



Project Documentation for Get-DeletedTeamSites.ps1

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Developer:

Chris Brennan
christopher.brennan@kirkland.com

Co-Developer:

Nathan Randall
nathan.randall@kirkland.com

Manager's

Srinivas Mokshagundam (srinivas.mokshagundam@kirkland.com)
Djamel Kerbouche (djamel.kerbouche@kirkland.com)

Synopsis:

Get Deleted Teams Sites using Microsoft Graph API & Audit Data (AD Recycle Bin)

Description:

This script retrieves all deleted Microsoft 365 Groups (Teams sites) from Azure AD and correlates them with audit logs to identify who deleted them and when. The script exports results to CSV, HTML report, and sends email notifications with comprehensive logging & archiving.

This script retrieves all deleted Microsoft 365 Groups (Teams sites) from Azure AD and correlates them with audit logs to identify who deleted them and when. The script exports results to CSV, HTML report, and sends email notifications with comprehensive logging.

Current Features:

- Modular Code Design: Function-based modular design with comprehensive error handling & logging
- Audit log correlation to track who deleted Teams sites
- CSV data export with all deletion details
- HTML formatted report with summary statistics
- Email notification via Microsoft Graph API (no SMTP required)
- Automatic Timestamped Archival for Logs & Reports
- Optional: Database (SQL Server) or Data Warehouse archival of deleted sites for audit history
- Exit codes for automation (0=success, 1=failure)
- Optional: Automated database (SQL Server) or data warehouse archival of delete sites for audit history.

*** - Differentiates Teams-enabled from standard M365 Groups. ***

Links:

<https://learn.microsoft.com/en-us/graph/permissions-reference>
<https://docs.microsoft.com/en-us/graph/api/directory-deleteditems-list>
<https://learn.microsoft.com/en-us/purview/audit-log-activities>
<https://learn.microsoft.com/en-us/graph/api/user-sendmail?view=graph-rest-1.0&tabs=http>

Notes:

- Deleted groups remain in the recycle bin for 30 days and can be restored
- Audit logs are retained for 90 days

.NOTES
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Author : christopher.brennan@kirkland.com
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Current Process Design

Get-DeletedTeamSites.ps1

Current Process Design:

1. Modular Code Design:

- Uses a Function-based modular design for better maintainability, readability and code reuse.

2. Authentication:

- Uses an Application Registration, Certificate & 'settings.json' file for authentication.
- ClientID, TenantID, CertificateThumbprint

3. Get Deleted Groups (Teams Sites) from MS-Graph API:

- Retrieves deleted Microsoft 365 Groups (Teams sites) from Azure AD recycle bin.
- Identifies Teams-enabled groups vs standard M365 Groups.
- Constructs SharePoint site URLs for deleted Teams sites.

4. Get Audit Logs for Deletion Tracking:

- Retrieves audit logs to identify deletion details (who, when, how).
- Correlates deleted groups with audit logs to identify who deleted them, when, and how.
- Supports configurable lookback period for audit logs (default 30 days).
- Handles scenarios where audit logs may be unavailable or incomplete.
- Retrieves detailed deletion activity types (Delete group, Remove group).
- Calculates days since deletion and days until permanent purge.
- Generates detailed objects with all relevant properties for reporting.
- *** - Differentiates Teams-enabled from standard M365 Groups. ***

5. Error Checking & Handling:

- Comprehensive error handling with try/catch blocks and informative logging.

6. Logging & Reporting:

Email Report: Generates HTML report with summary statistics and detailed deletion information.
Data Export: Generate "Data File" of deleted sites in a timestamped .CSV format.
Logging: Generates detailed Log File with timestamps and severity levels.
Archives: All output files (logs, CSV exports, HTML reports) timestamped in a Logs subfolder

7. Email Notification:

- Email sending via Microsoft Graph API is used eliminating the need for SMTP server & configuration.
- Sends Email report with HTML formatted message body and CSV data file attachment.
- Configurable recipient and sender email addresses in settings.json.
- Requires Mail.Send permission in Microsoft Graph.

8. Exit Codes:

- Script returns exit codes for automation scenarios (0=success, 1=failure).

Optional Features:

- Automated database (SQL Server) or data warehouse archival of delete site results for audit history.

