

Montgomery County Government

Department of Finance



Tax Assessment System (TAS)

TAS Operations Guide – Main Guide

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Introduction

Montgomery County, like many other jurisdictions around the country, produces tax bills for real property and personal property (including public utilities). The County Tax Assessment System (TAS) is essentially a collection of data staging areas that receives tax assessment information from Maryland's State Department of Assessments and Taxation (SDAT) and billing data from various contributors such as the City of Rockville, Washington Suburban Sanitary Commission (WSSC), and Montgomery County's Department of Environmental Protection (DEP), and from it generates a file that is imported into the property tax billing software (MUNIS) to produce various types of consolidated tax bills.

The following is the new Tax Assessment System (TAS) operations guide.

Background

The Consolidated Tax Bill

In Montgomery County a consolidated tax bill is presented to the property owner. This means that in addition to the State and County basic property tax charges, charges for items such as storm water management, Solid Waste collection, and other charges by other County departments or local jurisdictions appear on the bill.

Purpose of Consolidated Bill

The consolidated County tax bill is particularly important because delinquent charges that appear on the County tax bill could be subject to tax sale if they are not paid. Treasury administers the annual tax sale, and then distributes to the Contributors their charges.

Fundamental Business Rules

TAS contains several built-in controls, security measures, and notifications in order to safeguard and track authorized users' activities based on their defined roles and the types of activities they perform. Below are the fundamental business rules that have been set by the County.

- The State (SDAT) manages property tax records and is the system of record for all such assessment related data.
- MUNIS is the County's Property Tax Billing System that consumes and stores tax billing data and payment history.
- The County does not change and/or recalculate State and other Contributors data; the County can only add local county charges and credits to data.
- Identifying and coding for exempted real property accounts are enhanced for better consistency and integrity throughout the billing processes.
- SDAT General Zone class codes are passed through as is without any data transformation.
- If Assessment value field = Exemption value field, the property is considered to be 100% exempt. If the Assessment value field is not = the Exemption value field, then it is a partially exempt property. The Exemption value should never be greater than the Assessment value.
- TAS shall not calculate or recalculate fields sent by State and other Contributors. State and other Contributors will be notified by Treasury to calculate the fields correctly and resubmit to Treasury.

System elements

The complete tax billing system for the County consists of four different technology elements which work together to produce the various types of bills. The final product of each billing activity is a file called the 'bill print' file. This bill print file is sent to the printer that prints the paper bills and sends them to the property owners.

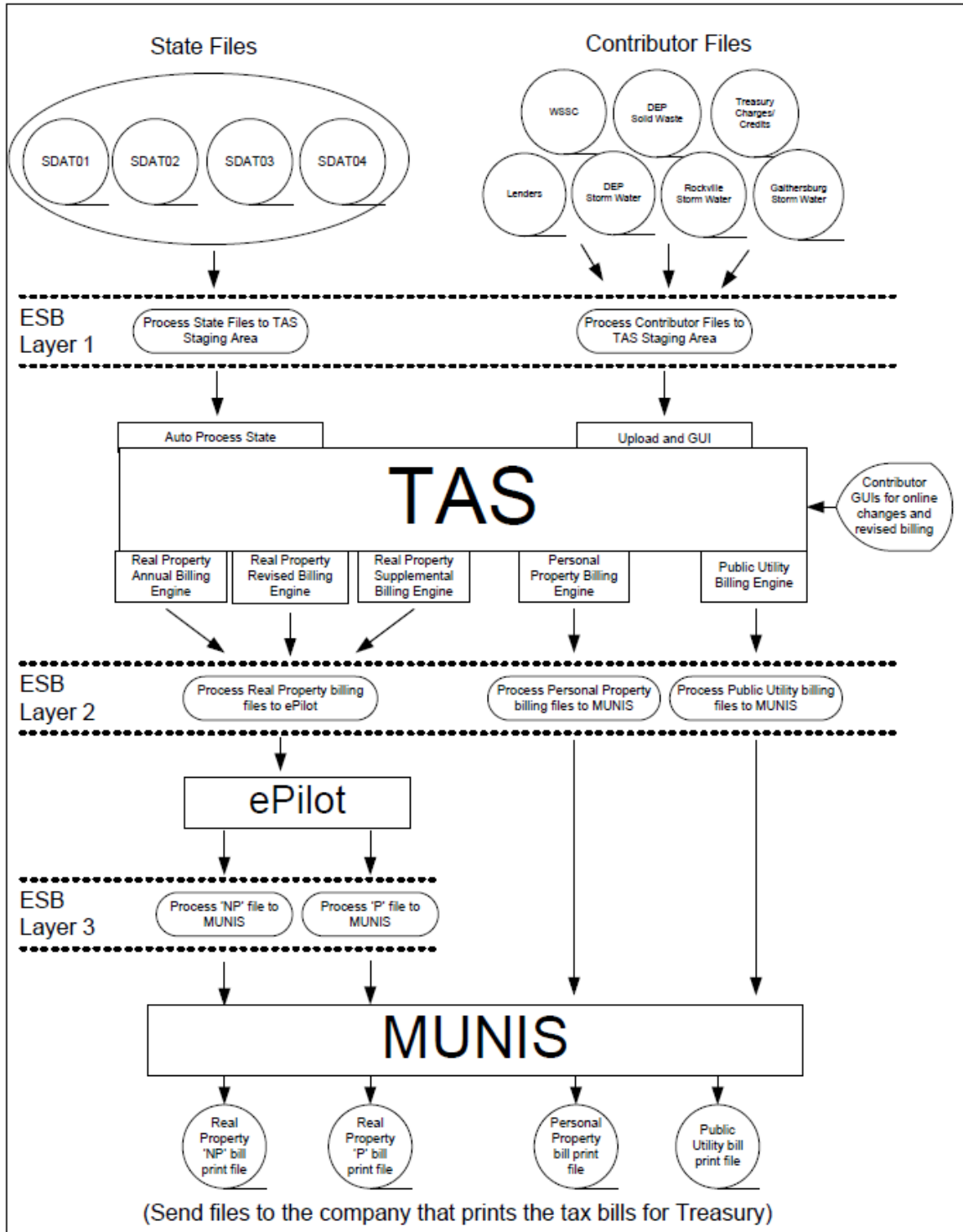


Figure 1 – TAS – System Elements

TAS

The Tax Assessment System (TAS) is a collector and consolidator of tax information from the State and Contributors which enables them to create and manage information which will appear on the consolidated tax bill.

Via file import and by the use of online GUIs, the contributors manage their data in TAS and generate five different types of billing input files

- Annual billing (Real Property)
- Revised billing (Real Property)
- Supplemental Billing (Real Property)
- Public Utility billing
- Personal Property billing

ePilot

ePilot is a County developed application which is used to apply County tax exemptions for specific properties. There are about 3,500 ePilot accounts.

This system is maintained by Treasury and it applies various exemption business rules to individual properties. Each time a real property type of billing is run (annual, revised and supplemental bills) the output of TAS is processed through ePilot on its way to MUNIS.

MUNIS

MUNIS is a Commercial Off The Shelf (COTS) package used across the U.S. to provide the billing, collections and payment tracking activities associated with the overall tax billing process. It is the County system of record for these functions. Treasury maintains and operates MUNIS to process all County property tax bills.

Enterprise Service Bus

The Enterprise Service Bus (ESB) is a tool which moves files from one location to another. In the total tax billing system the ESB is used to:

- Import various State files (SDAT01, 02, 03, 04)
- Import contributor files (Annual & operational)
- Export data extracts to contributors
- Transport files between TAS, ePilot, MUNIS and contributors.

The ESB will send notification emails to contributors based upon the success or failure of the file movements. TAS will produce any error reports associated with these activities and notify contributors when they occur.

General Activity Flow

In general, tax activities begin with an annual tax bill being produced at the beginning of a Levy year, normally at the beginning of July. In the annual billing all real properties are billed for the annual State and County taxes and any other fees and charges entered by the various tax bill contributors.

During the Levy year for real property there are revisions to the annual bills. Some contributors will update their data either by using provided Graphical User Interfaces (GUIs) or by sending the County batch uploads of data (e.g. DEP Solid Waste area assessment information).

