.2 Server Side Functionality

Operating Systems	Supported
Windows Server 2012	<input checked="" type="checkbox"/>

## 6 Models / Firmware Versions

Model	Versions	SDK
Geutebruck GCore		3.2.1.483

## 7 Hardware Configurations



## 8 Driver Package

The driver package is named:

**CNL.IPSecurityCenter.Driver.Geutebruck.GCore.Version.[BUILD-VERSION].ipsdriver**

## 9 Driver Features

### 9.1 GCore Server

#### 9.1.1 Device Connection and Online States

The full requirements for these features can be found in the [Device Connection and Online States Requirements](#)

Feature	
<b>DC1.0 Device Online Status</b>	Sdk/Query Device
<b>DC2.0 Authentication</b>	Basic

#### 9.1.2 Properties

General requirements for properties can be found in [Driver Project Requirements](#).

Name	Type	Description	Default Value & Ranges
<b>Export Video Format</b>	CNL.IPSecurityCenter .Driver.Geutebruck.GeutebruckCommon.Enums.ExportVideoFormat	File format to use when exporting video.	Default: Min: Max:
<b>Export Video MPEG Sub Format</b>	CNL.IPSecurityCenter .Driver.Geutebruck.GeutebruckCommon.Enums.ExportVideoMPEGSubFormat	Sub format for MPEG video when ExportVideoFormat set to MPEG.	Default: Min: Max:
<b>Export Video MPEG Quality</b>	int	Export Video Quality for MPEG video: 1 lowest - 100 highest.	Default: 70 Min: 1 Max: 100
<b>Export Video MPEG Fast Motion</b>	bool	Whether to use Fast Motion codec when exporting MPEG video	Default: Min: Max:
<b>Action Category Filter</b>	ActionCategories.ActionCategory	Action categories to be reported as driver events, unselected categories are ignored.  <b>Note:</b> the driver automatically subscribes to the	Default: Min: Max:

		newly selected action categories after the user clicks OK button to close the Action Folder dialog window	
<b>Show Time On Video</b>	bool	When set to True, timestamp is displayed on each video stream shown.	Default: false Min: Max:
<b>Seek Timeout</b>	int	The maximum time in milliseconds allowed to perform a single Seek operation: if no relevant footage found during this time - Seek operation times out.  <b>Note:</b> Setting Seek timeout to a large value can result in slow response when dragging teardrop along the timebar	Default: 2000 Min: 1000 Max: 5000
<b>Maximum Reconnects</b>	int	Maximum reconnect retries on client side, when the maximum is reached, the disconnected tiles will remain showing error message until the video is re-displayed manually.	Default: 3 Min: 1 Max:
<b>Regex for event Remapping</b>	string	A Regex to apply to the event label to determine the device that raised the event	Default: @"\\d+"
<b>Action Category Filter Set</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.ActionFilters	Action categories to be reported, unselected categories are ignored.	
<b>Use DirectX</b>	bool	When set to True, uses DirectX to render video.	

<b>Display Video Delay</b>	int	Short delay in milliseconds displaying a video to prevent flickering effect in DirectX disabled.	Default: 1000 Min: 600 Max: 2000
<b>Auto Connect</b>	bool	When set to true, IPSecurityCenter Client will automatically connect to this server on startup.	Default: true Min: Max:
<b>Footage Not Found Warning</b>	bool	Display a footage not found warning in VCM on seek fail	Default: true

### 9.1.3 Methods

General requirements for methods can be found in [Driver Project Requirements](#).

#### 9.1.3.1 Custom Action

Sends a custom Action to the server.

Returns bool.

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
<b>Numeric Parameter</b>	int	A numeric parameter.	Default: Min: Max:
<b>Literal Parameter</b>	string	Custom data parameter.	Default: Min: Max:

#### 9.1.3.2 Repopulate Devices

Updates the list of devices to match the configuration of the video server.

Returns bool.

#### Performance

The method must complete within 2 seconds.

### 9.1.3.3 Refresh Device Labels

Updates the device labels of the existing devices to match the configuration of the video server.

Returns bool.

#### Performance

The method must complete within 2 seconds.

### 9.1.3.1 Query LPS Tag Position

Send Tag position query to LPS server.

Returns bool.

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
Tag ID	int	LPS Tag ID.	Default: Min: Max:
Scanner ID	string	Scanner ID or IP address.	Default: Min: Max:
Data	string	Data.	Default: Min: Max:

## 9.1.4 Events

General requirements for events can be found in [Driver Project Requirements](#).

### 9.1.4.1 Recording State Changed

Signals a change in the NVR recording capability

#### Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
<b>Recording State</b>	CNL.IPSecurityCenter.Driver.Geutebruck.Geutebruck Common.Enums.RecordingState	The updated recording state

### 9.1.4.2 ACS Action

An ACS Action received.

## Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
<b>Action Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck .GeutebruckCommon.Enums.AcsActionT ype	The Action type.
<b>ACS</b>	string	The ACS name.
<b>ACS Number</b>	int	The ACS number.
<b>Card Number</b>	string	The card number.
<b>Raw Data</b>	string	The Action raw data.

### 9.1.4.3 ATM Transaction

An ATM Transaction Action received.

## Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
<b>ATM</b>	string	The ATM name.
<b>ATM Number</b>	int	The ATM number.
<b>Account</b>	int	Account number.
<b>Bank Code</b>	int	The bank code
<b>Card Number</b>	string	The card number.
<b>Amount</b>	double	Amount of money.

<b>Currency</b>	string	The currency.
<b>Timestamp 1</b>	DateTime	Timestamp 1
<b>Timestamp 2</b>	DateTime	Timestamp 2
<b>Is New Transaction</b>	bool	True if it is a new transaction.

#### 9.1.4.4 Backup Action

Backup Action received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Action Code</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enu ms.BackupActionType	The Action type.
<b>Schedule</b>	string	Backup schedule.

#### 9.1.4.5 ATM Raw Data

ATM raw data received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>ATM</b>	string	The ATM name.
<b>Raw Data</b>	string	The Action raw data.

#### 9.1.4.6 Audio Control

An Audio Control action received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
------	------	-------------



<b>Action Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enum s.AudioControlActionType	The Action type.
--------------------	------------------------------------------------------------------------------------------	------------------

#### 9.1.4.7 Device Information

Device or plugin information received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Action Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enum s.DeviceInformationUpdate	The Action type.
<b>Type</b>	string	Device type.
<b>Serial</b>	string	Device serial number.
<b>Device Name</b>	string	Device name.

#### 9.1.4.8 Hardware Information

Hardware information received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Action Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums. HardwareUpdate	The Action type.

#### 9.1.4.9 IP Camera Failover Notification

IP camera failover occurred.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Primary Server</b>	string	The primary server address.

<b>Secondary Server</b>	string	The secondary server address.
<b>Primary Channel</b>	int	The primary channel.
<b>Secondary Channel</b>	int	The secondary channel.

#### 9.1.4.10 IP Camera Failover Restore

IP camera failover restored.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Primary Server</b>	string	The primary server address.
<b>Secondary Server</b>	string	The secondary server address.
<b>Primary Channel</b>	int	The primary channel.
<b>Secondary Channel</b>	int	The secondary channel.

#### 9.1.4.11 Cash Management

A cash management action received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Action Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.CashManagementActionType	The action type, possible values: SafebagOpen, SafebagClose, SafebagData, SafebagPassRiskData, SafebagPassRiskStart, SafebagPassRiskStop
<b>Working Place Number</b>	int	Working place number.
<b>StartTime</b>	DateTime	Start time.
<b>Safebag Number</b>	string	Safebag number.

<b>Safebag Info</b>	string	Safebag information.
---------------------	--------	----------------------

#### 9.1.4.12 Imex Capacity Warning

Imex (import-export) capacity warning received.

##### Performance

The driver must be able to handle 4000 events per hour.

##### Event Properties

Name	Type	Description
<b>Action Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.ImexCapacityActionType	The action type, possible values:  FileAutoDeleted, OutOfDiskSpace, Warning
<b>Destination</b>	string	Destination.
<b>Total Capacity</b>	int	Total capacity.
<b>Free Capacity</b>	int	Free capacity.
<b>Allocated By Image File</b>	int	Allocated by image file.
<b>Warning</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.ImexCapacityWarning	The warning type, possible values:  Unknown, NoWarnings, FreeCapacityBelowLimit, AllocatedCapacityAboveLimit, FreeCapacityBelowLimitAndAllocatedCapacityAboveLimit

#### 9.1.4.13 Custom Action

Custom action received.

##### Performance

The driver must be able to handle 4000 events per hour.

##### Event Properties

Name	Type	Description
<b>INT Parameter</b>	Int	Numeric parameter.

<b>STRING Parameter</b>	String	Literal parameter.
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#### 9.1.4.14 Custom Action Extended

Extended Custom action received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Long A</b>	long	64-bit value A.
<b>Long B</b>	long	64-bit value B.
<b>Long C</b>	long	64-bit value C.
<b>Long D</b>	long	64-bit value D.
<b>Int A</b>	int	32-bit value A.
<b>Int B</b>	int	32-bit value B.
<b>Int C</b>	int	32-bit value C.
<b>Int D</b>	int	32-bit value D.
<b>Text A</b>	string	Text value A.
<b>Text B</b>	string	Text value B.
<b>Text C</b>	string	Text value C.
<b>Text D</b>	string	Text value D.
<b>Timestamp A</b>	DateTime	Time stamp value A.
<b>Timestamp B</b>	DateTime	Time stamp value B.
<b>Double A</b>	double	Double value A.
<b>Double B</b>	double	Double value B.

