







# Why IMS Still Matters.....

**Dusty Rivers**

Director **z** Systems Software: IMS & CICS , GT Software



-  Why IMS still Matters
-  IMS Challenges
-  IMS as Client
-  IMS with BI/BA
-  IMS to/from the Cloud
-  IMS and Cognitive

# IMS is the system of record



**IMS systems for banks**  
(ATM, loans,  
account management)



**IMS systems for insurance**  
(Claims &  
policy management)



**IMS systems for  
manufacturing**



**IMS systems for finance**



**IMS systems for medical**



**IMS systems for Airline**

# IMS and Fortune companies



- Thousands of companies globally use IMS as their system of record
- Most users are not aware that information on their applications comes from IMS



The very reliability and transparency of IMS systems can make it nearly invisible to architects.

- 🌐 Not using IMS to the fullest advantage
- 🌐 They are not aware they can integrate new technology with IMS data and transactions.
- 🌐 They may recommend other options, not knowing they can integrate without changing the underlying IMS applications



**IMS =**






# Today's business needs



- 🌐 Self-service, Mobile/Cloud, BYOD, BI/BA, IoT
- 🌐 Real-time access to enterprise data residing on any platform
- 🌐 Customer and business focused IT (360 degree view)
- 🌐 Build and deploy apps rapidly (**App** Mentality)
- 🌐 Integration between IMS & distributed systems
- 🌐 Big Data (**IMS?**)
- 🌐 Cognitive



-  Conversational Transactions
-  Multiple Segment Output Messages
-  IMS as Client









## Conversational transactions

*Conversational transaction processing* allows you to retain message continuity from a given terminal, even when the program that processes the conversation is not retained in storage throughout that conversation.

## Conversational transactions

*Conversational transaction processing* allows you to retain **message continuity** from a given **terminal**, even when the program that processes the conversation is not retained in **storage** throughout that conversation.

- Message Continuity?
- Terminal?
- Conversations?
- Storage?

-  Run transaction (possible save state(SPA))
-  Run another transaction (retrieve state SPA, save state SPA)
-  Loop
-  Run Transaction (end conversation)

 Issues?

# IMS Conversational Tran as a Service



GT Software Ivory Studio - imsConv (Web Service)

File Edit View Tools Window Help

Toolbox

Diagram - imsConv

```

    graph TD
      Start([Start]) --> WS[Web Service Operation]
      WS --> Read[Read]
      Read --> Move8[Move to Work Variable]
      Move8 --> Move8Label[Work Variable Movement 8]
      Move8Label --> Node8_1{{IMS Point Node}}
      Node8_1 --> ReadIMS[Read IMS]
      ReadIMS --> Move9[Move to Output]
      Move9 --> Move9Label[Output Movement 9]
      Move9Label --> Node8_2{{IMS Point Node}}
      Node8_2 --> Exec8_1[Execute IMS]
      Exec8_1 --> MoveOut8[Move to Output]
      MoveOut8 --> Node8_3{{IMS Point Node}}
      Node8_3 --> Exec8_2[Execute IMS]
      Exec8_2 --> MoveOut8
      MoveOut8 --> Loop1((Loop 1))
      Loop1 --> Node8_2
      Node8_3 --> Exec9[Execute IMS]
      Exec9 --> MoveOut9[Move to Output]
      MoveOut9 --> Node9{{IMS Point Node}}
      Node9 --> Exec9_2[Execute IMS]
      Exec9_2 --> EndRead[Operation End]
      EndRead --> Stop[Stop Conversation]
  
```

Properties

Base	Read IMS
Node ID	convinout.ivc
Input Copybook Name	convinout.ivc
Output Copybook Name	GTCONVS
Transaction	Blanks
Initialize Storage Area	False
Reinitialize Storage Area On Loop	False
Advanced	
Input Data Offset	0
Output Data Offset	0
Conversation State	Start
LTERM	
Format Name Work Variable	
OTMA	
Node ID	The unique identifier for this LINK Point node.