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Standard Operation Procedure Get-DeletedTeamSites.ps1

Standard Operation Procedure:

Requirements:

- Application Registration
- Microsoft.Graph.Authentication module
- Compatible with PowerShell 5.1 and PowerShell 7+

Authentication:

- Uses certificate-based authentication via app registration
- Credentials stored in Settings.json file (ClientID, TenantID, CertificateThumbprint)

Application Registration Permissions:

=== REQUIRED APP REGISTRATION PERMISSIONS ===

Permission Scope	Type	Required For	Reason
Directory.Read.All	AppReg	Core functionality	Read deleted items from Azure AD directory
Group.Read.All	AppReg	Core functionality	Read Microsoft 365 Group properties
Sites.Read.All	AppReg	-IncludeSiteInfo	Access SharePoint site information
AuditLog.Read.All	AppReg	-IncludeAuditData	Read audit logs for DeletedBy, DeledDate
Mail.Send	AppReg	Email notifications	Send email reports (if implementing)

Settings.json File:

```
{
  "AppRegName": "M365-PowerShell-Automation",
  "TenantId": "c603bcc4-7bc7-48e3-bd68-9918f6229912",
  "ClientId": "7f5ffe8f-b0b2-4c1a-8cfc-430124f125dd",
  "CertificateThumbprint": "9055C8B6C4F436B8B7D9066537BC70380FD85554",
  "Organization": "brennantechnologies.onmicrosoft.com",
  "SharePointAdminUrl": "https://brennantechnologies-admin.sharepoint.com",
  "ClientSecretId": "476a34cb-f515-48b2-a35e-728f85767465",
  "ClientSecretValue": "QoB8Q~c40eUHIHVPFAl1W3bJO9m-edQaIX0icbrT"
}
```

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Required PowerShell Modules:

Required Modules: Microsoft.Graph.Authentication
PowerShell Version: Compatible with PowerShell 5.1 and PowerShell 7+

Azure Function or Scheduled Task for Automation:

- to be determined

Running Script with Parameters:

Quick Report (Minimal Output)

```
.\Get-DeletedTeamsSites.ps1
```

Output: Basic list of deleted Teams with core properties (DisplayName, GroupId, Mail, DeletedDateTime, etc.)

Detailed Report

```
.\Get-DeletedTeamsSites.ps1 -IncludeDetails
```

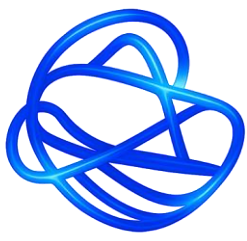
Output: Extended properties including security settings, provisioning options, on-premises sync status

Export to specific location

```
.\Get-DeletedTeamsSites.ps1 -ExportToCsv -CsvPath "C:\Reports\DeletedTeams_2025-12.csv"
```

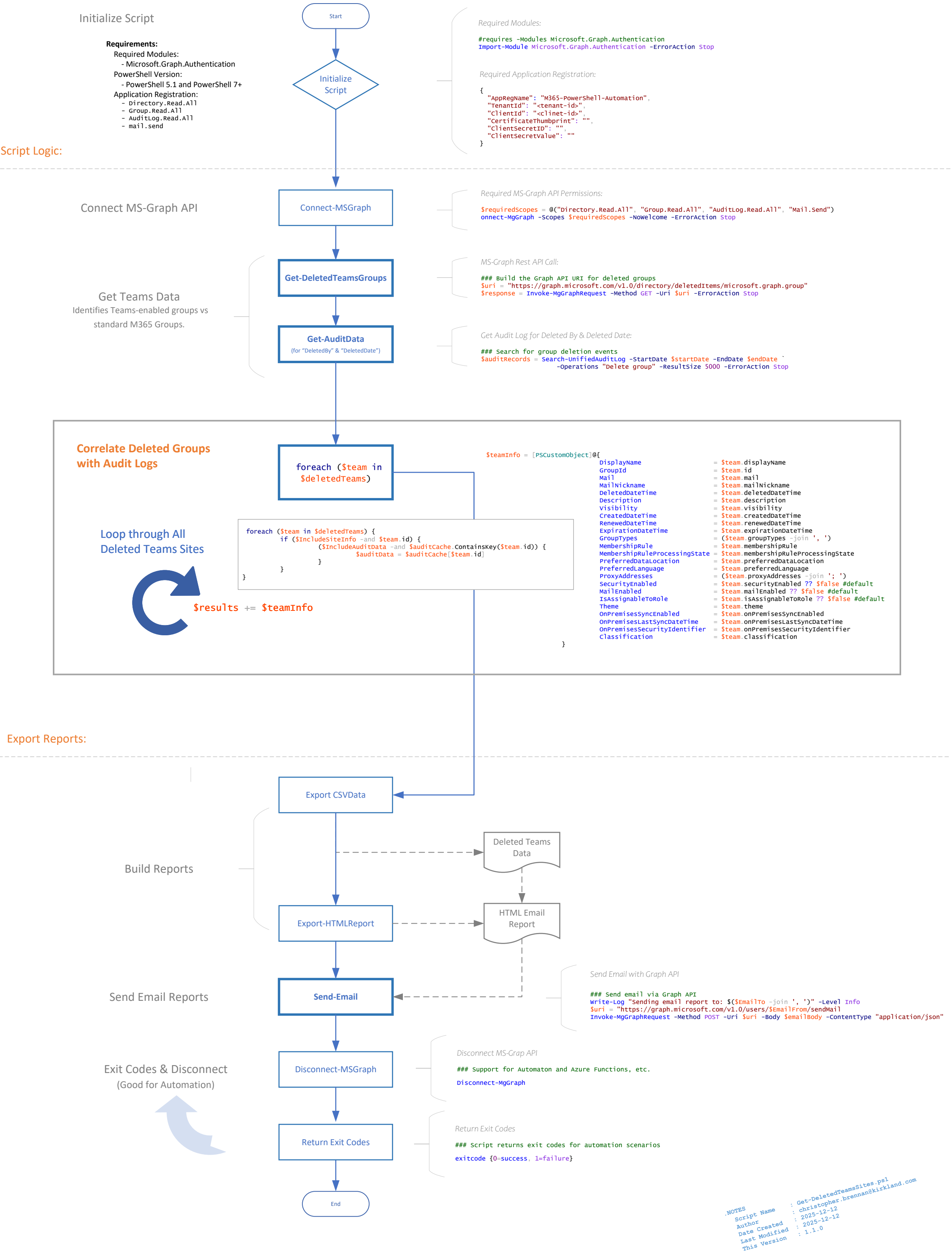
Full export with all data

```
.\Get-DeletedTeamsSites.ps1 -IncludeDetails -IncludeSiteInfo -IncludeAuditData -ExportToCsv -CsvPath "C:\Reports\Monthly_DeletedTeams.csv"
```