#### 9.1.4.15 LPS Position Data

Local Positioning System position data received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Tag ID</b>	int	Tag ID.
<b>Scanner ID</b>	string	Scanner ID.
<b>Area ID</b>	int	Area ID.
<b>Cell ID</b>	int	Cell ID.
<b>Status</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.LpsPositionStatus	Status.
<b>Area Name</b>	string	Area name.
<b>Data</b>	string	Data.

#### 9.1.4.16 Event Interfaces

This section provides details of built-in interfaces that are implemented on this event. Full details of these interfaces can be found in the DDK documentation.

Interface	Description
<b>IPositionAwareEvent</b>	Identifies an event as position aware

#### 9.1.4.17 LPS Geo Position Data

Local Positioning System geographic position data received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Tag ID</b>	int	Tag ID.
<b>Scanner ID</b>	string	Scanner ID.
<b>Area ID</b>	int	Area ID.
<b>Cell ID</b>	int	Cell ID.
<b>Status</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.LpsPositionStatus	Status.
<b>Area Name</b>	string	Area name.
<b>Data</b>	string	Data.

#### 9.1.4.18 Event Interfaces

This section provides details of built-in interfaces that are implemented on this event. Full details of these interfaces can be found in the DDK documentation.

Interface	Description
<b>IGeoSpatialAwareEvent</b>	Identifies an event as Geo-Spatial Aware

#### 9.1.4.19 PP Device Alarm

Perimeter protection device alarm.

##### Performance

The driver must be able to handle 4000 events per hour.

##### Event Properties

Name	Type	Description
<b>Interface ID</b>	string	Interface ID.
<b>Device Address</b>	int	Device address.
<b>Sensor Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.PerimeterSensorType	Perimeter sensor type.
<b>Alarm State</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.AlarmState	Sensor alarm state.

#### 9.1.4.20 PP Input State Change

Perimeter protection device input state change.

##### Performance

The driver must be able to handle 4000 events per hour.

##### Event Properties

Name	Type	Description
<b>Interface ID</b>	string	Interface ID.
<b>Device Address</b>	int	Device address.
<b>Input</b>	int	Input number.
<b>Alarm State</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.AlarmState	Sensor alarm state.

#### 9.1.4.21 PP Subcell Alarm

Perimeter protection subcell alarm.

## Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
Interface ID	string	Interface ID.
Device Address	int	Device address.
Cable	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.PerimeterCable	Cable.
Subcell	int	Subcell.
Alarm State	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.AlarmState	Sensor alarm state.

### 9.1.4.22 PP Zone Alarm

Perimeter protection Zone alarm.

## Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
Zone ID	string	Zone ID.
Interface ID	string	Interface ID.
Device Address	int	Device address.
Cable	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.PerimeterCable	Cable.
Subcell	int	Subcell.
Alarm State	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.AlarmState	Sensor alarm state.

### 9.1.4.23 PP Device Online State Change

Perimeter protection device online state change.

## Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
<b>Interface ID</b>	string	Interface ID.
<b>Device Address</b>	int	Device address.
<b>Online State</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.PerimeterOnlineDeviceState	Online state.

#### 9.1.4.24 PP Interface Online State Change

Perimeter protection Interface online state change.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Interface ID</b>	string	Interface ID.
<b>Online State</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.PerimeterOnlineDeviceState	Online state.

#### 9.1.4.25 User Login

User logged in to server.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>First User</b>	string	Name of the user connected to the system.
<b>Second User</b>	string	Name of the second user by four eyes notification.
<b>Remote Host</b>	string	Host from where the connection is done.
<b>Client Host</b>	string	Host from where the connection is done.
<b>Client Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GCore.Enums.GCoreClientType	Client type.
<b>Client Account</b>	string	User account from where the connection is done.

#### 9.1.4.26 User Login Failed

User failed to log in to server.



## Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
<b>First User</b>	string	Name of the user connected to the system.
<b>Second User</b>	string	Name of the second user by four eyes notification.
<b>Remote Host</b>	string	Host from where the connection is done.
<b>Reject Reason</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.LoginFailureReason	Reason of the rejection.
<b>Client Host</b>	string	Host from where the connection is done.
<b>Client Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GCore.Enums.GCoreClientType	Client type.
<b>Client Account</b>	string	User account from where the connection is done.

### 9.1.4.27 User Logout

User logged out from server.

## Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
<b>First User</b>	string	Name of the user disconnected from the system.
<b>Second User</b>	string	Name of the second user by four eyes notification.
<b>Remote Host</b>	string	Host from where the connection was done.
<b>Client Host</b>	string	Host from where the connection was done.
<b>Client Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GCore.Enums.GCoreClientType	Client type.

<b>Client Account</b>	string	User account from where the connection was done.
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#### 9.1.4.28 *Redundant Power Failure*

Redundant power failure occurred.

##### Performance

The driver must be able to handle 4000 events per hour.

#### 9.1.4.29 *Redundant Power Failure Restored*

Redundant power failure restored.

##### Performance

The driver must be able to handle 4000 events per hour.

