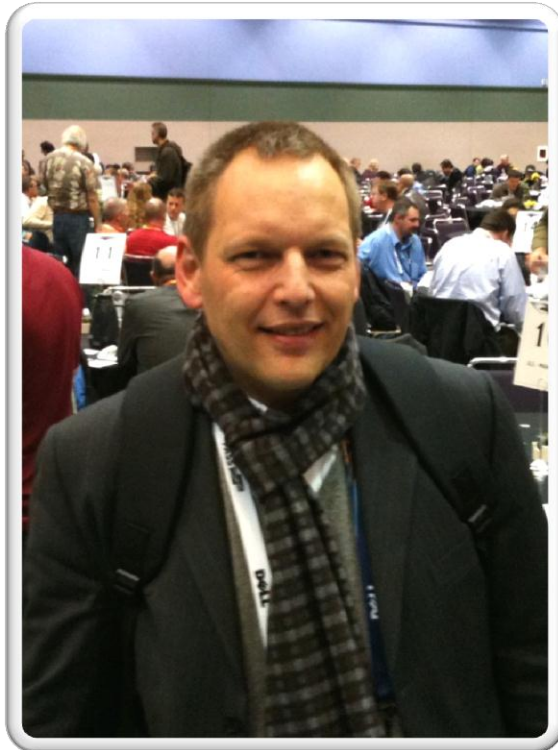


Take Control ! Integration Services in 2012 Tracking & Tracing mit dem neuen SSIS

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Speaker Info



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IT Professional

Database Administrator 2008
Server Administrator on Windows Server® 2008
Database Administrator on SQL Server® 2005

Agenda

- Deployment in SSIS Catalog DB
- Variablen & Parameter
- Versionierung
- Project & Environment
- Data Taps
- SSIS Catalog DB - Reports

Package vs. Project Deployment

Package Deployment >> msdb

Project Deployment >> SSIS Catalog



Package vs. Project Deployment

	Package	Project
Deployment erfolgt als	Package	Project
Compiled Datenformat	mehrere .dtsx Files	ein .ispac File
Gespeichert in	msdb oder Filesystem	SSIS Catalog
Dynamische Konfiguration	Package configurations	Mapping mit Environment-Variablen
Troubleshooting	Für jedes Paket zu konfigurieren	SSIS Catalog enthält mitgelieferte Reports

SSIS Catalog DB

- Erstellen des Catalogs mit Wizard
- Voraussetzungen
 - SQL-Server 2012
 - SQL CLR enabled
- ein Catalog pro Instance (SSISDB)

SSIS Catalog DB

Stored Procedures (Integration Services Catalog) - Windows Internet Explorer

http://msdn.microsoft.com/en-us/library/ff878099.aspx

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ssis catalog views

Stored Procedures (Integration Services Catalog)

msdn

SQL Server 2012 | This topic has not yet been rated - Rate this topic

This section describes the Transact-SQL stored procedures that are available for administering Integration Services projects that have been deployed to an instance of SQL Server.

Call the Integration Services stored procedures to add, remove, modify, or execute objects that are stored in the **SSISDB** catalog.

The default name of the catalog is SSISDB. The objects that are stored in the catalog include projects, packages, parameters, environments, and operational history.

You can use the database views and stored procedures directly, or write custom code that calls the managed API. Management Studio and the managed API query the views and call the stored procedures that are described in this section to perform many of their tasks.

▲ In This Section

- [catalog.add_data_tap](#)
 - Adds a data tap on the output of a component in a package data flow.
- [catalog.add_data_tap_by_guid](#)
 - Adds a data tap to a specific data flow path in a package data flow.
- [catalog.check_schema_version](#)
 - Determines whether the SSISDB catalog schema and the Integration Services binaries (ISServerExec and SQLCLR assembly) are compatible.
- [catalog.clear_object_parameter_value \(SSISDB Database\)](#)
 - Clears the value of a parameter for an existing Integration Services project or package that is stored on the server.
- [catalog.configure_catalog \(SSISDB Database\)](#)
 - Configures the Integration Services catalog by setting a catalog property to a specified value.
- [catalog.create_environment \(SSISDB Database\)](#)
 - Creates an environment in the Integration Services catalog.

SSIS Catalog DB

Stored Procedures (Integration Services Catalog) - Windows Internet Explorer
http://msdn.microsoft.com/en-us/library/ff878099.aspx

Views (Integration Services Catalog) - Windows Internet Explorer
http://msdn.microsoft.com/en-us/library/ff878135.aspx

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Views
catalog.catalog_properties
catalog.effective_object_permissions
catalog.environment_variables
catalog.environment_references
catalog.environments
catalog.event_message_context
catalog.event_messages
catalog.executable_statistics
catalog.executables
catalog.execution_component_phases
catalog.execution_data_statistics
catalog.execution_data_taps
catalog.execution_parameter_values
catalog.execution_property_override_values
catalog.executions
catalog.explicit_object_permissions
catalog.extended_operation_info
catalog.folders
catalog.object_parameters
catalog.object_versions
catalog.operation_messages
catalog.operations
catalog.packages
catalog.projects
catalog.validations

Views (Integration Services Catalog)

SQL Server 2012 | 1 out of 1 rated this helpful - [Rate this topic](#)

This section describes the Transact-SQL views that are available for administering Integration Services projects that have been deployed to an instance of SQL Server.