Additional billing events which occur during the Levy year are Personal Property, in which the State sends two files per month for billing, and Public Utilities, where the State sends paper-based assessments of utility information which the County then manually enters into the system and from which bills are produced.

Most of the routine activity and data file exchange during a given Levy year occurs between the State of Maryland and Montgomery County. In TAS the process of transferring data files is facilitated by middleware software referred to as the Enterprise Service Bus or (ESB) that automates the delivery and retrieval of these files.

The County's primary activities during a given month and Levy year are running the actual billing processes through ePilot and MUNIS, and solving billing issues and concerns raised by County residents.

Structure of this document

This TAS Operations Guide has two parts:

- A main guide that describes TAS, including some of the general information all users would need to understand.
- Appendices that describe specific processes and activities those individual contributors would need for their specific use of TAS.

Contributors will receive a copy of this main guide plus the appropriate appendix that addresses their organizations' specific processes and activities.

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Roles and Responsibilities

In the TAS system there are various players with various roles. Two key players are the State of Maryland (SDAT) and Montgomery County (the Department of Finance, Divisions of Treasury and of Information Technology—hereafter known as “Treasury” and “FIN/IT”). Other contributors to TAS include the Cities of Rockville, Gaithersburg, and Takoma Park, the County Department of Environmental Protection (both Solid Waste and Water Quality Protection Charges), the Washington Suburban Sanitation Commission (WSSC), Mortgage Lenders, and the County Department of Housing and Community Affairs (DHCA “Clean and Lien” charges).

State

The State (SDAT) plays a key role in the tax process as it provides the assessment data for all tax billing for all jurisdictions in the State of Maryland. As such it is a key contributor and player in coordinating various types of data which need to be shared between the County and the State in order to properly bill for various types of taxes.

An example of required collaboration between Treasury and the State include County Council resolution data, which the State needs in order to calculate and apply the homeowner credits.

The State is responsible for two different kinds of assessments and the taxes associated with them:

- Real property; and
- Personal Property (including Public Utility)

One of the benefits of the TAS system is that it maintains a history of prior years’ activity. This allows the State to easily reference prior years in order to create revised bills for both current and prior years

Real property

Real property represents the majority of the bills which are produced by the TAS and MUNIS systems. There are roughly 340,000 real properties in Montgomery County, and each receives at least one annual bill.

In some cases, based on construction activity at the property, a revised bill is generated. If improvements are made to a property, a supplemental bill is issued to account for the new construction.

There are roughly 30,000 revised bills generated each year; the vast majority is generated by the State of Maryland using a GUI interface into the current TAS system. In the new TAS the State is provided GUIs to perform the same functions as in legacy TAS, and additional functions, too.

Personal Property

Personal Property includes items such as inventory and other assets businesses have which are reflected in their State Business Personal Property tax returns. The County levies personal property taxes based on this state return. Personal Property billing occurs throughout the Levy year upon certification of assessment by SDAT.

The State generates Personal Property files (“SDAT02” files) twice a month and TAS processes these files as they arrive. At the end of the process TAS creates files to be processed in MUNIS and uses an ESB to send them directly there.

Typically Treasury processes these files once a month in MUNIS but can process multiple batches in the same month.

Public Utilities

Public Utilities include electric companies, telephone companies, railroads, and other kinds of utilities, which are located in the county. Public utilities assessments have two components;

- The first component is the property on which facilities reside, which is analogous to Real Property.
- The other component is the facilities’ infrastructure, such as towers in the case of electric companies, which is similar to Personal Property.

Throughout the year the State sends paper assessments for various utilities located within Montgomery County along with the authorization

for the County to act as an agent of the state to enter the data. The County enters this assessment data into TAS to then generate bills (using MUNIS) for the public utilities.

Other State Functions

The State is also responsible for specialized items including exemptions and parking lot credits. These are handled through special GUIs that have been provided to the State to manage those activities.

Treasury

County Treasury is the other key player in the tax process. Managing the entire process, Treasury also performs the operational functions of triggering the various applications and producing the tax bill files which are sent to the printer to create, print, and mail these bills. Billing activities include annual, supplemental and revised billings. While annual billing focuses on processing the original assessments, exemptions and credits, the revised billing process focuses on adjusting assessments, credits, exemptions, charges, and other items to reflect any changes on the property tax record that occur subsequent to the last billing.

Manage Assessments

Treasury manages certain assessments including:

- Special Charges & Credits
- Bay Restoration Fee
- Special state assessments such as for Public Utilities.

These are items which are local to the County and considered to be assessments which are managed by Treasury.

Administrative Functions

Treasury performs a number of administrative functions for the various systems they use. Examples include adjusting ePilot account profiles as certain activities occur, and adding ePilot accounts to the system as

needed. This may also include MUNIS backups and other system-wide functions and administrative activities which Treasury manages.

Acting on behalf of contributors

During the initial launch of TAS Treasury will act on behalf of certain contributors. This is very similar to the model in legacy TAS in which contributors send data to Treasury and the County Department of Technology Services to process the data.

In TAS all of the GUIs and ESBs required to upload and manage data will be built and available for each contributor. As a role-based system, these roles will not be provided to contributors but rather provided to specific Treasury personnel who perform the activities.

In the future the County may delegate this responsibility to the contributors to allow them to work directly with TAS. In this case Treasury will provide contributors the appropriate role(s) to access TAS directly.

The annual and revised bills that are generated are a function of contributors providing assessment data and specific charge data for their taxes, fees and/or charges.

Although most of this occurs during the annual billing process, where all contributors provide some form of data, certain contributors use the system frequently during the Levy year. These include the State, WSSC and DEP Solid Waste, who will be using the system during the new construction quarterly processing cycles.

Contributors

The other contributors to the TAS system from a data perspective are County agencies such as DEP and DHCA and external contributors. In some cases the interaction with contributors is once a year in others it is on a more frequent basis. (Please refer to Figure 2)

Entity Name	Data Contribution		Data Consumption	
	Inputs/Batch Uploads	Frequency	Report / Extract	Frequency
DEP Solid Waste	Single TAS record update Batches of Assessments	As needed As needed	Input confirm/error handling Error Report, Change Report Activity Report - (Adds, Changes, Deletes) New Construction View all elements of property record TAS Extract	Per transaction Per batch As required Quarterly As required Monthly
DEP Storm Water	Single TAS record update Batches of Assessments	As needed Annual	Input confirm/error handling Error Report, Change Report Activity Report - (Adds, Changes, Deletes) View all elements of property record TAS Extract	Per transaction Per batch As required As required Yearly / On request
DHCA	Single TAS record update	As needed	Input confirm/error handling	Per transaction
Gaithersburg Storm Water	Single TAS record update	Annual	Input confirm/error handling TAS Extract	Per transaction Yearly / On request
Lender Service Companies	Batch of Updates	Annual	Error Report, Change Report	Per batch
Public Access			View public elements of property record	As required
Rockville Storm Water	Batch of Assessments	Annual	Error Report, Change Report Activity Report - (Adds, Changes, Deletes) TAS Extract	Per batch As required Yearly / On request
STATE (SDAT)	Monthly Update Home owner credit Personal Property New Construction Single TAS record update	Monthly 2x per month 2x per month 4x per year As needed	Error Report, Change Report (SDAT01) Error Report, Change Report (SDAT02) Error Report, Change Report (SDAT03) Error Report, Change Report (SDAT04) Input confirm/error handling View all elements of property record	Monthly Per upload Per upload Per upload Per transaction As required
States Attorney			View public elements of property record	As required
Tacoma Park	Batch of Assessments	Annual	Error Report, Change Report TAS Extract	Per batch Yearly / On request
Treasury	Single TAS record update Batches of Updates	As needed As needed	Input confirm/error handling Error Report, Change Report Activity Report - (Adds, Changes, Deletes) Changes report Escaped Property Report Reject Report Assessment Report Pre-MUNIS Billing Reconciliation report BI/Tools (Criteria driven) User Activity (by user) View all elements of property record	Per transaction Per update As required As required As required As required As required As required As required As required As required
WSSC	Batches of Charges Batches of Charges Single TAS record update	Annual Quarterly As needed	Error Report, Change Report Error Report, Change Report Input confirm/error handling TAS Extract	Per batch Per batch Per transaction Monthly

Figure 2 – TAS – Data Contributors / Consumers

WSSC

Washington Suburban Sanitary Commission (WSSC) is a contributor that provides charge information regarding connections to water and sewers.