Output

Start Conversation

Continue Conversation

Stop Conversation

IMS

LINK

Web Service Client





Toolbox Project Explorer

Ready

start | Inbox - Micros... | 1 Reminder | Share IMS.ppt | GSE Nordic final... | Wal-Mart - Ma... | GT Software I... | Skype™ - drdu... | GT Presentations | Search Results | 9:43 AM

# Multiple Segment Output Transactions



-  Run transaction
-  Get first screen of output
-  PA1 through pages, or get logical pages
-  Issues ?









# Multiple Segment Output Transactions



The screenshot displays the GT Software Ivory Studio interface. On the left, the Properties panel is open, showing the configuration for a transaction named 'ALA'. The 'Advanced' section is expanded, and the 'IMS Connect' section is also visible. A red arrow points from the text 'Number of segments returned' to the 'Total Number of Output Segments Work Variable' field, which is set to 'runSegments'.

Section	Property	Value
Base	Node ID	Define tran
	Transaction	ALA
	Message Flow	Request Response
	Input Type	Copybook
	Input Copybook Name	imsinput.jvc
	Input Copybook Date	(Collection)
	Output Type	BLOB
	Output BLOB Name	MultiSegmentBlob
	Initialize Storage Area	Blank
	Reinitialize Storage Area On Loop	False
Advanced	Input Data Offset	0
	Output Data Offset	0
	IMS Message Segment Size	0
	IMS Send Message Length	0
	Input Data Compression Algorithm	None
	Output Data Compression Algorithm	None
	Conversation State	Non
	LTERM	
	Format Name Work Variable	True
	Propagate MFS Null Character	True
OTMA	OTMA Control Region	None
	Authenticate	None
	Return Code Work Variable	
	Reason Code 1 Work Variable	
	Reason Code 2 Work Variable	
	Reason Code 3 Work Variable	
	Reason Code 4 Work Variable	
	IMS Error Text Work Variable	
	IMS User Data Work Variable	
	IMS Connect	10.1.3.109
Host	3024	
Port	IMS	
Authenticate	None	
User Exit	GIIMSC2 (Default)	
Return Code Work Variable		
Reason Code Work Variable		
Error Text Work Variable		
Include Each Segment (L,ZZ) in Output Data	True	
Total Length of Output Segments Work Variable		
Total Number of Output Segments Work Variable	runSegments	