Query the Integration Services views to inspect objects, settings, and operational data that are stored in the **SSISDB** catalog.

The default name of the catalog is SSISDB. The objects that are stored in the catalog include projects, packages, parameters, environments, and operational history.

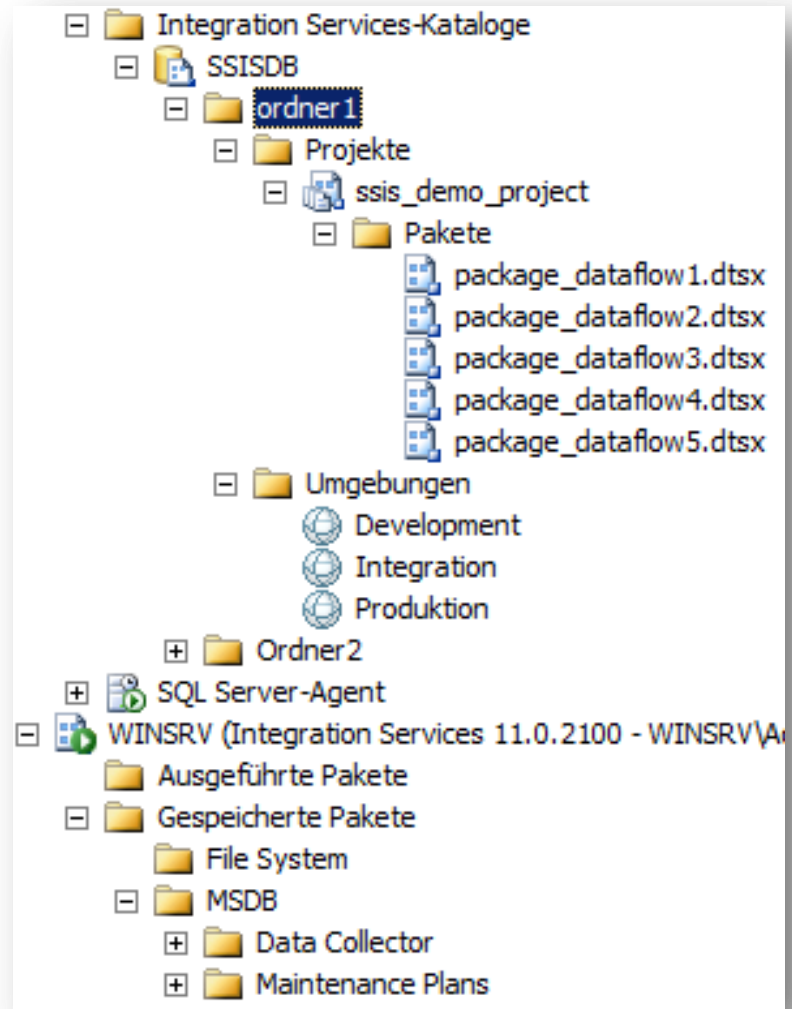
You can use the database views and stored procedures directly, or write custom code that calls the managed API. Management Studio and the managed API query the views and call the stored procedures that are described in this section to perform many of their tasks.

▲ In This Section

- [catalog.catalog_properties \(SSISDB Database\)](#)
Displays the properties of the Integration Services catalog.
- [catalog.effective_object_permissions \(SSISDB Database\)](#)
Displays the effective permissions for the current principal for all objects in the Integration Services catalog.
- [catalog.environment_variables \(SSISDB Database\)](#)
Displays the environment variable details for all environments in the Integration Services catalog.
- [catalog.environments \(SSISDB Database\)](#)
Displays the environment details for all environments in the Integration Services catalog. Environments contain variables that can be referenced by Integration Services projects.
- [catalog.execution_parameter_values \(SSISDB Database\)](#)
Displays the actual parameter values that are used by Integration Services packages during an instance of execution.
- [catalog.executions \(SSISDB Database\)](#)