Every piece of property which is on 'street' water and 'street' sewers is subject to a WSSC charge. The WSSC charge may consist of two parts: a front footage and a connection charge. These charges are amortized and the property owner pays a portion each year until they are paid off.

In addition WSSC is a consumer of extracts for data regarding their properties and accounts. WSSC has its own unique extract format, and the County provides extracts on a monthly basis.

WSSC has a billing system of their own for existing properties. WSSC is managing new properties separately from TAS and the amount of activity and transactions they process declines each year.

DEP/Solid Waste

The Department of Environmental Protection (DEP) Solid Waste division provides data pertaining to Solid Waste collection services. DEP/Solid Waste assigns specific properties to specific Solid Waste areas. These are mostly recognized by the blue bins for recycling throughout the County.

DEP/Solid Waste has an annual upload of data through which they provide all of the assessments for the upcoming annual Levy year that appear on the annual bill. This annual upload is triggered by extracts provided to DEP from the main State file SDAT01 (Full State file).

In addition DEP/Solid Waste has an online GUI which allows them to make changes to refuse areas throughout the Levy year. This is particularly important for the new construction billing cycles which occur four times per year.

DEP/Storm Water

Storm water services are provided by either the County, under the auspices of DEP/Storm Water, or by Municipalities. For storm water

charges the property owner will either get a DEP charge or a municipal charge, but not both.

DEP/Storm Water processes the extract provided by Treasury and sends Treasury storm water information for all properties under their management.

There are no GUIs or subsequent single transaction capabilities for DEP/Storm Water.

DHCA

The Department of Housing Consumer Affairs (DHCA) operates a program called Clean and Lien which seeks to ensure that properties do not become overgrown and a public or health hazard. Under this program DHCA teams will go to a given property and perform whatever basic remediation is required, such as mowing lawns, cleaning up debris etc., to maintain a compliant property.

Upon performing these tasks DHCA will bill the property owner for the Clean and Lien charges through the Real Property revised billing process. GUIs have been provided to DHCA to allow them to enter the transactions associated with the Clean and Lien program.

Annual process coordination between DHCA and Treasury ensures that the pending transactions are processed as part of the annual billing.

City of Rockville Storm Water

Rockville is one of the two municipalities in the County that levies its own storm water fees, and if a property is in the City of Rockville, it will pay the Rockville fee, instead of the County DEP/Storm Water fee.

During the annual data collection the City of Rockville emails a file to Treasury which lists the properties subject to the Rockville storm water fee along with the fees to charge each property.

Treasury reviews that file to ensure the basic format is correct and then places it in a County network location where the ESB job will bring it to the staging tables inside TAS.

Once the data is in the staging tables, Treasury, (acting on behalf of City of Rockville), will sign on to TAS and use the City of Rockville storm water GUI to process the data into the TAS database. The processing associated with this type of data is “all you can process” where all correct data will be processed and only the fatal errors generated on specific records will be rejected.

After Treasury runs the process to review the data, if there are errors to be corrected Treasury will ask Rockville to review and correct them.

City of Gaithersburg Storm Water

City of Gaithersburg is one of the two municipalities in the County that levies its own storm water fees, and if a property is in the City of Gaithersburg, it will pay the Gaithersburg fee, instead of the County DEP/Storm Water fee.

During the annual data collection the City of Gaithersburg emails a file to Treasury which lists the properties subject to the City of Gaithersburg Storm Water fee along with the fees to charge each property.

Treasury reviews that file to ensure the basic format is correct and then places it in a County network location where the ESB job will bring it to the staging tables inside TAS.

Once the data is in the staging tables, Treasury, (acting on behalf of Gaithersburg), will sign on to TAS and use the City of Gaithersburg Storm Water GUI to process the data into the TAS database. The processing associated with this type of data is “all you can process” where all correct data will be processed and only the fatal errors generated on specific records will be rejected.

After Treasury runs the process to review the data, if there are errors to be corrected Treasury will ask Gaithersburg to review and correct them.

City of Takoma Park

City of Takoma Park has special fees that are added to the consolidated annual tax bill.

During the annual data collection City of Takoma Park will email a file to Treasury which lists those properties subject to Takoma Park fees, and the appropriate fees associated with those properties.

Treasury reviews the file to ensure the basic format is correct and then places it on a County network location where the ESB job will bring it to the staging tables inside TAS.

Once the data is in the staging tables Treasury, (acting on behalf of City of Takoma Park), will sign on to TAS and use the Takoma Park GUI to process the data into TAS. The processing associated with this type of data is “all you can process” where all correct data will be processed and only fatal errors generated on specific records will be rejected.

After Treasury runs the process to review the data if there are errors to be corrected, Treasury will ask City of Takoma Park to review and correct them.

Lender Service Companies

Non-monetary contributors of data are the Lender Service Companies which provide data regarding mortgage holder and account numbers for Real Properties with mortgages.

Lender Service Companies send two types of data to Treasury, showing:

- Which mortgage companies are associated with which Lender Service Company
- Specific property information with mortgage holder and account numbers for properties where the Lender Service Company manages the mortgages

During the annual bill processing each lender service company will send Treasury the information regarding which mortgage companies are associated with them. This is entered into both TAS and MUNIS by Treasury. Next, each lender service company follows the following process for loading the specific property data into TAS.

Lender Service Company Specific Property data upload process

- Each lender service company emails a file to Treasury, which contains a list of the properties they service, along with the associated mortgage information for each property.
- Treasury reviews the file to ensure the basic format is correct and places it in a County network location where the ESB job will bring it to the staging tables inside TAS.
- Once the data is in the staging tables, Treasury, acting on behalf of the Lender Service Company, will sign on to TAS and use the Lender Upload GUI to process the data into TAS. The processing associated with this type of data is “all you can process” where all correct data will be processed and only fatal errors generated on specific records will be rejected.
- After Treasury runs the process to review the data if there are errors to be corrected, Treasury will ask the Lender Service Companies to review and correct the errors.

This process repeats until all of the Lender Service Companies have successfully provided their data for the annual billing cycle.

Security

Because of the financial nature of the system, TAS has a high level of security. Some of the security provided is associated with user access through the network and to the systems used. The other area of security is related to role-based access, which will be assigned by Treasury within the TAS application.

Access to TAS

Based on the usage profiles of different types of users of TAS, some will have real-time access via GUI interfaces, and some will e-mail data files to Treasury. Those contributors which have GUIs and are regular contributors (such as the State, Treasury, DEP/Solid Waste and DHCA) will have online access and roles appropriate to the activities they perform.

All users who have real-time access to TAS will be presented with a basic home screen that has non-role specific functions such as the ability to:

- Search for and display a complete property record.
- View the status dashboard.
- View statistics about activities associated with TAS operations.