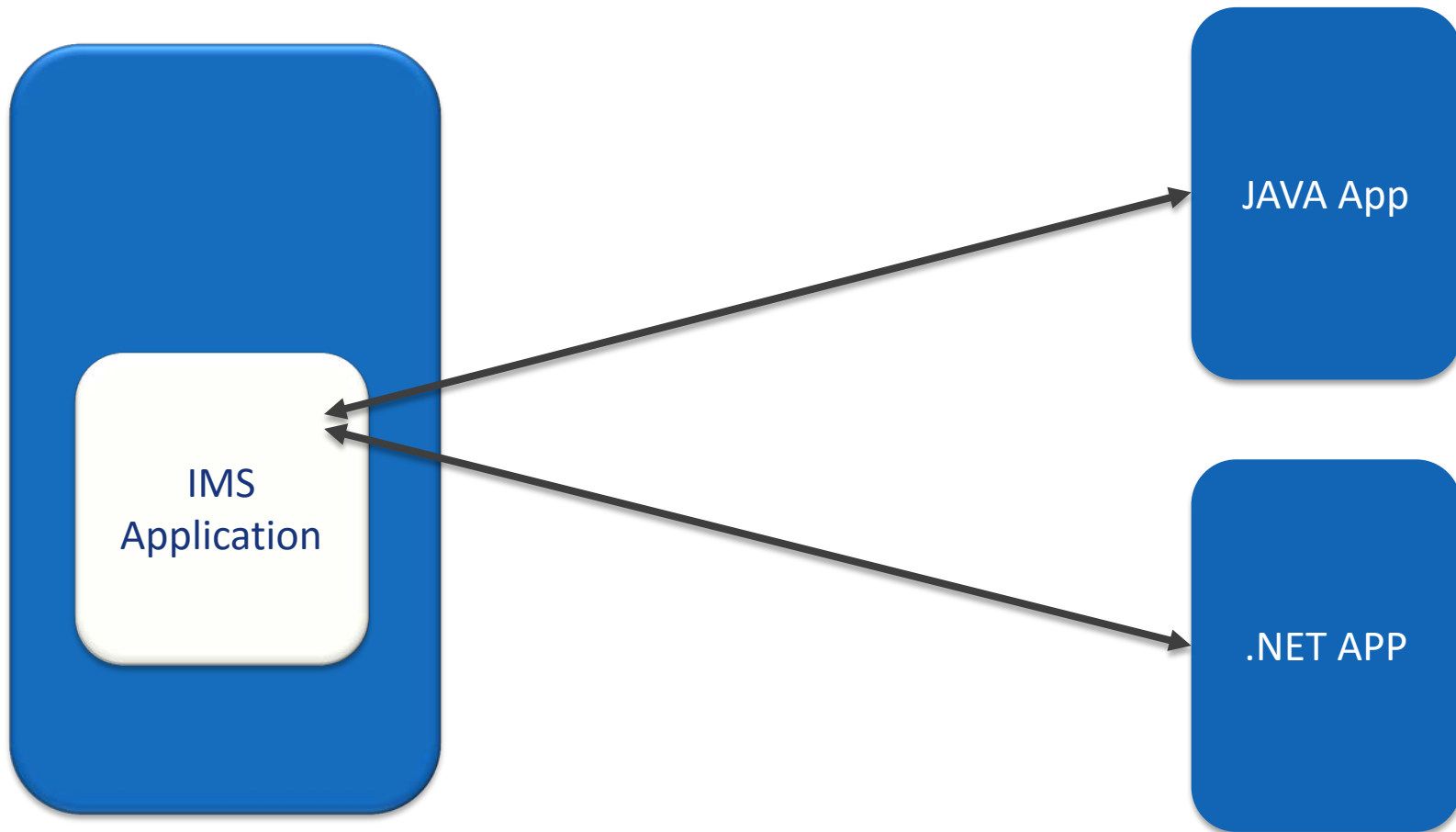
The main diagram area shows a flowchart for a transaction. It starts with a 'Start' node, followed by 'Web Service Disconnection', 'Move to Work Variable', 'IMS Point Node', and 'Execute IMS'. The flow then enters a 'Switch' node labeled 'MSG Segment Counter'. This switch branches into three 'Case' nodes: 'Copybook 1', 'Copybook 2', and 'Copybook 3'. Each case contains a 'Delete Copybook' node, a 'Map Copybook' node, and an 'Execute Delegate' node. The 'Execute Delegate' nodes are labeled 'do req 1', 'do req 2', and 'do req 3'. Each case also includes a 'Move to Output' node, labeled 'output 1', 'output 2', and 'output 3'. The flow then goes to a 'Connector' node labeled 'do req'. After the connector, the flow goes to a 'Switch' node labeled 'Are we at end of Buffer'. This switch branches into 'end 1' and 'end 2'. The 'end 1' branch loops back to the 'Switch' node, and the 'end 2' branch goes to a 'Stop' node.