SSIS Catalogs

- SSIS Catalog
 - Ordner
 - Projekt
 - Paket
 - Umgebung
- legacy



Vereinfachtes <xml>

```
C:\Users\Administrator\Desktop\ppedv_ssis_2008 - Kopie\ppedv_ssis_2008\get_SystemDBs...
get_SystemDBs_2008.xml
C:\Users\Administrator\... X
<?xml version="1.0"?>
- <DTS:Executable DTS:ExecutableType="SSIS.Package.2"
  xmlns:DTS="www.microsoft.com/SqlServer/Dts">
  <DTS:Property DTS:Name="PackageFormatVersion">
  <DTS:Property DTS:Name="VersionComments"/>
  <DTS:Property DTS:Name="CreatorName">hp8530
    \Alex</DTS:Property>
  <DTS:Property
    DTS:Name="CreatorComputerName">HP8530</
  <DTS:Property DTS:Name="CreationDate"
    DTS:DataType="7">9/20/2012 9:16:45 AM</DTS
  <DTS:Property DTS:Name="PackageType">5</DTS:Pr
  <DTS:Property DTS:Name="ProtectionLevel">1</DTS
  <DTS:Property DTS:Name="MaxConcurrentExecutabl
    1</DTS:Property>
  <DTS:Property DTS:Name="PackagePriorityClass">0<
  <DTS:Property DTS:Name="VersionMajor">1</DTS:Pr
  <DTS:Property DTS:Name="VersionMinor">0</DTS:Pr
  <DTS:Property DTS:Name="VersionBuild">1</DTS:Pr
  <DTS:Property DTS:Name="VersionGUID">{3174052
    8EDF-DD51A93627FC}</DTS:Property>
  <DTS:Property DTS:Name="EnableConfig">0</DTS:Pr
  <DTS:Property DTS:Name="CheckpointFileName"/>
  <DTS:Property DTS:Name="SaveCheckpoints">0</DT
  <DTS:Property DTS:Name="CheckpointUsage">0</DT
  <DTS:Property
    DTS:Name="SuppressConfigurationWarnings">0
  - <DTS:ConnectionManager>
    <DTS:Property DTS:Name="DelayValidation">0</
    <DTS:Property
      DTS:Name="ObjectName">localhost.msdb</
    <DTS:Property DTS:Name="DTSID">{CD2E69F8-
      65D7-015B-403D-800B-65D7E
    <DTS:Property DTS:Name="Description"/>
    <DTS:Property DTS:Name="CreationName">OLEDB
  - <DTS:ObjectData>
    - <DTS:ConnectionManager>
      <DTS:Property DTS:Name="Retain">0</DT
      <DTS:Property DTS:Name="ConnectionString"
        Source=localhost;Initial
        Catalog=msdb;Provider=SQLNCLI10.
        Security=SSPI;Application Name=SS
        {CD2E69F8-5B31-452D-800B-65D7E
        localhost.msdb;Auto Translate=False
      </DTS:ConnectionManager>
```

```
<?xml version="1.0"?>
<DTS:Executable xmlns:DTS="www.microsoft.com/SqlServer/Dts"
  DTS:refId="Package"
  DTS:CreationDate="9/19/2012 4:51:10 PM"
  DTS:CreationName="SSIS.Package.3"
  DTS:CreatorComputerName="WINSRV"
  DTS:CreatorName="WINSRV\Administrator"
  DTS:DTSID="{C7C4A07F-B762-4242-8AEB-C0EC5738F011}"
  DTS:ExecutableType="SSIS.Package.3"
  DTS:LastModifiedProductVersion="11.0.2100.60"
  DTS:LocaleID="1031"
  DTS:ObjectName="package_dataflow1"
  DTS:PackageType="5"
  DTS:VersionBuild="14"
  DTS:VersionGUID="{498EABFB-3069-40AE-86F1-23E781EF2004}">
  <DTS:Property
    DTS:Name="PackageFormatVersion">6</DTS:Property>
  <DTS:ConnectionManagers>
  <DTS:ConnectionManager
    DTS:refId="Package.ConnectionManagers[flat_file_Destination]"
    DTS:CreationName="FLATFILE"
    DTS:DTSID="{45B09A46-D386-4525-82E4-EF34AE3ABB7E}"
    DTS:ObjectName="flat_file_Destination">
    <DTS:PropertyExpression
      DTS:Name="ConnectionString">"C:\\Users\\Administrator\\Desktop\\" +
    <DTS:ObjectData>
    <DTS:ConnectionManager
      DTS:Format="Delimited"
      DTS:LocaleID="1031"
      DTS:HeaderRowDelimiter="_x000D_x000A_"
      DTS:RowDelimiter=""
      DTS:TextQualifier="_x003C_none_x003E_"
```

2008

2012

Versionierung

Projektversionen

Bereit

Seite auswählen

Versionen

Skript | Hilfe

Versionen:

Aktuell	Bereitstellungszeit	Zuletzt wieder...	Beschreibung	Projekt-LSN
<input checked="" type="checkbox"/>	19.09.2012 19:03:43			6
<input type="checkbox"/>	19.09.2012 18:58:16			5
<input type="checkbox"/>	19.09.2012 18:27:32			4
<input type="checkbox"/>	19.09.2012 17:15:51			2
<input type="checkbox"/>	19.09.2012 16:58:59			1