#### 9.1.4.30 *System Settings Changed*

System settings have changed.

##### Performance

The driver must be able to handle 4000 events per hour.

##### Event Properties

Name	Type	Description
<b>Setup Changed</b>	bool	True if system setup was changed.
<b>First User</b>	string	Name of the user who modified the setup.
<b>Second User</b>	string	Name of the second user by four eyes notification.
<b>Remote Host</b>	string	Host from where the connection is done.
<b>Time Range Changed</b>	bool	True if time range was changed.
<b>Current Time Range</b>	string	Current time range.
<b>Licence Changed</b>	bool	True if licence has changed.
<b>Change Time</b>	DateTime	Time of the system settings change.

#### 9.1.4.31 *Setup Changed*

System setup has changed.

##### Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
<b>Username</b>	string	Name of the user who modified the setup.
<b>Remote Host</b>	string	Host from where the connection is done.
<b>Current Time</b>	DateTime	Current time.
<b>Resource</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.ResourceKind	The resource that was modified.
<b>Resource ID</b>	string	The modified resource ID.
<b>Resource Change</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.ResourceChange	The change made to the resource.
<b>Details</b>	string	Details of the modification made.
<b>Client Host</b>	string	Host from where the connection is done.
<b>Client Type</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GCore.Enums.GCoreClientType	Client type.
<b>Client Account</b>	string	User account from where the connection is done.

### 9.1.4.32 System Info

System info received.

## Performance

The driver must be able to handle 4000 events per hour.

Name	Type	Description
<b>Source Subsystem</b>	CNL.IPSecurityCenter.Driver.Geutebruck. GeutebruckCommon.Enums.SourceSubsystem	Source of the message.
<b>Message Code</b>	CNL.IPSecurityCenter.Driver.Geutebruck. GeutebruckCommon. Enums.MessageCode	Kind of the message.
<b>Description</b>	string	Description.

<b>Additional Info</b>	string	optional additional information, usually as XML string.
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## Event Properties

### 9.1.4.33 System Warning

System warning received.

## Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
<b>Source Subsystem</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon .Enums.SourceSubsystem	Source of the message.
<b>Message Code</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon .Enums.MessageCode	Kind of the message.
<b>Windows Error</b>	int	Optional Windows error code.
<b>Description</b>	string	Description.
<b>Additional Info</b>	string	optional additional information, usually as XML string.

### 9.1.4.34 System Error

System error received.

## Performance

The driver must be able to handle 4000 events per hour.

## Event Properties

Name	Type	Description
<b>Source Subsystem</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon .Enums.SourceSubsystem	Source of the message.
<b>Message Code</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon .Enums.MessageCode	Kind of the message.

<b>Windows Error</b>	int	Optional Windows error code.
<b>Description</b>	string	Description.
<b>Additional Info</b>	string	optional additional information, usually as XML string.

#### 9.1.4.35 *System Started*

System has started up.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Start Time</b>	DateTime	Time of the system start-up.

#### 9.1.4.36 *System Terminating*

System is shutting down.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Stop Time</b>	DateTime	Time of the system shut-down.
<b>Windows Shutdown</b>	bool	True if the system shutdown is due to a windows shutdown.

#### 9.1.4.37 *Info Event*

Info event.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Event Id</b>	long	Instance Id of the event
<b>Status</b>	long	Status.

<b>Foreign Key</b>	long	Optional foreign key.
<b>Note</b>	string	Note.

#### 9.1.4.38 *Event State Changed*

Geutebruck Event state changed.

#### **Performance**

The driver must be able to handle 4000 events per hour.

#### **Event Properties**

Name	Type	Description
<b>Event Id</b>	long	Instance Id of the event
<b>Event Type Id</b>	long	Id of event type
<b>Event Name</b>	string	Event name.
<b>State</b>	CNL.IPSecurityCenter.Driver.Geutebruck. GeutebruckCommon.Enums.EventState	Current Event state (started or stopped).

## 9.2 GCore Camera

### 9.2.1 Device Connection and Online States

The full requirements for these features can be found in the [Device Connection and Online States Requirements](#)

Feature	
<b>DC1.0 Device Online Status</b>	Sdk/Query Device
<b>DC2.0 Authentication</b>	Basic

### 9.2.2 Video

The full requirements for these features can be found in the [Driver Video Requirements](#).