Automation Workflow for:
Get-DeletedTeamsSites.ps1

Initialize & Run the Script:





Get-DeletedTeamsSites.ps1

Summary Report - HTML Email

Deleted Teams Sites Report

Generated: 2025-12-12 14:25:55

Summary

- Total Deleted M365 Groups: 2
- Teams-enabled: 2
- Groups only: 0
- With known deletion user: 2

Deleted Teams Sites

Display Name	Deleted By	Deleted By UPN	Deleted Date	Teams Enabled	Visibility
TemplateTest1	Microsoft Teams Services	m365_test2_dev@KirklandEllisDev.onmicrosoft.com	12/04/2025 17:21:07	Yes	Private
TemplateTest2	Microsoft Teams Services	m365_test2_dev@KirklandEllisDev.onmicrosoft.com	12/04/2025 17:21:19	Yes	Private

Detailed information is available in the attached CSV file.

Log file: C:\Scripts\CBrennan\Get-DeletedTeamsSites\DeletedTeamsSites_20251212_142554.log

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Get-DeletedTeamsSites.ps1

Detailed Report

(Data .CSV Export File)

DisplayName	Description	SiteName	SiteDisplayName	DeletedBy	DeletedDateTime	Mail	SiteCreatedDateTime	SiteLastModified
Marketing Campaign 2024	Team for Q4 2024 marketing initiatives	MarketingCampaign2024	Marketing Campaign 2024	john.doe@contoso.com	2025-12-01T15:30:00Z	marketingcampaign@contoso.com	2024-09-15T09:05:32Z	2025-11-28T14:22:10Z
Project Alpha Development	Software development team for Project Alpha	ProjectAlpha	Project Alpha Development	sarah.smith@contoso.com	2025-11-28T10:15:00Z	projectalpha@contoso.com	2024-06-10T14:35:18Z	2025-11-20T16:45:33Z
Customer Support Q3	Customer support team - Q3 operations	CustomerSupportQ3	Customer Support Q3	admin@contoso.com	2025-12-05T08:45:00Z	support-q3@contoso.com	2024-07-01T08:10:45Z	2025-09-25T11:30:22Z
HR Onboarding 2025	HR team for employee onboarding	HROnboarding2025	HR Onboarding 2025	Not found in audit log	2025-11-20T16:00:00Z	hr-onboarding@contoso.com	2025-01-05T10:08:22Z	2025-11-10T09:15:44Z
Finance Review Committee	Monthly finance review and planning	FinanceReview	Finance Review Committee	michael.chen@contoso.com	2025-12-10T11:20:00Z	finance-review@contoso.com	2024-03-20T13:12:55Z	2025-11-28T13:40:18Z
IT Infrastructure Q4	IT infrastructure planning and deployment	ITInfraQ4	IT Infrastructure Q4	david.martinez@contoso.com	2025-12-08T14:25:00Z	it-infra-q4@contoso.com	2024-10-01T11:15:20Z	2025-12-02T10:30:45Z
Sales Training Spring 2025	Sales team training and enablement	SalesTrainingSpring2025	Sales Training Spring 2025	jennifer.wilson@contoso.com	2025-11-15T09:00:00Z	sales-training-spring@contoso.com	2025-02-01T08:45:12Z	2025-11-10T16:20:30Z
Product Launch Beta	Beta testing coordination for new product	ProductLaunchBeta	Product Launch Beta	robert.johnson@contoso.com	2025-12-03T12:15:00Z	product-beta@contoso.com	2024-08-12T10:20:18Z	2025-12-01T09:45:22Z
Legal Compliance Review	Quarterly compliance review and documentation	LegalComplianceReview	Legal Compliance Review	emily.davis@contoso.com	2025-11-25T13:45:00Z	legal-compliance@contoso.com	2024-04-15T09:50:33Z	2025-11-20T15:10:55Z
DevOps Migration 2025	Cloud infrastructure migration project	DevOpsMigration2025	DevOps Migration 2025	alex.brown@contoso.com	2025-12-11T16:30:00Z	devops-migration@contoso.com	2025-01-15T14:18:25Z	2025-12-08T11:22:40Z