Verbindung

WINSRV [WINSRV\Administrator]

[Verbindungseigenschaften anzeigen](#)

Status

Bereit

Ausgewählte Version wiederherstellen

Schließen | Hilfe







Demo

Variablen & Parameter

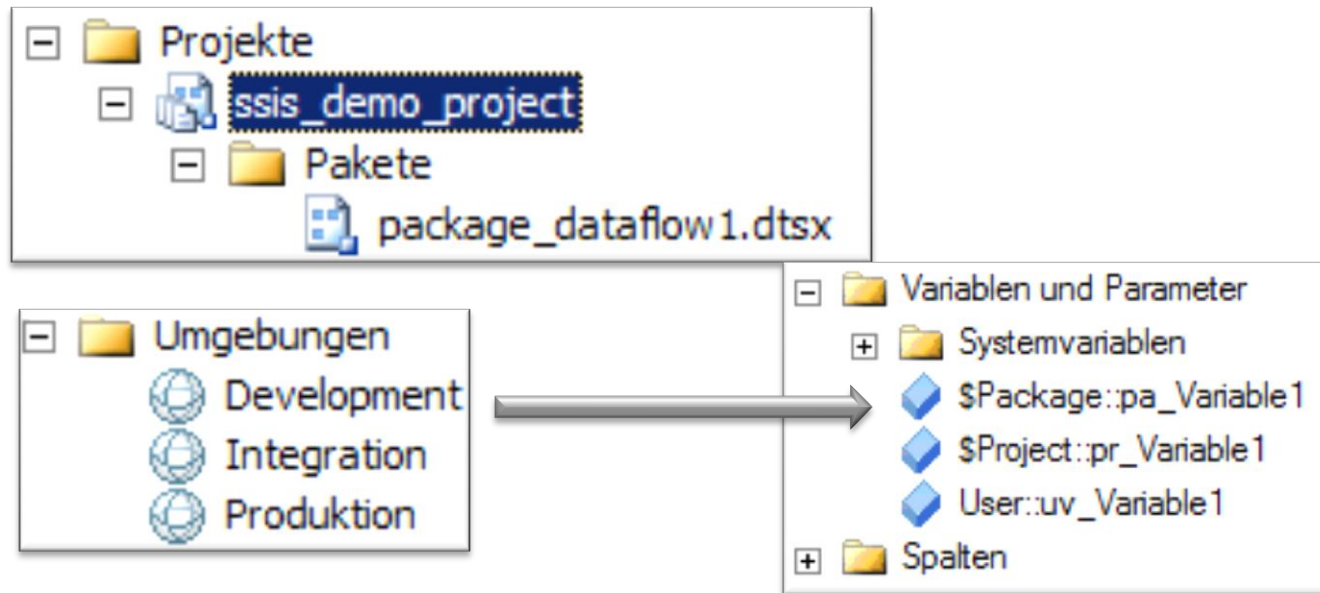
bisher

- Variablen

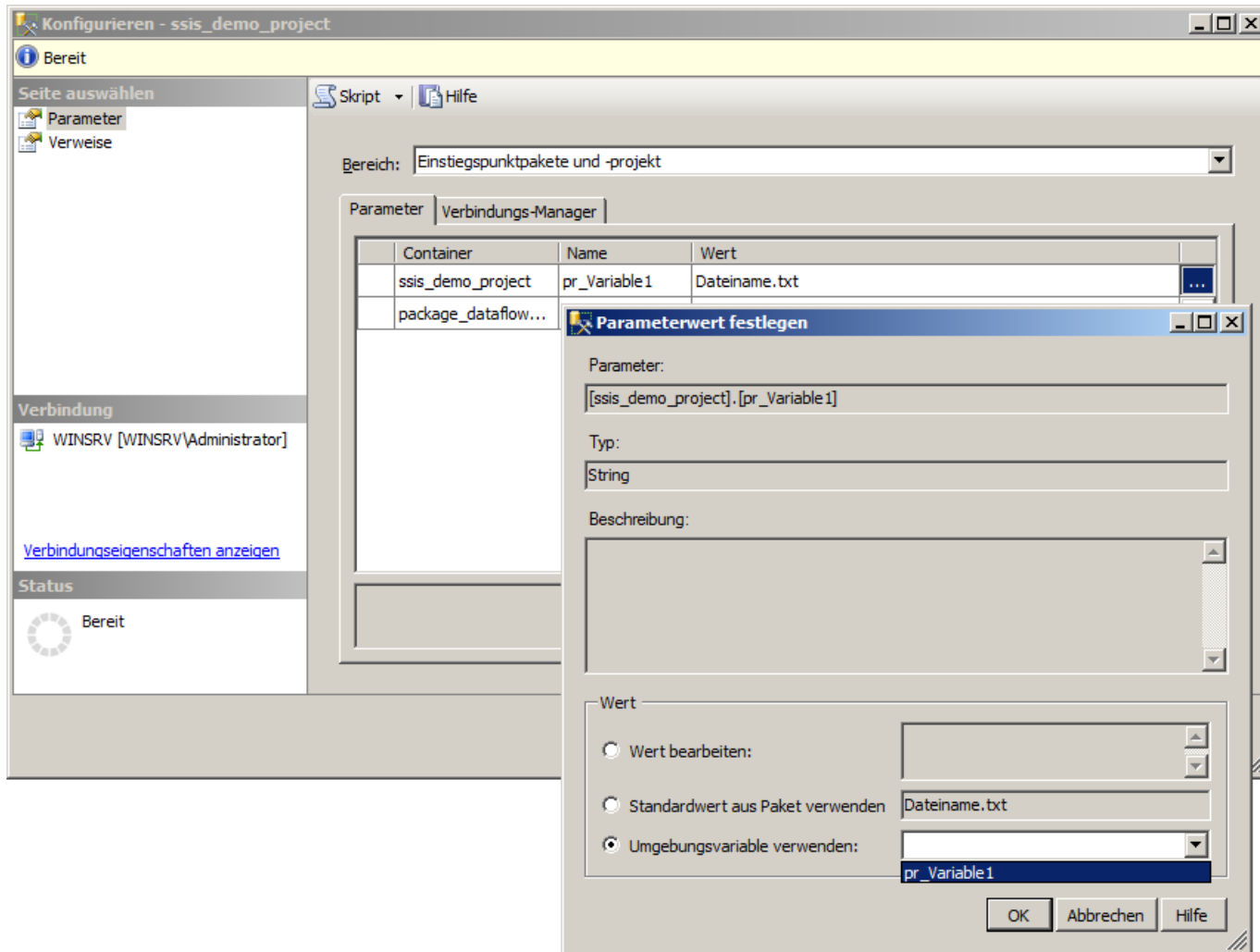
neu

-  Variablen und Parameter
 - +  Systemvariablen
 -  \$Package::pa_Variable1
 -  \$Project::pr_Variable1