## IMS applications talking to distributed applications

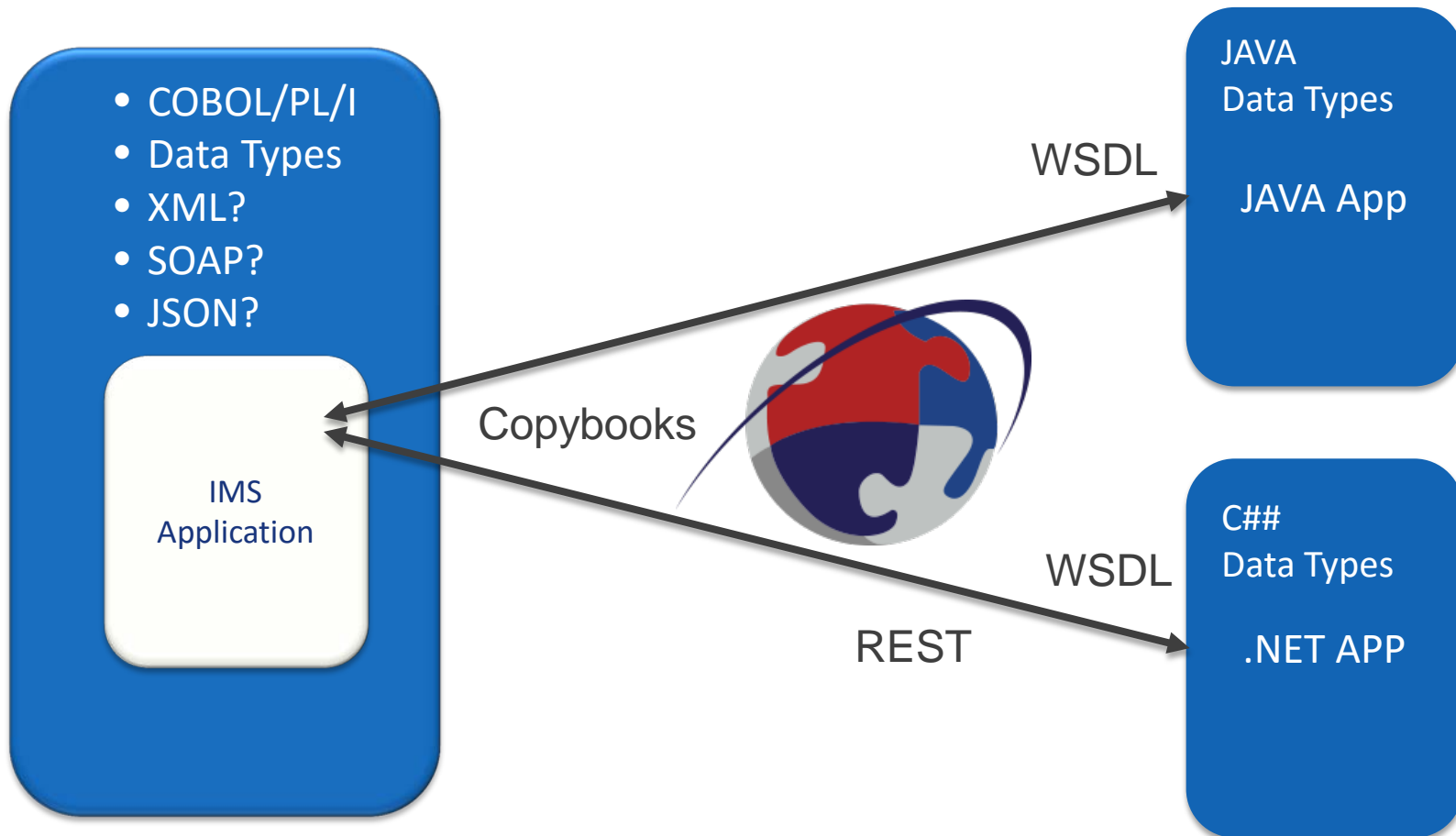


- IMS Applications calling mobile or cloud applications
- IMS Applications calling in native language (COBOL, PL/1)
- IMS Application does not worry about XML/SOAP
- IMS Application can be orchestrated