Feature	
<b>VID1.0 Camera Population</b>	<input checked="" type="checkbox"/> Query Device
<b>VID2.0 Live Video</b>	
<b>VID2.1 Display Live Video</b>	<input checked="" type="checkbox"/>
<b>VID2.2 Snapshot</b>	<input checked="" type="checkbox"/>
<b>VID2.3 PTZ</b>	<input checked="" type="checkbox"/>
<b>VID2.4 Set Preset</b>	<input checked="" type="checkbox"/>
<b>VID2.5 Get Preset</b>	<input checked="" type="checkbox"/>
<b>VID3.0 Recorded Video</b>	
<b>VID3.1 Display Recorded Video</b>	<input checked="" type="checkbox"/>
<b>VID3.2 Seek</b>	<input checked="" type="checkbox"/>
<b>VID3.3 Pause</b>	<input checked="" type="checkbox"/>
<b>VID3.4 Snapshot</b>	<input checked="" type="checkbox"/>
<b>VID3.5 Fast Forward/Rewind</b>	<input checked="" type="checkbox"/>  <i>Play Speeds:</i> -2, -1, 1, 2
<b>VID3.6 Slow Motion</b>	<input type="checkbox"/>  <i>Play Speeds:</i> 0  Only playing next or previous frame is available in the SDK, implemented as Video Operator Actions, see section 9.5

<b>VID3.7 Time Bar Population</b>	Assume Storage
<b>VID4.0 Video Export</b>	<input type="checkbox"/>
<b>VID5.0 Web Client Support</b>	<input checked="" type="checkbox"/>

### 9.2.3 Properties

General requirements for properties can be found in [Driver Project Requirements](#).

Name	Type	Description	Default Value & Ranges
<b>ID</b>	long	The ID of this camera	Default: Min: Max:
<b>Channel ID</b>	long	The ChannelID used by the NVR for this stream	Default: Min: Max:
<b>Parent Server</b>	string	The name of the video server this device belongs to.	Default: Min: Max:
<b>Number of Presets</b>	int	The number of available PTZ presets.  This affects the preset drop down menu..	Default: 10 Min: 0 Max: 256
<b>Synchronization loss delay</b>	int	The maximum amount of time, in milliseconds, to wait before assuming a synch loss event is a camera loss	Default: 1500 Min: 250 Max: 5000

### 9.2.4 Methods

General requirements for methods can be found in [Driver Project Requirements](#).

#### 9.2.4.1 *Get Snapshot At Timestamp*

Returns the filename of a snapshot at the specified time, if there is no recording available – returns an empty string.

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
------	------	-------------	--------------------------



<b>File Name</b>	string	The snapshot file name including file extension (does not include file path)	Default: Min: Max:
<b>Timestamp</b>	DateTime	The timestamp of the requested snapshot.	Default: Min: Max:
<b>Storage Folder</b>	string	The folder where the snapshot file will be stored.	Default: Min: Max:

## 9.2.5 Events

General requirements for events can be found in [Driver Project Requirements](#).

### 9.2.5.1 Video Sync Detected

Raised when sync is detected in the video signal.

#### Performance

The driver must be able to handle 4000 events per hour.

### 9.2.5.2 Video Contrast Detected

Raised when contrast is detected in the video signal.

#### Performance

The driver must be able to handle 4000 events per hour.

### 9.2.5.3 Video Sync Failed

Raised when video sync is lost in the video signal.

#### Performance

The driver must be able to handle 4000 events per hour.

### 9.2.5.4 Video Contrast Failed

Raised when contrast is lost in the video signal.

#### Performance

The driver must be able to handle 4000 events per hour.

### 9.2.5.5 Sensor Video Alarm

Raised when a video alarm is detected.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Alarm Type</b>	Enums.GCoreSensorVideoAlarmType	The type of the Sensor Video Alarm.
<b>Activity Detection Area Valid</b>	bool	Specifies whether the ADArea property is populated in this event.
<b>Activity Detection Area</b>	GeutebruckCommon.Enums.ActivityDetectionArea	Activity Detection Area. Optional. Only populated if ADAreaValid is true.
<b>Activity Detection Cell Valid</b>	bool	Specifies whether the ADCell property is populated in this event.
<b>Activity Detection Cell</b>	int	Activity Detection Cell. Optional. Only populated if ADCellValid is true.
<b>Alarm Area Bottom</b>	int	Defines the bottom of the alarm area.
<b>Alarm Area Left</b>	int	Defines the left of the alarm area.
<b>Alarm Area Right</b>	int	Defines the right of the alarm area.
<b>Alarm Area Top</b>	int	Defines the top of the alarm area.
<b>Video Motion Detection Cycle Valid</b>	bool	Specifies whether the VMDCycle property is populated in this event.
<b>Video Motion Detection Cycle</b>	GeutebruckCommon.Enums.VideoMotionDetectionCycle	Video Motion Detection Cycle. Optional. Only populated if VMDCycleValid is true.
<b>Video Motion Detection Group Valid</b>	bool	Specifies whether the VMDGroup property is populated in this event.
<b>Video Motion Detection Group</b>	Enums.VideoMotionDetectionGroup	Video Motion Detection Group. Optional. Only populated if VMDGroupValid is true.

<b>Video Motion Detection Zone Valid</b>	bool	Specifies whether the VMDZone property is populated in this event.
<b>Video Motion Detection Zone</b>	int	Video Motion Detection Zone. Optional. Only populated if VMDZoneValid is true.