 -  User::uv_Variable1
 - +  Spalten

Project & Environment



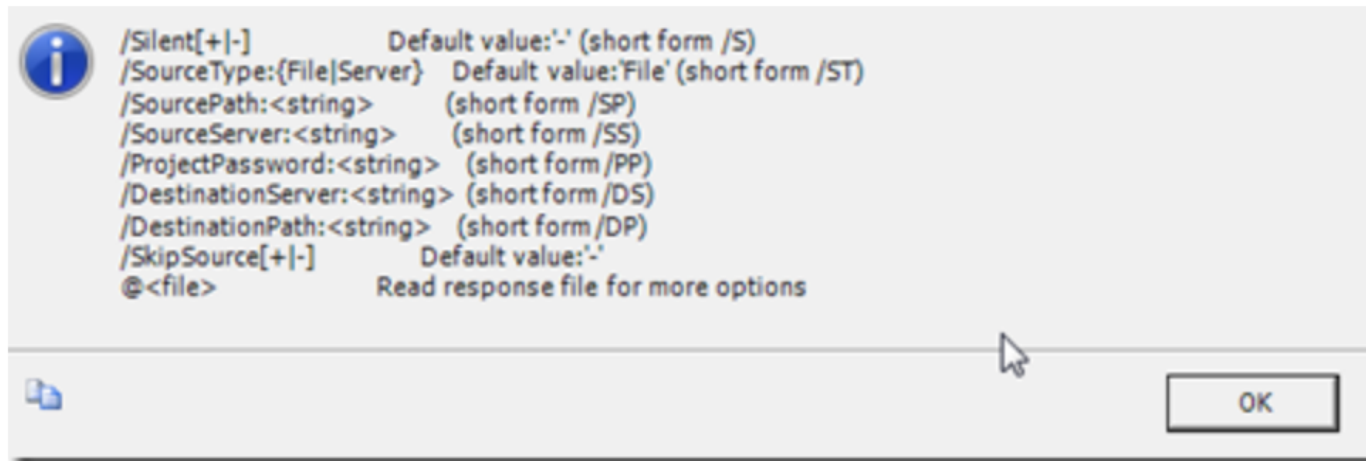
Project & Environment



Deployment von .ispac

Deploying the project from the command line: The next step is to prepare the command line executable of the deployment file (ispac). The ispac deployment file can be evoked from the command line using **IsDeploymentWizard.exe** with the following switches.