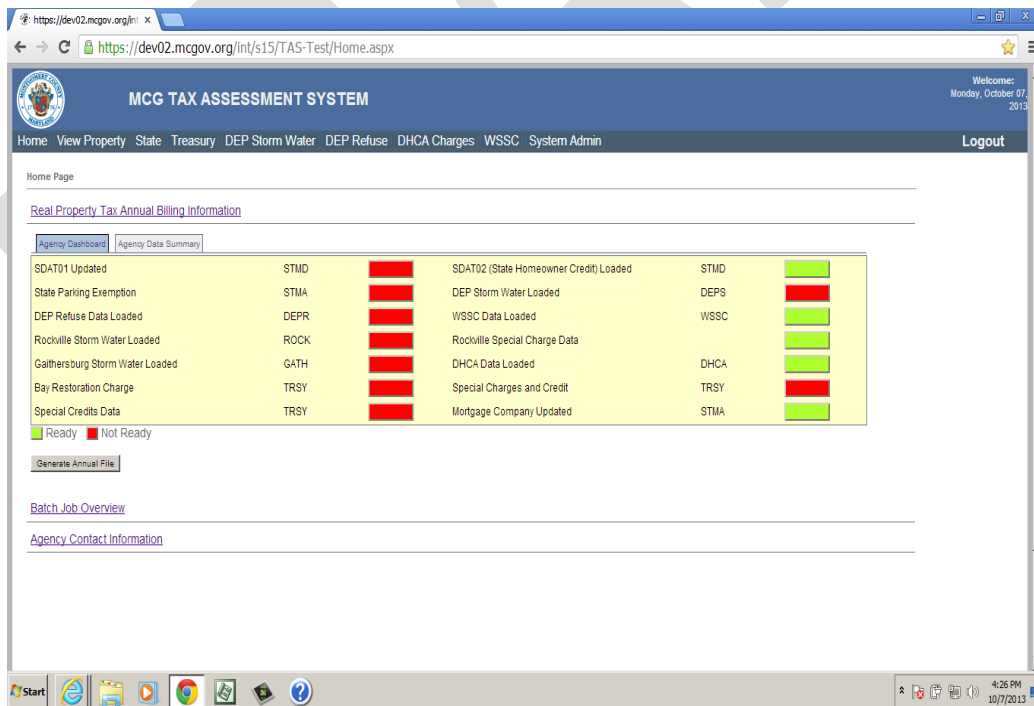


Figure 3 – TAS – TAS Home Screen

Montgomery County Agencies

Montgomery County employees who need to access TAS will use the same Active Directory single sign on credentials they use to access other systems in the County.

These users will be provided a desktop icon to activate TAS. By use of the single sign-on mechanism access to TAS, appropriate access will be provided for those who need it. The specific role or roles the user has access to will be managed by Treasury & Finance/Information Technology (FIN/IT) collaboratively.

State, Municipal and WSSC Contributors

Contributors who are not from County agencies will be using the AccessMCG system access to TAS. The AccessMCG system is part of the County's Identity Management System that enables those who are not County employees to create accounts and securely access various County services and systems. AccessMCG will replace the current access mechanisms used by these contributors.

In practice individuals who require access to TAS will get approval from appropriate management within their organizations and then Treasury will create an account for them. This TAS account will allow the individual to get the appropriate training required to enable them to perform the active home role that they will have in the role-based access system.

Once the AccessMCG account has been established and the role has been created for the given individual, the users can log onto the TAS system and perform those activities enabled by the role they have been given.

Role-based access

TAS is a role-based system. This has a number of implications as roles will be assigned only after appropriate training has been completed and confirmed.

Every individual will have at least one role referred to as a ‘home role’. These roles are assigned based on the primary activity that the person will perform. In addition, during events such as annual billing, additional roles may be assigned to an individual to facilitate their access to other features and capabilities that they require.

Descriptions of each role and each role’s required training materials will be in the appendix associated with each contributor. Every user has at least one role and in some cases more than one.

System Usage logs

One of the key elements of the TAS system is the user System Usage logs. These logs track all types of activities that any user has in any role and allow the management of the various contributor organizations and Treasury and FIN/IT to review the various transactions modifying TAS data.

The way the System Usage logs are structured, each contributor’s activities are tracked by role. For example, if WSSC management wants to view their audit log they will only see WSSC activity. In the case of Treasury and FIN/IT, where broader access is required, they will have access to any audit logs from any organization using TAS.

Operations

This section of the User Guide will describe the various operations and activities associated with TAS. In essence TAS is the repository for the data from all of the contributors to the tax bill. TAS processes this data into different billing activities.

In this section we will describe the processing of the State files, handling contributor file uploads, using the contributor GUI interfaces, and other operational activities associated with the management and use of TAS.

Who Does What

A number of TAS functions and activities are performed throughout the calendar year. Different groups of contributors handle specific activities and tasks.

This section provides the overview of who does what.

Treasury

The Montgomery County Department of Finance, Division of Treasury (Treasury) has overall responsibility for all tax activities. This includes accurately processing State and contributor data through the various systems of the Treasury operating environment and producing accurate bills for the residents of the county.

Monthly billing activities

Monthly billing activities performed by Treasury include Personal Property, Public Utility, and Real Property revised bills. Each of these billing processes have activities that flow through TAS and in some cases through another system called ePilot, but ultimately all billing data flows to the MUNIS system.

Treasury manages ePilot and MUNIS and ensures that the data has been processed successfully within those environments. Treasury is not responsible for the movement of data into and between these systems.

Assessment activities

Another function of Treasury is to manage assessment activities associated with tax bills; these take a number of forms:

- Public Utility billing, in which the state sends authorization of assessments to Treasury who enters the assessments into the system and generates the tax bills;
- County Special charges and credits are approved and applied to or removed from various properties;
- Bay Restoration Fee - In the event that the property changes from a well / septic configuration to a 'city' water/'city' sewer configuration then Treasury removes the Bay Restoration Fee and generates a revised bill.
- Homeowner credit voids. Homeowner credit voids occur when homeowners have applied for and received a credit for property that they then sell, and the new owners do not qualify for the credit. Should this happen within six months after credit has been granted the credit can be voided by Treasury.

Annual billing

For the annual billing all contributors provide data, enabling Treasury to produce the annual bill for all Real Property owners.

The annual billing has a section dedicated to it later in this User Guide.

Payments / Collections

Treasury posts payments to tax bills in the MUNIS system and also provides collection services for delinquent bills. Failure to pay tax bills can make the property subject to tax sale, which Treasury also administers.

Finance IT (FIN/IT)

Manage User/Roles

Designated staff members will have full authority to perform administration functions at the system level. These will include:

- Setting up and modifying various role-based groups.
- Setting up and modifying various users within Finance/Treasury and other departments.
- Setting up and modifying system wide parameters and tables for data processing, as in the Annual billing process.
- Setting up and modifying system wide notifications messages, notifications groups and users/recipients, frequency of notifications, and related tasks.
- Initiating and/or performing certain file handling processes, such as file intake from State or other data contributors.
- Locking and unlocking the system for users so certain tasks such as database back functions can be performed prior to Annual run process and to generate reports.
- Initiating and generating various extract files and reports for internal as well as external users.
- In taking and importing various files from data contributors or on their behalf.

File Handling – Upload & Download

Utilizing the County Enterprise Service Bus (ESB) for two areas of data transport, FIN/IT will oversee the process and resolve any transport (Method) issues:

- To import files from the State automatically and other contributors such as DEP Solid Waste, DEP Storm Water, WSSC, Municipalities, & Public Utilities
- To leverage and utilize ESB to push or make available many extract files and reports for all contributors.

User Set-Up Functions

System user management is a FIN/IT responsibility. FIN/IT will handle requests for users' changes.

These include:

- New Master User(s) Profile Set up
- Assign Master User(s) Role(s)
- Deactivate/Activate Master User(s)
- New Contributor User Profile Set up
- Assign Contributor User(s) Roles
- Deactivate/Activate Contributor User(s)
- Generate Specific User/Contributor Report(s)

Other System Functions

In addition to specific functions such as user setup, there are other TAS features and capabilities such as automatic notification which will be FIN/IT's responsibility to manage.

- Set-Up Automatic Notifications Settings (i.e. Adding or Deleting Notification Recipients, Frequency or Dates of Specific Report Generation and Notification Message Contents, etc.)

Montgomery County Department of Technology Services (DTS)

The Department of Technology Services (DTS) provides the communications paths, overall system security, processing infrastructure and database functions as needed.

State

The State performs two major functions in conjunction with Treasury to support the tax billing process:

- Providing assessment data in the form of electronic files sent throughout the year and paper based assessments for Public Utilities; and
- Using the online GUI's in TAS to enter Real Property changes that trigger revised billing.

Billing Events

The tax operation consists of a series of repeated billing events throughout what is referred to as the Levy Year (please see glossary for description), starting with the annual bill. The following section describes each particular billing cycle or event and provides some of the details associated with each.

Annual Billing

The annual billing process performed by Treasury is a substantial activity consisting of a tremendous amount of coordination between a number of contributors in a relatively short timeframe to produce 340,000+ annual property bills.