### 9.2.5.6 Camera Control On Off

Camera Control On-Off action received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Action Code</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.CameraControlOnOffActionType	The Action type.
<b>State</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.CameraControlState	Current on-off state.

### 9.2.5.7 Preset Action

Preset action received.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>Action Code</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enums.PresetActionType	The Action type.
<b>Preset Number</b>	int	Preset number.

**NOTE:** This event is not raised when camera moves to a preset – a standard **Preset Selected** event is raised instead

### 9.2.5.8 Sensor Video Alarm Finished

Video alarm is no more triggered.

#### Performance

The driver must be able to handle 4000 events per hour.




### Event Properties

Name	Type	Description
<b>Alarm Type</b>	Enums.GCoreSensorVideoAlarmType	The type of the Sensor Video Alarm.

## 9.3 GCore Digital Input

### 9.3.1 Device Connection and Online States

The full requirements for these features can be found in the [Device Connection and Online States Requirements](#)

State	Icon	Meaning
Low		Contact has low resistance
Middle		Contact in a middle range resistance
High		Contact has high resistance

### 9.3.2 Properties

General requirements for properties can be found in [Driver Project Requirements](#).

Name	Type	Description	Default Value & Ranges
ID	long	The ID of this digital input.	Default: Min: Max:
Parent Server	string	The name of the video server this device belongs to.	Default: Min: Max:

### 9.3.3 Methods

None.

### 9.3.4 Events

General requirements for events can be found in [Driver Project Requirements](#).

#### 9.3.4.1 Digital Input Changed

A digital input has changed state

#### Performance

The driver must be able to handle 4000 events per hour.





#### Event Properties

Name	Type	Description
State	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommunication.Enums.InputContactState	The state of this digital input

## 9.4 GCore Digital Output

### 9.4.1 Device Connection and Online States

The full requirements for these features can be found in the [Device Connection and Online States Requirements](#)

State	Icon	Meaning
Open		Output is open
Closed		Output is closed
Toggle		Output is toggled
Unknown		Unknown state – state is not yet reported by the server or it's in Toggle state (neither open nor closed)

### 9.4.2 Properties

General requirements for properties can be found in [Driver Project Requirements](#).

Name	Type	Description	Default Value & Ranges
ID	long	The ID of this digital output.	Default: Min: Max:
Parent Server	string	The name of the video server this device belongs to.	Default: Min: Max:

### 9.4.3 Methods

General requirements for methods can be found in [Driver Project Requirements](#).

#### 9.4.3.1 Open Digital Output

Sets the digital output to Open state.

Returns bool.

#### Performance

The method must complete within 2 seconds.

### 9.4.3.2 Close Digital Output

Sets the digital output to Closed state.

Returns bool.

#### Performance

The method must complete within 2 seconds.

### 9.4.3.3 Toggle Digital Output

Sets the digital output to Toggle state.

Returns bool.

#### Performance

The method must complete within 2 seconds.

## 9.4.4 Events

General requirements for events can be found in [Driver Project Requirements](#).

### 9.4.4.1 Digital Output Changed

A digital output has changed state

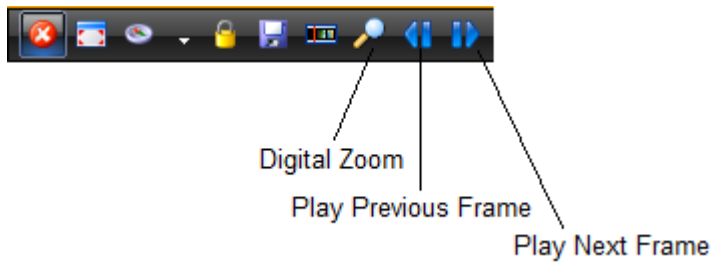
#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
<b>State</b>	CNL.IPSecurityCenter.Driver.Geutebruck.GeutebruckCommon.Enum.OutputContactState	The state of this digital output

## 9.5 Video Operator Actions



Operation Action	Mode Available	Meaning
<b>Digital Zoom</b>	Live and Playback	Toggle Digital Zoom mode
<b>Play Previous Frame</b>	Playback	Play the previous frame on paused playback
<b>Play Next Frame</b>	Playback	Play the next frame on paused playback



## 10 Installation

### 10.1 Prerequisites

Visual C++ Redistributable for Visual Studio 2015 (x86)

### 10.2 Driver Installation

- Start the IPSecurityCenter™ client and any supporting services
- Open the Device Driver Manager from the System Configuration
- Click the **Install** button
- Select the Geutebruck Geutebruck GeViScope Server Driver Package in the Open file dialog
- Wait for the driver to be uploaded

The driver packages should be listed in the Device Driver Manager.

#### 10.2.1 Device Configuration

- Right click in a folder (e.g. Devices) in the System Configuration: **New** → **Device On** → **Server**
- Click **Next** on the introduction
- Select **Geutebruck** in the **Device Manufacturer** list
- Select **Geutebruck GeViScope Server** in the Available Devices list
- Click **Next** to enter the device details: Enter the Geutebruck Geutebruck GeViScope Server hostname or IP address, the port (use 0 to use the default port), and user name and password if integrated security is not being used.
- Click **Next** and **Finish** to add the device.
- Enable the device to bring it online.