(%ProgramFiles%\Microsoft SQL Server\110\DTS\Binn)



Ex: IsDeploymentWizard /S /SP:"C:\SSIS.ispac" /DS:"<myServerName>\<Instancename>"
/DP:"/SSISDB/SSIS"

Paket-Ausführung mit TSQL

```
1
2  ☐ Declare @execution_id bigInt
3
4
5  exec catalog.create_execution          @execution_id OUTPUT , @...
6
7
8  exec catalog.set_execution_parameter_value  @execution_id , @...
9
10 exec catalog.set_execution_parameter_value  @execution_id , @...
11
12 exec catalog.set_execution_parameter_value  @execution_id , @...
13
14
15 exec catalog.start_execution             @execution_id
16
```

The diagram illustrates the flow of the `@execution_id` variable through the TSQL script. A yellow arrow points from the underlined `@execution_id` in line 5 down to `@execution_id` in line 8, then to `@execution_id` in line 10, then to `@execution_id` in line 12, and finally to `@execution_id` in line 15.

Logging-Level (Server)

Katalogeigenschaften

Bereit

Seite auswählen

Allgemein

Skript Hilfe

Allgemein

Name	SSISDB
Schemaversion	2
Schemabuild	11.0.2100.60
Name des Verschlüsselungsalgorithmus	AES_256

Projektversionen

Alte Versionen regelmäßig entfernen	True
Die aktuelle Größe des Versionsprotokolls (KB).	40
Gesamtanzahl beibehaltener Versionen	2
Maximale Anzahl der Versionen pro Projekt	10

Vorgangsprotokoll

Aktuelle Anzahl von Datensätzen	13
Beibehaltungsdauer (Tage)	365
Die aktuelle Größe des Vorgangsprotokolls (KB).	968
Protokolle regelmäßig bereinigen	True
Serverweiter Standardprotokolliergrad	Standard

Verbindung

WINSRV [WINSRV\Administrator]

[Verbindungseigenschaften anzeigen](#)