The process takes roughly 8 weeks and includes a number of State file uploads, extracts for contributors, and input cycles to secure the correct contributor data to ensure that the annual bills are complete and accurate.

The annual process will be described in greater detail in a separate section referred to as 'Annual Billing Details'.

Real Property Revised Billing

Throughout a given Levy year, and generally on a monthly basis, Treasury produces real property revised bills. Over the course of a typical Levy year roughly 30,000 revised bills are produced for both current and prior Levy Years.

Revised bills are generated from input by contributors to adjust certain items. Most of the input is provided through GUIs with the exception of the homeowners credits.

Two times a month the State sends to Treasury homeowner credits in the SDAT02 file. These homeowner credits represent reductions in assessments based on homeowners petitioning the state and meeting certain criteria.

Revised bills are generated for those properties that receive homeowners credits. Revised bills are generated for any other properties with any GUI changes that have “revised bill” flags set.

New Construction (Real Property Supplemental)

Four times a year the State sends a New Construction file to the County. This file is referred to as SDAT04 and it contains information related to improvements added to properties during the last quarter.

Three times a year this file is processed and creates what is called a supplemental bill, reflecting the changes to properties in the form of a revised bill.

The other quarterly new construction file is processed in the annual billing cycle and is reflected in the annual bills.

New Construction is a processing activity which modifies data in the TAS database. In some cases it may be run as a separate revised bill, which would consist of all New Construction only. In other cases it can be run within a normal revised bill on a monthly basis and included in those bills.

One of the key elements of the new construction billing process is that both WSSC and DEP Solid Waste will make changes to reflect the changes caused by the construction activity. In the case of DEP Solid Waste this is generally done through the GUI interface, while WSSC sometimes sends batch files. In order to accomplish this, both WSSC and DEP Solid Waste require extracts from the State New Construction file (SDAT04).

Personal Property

Personal Property is a reflection of business assets, such as inventory, and is processed twice a month. The State sends personal property files (SDAT03) twice a month.

Upon receiving these files TAS processes them, creating output files which are sent directly to MUNIS for billing.

Public Utility

Public Utility billing activities are somewhat unusual in that Treasury acts as an agent of the State to input the assessments for the public utilities.

The State sends Treasury a paper-based assessment for a public utility company. This assessment includes both the real and personal property assessments for that public utility. Information on these paper authorizations includes the different geographic areas in the county where the specific public utility company may have a presence and tax liability.

Using online GUIs, Treasury will record the appropriate assessment for each category for the public utility. Treasury continues recording public utility assessments until they're ready for processing. Once they're ready there is a button on the user interface to process them in MUNIS.

When new utility companies begin operation in the County, Treasury creates accounts for them. The GUI allows Treasury to perform these functions and then submit the assessment data to generate the appropriate bill.

Rollover

Each year the State changes the levy year on their system to begin the update of the data for the next Levy year. This activity is called Rollover and occurs around six to eight weeks after the annual real property tax bill has been generated by Montgomery County.

During the period between the generation of the Annual Real Property tax bill and Rollover, the State requires that TAS process a special group of revised bills. Title Transfers, Mailing Address Changes, etc. that occur

prior to July 1 of each year must be provided by the State and must be processed prior to changing the current levy year on the State side. (Pre-Rollover function)

From the time Rollover occurs at the State until the next annual billing event, all of the activities in the State system focus on the next Levy year's activities. Some of these activities include the fact that one third of the properties need to be reassessed each year, so consequently at some point in the year roughly 110,000 properties in the State system have their assessment values zeroed out until the State assessors provide new values.

After Rollover the SDAT01 file, which is the full State file containing all properties, is generated every month. Although that file does not contain any revised bill information it does contain information that updates MUNIS.

Processing the State uploads

Throughout the calendar year the State sends a number of different data files to Montgomery County for processing. TAS handles different types of files in different ways. There are four general types of files that the State sends.

Full State file (SDAT01)

The SDAT01 file is a full State file that contains all of the Real Properties for Montgomery County for that period of time. This file is issued once per month, early in the month.

Throughout the Levy year after Rollover this file updates certain information within the MUNIS system, as required due to changes, but does not generate any revised bills that go to property owners.

However, during the period between the Annual bill and before the State Rollover these files are processed with information that could generate real property revised bills. This is the only time of the year when the SDAT01 file is processed in this manner.

Homeowner Credit file (SDAT02)

The SDAT02 file is the homeowner credit file and is issued by the State twice a month. The SDAT02 contains changes to assessment values that result from successful applications for homeowner credits.

The State manages the homeowner credit program, and these credits are applied during the month that they are issued. In practice this means that during the month the homeowner credits are processed with all other revised bill changes and revised bills are generated.

Personal Property file (SDAT03)

The Personal Property file, issued twice a month by the State, represents specific taxable business assets that have been reported to the State on annual personal property tax returns.

Personal property files are processed automatically in TAS without user intervention and arrive in the MUNIS staging area ready to be processed for billing. Treasury's operational approach is to allow both the Personal Property billing files to arrive and remain in the MUNIS staging area to be run one day apart later in the month.

New Construction file (SDAT04)

The SDAT04, or New Construction file, shows changes to the value of properties due to construction activities on or at those properties. The new construction files are issued four times a year, three of which are processed to create what are called supplemental bills. The fourth is rolled into the annual processing and it appears with all the other items on the annual bill.

Error reports from State data uploads

As the various State files are processed they go through a rules engine to determine if there are certain data elements that are required for billing that are incorrect. A classic example of this is that if the property doesn't exist in the database then you cannot apply a charge to it.

There are two types of errors that can occur: one is an error that does not affect the billing and therefore the data/record will be brought into the TAS database. Other types of errors, such as a record having an invalid tax class, will cause those records/data to be rejected because they cannot be processed.

At the end of this process the State will be notified about those items which were not accepted by the system and given the opportunity to update them.

Processing contributor uploads

The contributors to TAS have data in files which must be loaded into GUIs. This data in many cases comes from systems the contributors use to manage activities and they therefore may have a fixed format.

There are two parts to the activity of bringing files into TAS: one is called method and the other is called process. (Please refer to Figure 4 – “TAS – Method & Process – Process Chart”)