## 11 Known Issues and Limitations

### 11.1 Testing limitations

- Mute function of video control has not been tested due to lack of availability of test streams with audio content in test environment.

### 11.2 Device States

- Due to SDK limitation it is impossible to query the current device state upon connection, as a result of this:
  - 1) When server device is connected to Geitebruck server:
    - Camera devices will appear in *Online* state until an event Video Sync Failed is received.
    - Inputs and Outputs will appear in *Unknown* custom state until a state change event is received from the server.
  - 2) When camera device is Enabled, it will remain in *Online* state until an event Video Sync Failed is received.
  - 3) When an Input or Output device is Enabled, it will remain in *Unknown* custom state until a state change event is received from the server.

### 11.3 Resize blinking

The video blinks when the video tile is been resized (JIRA-665).

### 11.4 Live Video

- In most cases displaying disconnected camera does not result in a standard error on video tile as the SDK does not report any errors
- Displaying a camera without installing the VC++ Redistributable package will result in video tile showing 'Connecting' state. Install the pre-requisite VC++ package then restart the IPSC machines affected.
- Video 360 de-warping is not supported by the SDK.
- When displaying video on large screens it is recommended to set **UseDirectX** property to False for better video quality



## 11.5 Playback

- SDK limitation: there is no way to query for actual recordings on a camera, so the timebar is automatically populated assuming continuous recording
- Seek operation in SDK occasionally can rewind to a time different from the target time chosen by the user. If no relevant time was reported <Seek Timeout> milliseconds after the rewind started the seek times out and error message 'No footage found' is displayed. 'Relevant time' is a reported time which is no more than 10 min away from the desired seek time.
- To comply with playback loop, the driver will never report irrelevant times (even when the Loop is off). This behaviour can be improved with a VCM fix, logged JIRA ticket COR-1677
- If user attempts to seek in the future, the driver automatically tries to rewind and play back the video from the latest 15 seconds.
- When stepping through framed in Paused mode the time will not be updated as there is no way to query for the current playback time in the SDK
- In DirectX disabled mode video may momentarily flicker and flip when paused playback is resumed

## 11.6 Video Export

- Exporting video in MPEG format is currently not supported – under investigation.

## 11.7 Digital Zoom

- To enter Digital Zoom mode, click the digital zoom button  on the video tile
- Left-click, mark the area to zoom in with the mouse, then release the left mouse button  
To move around while zoomed in, left click and move the mouse.
- To reset the zoom to its default level, double-click
- To exit the Digital Zoom mode, click the digital zoom button  again

## 11.8 Presets

- Due to SDK limitation it is impossible to query PTZ cameras for actual Presets. As a solution to this limitation, each camera device has a **Number of Presets** property letting the user to set how many presets will be populated for each camera.  
After the **Number of Presets** property value is changed user has to re-display a video tile to re-populate the presets according to the new value.
- Deleting presets: due to SDK limitation it is impossible to delete a PTZ Preset hence deleting a preset in IPSC will have no effect.
- Save preset label limitation: the actual SDK Action doesn't have a text parameter to pass hence cannot change a preset name in the native system (the new name will only be stored in IPSC).

## 11.9 Actions and Events

- For all events reporting timestamps: all the timestamps are reported by the driver as UTC time
- All event numeric properties which are not reported by the Geutebruck server will automatically receive a value of -1
- The driver only subscribes to some of the available GeViScope Actions, the following Actions are **not** reported:
  - Some Camera Control Actions (Iris, focus, PTZ, absolute/relative position, etc)
  - Lenel
  - POS
  - Remote export
  - SKIDATA
  - Supply chain security
  - Some system Actions (Live Check, database updates etc)
  - Some Video Control events
  - ONVIF Notification
  - SMS
  - Video Content Analytics
- Many Action parameters are of type **long**. Because DDK does not support the **long** type, these parameters are force cast into Int32, so some data precision can potentially be lost.
- By default when a new server device will subscribe to the following Action categories:
  - Camera Preset
  - Digital I/Os
  - Video Analytics
  - Recording

The table below shows the GCore Action Categories mapped to driver events:

Action Category	Category description	Device Type	GCore Action	Driver Event
ATM	ATM system events	GCore Server	ATM Raw Data	ATM Raw Data
			ATM Transaction	ATM Transaction
			ATM Transaction extended	