Status

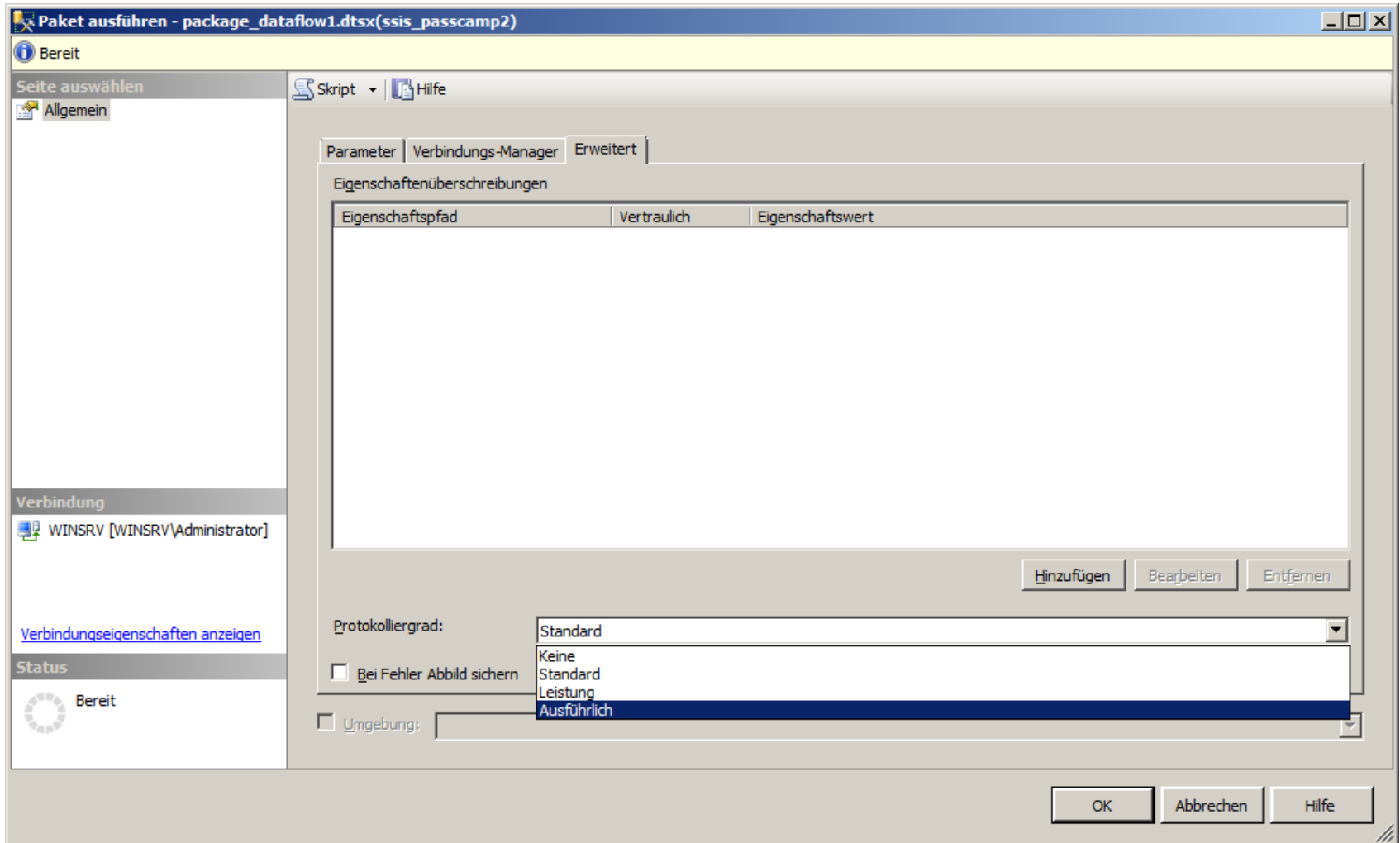
Bereit

Serverweiter Standardprotokolliergrad

Die Standardebene, mit der Details während der Paketausführung serverweit erfasst werden. Wert 'Kein': Es findet keine Protokollierung statt. Wert 'Standard': Alle SSIS-Ereignistypen außer 'OnProgress' und 'OnCustomEvent' werden erfasst. Wert 'Leistung': OnError-Erei...

OK Abbrechen Hilfe

Logging-Level (Package)



Result

```

SQLQuery11.sql - WIN...Administrator (63)* X
1 SELECT [data_stats_id]
2     ,[execution_id]
3     ,[package_name]
4     ,[task_name]
5     ,[dataflow_path_id_string]
6     ,[dataflow_path_name]
7     ,[source_component_name]
8     ,[destination_component_name]
9     ,[rows_sent]
10    ,[created_time]
11    ,[execution_path]
12 FROM [SSISDB].[catalog].[execution_data_statistics]
    
```