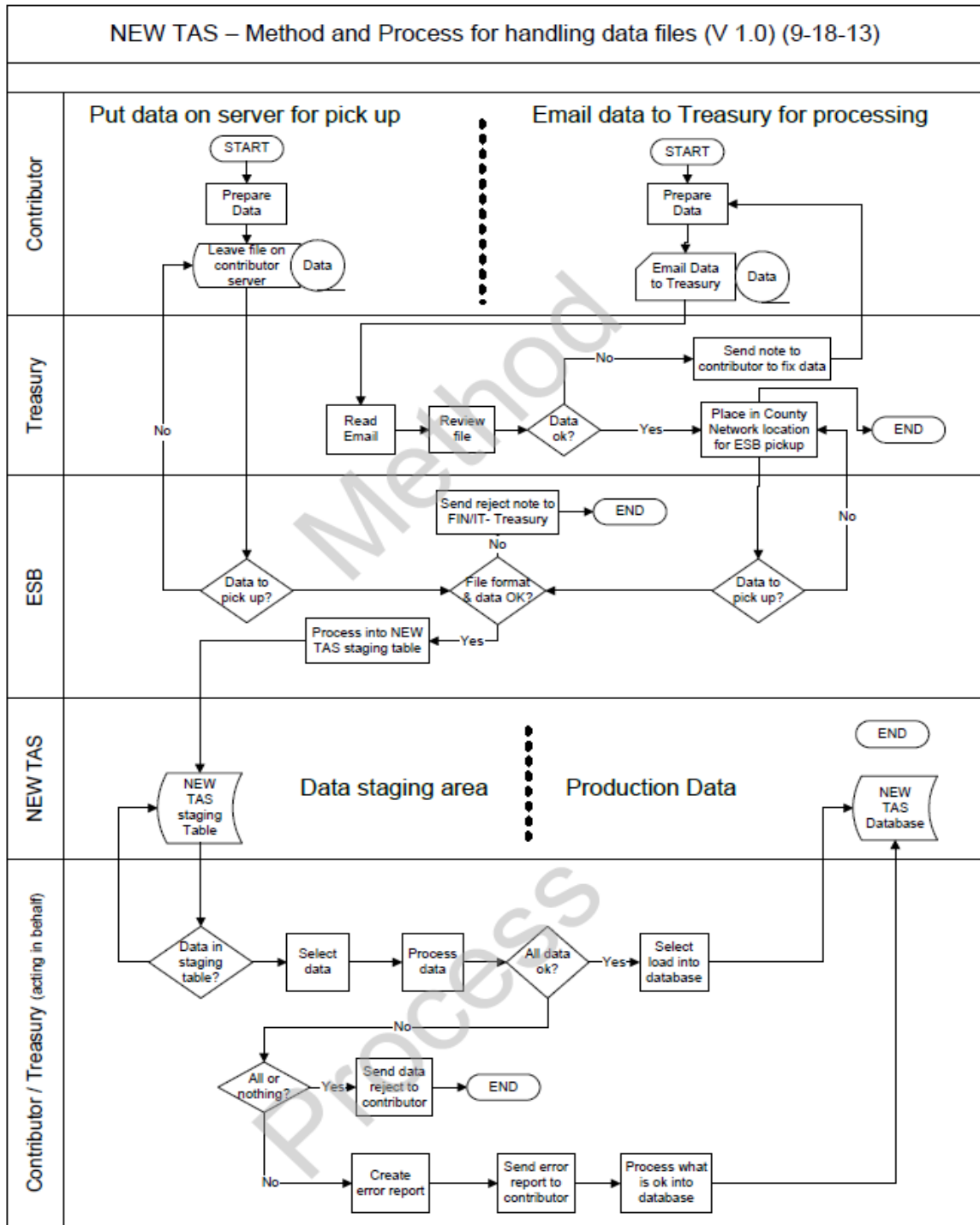


Figure 4 – TAS – Method & Process – Process Chart

Method

Method is the way in which data is conveyed to the system. It starts out as a data file which is either sent or placed somewhere inside the data infrastructure whereby it is retrieved and moved into the TAS environment. The actual mechanism which moves the data is called the enterprise service bus (ESB) and it is a file-moving mechanism that has built-in intelligence and the ability to notify of success or failure.

Pick up from a Server

In this method the ESB looks for data to be placed on an external server such as the State's SDAT FTP server. Once data is detected, and based on the filename of the data, the ESB will route it to one of many staging areas for the TAS system.

Each of the files which it retrieves from the State has a very specific purpose in the overall data flow structure and therefore needs to be processed independently.

Pick up from a specific County network location

In this method data is left in a known location within the County data infrastructure.

ESB will be looking inside the County network location for the presence of this data. When the data is found, the ESB will interpret by file name the kind of data it is and its destination in TAS.

Note: This particular method would be used for most County departments such as DEP/Storm Water, DEP/Solid Waste as well as by Treasury when they act on behalf of other contributors.

Process

Processing is what happens to data when it has been ingested into the TAS infrastructure. All data destined for the TAS database will go through a staging location where the data is held until it has been checked for errors and accuracy. These error checks and accuracy checks are performed by TAS and therefore are part of the process associated with managing the data rather than the method of moving it.

All or nothing

The Process known as the 'all or nothing' interface looks at the data coming from a source, checks every data element, and should any data element be inaccurate, will not allow the data to be imported into the TAS. The 'all or nothing' interface is specifically designed for groups such as DEP/Storm Water and DEP/Solid Waste who have systems of their own. If their data did not come correctly and it was modified inside TAS, it would still be inaccurate in their source system and the data needs to be corrected at the source. Therefore for contributors with their own source systems, the 'all or nothing' process is used.

In the GUI associated with this particular process, the user is able to pick which of the files in the staging area they would like to process. A number of files can be brought into the staging area and processed one after another. Once selected, Treasury would then execute a process check step.

This is where error-checking occurs and in the case of error, it would stop the process and the contributor would be asked to correct their data and re-submit it. If all the data is found to be accurate, then another button will become active on the user interface which will allow the import of this data into the TAS database.

All you can process

The Process referred to as the 'all you can process' interface accepts anything that is accurate and correct into the database, and all data in error will be rejected and error reports will be generated with the associated reasons for the rejection. This particular process method is useful for things such as State files where most of the data is accurate and only a few records may be inaccurate and it is important that TAS ingests as much as possible.

Once completed those records which were successfully processed would be acknowledged with a report that would indicate how many had been processed. Those records with errors, which are

not processed, are not saved in TAS, and a report is generated regarding the elements of each record which is in error.

Error reports from contributor data uploads

As the various contributor files are processed they go through a rules engine to determine if there are certain data elements that are required for billing that are not in a proper configuration. A classic example of this is if the property doesn't exist in the database then you cannot apply a charge to it.

There are two types of errors that can occur: one is an error that does not affect the billing and therefore the data/record will be brought into the TAS database. Other types of errors, such as a record having an invalid tax class, will cause those records/data to be rejected because they cannot be processed.

Contributor GUIs

In order to process information into the TAS system, contributors will have the file upload methods and Graphical User Interfaces GUIs to perform the various functions required.

The nature of the GUIs in TAS is that each GUI has a tab under which there are a number of screens. For example, under a given contributor you may have a screen for making updates and uploading data.

The number of tabs, features, and functions a GUI contains is based on the role a given user has assigned to them. In this manner Treasury can act on behalf of a given contributor by having that contributor's screen and role assigned to a Treasury staff member.

State of Maryland

The State of Maryland is the contributor who will use their GUIs the most because they generate the majority of revised bills in a Levy year.

The State GUIs have a number of different characteristics. There are some to change the values of property; the State can change current Levy

year, Levy years, exemption status, and other things such as parking lot credits. These GUIs are discussed in great detail in the specific appendix associated with each contributor.

Treasury

Treasury has the largest number of GUIs as they need to manage various aspects of the TAS system and act on behalf of other contributors.

Treasury's activities can be broken into GUIs associated with areas which include: administrative assessment triggering billing, setting tables, and acting on behalf of other contributors.

There are various GUIs for each, and the appropriate people within Treasury will be provided with the proper roles that will include all the GUIs which are required for them to perform their activities.

DEP/Solid Waste

DEP/Solid Waste has two major types of GUI screens. In one case they have a data upload GUI which is used primarily during the annual billing process. In addition they have GUIs to change the DEP/Solid Waste characteristics of a given property.

DEP/Storm Water

DEP/Storm Water has a GUI for uploading data. DEP/Storm Water generally only applies their charges once a year, so in that case they have no other GUI for individual property adjustments.

City of Rockville Storm Water

City of Rockville Storm Water has a data upload GUI which is going to be used by Treasury on their behalf. This is very similar to the GUIs used by DEP/Solid Waste.

The City of Rockville will email their Storm Water data to Treasury, who will review it and then put it in the loading area for TAS. Treasury will

then operate the City of Rockville data upload GUI to load the data into TAS.

City of Gaithersburg Storm Water

City of Gaithersburg storm water has a GUI which is going to be used by Treasury on their behalf. This is very similar to the GUIs used by DEP/Solid Waste.

City of Gaithersburg will email their Storm Water data to Treasury to review it and then put it in the loading area for TAS. Treasury will then operate the City of Gaithersburg data upload GUI to load the data into TAS.

City of Takoma Park

City of Takoma Park has a GUI which is going to be used by Treasury on their behalf. This is similar to the GUIs used by DEP/Solid Waste.

The City of Takoma Park will email their charge data to Treasury to review it and then put it in the loading area for TAS. Treasury will then operate the City of Takoma Park data upload GUI to load the data into TAS.

DHCA

DHCA has a GUI that enables them to assess charges for their Clean and Lien program. Throughout the year they will assess charges as they occur. Each revised bill will include a certain number of DHCA charges that were recorded prior to that billing cycle.

During the annual run DHCA will have an opportunity to log their transactions in preparation for the annual processing as the other contributors do. There will be no file upload for DHCA on an annual basis.