Regional Sales EMEA	EMEA regional sales coordination	RegionalSalesEMEA	Regional Sales EMEA	olivia.taylor@contoso.com	2025-12-02T10:00:00Z	sales-emea@contoso.com	2024-05-20T12:25:14Z	2025-11-28T14:35:20Z
Security Audit 2024	Annual security audit and assessment	SecurityAudit2024	Security Audit 2024	william.anderson@contoso.com	2025-11-18T15:20:00Z	security-audit@contoso.com	2024-01-10T08:30:40Z	2025-11-15T10:50:15Z
Vendor Management Portal	External vendor coordination and contracts	VendorManagementPortal	Vendor Management Portal	sophia.martinez@contoso.com	2025-12-07T11:00:00Z	vendor-portal@contoso.com	2024-11-05T13:55:22Z	2025-12-05T09:40:10Z
Employee Wellness Program	Employee health and wellness initiatives	EmployeeWellnessProgram	Employee Wellness Program	james.white@contoso.com	2025-11-22T08:30:00Z	wellness-program@contoso.com	2025-03-01T09:20:35Z	2025-11-18T13:15:48Z
Data Analytics Workshop	Quarterly data analytics training sessions	DataAnalyticsWorkshop	Data Analytics Workshop	emma.harris@contoso.com	2025-12-09T14:00:00Z	analytics-workshop@contoso.com	2024-07-20T11:50:42Z	2025-12-06T16:25:33Z
Mobile App Development	Cross-platform mobile application development	MobileAppDevelopment	Mobile App Development	noah.thompson@contoso.com	2025-12-06T09:45:00Z	mobile-app-dev@contoso.com	2024-09-01T10:30:15Z	2025-12-03T12:18:50Z
Brand Refresh 2025	Corporate rebranding initiative	BrandRefresh2025	Brand Refresh 2025	ava.garcia@contoso.com	2025-11-30T16:15:00Z	brand-refresh@contoso.com	2025-04-10T13:28:20Z	2025-11-28T10:42:15Z
Quarterly Business Review	Q4 business performance review	QuarterlyBusinessReview	Quarterly Business Review	liam.robinson@contoso.com	2025-12-04T13:30:00Z	qbr-q4@contoso.com	2024-10-15T14:35:48Z	2025-12-01T15:20:32Z
Remote Work Policy	Remote work policy development and rollout	RemoteWorkPolicy	Remote Work Policy	isabella.lee@contoso.com	2025-11-27T10:20:00Z	remote-work@contoso.com	2025-02-20T09:55:30Z	2025-11-25T14:10:25Z
Partner Collaboration 2025	Strategic partner collaboration initiatives	PartnerCollaboration2025	Partner Collaboration 2025	ethan.walker@contoso.com	2025-12-12T15:00:00Z	partner-collab@contoso.com	2025-05-15T11:32:18Z	2025-12-10T16:55:42Z

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Log File

Log File Format Example:

```
[2025-12-13 14:30:15] [Info] Connecting to Microsoft Graph...
[2025-12-13 14:30:18] [Success] Successfully connected to Microsoft Graph
[2025-12-13 14:30:19] [Verbose] API URI: https://graph.microsoft.com/v1.0/directory/deletedItems/microsoft.graph.grou
[2025-12-13 14:30:22] [Success] Found 5 deleted Team(s)
[2025-12-13 14:30:25] [Success] Results exported to: C:\Reports\DeletedTeams.csv
```

Usage Examples:

```
# Use default log file
.\Get-DeletedTeamsSites.ps1

# Specify custom log path
.\Get-DeletedTeamsSites.ps1 -LogPath "C:\Logs\TeamsDeletion_$(Get-Date -Format 'yyyyMMdd').log"

# Full command with logging
.\Get-DeletedTeamsSites.ps1 -IncludeDetails -IncludeAuditData -ExportToCsv -LogPath "C:\Logs\DeletedTeams.log"
```

```
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