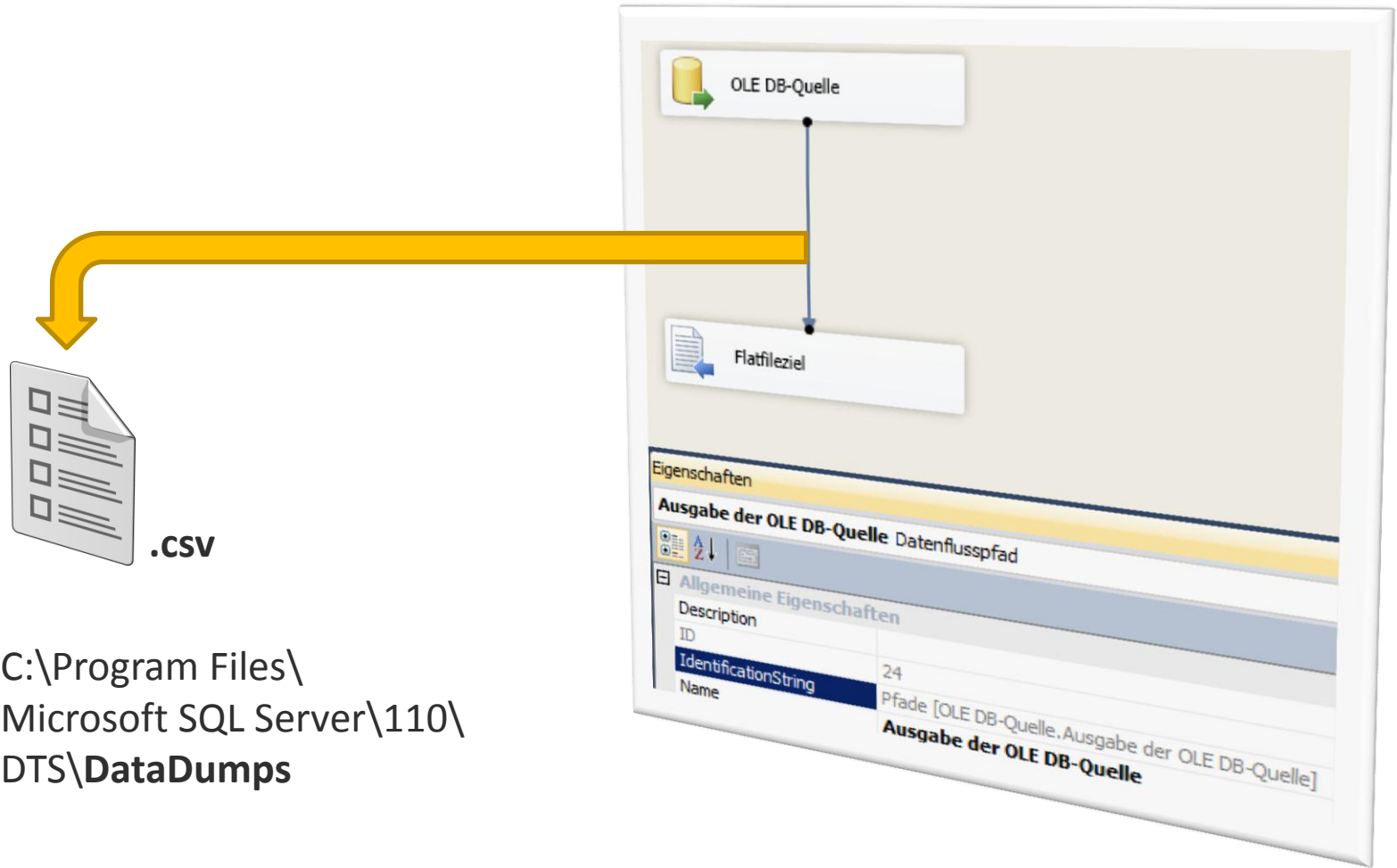
100 %

Ergebnisse Meldungen

	data_stats_id	execution_id	package_name	task_name	dataflow_path_id_string	dataflow_path_name
1	1	10	package_dataflow1.dtsx	DFT_get-DatabaseInfo	Pfade [OLE DB-Quelle.Ausgabe der OLE DB-Quelle]	Ausgabe der OLE DB-Quelle
2	2	10	package_dataflow1.dtsx	DFT_get-DatabaseInfo	Pfade [Multicast.Ausgabe für Multicast 2]	Ausgabe für Multicast 2
3	3	10	package_dataflow1.dtsx	DFT_get-DatabaseInfo	Pfade [Abgeleitete Spalte.Ausgabe der abgeleitete...]	Ausgabe der abgeleiteten Spalte
4	4	10	package_dataflow1.dtsx	DFT_get-DatabaseInfo	Pfade [OLE DB-Quelle.Ausgabe der OLE DB-Quelle]	Ausgabe der OLE DB-Quelle
5	5	10	package_dataflow1.dtsx	DFT_get-DatabaseInfo	Pfade [Multicast.Ausgabe für Multicast 2]	Ausgabe für Multicast 2
6	6	10	package_dataflow1.dtsx	DFT_get-DatabaseInfo	Pfade [Abgeleitete Spalte.Ausgabe der abgeleitete...]	Ausgabe der abgeleiteten Spalte

source_component_name	destination_component_name	rows_sent	created_time	execution_path
OLE DB-Quelle	Multicast	9	2012-10-22 ...	\\package_dataflow1\DFT_get-DatabaseInfo
Multicast	Abgeleitete Spalte	9	2012-10-22 ...	\\package_dataflow1\DFT_get-DatabaseInfo
Abgeleitete Spalte	Flatfileziel	9	2012-10-22 ...	\\package_dataflow1\DFT_get-DatabaseInfo
OLE DB-Quelle	Multicast	0	2012-10-22 ...	\\package_dataflow1\DFT_get-DatabaseInfo
Multicast	Abgeleitete Spalte	0	2012-10-22 ...	\\package_dataflow1\DFT_get-DatabaseInfo
Abgeleitete Spalte	Flatfileziel	0	2012-10-22 ...	\\package_dataflow1\DFT_get-DatabaseInfo

Data Tab >> Datenziel



Config der Data Taps

- mit TSQL

```
exec catalog.add_data_tap
    @execution_id
    , @task_package_path      = '\Package\DFT'
    , @dataflow_path_id_string = 'Pfade [OLE DB-Quelle.Ausgabe der OLE DB-Quelle]'
    , @data_filename         = 'DTap_OLE DB-Quelle.csv'
```

SSIS Catalog Reports



Übersicht

am WINSRV um 20.09.2012 11:56:30

Dieser Bericht stellt eine Übersicht der Pakettasks und -parameter bereit, einschließlich der Informationen zur Ausführung und Überprüfung.

[Meldungen anzeigen](#)

[Leistung anzeigen](#)

Ausführungsinformationen

Vorgangs-ID	62
Paket	ordner1\ssis_demo_project\package_dataflow1.dtsx
Umgebung	-
Status	Erfolgreich

Dauer (s)	1.811
Startzeit	20.09.2012 11:56:26
Beendigungszeit	20.09.2012 11:56:28
Aufrufer	WINSRV\Administrator

Übersicht über die Ausführung

[Filter](#) Ergebnis: Alle; (3 weitere)

Ergebnis	Dauer (s)	Paketname	Taskname	Ausführungspfad
Erfolgreich	0.203	package_dataflow1.dtsx	package_dataflow1	\package_dataflow1
Erfolgreich	0.125	package_dataflow1.dtsx	DFT_get-DatabaseInfo	\package_dataflow1\DFT_get-DatabaseInfo

Verwendete Parameter

Name	Wert	Datentyp
CALLER_INFO		String
DUMP_EVENT_CODE	0	String
DUMP_ON_ERROR	False	Boolean
DUMP_ON_EVENT	False	Boolean
LOGGING_LEVEL	1	Int32
pa_Variable1		String
pr_Variable1	Dateiname.txt	String
SYNCHRONIZED	False	Boolean

Eigenschaftsüberschreibungen

Eigenschaftspfad	Eigenschaftswert
------------------	------------------

FRAGEN ?

Vielen Dank !