Extracts for contributors

Another major element of the TAS system is the ability to provide extracts for contributors. Some contributors use these extracts to feed directly into their own data systems to allow them to process properties for their own purposes. In some cases DEP/Storm Water and DEP/Solid Waste use the export data to inform their local systems which then generate files to be imported into TAS for the annual billing process.

Currently TAS supports five formats of output for extracts and four methods of delivery. (Please refer to Figure 5 “TAS Extract Groups”). In that diagram the different formats are represented by different fill for the description boxes. Although some contributors share formats such as City of Rockville and City of Gaithersburg most others get individualized formats.

The sources for these extracts are two State files: the SDAT01 file, which provides the full monthly update of all properties, and the SDAT04, which is a new construction file that provides the specific input for certain contributors such as WSSC and DEP/Solid Waste.

The way the extracts are created and delivered is that TAS process either of the files described above it will generate various format extracts and then deliver them via the specifics agreed to with that contributor. The deliveries are performed in four delivery groups.

Delivery Groups

The groups of contributors receiving extracts in the same fashion are divided into four delivery groups. Although the formats may be different by contributor (as described above), they are grouped together because they share the same method of receiving the extract.

In each case the contributor will be notified of the delivery or availability of extracts via a confirmation email once delivered.

Group 1

The Group 1 delivery method is to directly load data into the databases used by contributor software for their local operations.

Although this is the most efficient method to share the data but it can only be performed with other County agencies and required a great delivery of setup and testing prior to putting it into production.

This delivery group includes:

- DEP Solid Waste (SDAT01 files)
- Estimated Tax (Web Application) (SDAT01 files)

Group 2

The Group 2 delivery method is to upload data to a specific location on the contributor's FTP (file transfer protocol) server. This is done using the County ESB technology and required a great delivery of setup and testing prior to putting it into production.

This delivery group includes:

- WSSC (SDAT01, SDAT04 files)

Group 3

The Group 3 delivery method is to directly load data into a specific location on a County network "V" drive. This is a very efficient method to share the data but it can only be performed with other County agencies and required a great delivery of setup and testing prior to putting it into production.

This delivery group includes:

- DEP Solid Waste (SDAT04 files)
- DHCA (SDAT01 files)
- DEP Storm Water (SDAT01 file used for annual billing)
- GIS (SDAT01 files)

Group 4

The Group 4 delivery method is to zip the extract data and email it to the contributor.

This delivery group includes:

- City of Rockville Storm Water (SDAT01 file used for annual billing)

- City of Gaithersburg Storm Water (SDAT01 file used for annual billing)

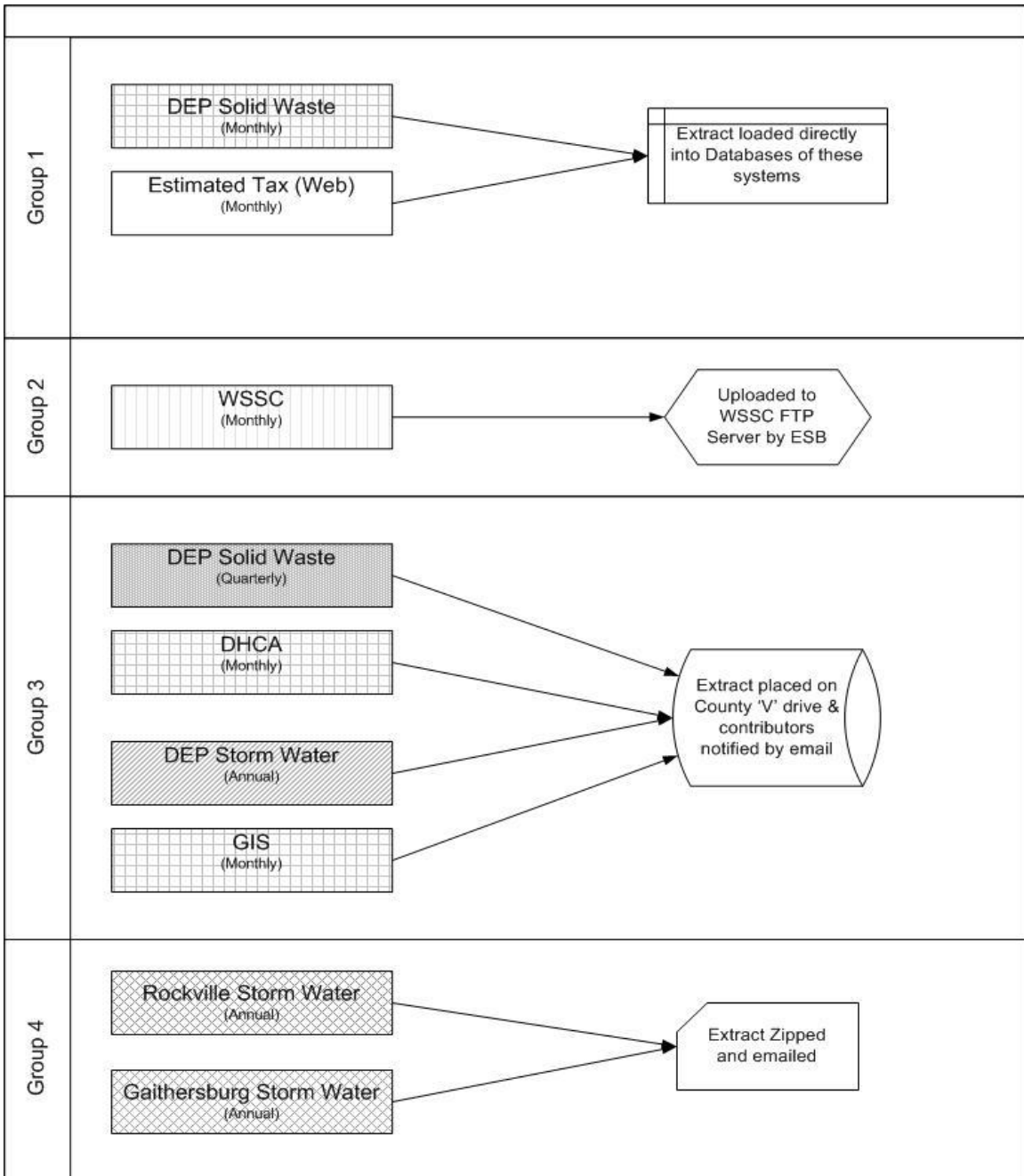


Figure 5 – TAS – Extract groups

General Data Flow Activities

The data flow activities start with import data from the state or contributors which then gets placed into the TAS system. The TAS system is structured so that the data can be loaded from any contributor at any time, and the only time all the data is pulled together is when actual billing activity occurs.

Once data has been processed by TAS for billing it will flow from TAS to MUNIS either directly or through ePilot. The following descriptions describe how this data is routed for various classes of billing.

Real Property

For Real Property, processing during a Levy year is triggered by contributors using GUIs to update and modify data within TAS. In some cases this is only an update, but in most cases it generates a revised bill. In addition four times per year New Construction supplemental billing occur triggered by the SDAT04 file.

From TAS the revised bill data file then flows via the ESB into the ePilot system which processes County special billing situations for roughly 3,500 accounts.

Once ePilot has completed processing it generates two files: one called 'P' for pilot files and the other 'NP' for non-pilot files. These files are processed separately by the MUNIS system.

Once ePilot has created files the ESBs will pick them up and move them to MUNIS for processing. MUNIS will then process the 'P' and 'NP' files as separate revised billing events.

Personal Property

The Personal Property billing activities are triggered when the personal property files from the State (SDAT03) become available. Twice a month the ESB will pick up these files from the State and put them into the TAS loading area. TAS will then process these files and return to the State any records with errors that would cause failures. TAS will then process the correct records to create an output file.

The Personal Property output file is then picked up by the ESB and delivered directly to MUNIS for processing. Once MUNIS has the file Treasury will process the personal property billing when appropriate.

Public Utility

The Public Utility billing is triggered when Treasury uses the online GUI to enter the Public Utility assessment information which triggers a billing request.