# IMS talking to distributed apps



# IMS talking to distributed apps



# IMS applications as a client...

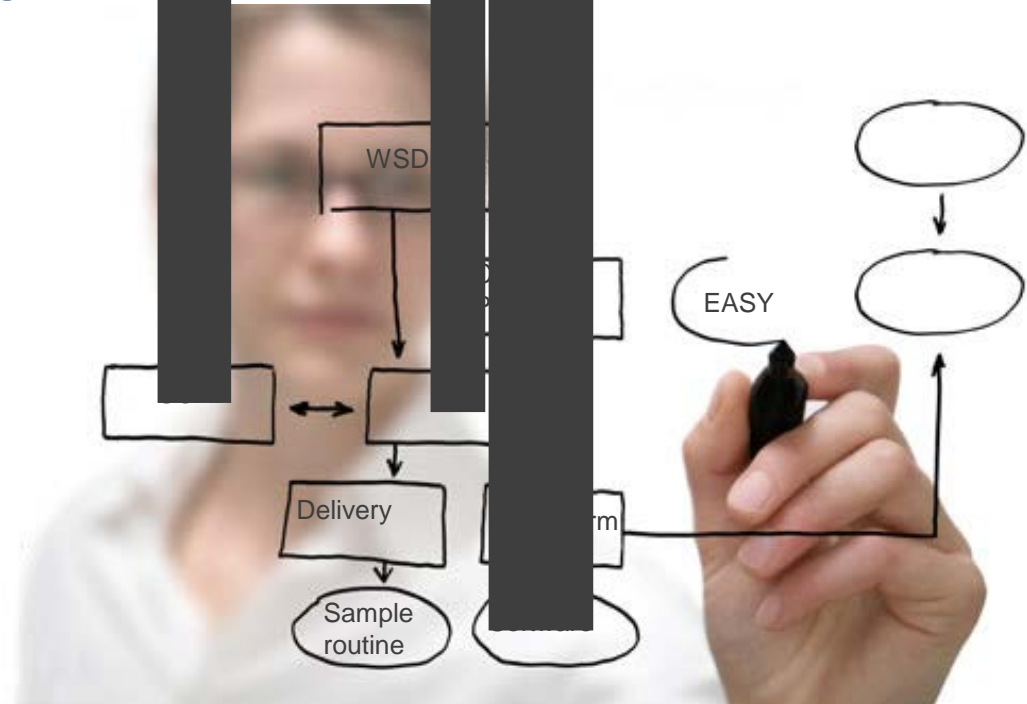


- 🌐 IMS applications calling in native language (COBOL,PL/1)
- 🌐 No new COBOL XML Coding
- 🌐 No knowledge of SOAP or XML required
- 🌐 Communication in native language(looks like subroutine call)
- 🌐 Must be easy to create interface from IMS
- 🌐 Must be Secure (SSL,AT-TLS, WS-\* .....)
- 🌐 No requirement for ICAL

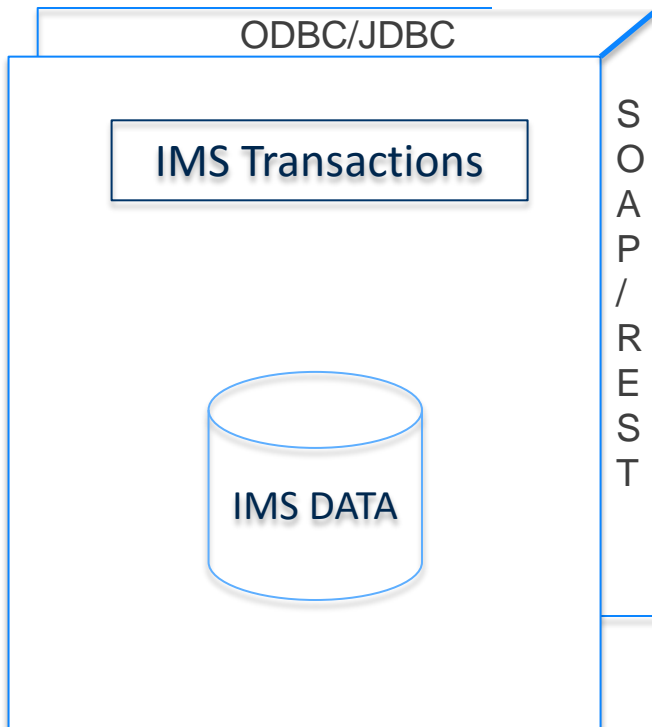
# Ivory callable service wizard



- 🌀 Imports WSDL from distributed service
- 🌀 No knowledge of SOAP or XML required
- 🌀 Generates the required COBOL/PL/I Artifacts
- 🌀 Creates a project to handle delivery and transformation
- 🌀 Generates a sample routine to guide the user
- 🌀 No other software required
- 🌀 Minutes instead of days