<b>ACS</b>	<b>Access Control events</b>	<b>GCore Server</b>	ACS Access Granted ACS Access Denied ACS Raw Data ACS Raw Answer	ACS Action
<b>Audio Control</b>	<b>Audio events</b>	<b>GCore Server</b>	ABC Connect ABC Disconnect ABC Play File Sensor Audio Alarm	Audio Control
<b>Backup</b>	<b>Backup events</b>	<b>GCore Server</b>	Event backup file started Event backup file progress Event backup file done Event backup done Backup schedule started Backup schedule done Backup operation started Backup operation done Auto backup file started Auto backup file progress Auto backup file done Auto backup capacity warning Auto backup capacity out of disk space Auto backup capacity file auto deleted	Backup Action
<b>Camera Control features On/Off</b>		<b>GCore Camera</b>	Camera on Camera off Fast speed on Fast speed off Camera wash on	Camera Control On Off

Camera wash off  
 Camera wash on  
 Camera version on  
 Camera version off  
 Camera text on  
 Camera text off  
 Camera spec func U on  
 Camera spec func U off  
 Camera spec func V on  
 Camera spec func V off  
 Camera spec func X on  
 Camera spec func X off  
 Camera spec func Y on  
 Camera spec func Y off  
 Camera pump on  
 Camera pump off  
 Camera manual iris on  
 Camera manual iris off  
 Camera light on  
 Camera light off  
 Auto focus on  
 Auto focus off

**Camera Preset**

**Preset actions**

**GCore Camera**

Camera set preset text  
 Camera clear preset text  
 Save preset position  
 Move to preset position  
 Clear preset position  
 Clear default position

**Preset Action**

<b>Cash Management</b>		<b>GCore Server</b>	Safebag open Safebag close Safebag data Safenag passing of risk data Safenag passing of risk start Safenag passing of risk stop	Cash Management
<b>Device Information</b>	<b>Status of hardware devices</b>	<b>GCore Server</b>	Device found New firmware received Device plugin error Device plugin state Device reattached Device removed	Device Information
<b>Hardware Information</b>	<b>On-board hardware updates</b>	<b>GCore Server</b>	Case opened Case closed Temperature notification IOI43 Temperature notification Key Pressed Key Released	Hardware Information
<b>Digital I/Os</b>	<b>Input and Output updates</b>	<b>GCore Digital Input</b>	Digital input	Digital Input Changed
		<b>GCore Digital Output</b>	Digital output	Digital Output Changed
<b>Video Analytics</b>		<b>GCore Server</b>	IP camera failover notification	IP Camera Failover Notification
		<b>GCore Server</b>	IP camera failover restore	IP Camera Failover Restore
		<b>GCore Camera</b>	Sensor video alarm	Sensor Video Alarm

		<b>GCore Camera</b>	Sensor alarm finished	Sensor Video Alarm Finished
		<b>GCore Camera</b>	Video sync failed	Video Sync Failed
		<b>GCore Camera</b>	Video sync detected	Video Sync Detected
		<b>GCore Camera</b>	Video contrast failed	Video Contrast Failed
		<b>GCore Camera</b>	Video contrast detected	Video Contrast Detected
<b>Recording</b>		<b>GCore Server</b>	Database recording info total	Recording State Changed  (raised only if the state has changed)
<b>Imex Capacity</b>	<b>Import/export Capacity updates</b>	<b>GCore Server</b>	Imex capacity file auto deleted  Imex capacity out of disk space  Imex capacity warning	Imex Capacity Warning
<b>Custom Actions</b>		<b>GCore Server</b>	Custom action	Custom Action
		<b>GCore Server</b>	Custom action extended	Custom Action Extended
<b>LPS</b>	<b>Location Position System events</b>	<b>GCore Server</b>	LPS position data	LPS Position Data  (if the action includes X, Y, Z coordinates)
		<b>GCore Server</b>	LPS position data	LPS Geo Position Data  (if the action includes geographic coordinates)
<b>Perimeter Protection</b>		<b>GCore Server</b>	PP device alarm	PP Device Alarm
		<b>GCore Server</b>	PP device input	PP Input State Change



		<b>GCore Server</b>	PP device online PP device offline	PP Device Online State Change
		<b>GCore Server</b>	PP interface online PP interface offline	PP Interface Online State Change
		<b>GCore Server</b>	PP subcell alarm	PP Subcell Alarm
		<b>GCore Server</b>	PP zone alarm	PP Zone Alarm
<b>User Login</b>		<b>GCore Server</b>	User login	User Login
		<b>GCore Server</b>	User logout	User Logout
		<b>GCore Server</b>	User login failed	User Login Failed
<b>System Actions</b>	<b>System and OS notifications</b>	<b>GCore Server</b>	System settings changed	System Settings Changed
		<b>GCore Server</b>	Setup changed	Setup Changed
		<b>GCore Server</b>	System info	System Info
		<b>GCore Server</b>	System warning	System Warning
		<b>GCore Server</b>	System error	System Error
		<b>GCore Server</b>	System started	System Started
		<b>GCore Server</b>	System terminating	System Terminating
<b>Events</b>	<b>Native GCore Event notifications</b>	<b>GCore Server</b>	Event started Event stopped	Event State Changed
		<b>GCore Server</b>	Info event	Info Event