Once the billing request has been triggered, TAS will generate a file for the public utility assessments, which the ESB will then pick up and deliver to MUNIS directly for processing. Once in the MUNIS system Treasury will process the Public Utility billing file to create the appropriate bills.

DRAFT

Productivity Improvements

Although the original mandate of the TAS project was to replicate the results in tax bills between systems, there have been some productivity improvements that have been made along the way. Some of the improvements resulted from the automation of formerly manual processes. The following are a number of productivity workflow improvements that are realized in the new TAS system.

Automatic Notification

Automatic notification is a powerful mechanism to allow for facilitation of communications regarding data flows. In the current environment there are a tremendous number of telephone calls and e-mails going back and forth to determine the status of files as they are processed.

In TAS the Automatic Notification capability will send alert messages to the various contributors based on events such as the State SDAT01 file being processed. This will allow contributors to know the status of extracts so they know when things are ready for them.

The automatic notification capability will be managed by FIN/IT. The notifications are managed by the contributors as they complete their roles.

Status Dashboard

In the annual tax bill preparation there are many different activities that must proceed in sequence for the billing to be completed properly. Tracking the status of contributor activities is always a big challenge.

One of the innovations in the TAS system is a dashboard which shows the status of contributors' data contributions. For example when DEP/Solid Waste has successfully processed their file, they will set their indicator on the dashboard from red to green. Then all contributors can see that DEP/Solid Waste processed their file on their home screen's dashboard.

Although there are no rules that all the indicators need to be green in order for Treasury to produce the annual bill, it helps facilitate the process by allowing all the contributors to see the status of the data contributions throughout the process.

In a companion document there is an annual checklist that will also help facilitate these processes so that they can be replicated and kept on schedule to deliver the tax bills as required.

Common Contributor Home Screens

Every contributor who has access to TAS will be given access to the homepage of that system. This page is not role dependent but has a series of items which are powerful and useful to support collaboration and communication among contributors.

Included in this home screen are:

- The dashboard described above allowing contributors to track the status of contributions during the annual billing cycle
- Additional screens that describe other basic functions
- A search function which allows any contributor to search property and get the full State set of data.

ESBs to move data

The Enterprise Service Bus (ESB) provided by the County is used to move data from place to place. The ESBs enable the automation of manual tasks and allow for the movement and basic error checking of data and notification regarding the outcome of those activities.

ESB's are used in three distinct portions of this system:

- Import data from State and other external and County contributors
- Move data between systems within the TAS environment
- Deliver extracts to certain contributors

FIN/IT has the responsibility for monitoring and addressing any issues with the ESBs associated with TAS.

These innovations allow the operations of the TAS to be streamlined and set up in a way that is more predictable and reliable and that does not require human intervention in as many places.

Annual Billing Details

The annual billing is the most important event of the Levy year. This billing event produces the baseline annual bills for all real properties in the County. With over 340,000 real properties this represents a substantial amount of the revenue collected for the County by Treasury.

The process consists of a number of different elements, some of which are basic required elements necessary to produce a bill, and others which are additional elements which may or may not be required to produce the annual bill. Not every contributor's contribution is required on the annual bill. However, if they do not contribute their data to TAS, they miss their opportunity to get their charges included in the billing, and will potentially lose revenue.

There is a TAS annual operations checklist in a companion document which documents the various steps and provides a time frame during which these steps need to be performed to allow for Treasury to meet the July 1 billing goal each year.

State Files

The annual billing processes are driven by three of the four types of state files and are processed into the annual bill. With the data from these files alone, (if required), Treasury can produce a tax bill without any additional contributions.

The first file of this group is the SDAT01, the full state file, which is required to establish the baseline for the next Levy year.

The second file is the SDAT04, New Construction file, which is processed into the base data to account for the new construction during the prior quarter.

The third file is the SDAT02, Homeowner Credit file, which arrives near the end of the annual billing preparation cycle, allowing the State to record as many of those as they can prior to sending it for the annual billing.

Because there are many homeowner credits affecting many lower income and elderly taxpayers, the SDAT02 file tends to control when the process can be completed.

Contributor Extracts

Another key element of the annual billing process is the contributor extracts. The first and most important extract is from the SDAT01 file because various

agencies use that to feed their local systems and then send Treasury their full set of annual data for uploading into TAS.

The other contributor data extract that is needed is new construction data (SDAT04) which is particularly important for WSSC and DEP/Solid Waste to be able to log their charges. It is important to understand that contributors who require extracts will not provide data until they have processed those extracts.

Using the TAS automatic notification capability, contributors will be notified when extracts are ready to be picked up or have been delivered to specific areas as agreed to.

Contributor data contributions

The next major area of the annual billing process is the contributor data contributions. These data contributions take a variety of different approaches and are described in the Methods and Process section of this document. However each contribution requires approximately 30 minutes of processing time, and feedback to correct any errors that may be encountered during the processing.

TAS bill file generation

The TAS bill file generation data is stored in various areas across the system so that contributors can freely access their respective data elements.

MUNIS requires 118 fields of data for a tax bill so during the billing process TAS pulls data from all the different areas and arrays in the form necessary to enable MUNIS to process it successfully.

ePilot processing

The output file of TAS is picked by ESBs and delivered to the ePilot for processing specific transactions. ePilot will then take the roughly 3,500 special accounts and process those business rules creating two output files for MUNIS. One file referred to as the 'P' file represents pilot properties. The 'NP' file represents the non-pilot properties.

Once these two files have been created another ESB job will pick them up and deliver them to the MUNIS staging area for processing.

MUNIS processing

Treasury has MUNIS processing the 'NP' file first. This is because the 'NP' file represents the vast majority of properties. Once the 'NP' file has been processed the 'P' file is processed like a revised bill.

Processing the annual bills in MUNIS takes a fair amount of time. Because of the large amount of data, the MUNIS database requires table tuning and re-indexing along the way. The process can take as long as five days as data is processed in stages.

Once the results have been produced from MUNIS a 'bill print file' will be created--one for the 'P' data and the other for the 'NP' data. The bill print file is particularly important because it gets sent to the printer to produce the bills.

Before the 'bill print file' is sent to the printer the Treasury auditors review the data to confirm its accuracy. This process takes roughly 3 days.

Publish to Web

Once the Treasury auditors have signed off on the accuracy of the data, the next stage is for this data to be published to the County Treasury website. The bill print file is also used to update the County's Real and Personal web application so that citizens can view and pay their property taxes online. This provides open access to the tax records and the tax bills.

Produce and send the tax bills

The last stage of the process is to produce and send tax bills. Once Treasury has audited the MUNIS outputs the data is sent to the printer. Once the printer has been issued the files, they will print and mail the bills for Treasury.

Linkages to Appendices

Background

This common general guide describes the overall elements of the system. There are specific appendices to cover details specific to each contributor.

Where the main TAS operations guide describes the Whys, Wheres, Whats and Whens, the appendices describes the HOWs.

Structure

The appendices are standalone documents which should allow contributors to perform all the necessary functions necessary to contribute and manage the data they provide to TAS.

Each appendix has:

- A general description of the activities that are covered in that appendix
- Specific cases describing how the system is used to perform various functions

Part of that structure includes data formats and descriptions of the business rules used to process the data.

Glossary of Terms

CCB – Change Control Board	The team that approves changes the TAS such as roles assignment of a contributor.
COTS – Commercial off the Shelf	Software or services purchases from vendors consisting of pre-written systems
DEP	Montgomery County Department of Environmental Protection – provides Storm Water and Solid Waste charges associated with their services
DHCA	Montgomery County Department of Housing and Community Affairs – provides charges associated with the ‘clean and lien’ program.
ESB – Enterprise Service Bus	Systems provided by Montgomery County to move data from one system to another. This is used to move data all through the TAS and related systems.
Levy Year	The twelve month period the property tax is levied mandated by Maryland law and County code; the levy year is from July 1st to June 30th
MUNIS	The current COTS real and personal property tax billing and collection application used by the County.
SDAT – State of Maryland data	Maryland State Department of Assessments and Taxation -- provides the tax assessment information from which Montgomery County Finance/Treasury creates and produces tax bills.
WSSC	Washington Suburban Sanitary Commission – provides water and sewer connections and charges.