# IMS with BI/BA

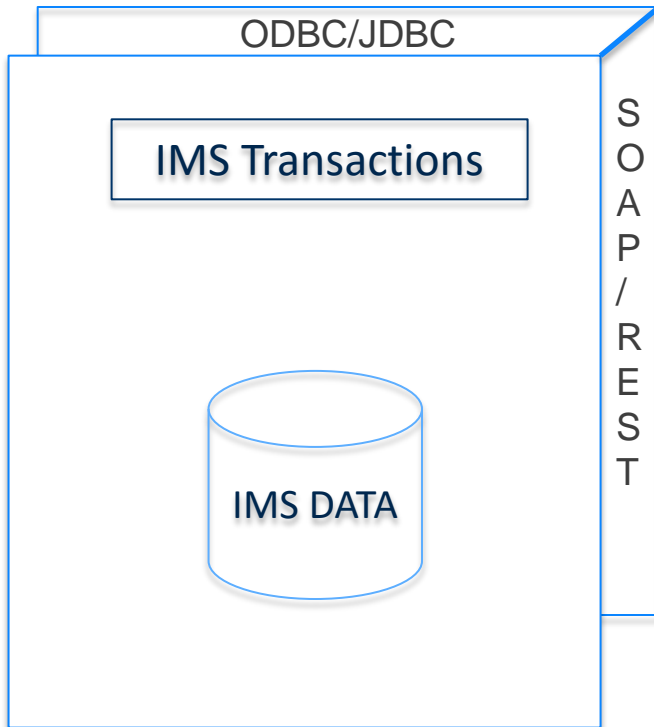


BI (Business Intelligence)

BA (Business Analytics)

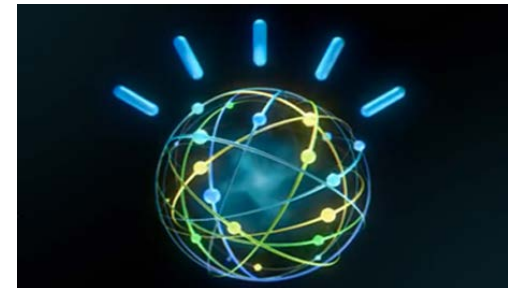
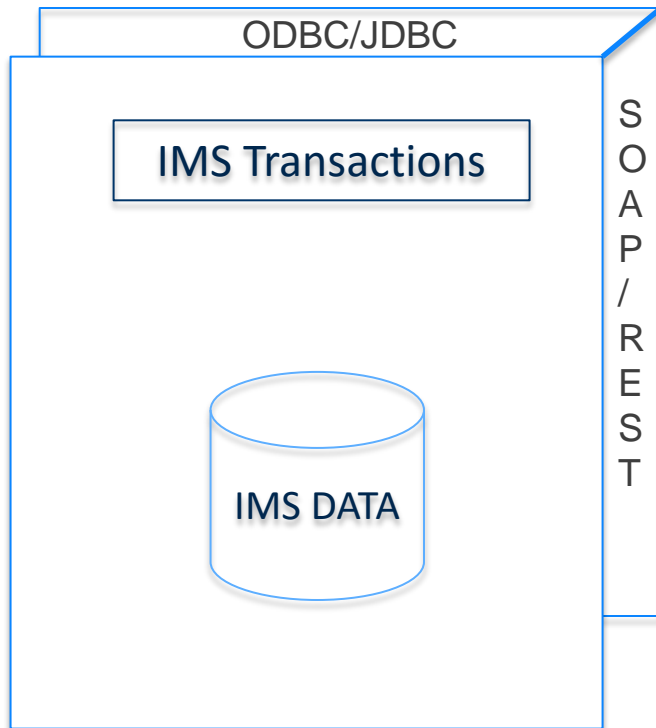


# IMS with Cloud





# IMS with Cognitive



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**info@gtsoftware.com**  
**www.gtsoftware.com**